

Stress, Anxiety, and Depression among Mining Workers: Understanding the Correlates of
Mental Health and Wellbeing

by

Caroline Dignard

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Abstract

Background: Mental health problems are among the leading causes of disability. The consequences of poor mental in the workplace are numerous and well-documented. Despite this, mental health research specific to the mining industry remains scarce, especially in Canada where mining plays a significant economic role. What is more, workers in male-dominated industries have been found to be at greater risk for mood and anxiety disorders, and the limited existing literature depicts higher rates of mental illness among mining workers. This is relevant in Canada because the mining industry is a major employer of Canadians.

Objective: Our research team conducted a study at a large mining company in Ontario, Canada to better understand the mental health and wellbeing of their workforce by assessing symptoms of various mental health problems and illnesses, as well as work and non-work-related factors that may be associated with these symptoms. As part of this study, my thesis examines the prevalence of stress, anxiety, and depression symptoms in this sample of Canadian mine workers, as well as the demographic, health-related, psychosocial, and work-related predictors of stress, anxiety, and depression symptoms for these workers.

Methods: 2,224 mining workers across 25 worksites at one company in Ontario, Canada completed a self-reported questionnaire. The survey included assessments of symptoms of stress, anxiety, and depression, demographic questions, and assessments of psychosocial and health-related factors associated with stress, anxiety, and depression.

Results: While stress levels were found to be comparable to the general working population, symptom prevalence of anxiety and depression were greater in this workforce than in the general working population of Canada. Significant correlates of these workers' mental health and

wellbeing were grouped into the following 8 categories: individual characteristics, interpersonal relationships, lifestyle, and the overlap between physical and mental health (see Chapter 6), as well as work schedule and demands, effort-reward imbalance and recognition and reward, job insecurity and job satisfaction, and the physical and psychological work environment (see Chapter 7).

Conclusions: Findings are consistent with previous research and confirmed our hypotheses. Recommendations for addressing significant predictors of mental health and wellbeing for these workers are presented in Chapter 8.

Keywords

Mental Health; Occupational Health; Wellbeing; Mining; Male-Dominated Industry

Co-Authorship Statement

Chapter 6: Demographic, Psychosocial, and Health-Related Predictors of Stress, Anxiety, and Depression Among Mining Workers in Ontario, Canada

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Chapter 1

1 Introduction

1.1 Mental Health in Canada

Approximately 20% of Canadians suffer with one or more mental health problems or mental illnesses (Mental Health Commission of Canada, 2016a). From an economic standpoint, the cost of mental illness to the national economy is significant, amounting to more than \$50 billion annually (Mental Health Commission of Canada, 2016c). Some of these costs stem directly from the care of those affected, while other costs are incurred indirectly through, for example, the loss of productivity (Mental Health Commission of Canada, 2013). In fact, lost productivity cost the Canadian economy more than \$6 billion in 2011 (Mental Health Commission of Canada, 2016c). In Canada, more than 500,000 people miss work each week for mental health-related issues (Mental Health Commission of Canada, 2016b). In addition, mental health-related disability claims account for approximately 30% of all disability claims in Canada, as well as 70% of the costs of disability (Mental Health Commission of Canada, 2016b). In a study of 70 Canadian companies, it was determined that as many as 78% of short-term disabilities (STD) and 67% of long-term disabilities (LTD) were due to various mental health issues such as stress, depression, and anxiety (Towers Watson, 2011). In short, these statistics demonstrate that mental health problems have a notable impact on both the wellbeing of Canadians, and the national economy, particularly as it relates to the workplace.

1.2 Defining Mental Health and Mental Disorders

Although several mental health problems and illnesses exist, this dissertation will focus primarily on stress, anxiety, and depression. Nonetheless, understanding the broader concepts of mental health in contrast to mental disorders is an important first step.

According to the World Health Organization, mental health can be defined as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community”

(World Health Organization, 2018); mental health does not simply mean the absence of mental disorders (World Health Organization, 2018). The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) (American Psychiatric Association, 2013), which is used to assist clinicians in diagnosing mental illness, defines a mental disorder as follows:

A mental disorder is a syndrome characterized by clinically significant disturbance in an individual’s cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities [...] (American Psychiatric Association, 2013).

1.2.1 Stress

Other than diagnosable mental disorders, individuals can also experience mental health problems that do not have a formal diagnosis identified in the DSM-5, but that are nonetheless detrimental to wellbeing. For instance, stress is a common mental health issue that can have negative consequences. Defined as a demand on the mind and body’s ability to adapt (Olpin & Hesson, 2015), stress is a response to a subjective stressor, which will be interpreted differently according

to individual views. The outcome following a stressor, and consequently the intensity of the stress response will therefore differ according to an individual's reaction to the perceived demand (Olpin & Hesson, 2015). In other words, psychological stress can be defined as “a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984).

Stress is associated with both physical and mental health consequences. It is associated with cardiovascular disease, digestive health issues, impaired immunological functioning, as well as mental illness (i.e., one or more mental disorders) (Santé Canada, 2008). Despite often being perceived as negative, stress can be beneficial since it is an adaptive response to a stressor; stress responses assist with coping and for withstanding negative events. Alternatively, stress can become problematic when it becomes chronic in nature and when the source of it is negative, such as prolonged familial, employment, or financial strain (National Institute of Mental Health, 2021a). Negative health outcomes of stress can include headaches, sleep problems, emotional dysregulation (National Institute of Mental Health, 2021a), and an increased risk of anxiety and depression (National Institute of Mental Health, 2021a; Thoits, 2013).

In Canada, stress is a very common phenomenon, especially among workers. In 2014, nearly one-quarter of Canadians aged 15 and older (23%) felt that most days were “quite a bit” or “extremely” stressful (Statistics Canada, 2015). Moreover, stress levels were highest in what has been coined the “core working ages” (Statistics Canada, 2015), i.e., Canadians aged 35 to 54, of which approximately 30% reported high stress levels (Statistics Canada, 2015). In 2010, 27% of

Canadian workers reported high stress levels, of which well over one-half (62%) considered work to be their biggest source of stress (Crompton, 2011).

1.2.2 Anxiety

Much like stress, anxiety can be adaptive for optimal human functioning. In fact, it can be described as a “normal reaction to stress” (American Psychiatric Association, 2017a) and plays an important role in preparing us for various situations that require alertness or preparedness.

Whereas “normal” anxiety includes feeling nervous or worried in situations where such feelings are appropriate and proportionate to the situation, anxiety disorders are characterized by feelings of distress that are excessive and inappropriate (American Psychiatric Association, 2017a).

Although fear and anxiety are separate concepts, they do overlap. Fear can be described as a response to a true impending danger or threat, whereas anxiety involves being concerned about future events (American Psychiatric Association, 2013; American Psychiatric Association, 2017a). More specifically, the body typically responds immediately to fear by activating the fight or flight response, whereas anxiety has longer term effects such as muscle tension and heightened vigilance. (American Psychiatric Association, 2013). In any event, disproportionate fear and worry are characteristic of anxiety disorders and often lead to avoidance behaviours. (American Psychiatric Association, 2013; American Psychiatric Association, 2017a). In addition, anxiety is typically problematic when it is persistent, normally lasting for six months or more (although this timeline should be viewed as a general guideline as there can be differences between individuals) (American Psychiatric Association, 2013).

While the specific causes of anxiety remain unknown, several factors contribute to its manifestation, and these include genetic, developmental, psychological, and environmental factors (American Psychiatric Association, 2017a). Some risk factors for Generalized Anxiety Disorder (GAD), one of many anxiety disorders listed in the DSM-5, include temperamental risk factors, such as neuroticism and harm avoidance behaviours, as well as environmental risk factors. Genetic and physiological factors also represent one-third of the risk for GAD (American Psychiatric Association, 2013).

In Canada, anxiety disorders are among the most reported mental health problems (Mental Health Commission of Canada, 2013). An analysis of the *Canadian Community Health Survey – Mental Health* data reveals that 2.6% of Canadians aged 15 and over met threshold criteria for GAD, and an additional 2.3% met criteria for subthreshold GAD in 2012 (past 12-month prevalence) (Gilmour, 2016). Moreover, much like stress and anxiety are related, so too are anxiety and depression. The *Canadian Community Health Survey – Mental Health* results from 2012 also revealed that “53% (95% CI: 47.2, 58.0) of those with past 12-month threshold GAD and 23% (95% CI: 17.6, 28.5) of those with past 12-month subthreshold GAD also met the criteria for past 12-month depression” (Gilmour, 2016). Threshold and subthreshold GAD were also associated with a higher likelihood of reporting suicidal ideations (Gilmour, 2016). Moreover, GAD is but one anxiety disorder among many. Others include Social Anxiety Disorder (social phobia), Panic Disorder, and Agoraphobia (American Psychiatric Association, 2013). In 2006, 12-month prevalence of Social Phobia in Canada was 6.7%, Panic Disorder had a 12-month prevalence of 1.6%, and Agoraphobia had a 12-month prevalence of 0.7% (Langlois, Samokhvalov, Rehm, Spence, & Connor Gorber, 2012).

1.2.3 Depression

Depression, known in the DSM-5 as Major Depressive Disorder, is a mood disorder characterized by persistent sadness and the loss of interest in previously enjoyed activities (American Psychiatric Association, 2017b). Feelings of hopelessness and emptiness also reflect a depressed mood (American Psychiatric Association, 2013). Other symptoms include sleep disturbances, appetite changes leading to weight gain or weight loss, fatigue and low energy, feelings of worthlessness or guilt, trouble concentrating, and thoughts of death and suicide (American Psychiatric Association, 2017b). While there are several DSM mood disorders, this research is focused on depressive-related symptoms as opposed to specific diagnoses such as Major Depressive Disorder, Persistent Depressive Disorder, Postpartum Depression, and Seasonal Affective Disorder to name only a few.

Although there is no single cause for depression, and it can affect anyone regardless of their circumstances, some risk factors have been identified. Genetics and biochemistry, for instance, can play a role in the development of this illness. Personality characteristics are also risk factors for depression: people who are typically pessimistic, who do not react well to stress, and people with low self-esteem are more likely to become depressed (American Psychiatric Association, 2017b). A person's environment can also increase their risk of depression. Examples include being abused or neglected, exposed to violence, and living in poverty (American Psychiatric Association, 2017b). Moreover, the DSM-5 identifies personality characteristics, such as neuroticism, and environmental factors, such as stressful life events, as depression risk factors (American Psychiatric Association, 2013). Other risk factors for depression include having another mental disorder (not in the mood disorder category) such as anxiety, substance use

disorders, and some personality disorders. Finally, certain physical illnesses are considered risk factors for depression, primarily chronic conditions such as cardiovascular disease, diabetes, and obesity (American Psychiatric Association, 2013).

In Canada, mood and anxiety disorders are the most common mental disorders (Mental Health Commission of Canada, 2013), with depression alone having a lifetime prevalence of 11.3% among Canadians aged 15 and over (Pearson, Janz, & Ali, 2013). In 2012, prevalence of depression in this same population was 4.7%, making it the most common mood disorder in Canada (Pearson et al., 2013). As previously discussed, depression often also co-occurs with anxiety (Gilmour, 2016; Pearson et al., 2013).

1.3 Occupational Mental Health

Health has been defined as “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (World Health Organization, 1946, p.1). As can be seen, this definition clearly identifies mental wellbeing as an integral component to health. From an occupational health and safety perspective, mental health promotion should therefore be included in prevention strategies for this reason, and also because of the consequences of poor mental health on the workplace such as job turnover rates, absenteeism, presenteeism, lost productivity, poor worker engagement, injury, disability, and job dissatisfaction (CSA Group & Bureau de Normalisation du Québec, 2013).

Beyond the economic burden previously discussed, mental health problems and illnesses can also lead to several negative occupational health and safety outcomes. In a qualitative study of 74 workers from various occupations suffering from anxiety or depression, researchers noted

diminished performance and an increase in workplace accident risk (Haslam, Atkinson, Brown, & Haslam, 2005). In a cross-sectional study of over 60,000 full-time employees in Australia, it was found that psychological distress, whether moderate or severe, significantly increased the risk of a workplace accident (Hilton & Whiteford, 2010). Similarly, a cross-sectional study examining mental health among nurses determined that the number of medical errors was significantly higher among nurses with poor mental health than those with good mental health (Suzuki et al., 2004). Authors of a systematic review examining depression and anxiety risk factors in male-dominated industries concluded that there is a need for further research of this topic, with more robust methodologies (Battams et al., 2014).

Workers in the mining industry have been underrepresented in occupational mental health studies (Amponsah-Tawiah, Leka, Jain, Hollis, & Cox, 2014). This is relevant in the Canadian context, since mining is one of the largest industries in the country, employing more than 403,000 people directly in 2016 (Mining Association of Canada, 2017). This same year, 1,201 mining companies were operating in Canada (Mining Association of Canada, 2017). In Ontario, the mining industry was the direct employer of 26,000 workers at more than 40 different sites across the province in 2014, and this does not include the indirect jobs which are created by the mining industry (Northern Development and Mines, 2015).

Although several studies have examined physical health and safety concerns and risks in mining, such as those affecting respiratory health (Ross & Murray, 2004; Centers for Disease Control and Prevention, 2013; Hedlund, Jarvholm, & Lundback, 2006), various cancers (Lightfoot & Berriault, 2012; Lightfoot, Berriault, Seilkop, & Conard, 2017; Lightfoot, Berriault, &

Semenciw, 2010), as well as the negative impacts of vibration (Eger, Stevenson, Callaghan, & Grenier, 2008; Kumar, 2004; Kunimatsu & Pathak, 2012), heat (Donoghue, Sinclair, & Bates, 2000), and noise (Donoghue, 2004b; Hermanus, 2007), few have focused on the psychological health and wellbeing of workers in this industry. What does exist, however, suggests that the mental health of workers in the mining industry is likely poorer than that of other workers (Avery et al., 1998; Carlisle & Parker, 2014; McPhedran & De Leo, 2013; Shandro et al., 2011). Moreover, although studies in this area are beginning to emerge, studies specific to the Canadian context are rare, as are those examining stress, anxiety, and depression specifically. Chapter 2 outlines relevant existing literature about the mental health and wellbeing of miners.

Chapter 2

2 Literature Review

In Queensland Australia, a qualitative descriptive study was undertaken to “explore psychosocial issues perceived to impact the mental health and well-being of resident (non-fly-in fly-out) mine workers at a local mine” (McClean, 2012). Four categories of results were identified as having an impact on the mental health and wellbeing of these employees: relationships, lifestyle, work characteristics, and mental health attitudes. Although the study had a limited sample size (10 miners of which 9 were men), which makes extrapolations difficult, these early findings are nonetheless relevant. Mining was perceived as a difficult job that leads to negative emotions and a lack of motivation to attend work, and one participant expressed that they felt depression was likely more prevalent in the mining workforce compared to other industries (McClean, 2012). While the results are not generalizable, the findings of this study helped set the stage for further questions regarding the mental health and wellbeing of these workers.

A cross-sectional study conducted in the United Kingdom examined both the physical and mental health of workers who had been employed in mining at one of three mines in the Ashfield region of Nottinghamshire in 1992. At the time of the survey in 1994, two of these mines were still operational whereas the third had closed two months before the survey. The objective was to compare the health of the workers employed at these three sites in 1992 to that of the general population, as well as to examine the differences between those still working in mining and those who were no longer employed in the industry. The sample consisted of 534 men aged 17 to 65 of the Union of Democratic Mine Workers (UDM) who had been employed at these mines in 1992,

and 1,034 men of this same age range randomly selected from the Nottinghamshire Family Health Services Authority (FHSA) as a comparison group. Forty-six percent of those still working in mining responded in a manner suggesting the presence of mental health problems. Relative to workers from the comparison group (i.e., workers who had never worked in mining), current miners, unemployed miners, and workers having previously worked in mining but now working elsewhere were all more likely to suffer with a mental health problem. The authors concluded that those who had been working at the three selected Nottinghamshire mine operations in 1992 were “psychologically and physically disadvantaged compared with working non-miners” (Avery et al., 1998). An important limitation of this study was that the authors could not identify whether the results were influenced by the closure of some of these workers’ place of employment in the early nineties (Avery et al., 1998) thus confounding bias was possible (Sackett, 1979). Despite this, the findings from this study demonstrated poorer mental health in mining workers than in other types of workers, which reinforces the need to examine these circumstances more closely.

Similarly, but drawing from the Labour Force Survey (LFS) and Statistics Canada Census data, along with records obtained from the Ministry of Health of the province, a retrospective cohort study conducted in 29 resource-based communities in British Columbia, Canada found that in a period of economic decline (from 1991 to 2002), the prevalence of mental health problems increased significantly in mining communities, but not in other resource-based communities (Shandro et al., 2011). A limitation of the study was that the analyses included all residents of these communities, not just the workers of the primary resource-based industry in these communities. However, mining communities are primarily economically dependent upon the

mining sector and therefore this workforce would reflect a large portion of these communities' population. An additional limitation was that the independent variable was the state of the economy. Specifically, the economy was in an evolving period of decline. Nevertheless, the findings still demonstrate poorer mental health in communities where mining is prevalent, therefore supporting the need to conduct further studies to better understand the determinants of mental health of workers in these regions.

In an Australian retrospective cohort study, the *Queensland Suicide Register (QSR)* was analyzed to describe the characteristics of men who died by suicide between 1990 and 2008. This database of the *Australian Institute for Suicide Research and Prevention* contains information about all incidents of suicide in Queensland. Between 1990 and 2008, nearly 20% of all men, i.e., 42 out of 218, who had died by suicide in Queensland were miners. Other factors such as a history of mental illness, problematic alcohol consumption, demographics, and relationship information were analyzed, but few significant correlates were found. Only relationship problems were found to be more common in miners than among other workers (McPhedran & De Leo, 2013). The authors did not identify the proportion of men that work in mining compared to other occupations in Queensland, but because mining is an important industry in the Queensland region, contributing significantly to the economy (Australian Bureau of Statistics, 2016), we can assume that a large number of men are employed by the mining industry. Still, it remained unclear if miners were overrepresented among those who died by suicide. A subsequent paper reporting on results from this database concluded that the rates of suicide were in fact lower in the mining industry compared to other occupations (McPhedran, 2015). In any event, it seems clear that mental health and wellbeing in the mining industry, particularly as it relates to suicide,

remains poorly understood. In short, there is a need for additional research to better understand the mental health and wellbeing of mining workers as well as its implications for suicidal behaviour.

In an Australian cross-sectional study examining psychological distress and physical pain in coal miners (N=231), it was found that 28.4% of workers suffered with moderate psychological distress, and an additional 9.6% suffered with severe psychological distress. This represents nearly 40% of workers suffering from some form of psychological distress, which is more than double that of the general working population of Australia (Carlisle & Parker, 2014). Despite being specific to Australian coal mining, and a relatively small sample size, the findings from this study underline that mine workers have poorer mental health than other workers in Australia.

Finally, a recent cross-sectional study of 1,457 coal mine employees from 8 different mine sites (both underground and open pit) in New South Wales and Queensland, Australia demonstrated that nearly half of these workers (46.6%) had reached out to either a professional or non-professional (e.g., a family member or friend) for mental health support in the previous year.

Various factors contributed to these workers seeking help, most notably job dissatisfaction and job insecurity (Tynan et al., 2016). Although the findings do not provide insight into the prevalence of mental illness, the results demonstrated that many workers were seeking help for mental health-related issues. Furthermore, the factors identified as prompting workers to seek help can be studied in greater depth. The large and varied sample size in this study was a strength, as it was broadly representative of Australian coal mining, rather than being limited to a single site or type of mine.

Authors of a systematic review of health and wellbeing outcomes in rural mining communities in high-income countries reported higher rates of stress, depression, and anxiety, both while the mines were active, and following the closure of a mine (Mactaggart, McDermott, Tynan, & Gericke, 2016). In the Canadian context, this was putatively influenced by the boom-and-bust cycle of the mining industry (Mactaggart et al., 2016). In another study conducted at eight local coal mines in Australia, researchers were able to demonstrate that rates of psychological distress were significantly higher in a sample of miners compared to a national dataset (Considine et al., 2017). Beyond the magnitude of the problem regarding the prevalence of symptoms associated with poor mental health in the mining workforce, other common themes emerging from the literature included analyses of factors that may be associated with these symptoms. For instance, job stress, various work characteristics, such as shift type and job demands, as well as work-life balance seem to be common areas of inquiry when seeking a better understanding of mining workers' mental health and wellbeing. The authors that examined the rates of psychological distress in Australian coal mines stated that "factors associated with psychological distress were an interplay of personal, social, and health characteristics and those associated with the workplace" (Considine et al., 2017). For instance, not being satisfied with their job, lack of job security, and being in a position of leadership (e.g., such as being a manager), as well as having a low social network score (i.e. having infrequent social interactions with friends, family or other social groups), were among some of the factors found to be associated with psychological distress (Considine et al., 2017). Not surprisingly, a history of depression or substance abuse problems was also found to be associated with psychological distress (Considine et al., 2017). In a study of 1799 workers across four remote mine sites in Australia, moderate to high levels of

psychological distress were also found to be significantly greater than in a gender and age-matched population sample. Contributing factors included age, perceived job insecurity, and a history of drug or alcohol problems (James et al., 2018). Similarly, a study of miners' job stress conducted in China identified characteristics of the job, such as a worker's role, as well as interpersonal relationships, and lack of work-life balance as job stressors (Hongxia, Yongbin, Shuicheng, Fen, & Huan, 2014). Moreover, a cross-sectional study across five mining companies in Ghana found that high work demands accompanied by low job control was associated with poorer worker wellbeing, as were poor/hazardous mining conditions. These researchers also found that quality of life for these workers was negatively impacted by perceived job insecurity, high demands with low control, as well as a lack of support from those in their workplace (i.e., superiors and colleagues) (Amponsah-Tawiah et al., 2014). A cross-sectional study specific to remote mining in Australia revealed similar findings: supervisor-related stress, job tasks, and work schedules, including shift length and rotation were associated with greater psychological distress (Bowers, Lo, Miller, Mawren, & Jones, 2018). Finally, a cross-sectional study of male underground coal miners in China found that anxiety and depression symptoms were more prevalent among these workers than other groups of male workers in China (Liu, Wen, Xu, & Wang, 2014). Findings from one Australian cross-sectional study using a nationally representative dataset suggested that trends may differ between various subgroups of workers within the mining industry (McPhedran & De Leo, 2014). Although they could not conclude that mining workers had greater levels of work-family stress or poorer mental health, the authors of this study reported that work in the mining industry was characterized by longer working hours, and that longer working hours were associated with poorer relationships between workers and

their children and/or spouse (McPhedran & De Leo, 2014). The authors of another mixed-methods study conducted in Australia, however, found that work-life interference was in fact a greater problem in mining when compared with a national sample of workers (Peetz, Murray, & Muurlink, 2014). In the previously discussed systematic review, the authors also briefly discussed how work-family conflict, long working hours and shiftwork can affect mining worker wellbeing (Mactaggart et al., 2016).

Finally, beyond mining specific research, in a Canadian cross-sectional study of 2,931 workers (of which 52.7% were men) aged 20 or more living with a spouse and at least one child, researchers examined if shiftwork led to poor mental health, and if work-to-family conflict influenced the association between shiftwork and depression. Indeed, results confirmed that “shiftwork relates positively to work-to-family conflict and work-to-family conflict relates positively with depression” (Haines, Marchand, Rousseau, & Demers, 2008, p.347).

Chapter 3

3 Study Objectives and Research Questions

Despite the potential confounders and limitations in previous studies, mental health has significant implications for the workplace. Regrettably, there are notable gaps in the literature, including the relative absence of Canadian participants, difficulties in finding comparison groups, sample sizes, and a lack of studies using psychometrically valid instruments to measure signs and symptoms of specific mental health issues. While there is no compelling reason to suspect Canadian workers are unique compared to workers in other developed countries, the reality is there is yet no empirical evidence to demonstrate this one way or the other. If differences are found, this would certainly present an avenue for additional research into the potential causes for such. Although the literature revealed that the mental health of mining workers is likely poorer than that of other workers, the reasons for such remain poorly understood. And while some of the contributing factors have begun to emerge, more research is needed to gain a better understanding of the determinants of mental health and wellbeing for these workers, particularly in Canada where such literature is scarce. Beyond assessing mental health and wellbeing as a general construct, it is imperative that we examine common mental health problems and illnesses, in addition to the factors that may be associated with each of these issues. Notably, it would be beneficial to examine the impacts of individual characteristics such as demographics and substance use history, work characteristics such as work schedules and demands, as well as the work-home interface, social support, and perceived job security, because the literature suggests that each of these can significantly impact the mental health and wellbeing of mining workers. Thus, to address this current gap in the literature, our research team

conducted a study at a large mining company in Ontario, Canada to better understand the mental health and wellbeing of their workforce by assessing symptoms of various mental health problems and illnesses, as well as work and non-work-related factors that may be associated with these symptoms. As part of this study, my thesis work sought to answer the following questions:

- 1) What is the current state of mental health and wellbeing of workers at this large mining company in Ontario, Canada?
- 2) What factors are related to these workers' mental health and wellbeing?

More specifically, my dissertation examines the prevalence of stress, anxiety, and depression symptoms in this sample of Canadian mine workers, as well as the demographic, health-related, psychosocial, and work-related predictors of stress, anxiety, and depression symptoms for these workers.

Chapter 4

4 Conceptual Framework: The Biopsychosocial Model

Health psychology is a discipline in which psychological perspectives are included in seeking to understand health. There are numerous factors implicated in illness, including biological, psychological, and social factors, which can be considered using the biopsychosocial model of health and illness (Ogden, 2007). The biopsychosocial model was first proposed in 1977 by George L. Engel as an alternative to the then widely accepted biomedical model (Engel, 1977). Engel argued that “concentration on the biomedical and exclusion of the psychosocial distorts perspectives and even interferes with patient care” (Engel, 1977, p.131), proposing that a new model for understanding health and illness incorporate biological, psychological, and social factors (Engel, 1977). Since its introduction in 1977, the biopsychosocial model has been used extensively, which is made evident by the abundant literature in which it has been embraced as a model for explaining various health problems. Beyond its use in a clinical setting, the biopsychosocial model has important implications for health research and education (Ayers & De Visser, 2010).

Much like the definition of health has expanded over the years to become more holistic, so has the approach to understanding each of the dimensions of health. In addition to its use in understanding physical health concerns, the biopsychosocial model is equally applicable to understanding mental health and illness and has become widely accepted by mental health professionals (Nemade, Staats Reiss, & Dombeck, 2007). Garcia-Toro & Aguirre, for example, identified ten factors that have been demonstrated to predispose a person to depression. Using

the biopsychosocial model as their framework, biological, psychological, and social factors are included in their discussion (Garcia-Toro & Aguirre, 2007).

While the categories are quite broad and therefore have the potential to include a wide range of factors, the following is a description of factors that can be found within each of the three dimensions (i.e., biological, psychological, and social) of the biopsychosocial model.

Biological factors that contribute to health and illness refer to factors such as biochemical processes, genetics, ethnicity, gender, age, and previous illness which can contribute to the development of illness (whether it be mental or physical) (Ayers & De Visser, 2010). Hormones, infections, and physical trauma are also biological factors that can contribute to illness (Cardoso, 2013).

The psychological dimension of the biopsychosocial model refers to cognitive factors, emotions, and behaviours (Ogden, 2007). As an example, personality, stress, and health-related habits such as smoking, exercise and alcohol consumption are examples of psychological factors (Cardoso, 2013; Ogden, 2007). Issues such as emotional intelligence (Nemade et al., 2007) and coping skills (Cardoso, 2013; Nemade et al., 2007) also fall under this category.

The last dimension of the biopsychosocial model is social. Examples of social factors include social support, a person's environment, their access to and/or experiences of healthcare (Cardoso, 2013), traumatic experiences, bullying or harassment, etc. These factors can be described as environmental stressors (Nemade et al., 2007). Factors such as health education and

sanitation can also be included in this category of factors (Cardoso, 2013), as can social values and social class (Ogden, 2007).

In embracing the health psychology approach in which multiple dimensions of factors contribute to health and illness, my dissertation research is conceptualized using the biopsychosocial model as a framework. More specifically, in seeking to answer my second research objective of identifying predictors of stress, anxiety, and depression in this sample of Canadian mine workers, the biopsychosocial model guided the inclusion of variables in my regression models, the details of which will be discussed in section 5.8. Notably, the list of examples for each of the three dimensions of factors presented above is not exhaustive. All factors measured in our survey that could be classified into one of the three dimensions of the biopsychosocial model were therefore included in my analyses. The literature and results from our pilot study also guided the inclusion of variables. Further details of variable selection and inclusion are discussed in section 5.8: Data Analysis.

Of course, the biopsychosocial model has not been without its critics. A substantive body of literature has pointed to its vagueness and its relative silence on how the three factors interact in various pathways toward health or illness (Karunamuni, Imayama, & Goonetilleke, 2021). More recently, researchers have sought theories that identify specific relationships between specific variables. For example, Job Strain (Karasek, 1979) considers job demands (e.g., high/low) and job control (e.g., high/low). In Job Demands-Resources Theory, Bakker and Demerouti (2007) have demonstrated that when job demands are high, and resources are low, increased stress and burnout can be expected. It is likely that future research in occupational health psychology will

continue to rely more frequently on these more narrowly defined theories that hold greater explanatory value.

Chapter 5

5 Methods

5.1 Study Design

This study employed a cross-sectional study design using a quantitative survey, the details of which are discussed further in section 5.3. The collection of prevalence data is characteristic of the cross-sectional approach, as is the ability to identify associations among various predictors (Curry & Nunez-Smith, 2015). Therefore, the survey methodology is appropriate for answering the research questions identified. It is also important to note that an exploratory sequential design (Curry & Nunez-Smith, 2015) was used in the development of this multi-phase study. First, as part of the current larger study, a pilot study with 31 mining workers in various roles (e.g., supervisors, production miners, administrative support workers) was conducted to obtain feedback from workers regarding the survey instrument to be used in the study. Using a semi-structured interview format, participants were asked to comment on a draft version of the instrument. For instance, participants were asked to comment on the length of the survey as well as any subject areas that should be included or omitted. Through additional focus group discussions, the qualitative results obtained led to adjustments to the survey instrument so that more complete and meaningful quantitative data may be collected (Dignard et al., 2016). In the second phase, quantitative data were collected using the revised survey instrument. Lastly, in a third and final phase, individual interviews were conducted so that some of the quantitative data may be better understood. For the purposes of my dissertation research, however, the study design is strictly cross-sectional as only relevant survey data collected in phase 2 were analysed to address my research questions. The literature review, research questions, and framework, as

well as results from the pilot study guided the selection of variables considered to be relevant, therefore determining which variables to include in my analyses.

5.2 Setting and Study Population

This study is part of a broader study that was funded by the Joint Occupational Health Committee at an international mining company in Ontario, Canada. Specifically, the pool of potential participants included all workers at this company's Ontario Operations. This involved 25 worksites in and around the City of Greater Sudbury, in the northern part of the province, in addition to the company's refinery in a small town in the southern part of the province. All those employed by the company at any of these Operations were included, regardless of occupation. Those working for the Head Office were excluded, as they are not a provincial, but rather a Corporate Office. Contract workers (e.g., non-employees) were also excluded. Study participation was voluntary, but all Ontario Operations workers were given the opportunity to participate. This included underground mine workers, workers at various surface plants (e.g., smelter and refineries), and other workers in various field and office settings. Approximately 4,000 workers comprise this workforce. Of these, 2,224 completed the survey, which represents a response rate of approximately 56%.

5.3 Survey Instrument

The research team developed the survey instrument collaboratively with company and union representatives from their Joint Occupational Health Committee. The company and unions began by proposing a list of topics they wished to address based on their internal data (e.g., mental health absenteeism rates, worker feedback, etc.) and subsequently created a document outlining

their priorities for the study. The research team, led by a clinical psychologist with extensive occupational mental health research experience, then identified questionnaires that could assess each of these priorities. All stakeholders worked together through several rounds of revisions in developing the survey instrument. As previously indicated, the questionnaire then underwent a critical review by a representative sample of workers from several worksites during a pilot study. After considering worker feedback, the final survey instrument, which integrated several questionnaires that have been psychometrically validated and used extensively in the literature, was created. Comprised of forty-five pages, with an approximate completion time of 40 to 60 minutes, the survey contained eighteen measures which are listed in Table 1, and the complete survey can be found in Appendix A.

Table 1. Survey Measures

1. Demographics	14. Job Insecurity Measure
2. PCL-5 (the PTSD checklist for DSM 5)	15. The Following NIOSH Generic Job Stress
3. Beck Depression Inventory II (BDI-II)	Questionnaire subscales:
4. Beck Anxiety Inventory (BAI)	a) Job Requirements
5. Pittsburgh Sleep Quality Index	b) Job Satisfaction
6. Fatigue Severity Scale	c) Mental Demands
7. Alcohol Use Disorders Identification Test	d) Physical Environment
8. Drug Questionnaire and DAST-20	e) Work Hazards
9. Copenhagen Burnout Inventory	f) Workload and Responsibility
10. Relationship Assessment Scale	g) Social Support
11. Satisfaction with Work-Life Balance Scale	16. Guarding Minds @ Work
12. Perceived Stress Scale	17. Stigma Scale
13. Effort-Reward Imbalance Questionnaire	18. Recovery Experience Questionnaire (modified)

5.4 Included Measures

Although the survey instrument contains eighteen measures, which permitted our team to address numerous research questions, not all questionnaires have been retained for my analyses. Rather, for the purposes of my dissertation research, only those relevant to my research questions were

included. To help answer my first research question, that is to estimate the prevalence of stress, anxiety, and depressive-related symptoms in this sample of Canadian mine workers, the following 3 measures were used: 1) the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983), 2) the Beck Anxiety Inventory (BAI) (Beck, Epstein, Brown, & Steer, 1988), and 3) the Beck Depression Inventory II (BDI-II) (Beck, Steer, & Brown, 1996).

The Perceived Stress Scale (PSS) (Cohen et al., 1983) is one of the most widely used questionnaires for assessing stress (Lavoie & Douglas, 2012). It evaluates the degree to which a person has been bothered by symptoms of stress during the last month and is scored using a 5-point Likert scale for which higher total scores indicate higher levels of stress (Wolf, Zappavigna, Piper, & Nitsch, 2015). It has strong test-retest reliability ($r = 0.85$) and excellent internal consistency (Cronbach's Alpha ranging from 0.84 to 0.86) (Cohen et al., 1983; Wolf et al., 2015). It has also been demonstrated to be a valid instrument: scores were compared with various other associated measures (e.g., assessment of depression and anxiety symptoms) and found to adequately reflect stress (Cohen et al., 1983).

The Beck Anxiety Inventory (BAI) is among the most used measures of anxiety-related symptoms (Bardhoshi, Duncan, & Erford, 2016). It is a 21-item questionnaire designed to measure the severity of anxiety symptoms by assessing its various symptoms using a 4-point Likert scale (Beck et al., 1988) in incrementally higher levels of severity. Higher total scores represent increased anxiety symptoms (and thus the greater likelihood of an anxiety-related disorder), and a score of 36 or more is considered concerning. The scores range from 0 to 63. It is both a valid and reliable instrument: it has strong internal consistency ($\alpha = .92$) and good

test-retest reliability (1 week: $r(81) = .75$), as well as good convergent/discriminant validity (Beck et al., 1988).

The Beck Depression Inventory II is a 21-item survey designed to measure the presence and severity of depressive-related symptoms (Beck et al., 1996). Because the diagnostic criterion for depression requires that symptoms be present for at least two weeks (American Psychiatric Association, 2013), the BDI-II assesses how individuals have been feeling over the last two weeks. Each item assesses a symptom of depression, the severity of which is indicated by a higher score. Total scores (ranging from 0-63), are interpreted to determine whether a person is simply experiencing normal mood fluctuations, or has symptoms suggesting either borderline depression, moderate depression, or severe depression. This instrument is widely used, both in research and clinical settings. It has great internal consistency (alpha ranging from 0.92 to 0.93), and its authors have demonstrated that it is a valid instrument that allows for diagnostic discrimination (Beck et al., 1996).

To help answer my second research question, that is to determine strongest correlates of stress, anxiety, and depressive-related symptoms, a combination of individual questions and total measure scores were used. The selection of these variables was based on the conceptual framework and existing literature: biological, psychological, and social factors assessed in the questionnaire were grouped into 3 categories: demographic, psychosocial and health-related, and work-related. As discussed, variable selection was also guided by consultations with the study's main stakeholders (e.g., workers, managers, union leaders). Each of these groups of factors were included as independent variables in the regression models, with stress, anxiety, and depression

serving as the dependent variables. A complete list and description of independent variables included in the regression analyses can be found in Appendix B, and the details of the analyses are included in section 5.8. While some factors, notably the biological factors, were assessed through individual questions (in the demographics section primarily), some predictors included in the analyses required the use of full scales. The following section therefore outlines each of the questionnaires included in our survey for which total measure scores were calculated and used to answer my research questions.

As part of the psychological dimension, scores for the Alcohol Use Disorders Identification Test (AUDIT), the Drug Abuse Screening Test (DAST-20), the Copenhagen Burnout Inventory, and the Mental Demands subscale of the NIOSH Generic Job Stress Questionnaire were calculated. To assess social factors (i.e., those that reflect the social dimension of the biopsychosocial model), scores were obtained from the Relationship Assessment Scale (RAS), the Satisfaction with Work-Life Balance Scale, the Effort-Reward Imbalance Questionnaire, the Job Insecurity Measure, and the Job Requirements, Job Satisfaction, Physical Environment, Work Hazards, Workload and Responsibility, and Social Support subscales of the NIOSH Generic Job Stress Questionnaire.

The Alcohol Use Disorders Identification Test (AUDIT) is a World Health Organization initiative that was created as a screening tool for problematic drinking so that health practitioners could identify individuals that should consider reducing their alcohol consumption or stopping it altogether. It is a 10-item questionnaire for which items are scored on a scale from 0 to 4, for a

possible total score between 0 and 40. A total score of 8 or more is indicative of hazardous drinking behaviours (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001).

The Drug Abuse Screening Test (DAST-20) (Skinner, 1982) is a 20-item questionnaire that assesses drug abuse severity. Higher scores indicate a more severe problem. Numerous versions of the Drug Abuse Screening Test exist (i.e., 28 item, 10 item, adolescent-specific version), all of which have demonstrated good to excellent psychometric properties and therefore have been deemed satisfactory in terms of validity and reliability for both clinical and research purposes (Yudko, Lozhkina, & Fouts, 2007).

The Copenhagen Burnout Inventory is a measure of three dimensions of burnout: personal burnout, work-related burnout, and client-related burnout (Kristensen, Borritz, Villadsen, & Christensen, 2005). The instrument contains 19 items for which total mean scores are calculated. It has been used to assess burnout in a large study through which a database of mean burnout scores for fifteen job categories was created. Authors of this instrument demonstrate that its psychometric properties are sound and discuss its relevance as an alternative to another widely used burnout measure, the Maslach Burnout Inventory (Kristensen et al., 2005). It must be noted that for our study, the personal and work-related burnout scales were used in their original form, while the client-related burnout scale was modified to assess colleague-related burnout instead given the nature of employment in this workforce.

As mentioned, each of the NIOSH Generic Job Stress Questionnaire subscales included in our survey will serve as important variables for my analyses. The Mental Demands subscale is included as a potential psychological factor, whereas each of the others (i.e., Job Requirements,

Job Satisfaction, Physical Environment, Work Hazards, Workload and Responsibility, and Social Support) are work-related factors that fall within the social dimension of the biopsychosocial model. The NIOSH Generic Job Stress Questionnaire is an initiative of the National Institute for Occupational Safety and Health (NIOSH) (The National Institute for Occupational Safety and Health, 2017) with a possible nineteen subscales to choose from. It was designed to be a flexible instrument in which subscales can be selected in accordance with the researchers' objectives and was also designed to be relevant across occupations (Hurrell & McLaney, 1988). The subscales are scored using various Likert scales or "True or False" response options. For additional details, please refer to pages 33 to 38 in Appendix A.

The next scale included, for which scores reflect a variable of the social dimension, is the Relationship Assessment Scale (RAS). It is a short and generic tool used to measure satisfaction with the relationship with a partner/spouse. It consists of 7 items that are scored using a Likert scale ranging from 1 (indicative of low satisfaction) to 5 (indicative of high satisfaction) (Hendrick, 1988). Higher scores indicate higher satisfaction with one's relationships (Vaughn & Matyastik Baier, 1999). For item details, please refer to Appendix A, page 27. Workers not currently in a relationship were instructed to skip this scale.

The Satisfaction with Work-Life Balance Scale (Valcour, 2007) measures work-life balance satisfaction (a social factor) using a 5-point Likert scale where each item is rated from 1, very unsatisfied, to 5, very satisfied. Total scores are calculated by finding the average of the scores from each of the five items. Higher scores indicate higher levels of satisfaction with ones work-

life balance. For details of each item, please consult the scale which can be found on page 28 of Appendix A.

The next variable considered to be a social factor is effort-reward imbalance. It is measured using the Effort-Reward Imbalance Questionnaire (ERI), a 16-item questionnaire that allows researchers to calculate the ratio between effort and reward (ER ratio). An ER ratio greater than 1 suggests more effort per reward (Siegrist, Li, & Montano, 2014). The ERI is widely used and has strong psychometric properties (Siegrist et al., 2014).

The last full scale to be used to help answer my second research question is the Job Insecurity Measure (O'Neill & Sevastos, 2013). This questionnaire was an addition following our pilot study because workers felt the survey lacked questions addressing this topic and that it was important to address. It is an 18-item measure scored on a 7-point Likert scale (ranging from strongly disagree to strongly agree) where higher scores indicate higher levels of job insecurity. The Job Insecurity Measure can be found on pages 31 and 32 in Appendix A.

Finally, the Guarding Minds at Work questionnaire (Samra, Gilbert, Shain, & Bilsker, 2009-2020), which assesses thirteen psychosocial factors specific to the workplace was also included in my analyses. These thirteen psychosocial factors are key measurable workplace factors that impact psychological health and safety. They are the thirteen factors identified in the National Standard of Canada for Psychological health and safety in the workplace (CSA Z1003) (CSA Group & Bureau de Normalisation du Québec, 2013; Samra et al., 2009-2020). The thirteen factors assessed in the Guarding Minds at Work questionnaire are the following:

(1) psychological and social support (2) organizational culture (3) clear leadership and

expectations (4) civility and respect (5) psychological job demands (6) growth and development (7) recognition and reward (8) involvement and influence (9) workload management (10) engagement (11) work/life balance (12) psychological protection from violence, bullying, and harassment, and (13) protection of physical safety (Samra et al., 2009-2020). These constructs will be discussed further in Chapter 7.

5.5 Ethical Considerations

This study was reviewed and approved by the Laurentian University Research Ethics Board (LUREB). Company policies and procedures were also respected, and decisions affecting workers were approved by the company's Joint Occupational Health Committee, made up of both company and union representatives. The LUREB ethics approval certificate can be found in Appendix D.

5.6 Data Collection and Management

The survey was administered by members of our research team to workers at their worksite during work time. An occupational health and safety specialist at the company coordinated the scheduling with a site representative. Surveys were administered in paper format by members of the research team at the Centre for Research in Occupational Safety and Health (CROSH) at Laurentian University. Workers received a brief introductory presentation explaining the purpose of the study and what their participation would entail. They were invited to read through the information letter and consent form and given opportunities to ask any question to the research team prior to deciding whether to participate. Workers were also informed that participation is confidential, that there are no personal identifiers in the survey, that only the researchers would

have access to their individual surveys, and that no individual results would ever be shared. Workers who consented were given the survey along with an envelope to hand in their survey. Although the introductory presentation was done in a group setting, group sizes were controlled so that workers had sufficient space to complete the survey privately. Group sizes varied significantly between worksites: some worksites had only two or three workers at once, while larger worksites could have up to approximately sixty people in a group. To ensure workers felt comfortable participating, site coordinators were instructed to provide rooms large enough for workers to spread out to complete the survey and to limit the number of workers per session to make this possible. Privacy barriers were also available to workers. The researchers remained present for the duration of the survey (typically completed in 45 to 60 minutes) and were available to answer questions throughout. Given the sensitive nature of the questions, workers were also provided with mental health resources/services if such were required. These were included in their copy of the letter of information and consent. Multiple sessions at various sites were held daily, and schedule rotations were considered to ensure all crews had the opportunity to participate. For those working underground, sessions were scheduled on their regular health and safety training days (i.e., when they are on surface). Workers who missed the session at their worksite, or that preferred to complete the survey at another time, could also schedule to attend one of many other open sessions, by advising their manager. Data collection occurred almost daily (on weekdays) for approximately two and one-half months during the summer of 2016, with a few additional sessions added in the fall of that same year. Multiple crews were often out at different sites at the same time given the large workforce and numerous shift schedules.

At the end of each session, completed surveys were returned to the principal investigator's office at the University and stored in locked cabinets in his locked office, accessible only by members of the research team. Signed consent forms were also stored in this office, in a separate locked cabinet. Surveys were sorted by worksite and numbered accordingly. The data from each survey were manually entered by members of the research team using IBM® SPSS® version 28. A systematic data checking system in which other members of the team verified a sample of surveys helped ensure data entry quality; once data entry was complete, every fourth survey in the database was checked for errors by another team member. Adjustments were made when necessary, and surrounding surveys were checked when errors were found.

5.7 Organizational and Industrial Context

At the time of data collection during the summer of 2016, business was not thriving, and there was pressure to cut and control costs at the company due the low price of some minerals. However, there were no recent or impending labour disputes (the most recent having ended in 2010), or significant layoffs or job cuts (K. Hanson, personal communication, May 17, 2018). At the provincial level, there were no mine closures in Ontario that year (Statistics Canada, 2017). With two-thirds of the country's minerals sector employment in Ontario and Quebec, mining is of great importance to Ontario. Moreover, the stability of Canadian mining industry employment between 2015 and 2016 is an important reflection of the strength of the minerals industry at the national level (Statistics Canada, 2017). As for the mining industry at the local level, the Greater Sudbury census division has the greatest mining GDP contribution in the province, and more than 10,000 people were employed in mining in the Sudbury region alone. In fact, 42% of high-value mining jobs in Ontario are in Sudbury (Ontario Mining Association, 2016). Furthermore,

nearly 25% of Ontario's then 39 mines were in the Sudbury region (Ontario Mining Association, 2016). Finally, the Canadian mining industry employs the largest number of Indigenous Canadians among all private sector employers in the country (Mining Association of Canada, 2017). Although the mining workforce in Ontario is primarily male, with the average worker aged 36 to 55, 11% of the mining workforce is Indigenous, and 10% is female (Ontario Mining Association, 2016).

In summary, there were no major events affecting the Ontario mining industry at the time of our survey, nor were there any at the company level. Despite some challenges due to low prices for some minerals, the mining industry remained an important employer in Ontario, particularly in Sudbury where there is a significant cluster of mining employment. Also noteworthy, is that there were no mining fatalities in Ontario in 2016 (Sudbury Mining Solutions Journal, 2017). Major seasonal effects were also avoided by conducting the study over the summer months.

5.8 Data Analysis

Analyses were conducted using IBM® SPSS® 28 (International Business Machines Corporation, 2021). Descriptive statistics captured this sample of workers' personal and work-related characteristics, as well as the prevalence of stress, anxiety, and depression symptoms. Forward stepwise multiple regression ($F \geq 0.05$ for entry and $F \leq 0.1$ for removal) was used to predict stress, anxiety, and depression symptoms from several demographic factors, psychosocial and health-related factors, and workplace-related factors. The full lists of factors are presented in detail in chapters 6 and 7. A complete list of these independent variables, including the question(s) and/or scale(s) used for the measurement of each of these can also be found in

Appendix B. As previously discussed, the selection of these variables was guided by the literature and conceptual framework, as well as by the results of our pilot study. The forward stepwise method was selected because we had strong theoretical reasons for including the selected variables, but none to support entering them in any particular order.

All factors measured in our survey that could be classified into one of the three dimensions of the biopsychosocial model were first identified and classified into three categories: biological, psychological, and social. Then, based on the literature and in keeping with our research objectives, these factors were grouped into three categories of similar factors for analyses: (1) demographic, (2) psychosocial and health-related, and (3) workplace-related.

All multiple regression assumptions were verified and met. Visual inspection of scatterplots confirmed linearity and homoscedasticity, Durbin-Watson statistics were verified to confirm independence of residuals, tolerance values were inspected revealing no evidence of multicollinearity, there were no significant outliers, leverage points, or highly influential points, and visual inspection of the histograms and P-Plots confirmed that the residuals were approximately normally distributed. Validity and reliability were maintained for variables that are determined by an overall score from the scales discussed in section 5.4 because they were used in their entirety (i.e., there were no modifications to the questionnaires or exclusions of questions that could have an impact on their psychometric properties). Variables assessed using individual questions are demographic in nature, therefore psychometric properties do not pertain.

Some surveys were incomplete, therefore sample size occasionally varied as some questionnaires needed to be excluded due to missing data. However, due to the nature of the questionnaire, which used multiple existing tools, surveys that were partially incomplete could still be used if there was sufficient information to compute scores for some subscales. Therefore, surveys were only completely excluded if there was insufficient data to maintain psychometric rigor.

Otherwise, subscales that could be used were retained. Questionnaires that were entirely or nearly entirely blank were excluded altogether. In other words, if the survey contained enough information to compute certain analyses, data were entered for that survey. When information was missing from a subscale, this data was coded as missing and therefore automatically excluded from analyses which required this information.

Given the sample size, there are some statistical risks to keep in mind. Because the sampling strategy involved voluntary participation as opposed to a random sample, the sample is less likely to be representative of the larger study population (Laflamme & Zhou, 2014). Another risk is statistical power, which is large because of our sample size. This increases the likelihood of a Type I error and at the very least, may blur the distinction between what is statistically significant on the one hand and practically relevant on the other. For these reasons, results should be interpreted cautiously. Nonetheless, findings are supported by the literature throughout, and post-hoc analyses were conducted to confirm the significance of several key findings. The details of these post-hoc analyses will be described in chapters 6 and 7.

Chapter 6

6 Paper #1: Demographic, Psychosocial, and Health-Related Predictors of Stress, Anxiety, and Depression Among Mining Workers in Ontario, Canada

Abstract

Background: Consequences of poor mental health in the workplace are well documented, but mental health research specific to the mining industry remains scarce, especially in Canada. Findings are nonetheless compelling, as they seem to reflect higher rates of mental health-related symptoms among mining workers.

Objective: The objective of this paper is to determine the symptom prevalence of stress, anxiety, and depression among a sample of Canadian mining workers, and to identify demographic, psychosocial, and health-related factors associated with stress, anxiety, and depression for these workers.

Methods: 2,224 mining workers across 25 worksites at one company in Ontario, Canada completed a self-reported questionnaire. The survey included assessments of symptoms of stress, anxiety, and depression, demographic questions, and assessments of psychosocial and health-related factors associated with stress, anxiety, and depression.

Results: The prevalence of depression symptoms (12.5%) and anxiety (5.9%) in this sample were found to be higher than in the working-age Canadian population. Multiple regression analyses revealed many shared predictors for stress, anxiety, and depression symptoms. These

predictors can be classified into four main categories: individual characteristics, interpersonal relationships, lifestyle, and the overlap between physical and mental health.

CONCLUSIONS: Findings are consistent with previous research: prevalence of mental health problems were higher in our sample of mining workers compared to the general population. The findings also illustrated the importance of recognizing the multidimensionality of health: mental health problems are undoubtedly the result of a number of interrelated factors, which include mental, physical, and social components, in addition to demographic factors.

Keywords: occupational health; industry; mental health; well-being

6.1 Introduction

In any given year, one in five people in Canada lives with a mental illness (Mental Health Commission of Canada, 2017). By the age of forty, one in two people will either have or have had a mental illness at some point in their lifetime (Mental Health Commission of Canada, 2013). Prevalence rates are highest in younger adults, (Mental Health Commission of Canada, 2017) when they are typically entering the workplace. Overall, 21.4% of Canada's working age population (individuals between 20 and 65 years of age) had a mental health problem or illness in 2011, with the highest prevalence rates observed among those aged 20 to 29 years. Across all age groups, mental illness rates were highest among those between the ages of 20 and 49 (Mental Health Commission of Canada, 2017), once again reflecting the higher rates of mental illness among working age populations.

The most common mental health problems are mood and anxiety-related disorders, such as generalized anxiety disorder (GAD) and major depressive disorder (Mental Health Commission of Canada, 2013; World Health Organization, 2017). Although it is not a mental illness, persistent stress is also commonly experienced and can be detrimental to wellbeing; often contributing to mood and anxiety disorders (National Institute of Mental Health, 2021a; Thoits, 2013). For workers, stress can be especially challenging. According to the Canadian Community Health Survey, levels of stress are highest among those considered to be of “core working ages”, that is, between the ages of 35 and 54 (Statistics Canada, 2015). In 2019, 28.3% of Canadians between the ages of 35 and 49 reported feeling “quite a bit or extremely” stressed on most days (Statistics Canada, 2021b).

People who do not react well to stress are more likely to become depressed, as are those with low self-esteem (National Institute of Mental Health, 2021a). Other predictors of anxiety and depression include various psychological factors, genetics, and biology (National Institute of Mental Health, 2021b; National Institute of Mental Health, 2021c). Examples include: gender, age, ethnicity, as well as various aspects of a person’s health history, such as certain chronic health conditions (American Psychiatric Association, 2013). Health-related habits, such as smoking, alcohol and drug consumption, and regular physical activity, also affect a person’s wellbeing (Ohrnberger, Fichera, & Sutton, 2017). Additionally, a person’s environment is an important determinant of mental health (American Psychiatric Association, 2013; National Institute of Mental Health, 2021b; National Institute of Mental Health, 2021c), both in terms of the physical environment and the psychosocial environment. Like physical health, mental health,

or lack thereof, is the result of an interplay between individual and demographic factors, psychosocial, health-related, as well as environmental factors.

Beyond the impact on individual well-being, numerous studies have demonstrated that poor mental health can have significant consequences in the workplace. These include an increased risk of errors, accidents, and injuries, poorer performance as well as lower productivity, reduced worker engagement, higher turnover, and job dissatisfaction (CSA Group & Bureau de Normalisation du Québec, 2013; Haslam et al., 2005; Hilton & Whiteford, 2010; Suzuki et al., 2004). The impact of mental illness on workplaces is well-established, and it appears that workers employed in male-dominated industries are at a greater risk of experiencing mental health problems such as mood and anxiety disorders more frequently (Battams et al., 2014). From a health and safety perspective, the increased risk that poor mental health presents is cause for concern, notably in workplaces where such injuries can lead to serious harm or death, such as is often the case in male-dominated industrial settings.

Although the consequences of poor mental health in the workplace are well documented, mental health research specific to the mining industry remains scarce. Findings are nonetheless compelling, as they seem to reflect higher rates of mental illness among mining workers. Compared to the general working population, mining workers in Australia were found to have higher rates of psychological distress (Considine et al., 2017; James et al., 2018). In China, mining workers experienced higher rates of anxiety and depression compared to other male-dominated industry workers (Liu et al., 2014), and a systematic review of depression in male-dominated industries across several countries in Europe, in Australia, and in North America,

reported that among mining workers, rates of depression were found to be higher than those of the general population (Roche et al., 2016). While not limited to only the workers in these communities, and observed in relation to a period of economic decline, a retrospective study across twenty-nine resource-based communities in British-Columbia, Canada found that the prevalence of mental illness was higher in mining communities than in other resource-based communities (Shandro et al., 2011). Finally, a study examining help-seeking behaviours of mining workers in Australia found that nearly one-half of workers surveyed had sought some form of mental health support in the previous year (Tynan et al., 2016). Mental health research specific to the mining industry remains limited despite these findings. This gap is of particular importance in Canada, where mining is one of the largest industries (Mining Association of Canada, 2021), but available research data on this topic remain especially scant. In 2020, the Canadian mining industry directly employed 392,000 workers, with an additional 327,000 workers indirectly employed by the Canadian mining industry (Mining Association of Canada, 2021). Although mining operations are varied and dispersed across all of Canada's provinces and territories, Ontario and Québec are the top two in production value (Mining Association of Canada, 2021). In Ontario, there are forty active mining operations, of which the majority are in the northern part of the province. There are also twenty-one mills, three smelters, and five refineries for metal mines (Ontario Mining Association, 2021c).

Given the prominence of mining, the limited research findings that suggest poorer mental health among mining workers, and the relative absence of mental health studies in the Canadian mining context specifically, it is evident that more mental health research specific to mining workers is needed in Canada. The purpose of this study is therefore to begin to address this gap. As part of a

larger project that seeks to better understand the mental health and well-being of workers employed by an international mining company in Ontario, Canada, this paper's aims are twofold. The first objective is to determine the prevalence of stress, anxiety, and depression symptoms among these workers. The second objective focuses on identifying predictors of stress, anxiety, and depression symptoms for this workforce. More specifically, this paper focuses on the individual and demographic factors, and the psychosocial and health-related factors associated with stress, anxiety, and depression symptoms for these workers. Given current research findings that suggest poorer mental health among mining workers, we expect that the prevalence of stress, anxiety and depression symptoms will be higher in our sample than in the general working population, and that the predictors of these symptoms will be reflective of the unique nature of this workforce (e.g. male-dominated, preponderance of work-life balance challenges, physical health implications, etc.). Notably, substance use has been found to be detrimental to health, and more prevalent in mining workforces (Mactaggart et al., 2016; Tynan et al., 2017), as have relationship problems (McPhedran & De Leo, 2013; McPhedran & De Leo, 2014). We therefore anticipate that these will contribute significantly to stress, anxiety, and depression symptoms in our study population. Moreover, social determinants of health theory (Government of Canada, 2020; World Health Organization, 2008) allows us to hypothesize that certain demographic factors, such as age, education, and income are likely to contribute to this workforce's mental health outcomes.

6.2 Methods

6.2.1 Setting and Study Population

This research is part of a large-scale study that was conducted at the Ontario worksites of an international mining company. The study was funded by the company's Joint Occupational Health Committee (JOHC) and was a collaborative effort between the employer, its labour unions, and our research team. A sample of workers was also consulted during the development phase of the study. Data collection, management, and analysis was conducted solely by our research team as an external, neutral third party to ensure confidentiality. Workers were made aware of this prior to participating.

All workers at this company's Ontario operations (approximately 4,000 employees) were invited to participate, regardless of occupation. This includes underground mine workers, workers at various surface plants (e.g., the smelter complex and refineries), and other workers in various field and office settings. Workers employed by the head office (corporate branch), were excluded. Contract workers not directly employed by the company were also excluded.

This study was reviewed and approved by the Laurentian University Research Ethics Board. Company policies and procedures were also respected, and decisions affecting workers were approved by the company's Joint Occupational Health Committee, made up of both company and union representatives.

6.2.2 Measures

This study used a cross-sectional design with an extensive self-reported survey. The research team developed the survey instrument collaboratively with company and union representatives

and subsequently pilot-tested it with a sample of workers. Revisions were made following the pilot study and the final survey was forty-five pages, with an approximate completion time of forty to sixty minutes. It used several questionnaires that have been psychometrically validated and seen extensively in the literature. While we originally had concerns about the length of the survey, workers expressed appreciation of its thoroughness (Dignard, 2016) and response rates were not affected (i.e., completion of scales appearing later in the survey did not differ from those appearing at the beginning). For the purposes of this paper, the Perceived Stress Scale (PSS), the Beck Anxiety Inventory (BAI) and the Beck Depression Inventory II (BDI-II) were used to determine the prevalence of stress, anxiety, and depression symptoms, respectively.

The Perceived Stress Scale (Cohen et al., 1983) evaluates the degree to which a person has been bothered by symptoms of stress during the last month and is scored using a 5-point Likert scale for which higher total scores indicate higher levels of stress. It has strong test-retest reliability ($r=0.85$) and great internal consistency (Cronbach's Alpha ranging from 0.84 to 0.86) (Cohen et al., 1983; Wolf et al., 2015). It has also been demonstrated to be a valid instrument: scores were compared with various other associated measures (e.g., assessment of depression and anxiety symptoms) and found to appropriately reflect stress (Cohen et al., 1983). The Beck Anxiety Inventory (BAI) is designed to measure the severity of anxiety by assessing its various symptoms using a 4-point Likert scale (Beck et al., 1988). Higher scores indicate higher anxiety (and thus the likelihood of an anxiety disorder), and a score of 36 or more is considered concerning (Beck et al., 1988). It is both a valid and reliable instrument: it has strong internal consistency ($\alpha = .92$) and good test-retest reliability (1 week: $r(81) = .75$), as well as appropriate convergent/discriminant validity (Beck et al., 1988). The Beck Depression Inventory II measures

the presence and severity of depression (Beck et al., 1996). Each question assesses a symptom of depression, the severity of which is indicated by a higher score. Total scores are then calculated to determine if a person is simply experiencing normal mood fluctuations, or has symptoms suggesting borderline, moderate, or severe depression (Beck et al., 1996). The Beck Depression Inventory II has strong internal consistency (alpha ranging from 0.92 to 0.93), and its authors have demonstrated that it is a valid instrument that allows for diagnostic discrimination (Beck et al., 1996). It is important to note that although the Beck Anxiety Inventory and the Beck Depression Inventory II can be used by mental health professionals as part of diagnostic assessments in clinical settings, they were not used in this manner within the context of this study. Nonetheless, they remain a reliable indicator of symptoms suggestive of these disorders.

The survey instrument included demographic questions, as well as assessments of psychosocial and health-related factors associated with stress, anxiety, and depression. Relationship satisfaction was evaluated using the Relationship Assessment Scale (Hendrick, 1988). Burnout was assessed using a modified version of the Copenhagen Burnout Inventory (Kristensen et al., 2005); the personal and work-related burnout scales were used in their original form, while the client-related burnout scale was modified to assess colleague-related burnout instead given the nature of employment in this workforce. Health behaviours such as drug and alcohol consumption were also assessed. Drug abuse was screened with the Drug Abuse Screening Test (DAST-20) (Skinner, 1982) and the Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 2001; Saunders, Aasland, Babor, De la Fuente, & Grant, 1993) was used to screen for hazardous drinking behaviours. Finally, the support subscales of the NIOSH Generic Job Stress

Questionnaire (Hurrell & McLaney, 1988) were used to evaluate the extent to which workers felt supported by their supervisor, their coworkers, and their friends and family.

6.2.3 Data Collection

The survey was administered to workers in paper format by members of the research team. Workers who chose to participate were given the opportunity to complete the survey at their worksite during work time. Given the nature of this organization (multiple worksites, rotating shift schedules), multiple sessions at various sites were held daily, and schedule rotations were considered to ensure all crews had the opportunity to participate. For those working underground, sessions were scheduled on their regular health and safety training days (i.e., when they were on surface). Workers who missed the session at their worksite or preferred to complete the survey on their own time could also schedule to attend one of many open sessions. Data collection occurred almost daily (on weekdays) for approximately two and one-half months during the summer of 2016. To ensure worker privacy, the rooms used for survey completion were large enough for workers to spread out and complete the survey away from others. Privacy barriers were also available.

6.2.4 Data Analysis

Analyses were conducted using IBM® SPSS® 28 (International Business Machines Corporation, 2021). Descriptive statistics were used to describe the personal and work-related characteristics of this sample of workers as well as to estimate the prevalence of stress, anxiety, and depression symptoms among these workers. Forward stepwise multiple regression ($F \geq 0.05$ for entry and $F \leq 0.1$ for removal) was used to predict stress, anxiety, and depression symptoms from the

following individual and demographic factors: gender, education, income, marital status, age, ethnicity, past-year diagnosis of a physical health problem, past-year work-related injury, and body mass index (BMI). Subsequent forward stepwise multiple regression analyses ($F \geq 0.05$ for entry and $F \leq 0.1$ for removal) were also used to predict stress, anxiety, and depression symptoms from the following psychosocial and health-related factors: relationship satisfaction, social support from family and friends, from coworkers and from supervisors, recent loss of a loved one, personal, work-related, and colleague-related burnout, use of medication for a physical health problem, smoking habits, time spent sitting, leisure physical activity, drug use, and alcohol consumption. Stress was also included as an additional predictor in the multiple regression analyses for anxiety and depression. The forward stepwise method was selected because we had strong theoretical reasons for including the selected variables, but none to support entering them in a particular order. To see the change in the model at each step, please see appendix C. Following the regression analyses, several post-hoc analyses were also conducted to confirm the significance of certain key results. The selection of significant predictors for post-hoc analyses was based on our hypotheses and previous findings from the literature which suggest that these may be particularly relevant in the context of mining employment. More specifically, chi-square analyses were conducted to verify the associations between stress and anxiety, between stress and depression, between stress and alcohol consumption, and between anxiety and drug use. Further chi-square tests for association between stress, anxiety, and depression symptoms and body mass index were also conducted.

6.3 Results

6.3.1 Demographics

A total of 2,224 participants across 25 worksites participated in the study, of which 88.8% were male. This represents an overall response rate of approximately 56%. On average, workers had been employed by the mining industry for an average of 17.2 years and the average age of workers was 43.6 (± 9.8) years of age. Due to the vast nature of mining employment, job categories were also varied. One-half of the workers surveyed (50.8%) were employed at mine sites, while 19.9% worked in milling and smelting, and 11.5% had jobs related to the refining process. Other job categories included production services and support, which represented 7.1% of workers surveyed, and the remaining 10.3% had jobs in safety, health, environment, human resources, corporate, engineering, finance, or other. Of the 2,224 workers surveyed, 906 (40.7%) worked rotating shifts, while 1,201 (54%) worked steady days. Time spent underground was also divided, with 47.4% of workers never working underground and 34.8% spending nearly all their time (61-100%) working underground. A demographic overview of personal and work-related characteristics of this sample is presented in Table 2.

Table 2. Demographics

Personal Characteristics	n	%	Work-Related Characteristics	n	%
Gender			Job Category		
Male	1975	88.8	Mine Sites	1129	50.8
Female	243	10.9	Milling & Smelting	442	19.9
Missing	6	0.3	Refining	255	11.5
			Production Services and Support	159	7.1
Primary Language			Safety, Health, Environment, Human Resources, Corporate, Engineering, Finance, etc.	228	10.3
English	1906	85.7	Missing	11	0.5
French	269	12.1			
Age			% of Work Underground		
<30	177	8	No underground work	1054	47.4

30-39	614	27.6	Some underground work	393	17.7
40-49	722	32.5	Nearly always working underground	774	34.8
50-59	594	26.7	Missing	3	0.1
60+	88	4			
Missing	29	1.3			
			Type of Shifts*		
			Steady days ((8, 10.5 or 12hr)	1201	54
			Rotating shifts (8, 10.5 or 12hr)	906	40.7
			Other (steady afternoons, steady nights, relief, combination of many)	102	4.6
			Missing	15	0.7
			Annual Salary		
			Less than \$59,999	81	3.6
			\$60,000-\$69,999	219	9.8
			\$70,000-\$79,999	471	21.2
			\$80,000-\$89,999	484	21.8
			\$90,000-\$99,999	394	17.7
			\$100,000-\$124,999	447	20.1
			\$125,000 and above	106	4.8
			Missing	22	1
			Education		
			Less than or Some High School	60	2.7
			High School Graduate	257	11.6
			Some College	277	12.5
			College Graduate	1123	50.5
			Some University	135	6.1
			Undergraduate Degree	289	13
			Post Graduate Degree	80	3.6
			Missing	3	0.1
			Marital Status*		
			Never legally married (single)	205	9.2
			Legally married or Common law	1780	80
			Separated	132	5.9
			Divorced or Widowed	159	7.1
			Missing	13	0.6
			BMI		
			Under Weight	6	0.3
			Normal Weight	314	14.1
			Overweight	953	42.9
			Obese I	662	29.8
			Obese II	167	7.5
			Obese III	74	3.3
			Missing	48	2.2

*Participants were asked to check all that apply, therefore total can exceed 2224 (>100%)

6.3.2 Prevalence of Stress, Anxiety and Depression

6.3.2.1 Stress

Overall, 23.3% of workers surveyed had Perceived Stress Scale ($\alpha=0.862$) scores indicating they were experiencing concerning levels of stress. In this sample, women were more likely to report

moderate to severe levels of stress compared to men: 34.7% of female workers, and 22.8% of male workers had scores situated at the moderate to severe level ($\chi^2(1)=16.482$, $p<.001$).

Prevalence data, including by gender, is presented in Table 3. A chi-square test for association was also conducted between age group and levels of stress (Table 4). All expected cell frequencies were greater than five, and there were statistically significant differences between age groups and stress severity, $\chi^2(4)=27.190$, $p<.001$. Stress levels were highest among workers aged 30 to 49, with 27.9% of workers between ages 30 and 39, and 27.4% of workers between 40 and 49 years of age reporting moderate to severe stress. Among younger workers (<30 years), 21.6% reported moderate to severe stress. Older workers (60+) were least likely to report being significantly stressed, with 11.1% experiencing moderate to severe stress. Among those aged 50 to 59, 18.4% had scores indicating moderate to severe stress. Further chi-square analyses based on primary language, job category and type of shift revealed no significant associations with stress.

Table 3. Prevalence of Stress, Anxiety and Depression

	Overall	by Gender <i>n</i> (%)	
		Male	Female
Moderate to severe stress	519 (23.3)	434 (22.8)	83 (34.7)
Moderate to concerning anxiety (Suggestive of an anxiety disorder)	131 (5.9)	108 (5.7)	22 (9.4)
Moderate to extreme depressive symptoms (Suggestive of a depressive disorder)	279 (12.5)	235 (12.5)	43 (18.9)

Table 4. Stress and Depression by Age Group

	Age <i>n</i> (%)				
	<30	30-39	40-49	50-59	60+
Moderate to severe stress	36 (21.6)	165 (27.9)	193 (27.4)	108 (18.4)	9 (11.1)
Moderate to extreme depressive symptoms	15 (8.8)	73 (12.6)	112 (16.3)	64 (11.1)	5 (6.3)

6.3.2.2 Anxiety

In this sample, 5.9% of workers were found to have moderate or concerning symptoms of anxiety. Female workers were more likely to experience moderate or concerning anxiety levels than male workers (Table 3). Based on their Beck Anxiety Inventory ($\alpha=0.914$) scores, 9.4% of women and 5.7% of men surveyed had symptoms consistent with moderate or concerning anxiety ($X^2(1)=5.239$, $p < .05$). Further chi-square analyses revealed that there were no significant differences in anxiety levels based on age, language, job category, or type of shift worked.

6.3.2.3 Depression

According to their Beck Depression Inventory II (BDI-II) ($\alpha=0.930$) scores, 12.5% of workers surveyed had symptoms consistent with a depressive experience (Table 3). A higher percentage of women than men reported the presence of depressive-related symptoms; 18.9% of women and 12.5% of men had scores reflective of moderate to extreme depressive symptoms ($X^2(1)=7.275$, $p < 0.01$). Statistically significant differences were also observed between age groups ($X^2(4)=14.378$, $p < 0.01$) (Table 4). Symptoms suggesting moderate to extreme depression were most common in workers aged 40 to 49, with 16.3% of these workers having a BDI-II score suggesting the presence of a depressive disorder. Younger workers (<30) and older workers

(60+) were least likely to have scores suggestive of depression, with 8.8% of younger workers and 6.3% of older workers in the depression score range. For those aged 30 to 39, and 50 to 59, the proportions of workers with symptoms suggesting moderate to extreme symptoms of depression were 12.6% and 11.1%, respectively. Additional chi-square analyses revealed that there were no statistically significant differences based on language, job category, or type of shift worked.

6.3.3 Predictors of Stress, Anxiety and Depression

6.3.3.1 Individual and Demographic Factors

Stepwise multiple regression analyses were used to predict stress, anxiety, and depression from the following individual and demographic factors: gender, education, income, marital status, age, ethnicity, past-year diagnosis of a physical health problem, past-year work-related injury, and body mass index (BMI). All multiple regression assumptions were verified and met: visual inspection of scatterplots confirmed linearity and homoscedasticity, Durbin-Watson statistics were verified to confirm independence of residuals, tolerance values were inspected revealing no evidence of multicollinearity, there were no significant outliers, leverage points, or highly influential points, and visual inspection of the histograms and P-Plots confirmed that the residuals were approximately normally distributed.

Stress

The following variables were found to be statistically significant predictors of stress

($F(8,1889)=14.579$, $p<.000$, $R^2=.058$): work-related injury within the last year, age, physical disease diagnosis within the last year, marital separation, BMI, gender, undergraduate degree as the highest level of education, and income greater than \$150,000 (Table 5). The combination of these individual and demographic factors explained 5.8% of the variance of stress. To see the change in the model at each step, please see Appendix C1.

Workers who reported having had a work-related injury ($B=2.528$, $p<.001$) or having been diagnosed with a physical health problem ($B=1.438$, $p<.001$) during the last year had higher levels of stress. Being separated from a spouse ($B=2.286$, $p<0.01$) and having a higher body mass index ($B=.121$, $p<.01$) were also associated with higher stress scores. However, a post-hoc chi-square test for association did not reveal a statistically significant association between BMI and stress. A negative relationship was observed between age, education, and income, and levels of stress; as age increased, average stress scores decreased ($B= -.114$, $p<.001$), workers with an undergraduate degree ($B= -1.221$, $p<.05$) had stress scores that were lower, and those with an income greater than \$150,000 ($B= -3.316$, $p<.05$) also had significantly lower stress scores. Gender ($B= -2.090$, $p<.001$) was also a significant predictor of stress, with scores on the stress scale being on average lower for females.

Anxiety

The following variables were found to be statistically significant predictors of anxiety (Table 5): diagnosis of a physical health problem during the last year, work-related injury during the last year, marital separation, age, gender, body mass index (BMI), and having some college or a college degree as their highest level of education ($F(8,1885)=27.879$, $p<.001$, $R^2=.106$). The combination of these individual and demographic factors explained 10.6% of the variance of anxiety. To see the change in the model at each step, please see Appendix C2.

Workers who had experienced a work-related injury ($B=2.669$, $p<.001$) along with those diagnosed with a physical health problem ($B=3.599$, $p<.001$) during the last year experienced higher anxiety, as did those who identified as being separated ($B=4.071$, $p<.001$) from their spouse/partner. As was the case for stress and depression, anxiety levels decreased as workers' age increased ($B=-.090$, $p<.001$). Women also had lower average anxiety scores than men ($B=-2.448$, $p<.001$), and having a higher BMI was associated with higher anxiety scores ($B=.083$, $p<.05$). However, a post-hoc chi-square test for association did not reveal a statistically significant association between BMI and anxiety. Finally, workers whose highest level of education was some college ($B=1.453$, $p<.01$) or a college degree ($B=1.197$, $p<.01$) had higher scores on the Beck Anxiety Inventory.

Depression

As shown in Table 5, statistically significant predictors of depression ($F(7,1867)=23.297$, $p<.001$, $R^2=.080$) included having experienced a work-related injury during the last year, being diagnosed with a physical health problem during the last year, marital separation, body mass index (BMI), gender, age, and having an income in the \$60,000 to \$69,000 range. The combination of these individual and demographic factors explained 8% of the variance in depression scores. To see the change in the model at each step, please see Appendix C3.

Depression scores were found to be significantly higher among workers who had experienced a work-related injury during the previous year ($B=3.716$, $p<.001$). Those diagnosed with a physical health problem during the last year also had higher depression scores ($B=2.721$, $p<.001$). Being separated from a spouse/partner was also associated with higher scores on the Beck Depression Inventory II ($B=4.202$, $p<.001$), as was having an income of \$60,000 to \$69,000 ($B=1.420$, $p<.05$). Similar to trends regarding stress, female workers had depression scores that were an average of 2.571 points lower than male workers ($B=-2.571$, $p<.001$). Age also significantly predicted depression – as workers age, depression scores decrease ($B=-.068$, $p<.01$). Finally, having a higher BMI was associated with higher depression scores ($B=.213$, $p<.001$). However, a post-hoc chi-square test for association did not find that there was a statistically significant association between BMI and depression symptoms.

Table 5. Multiple Regression for Individual and Demographic Factors

	B	95% CI for B		SE B	β	R²	Δ R²
		LL	UL				
Stress							
Model						.058	.054
Constant	25.526	22.956	28.096	1.310			
Past-Year Work-Related Injury	2.528***	1.579	3.477	.484	.117		
Age	-.114***	-.150	-.077	.019	-.144		
Past-Year Physical Health Problem Diagnosis	1.438***	.693	2.184	.380	.090		
Marital Status: Separated	2.286**	.851	3.721	.732	.070		
BMI	.121**	.047	.195	.038	.076		
Gender (0=male, 1=female)	-2.090***	-3.230	-.950	.581	-.086		
Highest level of education: Undergraduate Degree	-1.221*	-2.247	-.195	.523	-.055		
Income: \$150,000 and above	-3.316*	-6.276	-.355	1.510	-.050		
Anxiety							
Model						.106	.102
Constant	7.430	5.014	9.845	1.232			
Past year physical health problem diagnosis	3.599***	2.888	4.309	.362	.230		
Past-year work-related injury	2.669***	1.766	3.571	.460	.127		
Marital Status: Separated	4.071***	2.709	5.434	.695	.128		
Age	-.090***	-.125	-.055	.018	-1.117		
Gender (0=male, 1=female)	-2.448***	-3.532	-1.364	.553	-.101		
BMI	.083*	.013	.153	.036	.053		
Highest level of education: College graduate	1.197**	.484	1.910	.364	.079		
Highest level of education: Some college	1.453**	.373	2.533	.551	.063		
Depression							
Model						.080	.077
Constant	7.392	4.476	10.308	1.487			
Past-year work-related injury	3.716***	2.616	4.816	.561	.148		
Past-year physical health problem diagnosis	2.721***	1.855	3.587	.442	.145		
Marital Status: Separated	4.202***	2.542	5.861	.846	.110		
BMI	.213***	.128	.298	.043	.115		
Gender	-2.571***	-3.878	-1.264	.666	-.089		

(male=0, female=1)					
Age	-.068**	-.110	-.026	.021	-.074
Income: 60,000-69,999	1.420*	.103	2.736	.671	.047

Note. Model = "Stepwise" method in SPSS Statistics; B = unstandardized regression coefficient; CI = confidence interval; LL = lower limit; UL = upper limit, SE B = standard error of the coefficient; β = standardized coefficient; R^2 = coefficient of determination; ΔR^2 = adjusted R^2 * p <.05 ** p <.01 *** p <.001

6.3.3.2 Psychosocial and Health-Related Factors

Additional stepwise multiple regression analyses were run to predict stress, anxiety, and depression from the following psychosocial and health-related factors: relationship satisfaction, social support from family and friends, social support from coworkers and from supervisors, recent loss of a loved one, personal, work-related, and colleague-related burnout, use of medication for a physical health problem, smoking habits, time spent sitting, leisure physical activity, drug use, and alcohol consumption. Stress was also included as an additional predictor in the multiple regression analyses for anxiety and depression. As previously explained, all multiple regression assumptions were verified and met. The results from these analyses are shown in Table 6. To see the change in the model at each step, please see Appendix C, Sections C4, C5, and C6.

Table 6. Multiple Regression for Psychosocial and Health-Related Factors

	B	95% CI for B		SE B	β	R^2	ΔR^2
		LL	UL				
Stress							
Model						.483	.480
Constant	25.249	22.635	27.864	1.333			
Personal Burnout	.146***	.125	.166	.011	.392		
Relationship Satisfaction	-1.931***	-2.287	-1.576	.181	-.215		
Work Burnout	.064***	.043	.085	.011	.176		
Social Support from Co-workers	-.882***	-1.340	-.424	.233	-.080		
Alcohol consumption	.086**	.026	.146	.030	.054		
Colleague Burnout	.018*	.004	.033	.007	.059		

Loss of a family member or close friend in the last year	.624*	.015	1.234	.311	.038		
Anxiety							
Model						.453	.451
Constant	-6.409	-7.345	-5.474	.477			
Personal Burnout	.136***	.118	.155	.010	.383		
Stress	.275***	.226	.325	.025	.286		
DAST-20 score (drug use)	.469***	.294	.644	.089	.106		
Use of medication for a physical health problem	1.493***	.815	2.172	.346	.086		
Loss of a family member or close friend in the last year	1.050***	.439	1.661	.312	.067		
Colleague Burnout	.014*	.001	.027	.007	.045		
Depression							
Model						.625	.623
Constant	.762	-2.287	3.812	1.555			
Personal Burnout	.187***	.168	.206	.010	.433		
Stress	.364***	.313	.415	.026	.316		
Colleague Burnout	.027***	.013	.041	.007	.074		
Relationship Satisfaction	-.884***	-1.250	-.518	.187	-.085		
Support from supervisor	-.459*	-.814	-.103	.181	-.046		
Use of medication for a physical health problem	1.040**	.365	1.715	.344	.050		
Loss of a family member or close friend in the last year	.949**	.342	1.557	.310	.051		
Support from Coworkers	-.567*	-1.043	-.091	.243	-.045		
Time spent sitting in a typical day	.097*	.013	.180	.043	.038		

Note. Model = "Stepwise" method in SPSS Statistics; B = unstandardized regression coefficient; CI = confidence interval; LL = lower limit; UL = upper limit, SE B = standard error of the coefficient; β = standardized coefficient; R^2 = coefficient of determination; ΔR^2 = adjusted R^2 * p <.05 ** p <.01 *** p <.001

Stress

The following variables were found to be statistically significant predictors of stress

($F(7,1420)=189.260$, $p<.001$, $R^2=.483$): personal burnout, relationship satisfaction, work

burnout, social support from coworkers, alcohol consumption, colleague-related burnout, and

loss of a family member or close friend in the last year. The combination of these psychosocial

and health-related factors explained 48.3% of the variance of stress.

Workers who scored higher on all three burnout scales were found to have higher levels of stress. Personal burnout ($B=.146$, $p<.001$), work-related burnout ($B=.064$, $p<.001$) and colleague-related burnout ($B=.018$, $p<.05$) were all associated with higher scores on the Perceived Stress Scale. Interpersonal relationships were found to have a protective effect, with those with higher relationship satisfaction ($B=-1.931$, $p<.001$) and those feeling supported by co-workers ($B=-.882$, $p<.001$) reporting fewer symptoms of stress. On the contrary, having lost a loved one during the last year was associated with higher stress ($B=.624$, $p<.05$). Finally, among the health-related habits investigated, alcohol consumption was retained as a significant predictor of stress, with higher alcohol consumption being associated with significantly more stress ($B=.086$, $p<.01$). -A post-hoc chi-square test for association confirmed that the association between stress and alcohol consumption is statistically significant ($X^2(1)=14.902$, $p<0.001$).

Anxiety

Statistically significant predictors of anxiety ($F(6,1392)=192.419$, $p<.001$, $R^2=.453$) were the following: personal burnout, stress, drug use, use of medication for a physical health problem, and colleague burnout. The combination of these psychosocial and health-related factors explained 45.3% of the variance of anxiety.

Anxiety was found to be higher among those suffering from personal burnout ($B=.136$, $p<.001$), and colleague-related burnout ($B=.014$, $p<.05$), and stress was a significant predictor of anxiety, with higher stress associated with higher anxiety ($B=.275$, $p<.001$). A post-hoc chi-square test

for association confirmed that the association between stress and anxiety is statistically significant ($X^2(1)=19.753$, $p<0.001$) Drug use was also found to be a significant predictor of anxiety, with higher drug use scores (i.e. scores suggestive of a drug abuse problem) associated with higher anxiety ($B=.469$, $p<.001$). A post-hoc Fisher's exact test confirmed the significant association between anxiety and drug use ($p<0.001$). Having lost a loved one during the last year ($B=1.050$, $p<.001$), and requiring the use of medication for a physical health problem ($B=1.493$, $p<.001$) were also associated with higher anxiety.

Depression

Of the fourteen psychosocial and health-related variables included in the regression analysis, eight were found to be statistically significant predictors of depression symptoms ($F(9,1379)=255.670$, $p<.001$, $R^2=.625$). These predictors were: personal burnout, stress, colleague-related burnout, relationship satisfaction, support from supervisor, use of medication for a physical health problem, loss of a family member or close friend in the last year, support from co-workers, and time spent sitting in a typical day. The combination of these psychosocial and health-related factors explained 62.5% of the variance of depression symptoms.

Scores on the Beck Depression Inventory II were found to be higher for workers experiencing personal ($B=.187$, $p<.001$) and colleague-related burnout ($B=.027$, $p<.001$), as well as for those with higher levels of stress ($B=.364$, $p<.001$). A post-hoc chi-square test for association confirmed the significance of the association between stress and depression ($X^2(1)=47.742$,

$p < 0.001$). Loss of a family member or close friend in the last year ($B = .949$, $p < .01$) and use of medication for a physical health problem ($B = 1.040$, $p < .01$) were also associated with higher depression scores. In contrast, relationship satisfaction ($B = -.884$, $p < .001$), support from coworkers ($B = -.567$, $p < .05$), and support from one's supervisor ($B = -.459$, $p < .05$) all had a negative relationship with depression symptoms indicating that those who had higher satisfaction with their relationship and felt supported by coworkers and superiors were less likely to have symptoms indicative of depression.

6.4 Discussion

6.4.1 Overall Prevalence of Stress, Anxiety, and Depressive-related Symptoms

Part of the rationale for conducting this study was the limited but compelling data suggesting that the prevalence of mental health problems is greater among mining workers than those in the general population (Considine et al., 2017; Liu et al., 2014; Roche et al., 2016). Our research was consistent with these reports. Overall, the prevalence of depression and anxiety-related symptoms in this sample were found to be higher than in the working-age Canadian population. Whereas depression affected on average 5.4% of Canada's working age population between 2000 and 2016 (Dobson, Vigod, Mustard, & Smith, 2020), 12.5% of the workers surveyed in this study reported symptoms consistent with a depressive disorder. As for anxiety, 5.9% of our sample had scores situated in the moderate to concerning range on the Beck Anxiety Inventory. On average, 4.6% of working-age Canadians between 2000 and 2016 had an anxiety disorder (Dobson et al., 2020). Stress was found to be comparable to the Canadian population, with

24.8% of Canadian adults between the ages of 18 and 64 experiencing high levels of stress (Statistics Canada, 2021b), compared to 23.3% of workers surveyed in this study. Again, the reader is reminded that scores on these measures are insufficient to confer an actual diagnosis as clinical opinion/assessment would also be required. Moreover, as many ways of assessing stress, anxiety and depression exist, it must be noted that the comparisons with normative data presented are not direct comparisons, as different tools were used for the population-level assessments. Nonetheless, they remain an important indicator of prevalence rates in the general population in comparison to our study population; while not identical, the methods for assessing prevalence rates in all contexts were valid and reliable, thus comparisons can be made with confidence.

6.4.2 Predictors of Stress, Anxiety, and Depression-Related Symptoms

Multiple regression analyses revealed many shared predictors for stress, anxiety, and depression-related symptoms. These individual and demographic factors, and psychosocial and health-related factors can be classified into four main categories of predictors: individual characteristics, interpersonal relationships, lifestyle, and the overlap between physical and mental health.

Individual Characteristics

Not surprisingly, age was found to be a significant predictor of stress, anxiety, and depression. As previously discussed, mental health problems are typically higher in younger adults, peak in the working-age population, and decrease in the latter stages of one's career (Mental Health

Commission of Canada, 2013; Statistics Canada, 2015; Statistics Canada, 2021b). According to the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition, prevalence of major depression is three times greater in young adults (18 to 29) than in older adults (60 and up), and generalized anxiety disorder is most common in middle ages and declines in older age (American Psychiatric Association, 2013). While major depression and generalized anxiety disorder are but two examples of mood and anxiety disorders, they are among the most common (Langlois et al., 2012) and therefore constitute a valuable reference point. Not surprisingly, our findings are consistent with these trends, with stress, anxiety, and depression scores varying by age group. In terms of prevalence, there were no significant differences in anxiety by age group, but stress and depression were indeed more prevalent among the core working age population (i.e., 30 to 49 years). Moreover, these findings are consistent with other mining worker mental health and well-being studies. A study of mining industry workers in Ghana, for instance, found that worker health and wellbeing improved with age (Amponsah-Tawiah et al., 2014). In Australia, senior remote construction and mining workers were more likely to report significantly lower psychological distress when compared to their junior counterparts (Bowers et al., 2018), and among Australian coal miners, younger age was associated with greater psychological distress (Carlisle & Parker, 2014).

Much like age, gender differences were expected. Major depression, for instance, is on average one and one-half to three times more common in women than in men (American Psychiatric Association, 2013). Generalized Anxiety Disorder typically affects twice as many females than males (American Psychiatric Association, 2013). Predictably, in our study population, more women than men had scores reflective of anxiety and depression. However, average scores were

higher for male workers than for female workers. Nonetheless, even with their lower average scores, a larger proportion of female workers had BAI and BDI scores in the concerning range compared to male workers. An important consideration, and one which might help explain these findings, is that mining is very much a male-dominated industry, and previous research suggests that male-dominated industry workers are at greater risk for anxiety and depression (Battams et al., 2014; Roche et al., 2016). The combination of a smaller female population within a workforce of predominantly male workers who have already been found to have a higher predisposition for mental health problems could explain why the differences between prevalence rates are on the lower end of the typical ratios between women and men.

Additional individual characteristics that were found to be significant predictors include level of education and income. Of course, statistical and clinical significance are not synonymous: the addition of these variables to the model did not contribute much change to the explained variance (see Appendix C, Sections C1, C2, and C3), and not all categories of education and income were retained as significant. However, even though the variance explained by these individual and demographic factors was low and did not add much to the model, they remain relevant because education and income are important determinants of mental health; lower socio-economic status, to which education contributes, is associated with a higher likelihood of mental illness (Allen, Balfour, Bell, & Marmot, 2014; Kim & Cho, 2020). Therefore, it is not surprising that workers surveyed who had higher levels of education (i.e., an undergraduate degree) had less stress, whereas workers whose highest level of education was limited to some college or a college degree had higher anxiety. Moreover, it is also expected that workers making \$150,000 or more annually had significantly lower stress. Another interesting finding is that workers with a salary

in the \$60,000 to \$69,000 range were more likely to be depressed. Although this salary range falls within the *median after-tax income of Canadian families and unattached individuals*, which was \$62,900 in 2020 (Statistics Canada, 2021a), most of the workforce studied earned more than \$70,000 per year, with nearly 60% of worker salaries ranging between \$80,000 and 124,999\$. It could therefore be argued that in this context, workers earning between \$60,000 and \$69,000 might consider themselves to be lower income due to the majority of their colleagues making significantly more, thus magnifying the impact of socio-economic status on this subgroup of workers' mental health.

Interpersonal Relationships

Interpersonal relationships play an important role for mental health (Marchand, Durand, Haines, & Harvey, 2015) and have been found to decrease work stress for miners (Hongxia et al., 2014). People who feel supported by their friends, family, colleagues, and superiors are more likely to report better mental health (CSA Group & Bureau de Normalisation du Québec, 2013; Harandi, Taghinasab, & Nayeri, 2017). On the contrary, workers who feel they lack support, particularly from their superiors, experience increased stress (CSA Group & Bureau de Normalisation du Québec, 2013; World Health Organization, 2020). Our analyses revealed that support did in fact have a protective effect for mental health. Interestingly, only colleagues and supervisors' social support was retained as significant predictors of lower stress and depression scores, while support from family and friends was not identified as significant. This is similar to findings of a study of resident mine workers in Australia, which showed that trust and support from colleagues

and superiors were conducive to better mental health (McClean, 2012). However, relationship satisfaction also had an important protective effect against stress and depression, reflecting the importance of personal relationships outside the workplace also. It is possible that the discrepancy in these findings is the result of contextual factors. Given that the study was presented as an investigation of workplace mental health, workers may have been more inclined to emphasize workplace-specific indicators of wellbeing. Moreover, since an entire scale was devoted to relationship satisfaction, workers may have reflected more carefully on support from their loved ones in this context than in the context of the short social support scale. Curiously, anxiety could not be predicted from social support or relationship satisfaction. On the other hand, marital status significantly predicted stress, anxiety, and depression symptoms. Scores on the Perceived Stress Scale, the Beck Anxiety Inventory and the Beck Depression Inventory II were all significantly higher among workers identifying as separated. This is consistent with findings elsewhere in the mining specific mental health literature. In Australia, remote mining and construction workers who identified as separated had higher levels of psychological distress (Bowers et al., 2018). A study of mental health help-seeking behaviours of miners in Australia revealed that workers who were separated, divorced, or widowed, were more likely to seek professional mental health support compared to workers who were married or in a relationship (Tynan et al., 2016), and a study of suicide incidents in Australia revealed that relationship problems were more common among the mining workers who died by suicide than among workers in other occupations who died by suicide (McPhedran & De Leo, 2013). Evidently, relationship status is an important determinant of mental health for this workforce.

Lifestyle

It is well established that lifestyle choices affect health. Habits such as smoking, drug and alcohol consumption, and exercise all play an important role in determining the health of an individual (Ohrnberger et al., 2017). In addition to their physical health implications, these habits also have an important impact on mental health (Ohrnberger et al., 2017), and this is evident in our study findings. While alcohol consumption was a significant predictor of stress, drug use significantly predicted anxiety. A post-hoc chi-square test for association confirmed the statistically significant association between stress and alcohol consumption and a Fisher's exact test confirmed the significant association between anxiety and drug use. This is consistent with other mining-specific research findings. For instance, among coal miners in Australia, risky or hazardous alcohol consumption, also assessed using the Alcohol Use Disorders Identification Test (AUDIT), had a statistically significant association with higher psychological distress (Considine et al., 2017; Tynan et al., 2017). Previous use of alcohol or drugs is also important to consider, as having a history of drug or alcohol problems has been found to be associated with psychological distress in miners as well (Considine et al., 2017). Moreover, associations exist between illicit drug use and alcohol consumption in mining workers, suggesting that the two behaviours are interrelated (Tynan et al., 2017) and potentially magnify the impact they have on the mental health of this workforce.

In addition to contributing to poorer mental health outcomes for this workforce, it is possible that elevated drug and alcohol use is a more widespread problem in mining in general. Although prevalence of problematic alcohol and drug consumption was not the focus of this paper, it was

assessed as part of this study and findings are consistent with this proposition. Among workers surveyed, 22.9% reported hazardous alcohol consumption habits (i.e., AUDIT scores that reflect an increased risk to health). By comparison, data from the 2017 Canadian Tobacco Alcohol and Drugs Survey (CTADS) revealed that approximately 15% of Canadians who consume alcohol exceed the Canadian guidelines for low-risk alcohol consumption, therefore increasing the risks to their health (Canadian Centre on Substance Use and Addiction, 2019). Evidence elsewhere also suggests that drug and alcohol problems, much like anxiety and depression, may be more prevalent among mining workers. In fact, a study across eight coal mines in Australia found that risky alcohol consumption among their male workers was nearly double that of a gender matched population sample (Tynan et al., 2017). A systematic review of health and wellbeing outcomes in mining also found that smoking and alcohol consumption were risky behaviours associated with mining activity (Mactaggart et al., 2016). The higher prevalence of these risky behaviours among mining workers, along with their detrimental impact to mental wellbeing, could help explain, at least in part, why mental health problems are more prevalent among mining workers.

Other important lifestyle behaviours to consider include physical activity and time spent sitting. The benefits of regular physical activity are innumerable, whereas sedentary behavior is associated with a plethora of health problems (Dunstan, Howard, Healy, & Owen, 2012; Penedo & Dahn, 2005; Warburton & Bredin, 2017). This holds true not only for physical health but also for mental health; regular physical activity is good for mental health whereas sedentary behaviours are associated with poor mental health outcomes (Teychenne et al., 2020; White et al., 2017). Surprisingly though, leisure physical activity was not found to be a significant predictor of stress, anxiety, or depression in our study sample. However, time spent sitting was

identified as a significant predictor for depression, supporting the premise that sedentary behaviours are conducive to mental ill-health. Although the nature of work in this industry is varied, many mining occupations are physically demanding. Moreover, as previously demonstrated, a large portion of this workforce works rotating shifts, which could result in more difficulty finding time for leisure physical activity. It is therefore plausible that many workers are not engaging in regular leisure physical activity due to lack of time or lack of interest because of the physical demands of their job. That said, the physical activity workers may be engaging in at work could be offsetting the negative effects of sedentary behaviours outside work, which could explain why leisure physical activity was not identified as a predictor of stress, anxiety, or depression. In less physically demanding jobs, however, it would be more difficult to mask the effects of physical inactivity, particularly in office type settings, where much of the day is spent sitting. This lack of counterbalance is therefore likely to have contributed to time spent sitting significantly predicting depression.

The Interrelationships Between Physical and Mental Health

By definition, health is multidimensional. The widely accepted World Health Organization definition of health, which considers health to be “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (World Health Organization, 1946, p.1), clearly identifies physical, mental and social components to health. It is therefore not surprising that the findings from our study illustrate the relationships that exist within and between each of these dimensions. The importance of social connections has been discussed in

the context of the interpersonal relationship predictors, but important interactions between physical and mental health remain to be discussed.

Burnout is a prime example of the intersectionality between physical and mental health. By definition, the concept of burnout involves both “physical and psychological fatigue and exhaustion” (Kristensen et al., 2005). Furthermore, significant associations have repeatedly been found between burnout and anxiety, and burnout and depression (Koutsimani, Montgomery, & Georganta, 2019). It is therefore to be expected that burnout would be a predictor of anxiety and depression symptoms in our sample. The relationship between burnout and stress, on the other hand, is intriguing and a further testament to the cyclical nature between various aspects of wellbeing; while burnout results from chronic stress (Koutsimani et al., 2019), it also appears to exacerbate stress, which would explain why burnout has been retained as a predictor of stress also. On its own, stress was also found to be an important predictor of anxiety and depression. Post-hoc chi-square tests for association confirmed the statistical significance of the association between stress and anxiety, and between stress and depression. Once again, this comes as no surprise since prolonged stress is a known predictor of anxiety and depression (National Institute of Mental Health, 2021a). Perhaps what these findings can add is the need to emphasize the vicious circle that is created by chronic stress and thus the need to focus interventions on addressing stress first.

Chronic pain or other physical health problems are another example of the interconnectedness between physical and mental health: beyond its impact on physical health, pain is also detrimental to mental health (Kawai, Kawai, Wollan, & Yawn, 2017). This is made evident in

this study by the fact that having experienced a work-related injury or having been diagnosed with a physical health problem during the last year significantly predicted stress, anxiety, and depression, and taking medication for a physical health problem was a significant predictor of both anxiety and depression as well. While risk mitigation procedures and legislation are in place for workers' physical health and safety (Occupational Health and Safety Act, 1990), and psychological health and safety initiatives (CSA Group & Bureau de Normalisation du Québec, 2013) are becoming increasingly common, there remains an important gap: physical and mental health are interrelated but continue to be treated as separate entities. Seeking to improve the mental health of workers requires acknowledging that their physical health is a contributing factor to their mental health and overall wellbeing, and vice versa.

Finally, a person's body mass is an important indicator of health and has both physical and mental health implications. Being overweight or obese is a risk factor for numerous chronic health conditions such as cardiovascular disease, diabetes, musculoskeletal disorders and various cancers (GBD 2015 Obesity Collaborators, 2017), but can also be related to mental health problems such as depression (American Psychiatric Association, 2013; van den Broek et al., 2018). This is noteworthy in the context of this study, because more than 80% of the workers surveyed were either overweight or obese. While body mass index was found to be a predictor for stress, anxiety, and depression in our regression model, post-hoc analyses revealed that these associations were not, in fact, significant. Nonetheless, the significant number of workers who are overweight or obese remains concerning. This, in conjunction with our theoretical knowledge of the associations between body mass and physical and mental health problems therefore highlights an opportunity to tailor health initiatives to address not only mental health concerns,

but also some of the underlying physical health implications, such as excess weight, that may be exacerbating mental health problems in this workforce.

6.5 Conclusion

The purpose of this study was to better understand the prevalence of stress, anxiety, and depression symptoms among mining industry workers in Ontario, Canada, and to identify individual, demographic, psychosocial and health-related predictors of stress, anxiety and depression symptoms for this workforce. Using a cross-sectional design, 2,224 workers completed a survey that allowed us to achieve these objectives. Previous research had led us to believe that mental health problems would be more prevalent among mining workers than among other working age adults. Our study findings confirmed this supposition. Although rates of concerning levels of stress were found to be comparable to the general working population of Canada, anxiety and depression were indeed more prevalent among our participants compared to average prevalence rates among working-age Canadian adults. Furthermore, stress was found to be a significant predictor of anxiety and depression.

In addition to overall prevalence, several chi-square analyses were run to compare prevalence rates between sub-groups of workers. As expected, there were significant differences in prevalence rates by age group and gender. However, no significant differences were observed between job categories, or the type of shift worked. This was surprising, as significant differences in levels of psychological distress by job category, specifically within the mining industry, have previously been reported (Carlisle & Parker, 2014; Considine et al., 2017), and

certain shift types, including shiftwork, have been found to be detrimental to wellbeing ((Haines et al., 2008; Hui et al., 2011; James et al., 2018; Legault, 2011; Leka & Jain, 2010; Mclean, 2012). It may be that differences exist based on specific shifts within the context of shiftwork and in specific jobs within our broader categories. In this workforce, the shift schedules varied significantly from one worksite to another and between job categories, and the job categories themselves were quite broad because of the numerous and varied occupations that exist in this industry. Due to confidentiality concerns and lack of statistical power in some instances, it was not possible to compare more specific shifts or job categories. Perhaps comparing 8.5-, 10-, and 12-hour shifts, along with the different weekly rotations, as well as more specific jobs, would have revealed that there is a particular shift rotation schedule or job category that is problematic. Further research is therefore needed to better understand the implications of job category and shift type as it relates to the mental health and wellbeing of mining workers. Additional workplace characteristics should also be explored further because psychosocial work hazards greatly impact worker health and wellbeing (Leka & Jain, 2010).

To identify predictors of stress, anxiety, and depression symptoms for these workers, multiple regression analyses were based on two classifications of factors: (1) individual and demographic factors, and (2) psychosocial and health-related factors. Overall, the variance in stress, anxiety, and depression explained by psychosocial and health-related factors was much greater than that of individual and demographic factors. Main contributors to mental ill-health included stress, burnout, lifestyle choices, physical health afflictions, and lack of support. Significant predictors were subsequently classified into four categories: (1) individual characteristics, notably demographic factors, (2) interpersonal relationships, both in and out of the context of the

workplace, (3) lifestyle, and (4) the nexus between physical and mental health. These categories illustrated the importance of recognizing the multidimensionality of health: mental health problems are undoubtedly the result of a number of interrelated factors, which include mental, physical and social components, in addition to demographic factors. Addressing mental health problems therefore requires acknowledging this multidimensionality and leveraging this knowledge when creating mental health promotion initiatives.

Some limitations are worthy of mention. Recall bias, that is the possibility of errors in memory, are possible due to the nature of the survey, which required workers to reflect on events of the past weeks, months and occasionally, year. Social desirability bias is also possible, especially when reporting on lifestyle behaviours, such as alcohol and drug consumption, as well as sitting and exercise habits. Therefore, undesirable behaviours may have been underreported. Another important consideration is the possibility of the healthy worker effect. To mitigate this risk, the research team recruited workers on leave at the time of the survey so they may have an opportunity to participate if they wished.

Given the sample size, there are also some statistical risks to keep in mind. Because we used an inclusive voluntary participation approach rather than a random sample, there is an increased risk that our sample is not representative of the larger study population. In addition, statistical power is high, which increases the risk of a Type I error. However, findings are supported by the literature throughout, and post-hoc analyses were conducted to confirm the significance of several key findings, which helped distinguish between findings which are merely statistically significant and those that are meaningful.

Finally, the present study focused on demographic factors, and psychosocial and health-related factors, while workplace-related factors were not included in the analyses. Future research should include workplace-specific factors, including both the physical and psychosocial work environments. This would allow for a more complete picture of the determinants of mining worker wellbeing. Subsequent analyses of this database are underway to address this gap. Nonetheless, mining-specific mental health research, particularly in Canada, remains negligible. More studies are needed to better understand the mental health and wellbeing of Canadian mining workers. Moreover, given the importance of mining in Canada, and the remoteness of many mine sites, geographical considerations should be included in future research to distinguish between rural and remote mining operations and those located in more urban settings.

Chapter 7

7 Paper #2: Work-Related Predictors of Stress, Anxiety, and Depressive-Related Symptoms among Mining Workers in Ontario, Canada

Abstract

Mining is a major employer of Canadians and a significant contributor to the Canadian economy. While mining-specific mental health research in Canada is scarce, evidence elsewhere has revealed higher rates of mental-ill health among workers in this industry. What is more, consequences of poor mental health in the workplace are well-documented and include the increased risk of workplace accidents. More research is needed to better understand the mental health of mining industry workers in Canada. This requires an exploration of the prevalence of specific mental health problems, as well as predicting factors of mental ill health for these workers. The current paper seeks to begin to address this gap. Although mental health problems are influenced by many interrelated factors, the current paper focuses on workplace-related factors associated with stress, anxiety, and depression symptoms among mining-industry workers in Ontario, Canada. An extensive survey was completed by 2,224 workers from 25 different worksites. Anxiety and depression symptoms were more prevalent among these workers than among the general working population, and work-related predictors were grouped into four categories: (1) work schedule and demands, (2) effort-reward imbalance, and recognition and reward, (3) job insecurity and job satisfaction, and (4) the physical and psychological work environment.

7.1 Introduction

In Canada, mining is an important contributor to the economy. This sector contributed approximately 5% of Canada's nominal Gross Domestic Product (GDP) in 2020 and represents 21% of the country's total domestic exports (Mining Association of Canada, 2022). These contributions are made possible by the sector's vast and varied workforce; hundreds of thousands of workers are employed directly and indirectly by the Canadian mining industry. More than 377,000 workers are directly employed at the various stages of mineral extraction and processing, with an additional 315,000 indirectly employed by this industry (e.g., external contract workers, small businesses) (Mining Association of Canada, 2022). In Ontario alone, there are forty-one active mining operations (Ontario Mining Association, 2021a), most of which are located in the northern part of the province (Ontario Mining Association, 2021b). In addition to the mine sites themselves, Ontario has three smelters, five refineries, and twenty-one mills (Ontario Mining Association, 2021b).

Mental health problems are among the leading causes of workplace disability worldwide leading to major economic consequences and lost productivity (World Health Organization, 2022). The most common mental health problems are depressive and anxiety-related disorders (World Health Organization, 2022). Prevalence rates of mental health problems vary between age groups (World Health Organization, 2022) but in Canada, the highest are among working age populations (Mental Health Commission of Canada, 2017). Working-age adults are also more likely to experience high levels of stress (Statistics Canada, 2015; Statistics Canada, 2021b), putting them at higher risk for mood and anxiety disorders (National Institute of Mental Health, 2021a; Thoits, 2013).

Beyond the individual impacts to worker wellbeing, poor mental health has numerous consequences for the workplace. Lack of job satisfaction, impaired productivity, frequent employee turnover, poor worker engagement, and diminished work performance are common repercussions of poor mental health in the workplace (CSA Group & Bureau de Normalisation du Québec, 2013; Goetzel et al., 2018). Moreover, poor mental health increases the risk of errors, accidents, and injuries (CSA Group & Bureau de Normalisation du Québec, 2013; Haslam et al., 2005; Suzuki et al., 2004), making it an important safety concern. Although these consequences are well documented, research specific to mining industry workers remains negligible. This is particularly concerning as workers in male-dominated industries have been found to be at greater risk for mood and anxiety disorders (Roche et al., 2016), and the limited existing literature depicts higher rates of mental illness among mining workers both in general (Considine et al., 2017; James et al., 2018; Roche et al., 2016; Shandro et al., 2011; Tynan et al., 2016) and within male-dominated industries (Liu et al., 2014). Therefore, more mental health research specific to the mining industry is needed to better understand the implications and contributing factors to poor mental health within this workforce. Moreover, this gap needs to be addressed in Canada specifically, where research on this topic remains especially limited despite the mining industry's importance as a major employer of Canadians and a significant contributor to the economy.

Notably, better understanding the implications of mental health within the mining industry requires an exploration of the prevalence of specific mental health problems, as well as predicting factors of mental ill health for these workers. The current paper seeks to begin to address this gap. Although we recognize that mental health problems are the result of a number of interrelated factors, such as biological, individual, and various social factors (World Health

Organization, 2022), the current paper focuses specifically on workplace-related factors associated with stress, anxiety, and depression symptoms among mining-industry workers in Ontario, Canada. There is cogent evidence that psychosocial risk factors within the workplace can contribute immensely to the decline of worker wellbeing (CSA Group & Bureau de Normalisation du Québec, 2013). Conversely, workplaces that strive to protect their employees' mental health create psychologically healthy and safe workplaces, thus fostering engagement and productivity and reducing absenteeism, turnover, rates of injury (CSA Group & Bureau de Normalisation du Québec, 2013).

The Canadian Standards Association and the *Bureau de Normalisation du Québec*, commissioned by the Mental Health Commission of Canada, have developed an evidence-based National Standard for Psychological Health and Safety in the Workplace (CSA Z1003). Approved by the Standards Council of Canada, this Standard identifies thirteen key measurable workplace factors that impact psychological health and safety: (1) psychological support (2) organizational culture (3) clear leadership and expectations (4) civility and respect (5) psychological job demands (6) growth and development (7) recognition and reward (8) involvement and influence (9) workload management (10) engagement (11) work/life balance (12) psychological protection from violence, bullying, and harassment, and (13) protection of physical safety. In addition, the Standard recommends assessing any other common stressors identified by workers (CSA Group & Bureau de Normalisation du Québec, 2013). Using the Standard as a tool to guide our assessment and analyses, the current paper's objective is to identify work-related factors associated with stress, anxiety and depression symptoms for workers employed by an international mining company in Ontario, Canada. This

study is part of a larger project that seeks to better understand the mental health and wellbeing of this workforce. During the development phase of this project, a pilot study was conducted, during which several other factors were identified by the workers as potentially problematic. These include job satisfaction, job insecurity, issues with effort-reward imbalance, and characteristics specific to this workplace, such as underground work (Dignard et al., 2016; Dignard, 2016). The current paper, therefore, addresses each of the thirteen factors identified in the Standard, as well as several others identified by the workers in the pilot study. While we know each of the factors included in our analyses are important determinants of psychological health and safety, identifying those that are most favourable or problematic within this workforce is an important first step in working toward creating a psychologically healthy and safe workplace, and improving the mental health and wellbeing of these workers and mining workers more broadly.

7.2 Methods

7.2.1 Setting & Study Population

This study was conducted at the Ontario operations of an international mining company as part of a large-scale research endeavour on the mental health and wellbeing of mining industry workers. The study is a collaborative effort between the employer, its labour unions, and our research team, and was funded by each of these stakeholders. A sample of workers was also consulted during a pilot study in the early phases of development. To help ensure confidentiality, only members of our research team (i.e., an external, neutral third party), were responsible for

data collection, management, and analysis. This was communicated to workers prior to their participation.

Participation in this study was open to all workers at the company's Ontario operations, which consists of approximately 4,000 workers. These workers are employed in a variety of settings, such as underground mines, surface plants (e.g., smelters and refineries), as well as other field and office settings. Exclusions include workers employed by the head office, as it is a separate branch, and contract workers who are not directly employed by the company.

The Laurentian University Research Ethics Board reviewed and approved the study, and appropriate procedures and policies at the company were also followed. Moreover, the health and safety committee at the company, which consists of both company and labour union representatives, approved all aspects of the study including the instrument, test administration methodology, and data collection.

7.2.2 Measures

This cross-sectional study used a self-report survey, which included several psychometrically validated questionnaires. The survey was developed by our research team in collaboration with labour union and company representatives. A pilot study with a sample of workers also allowed us to customize the survey instrument before using it for data collection. The final survey instrument was forty-five pages and took workers, on average, forty to sixty minutes to complete.

This paper focuses on stress, anxiety, and depression, therefore the Perceived Stress Scale (PSS) (Cohen et al., 1983), the Beck Anxiety Inventory (BAI) (Beck et al., 1988) and the Beck Depression Inventory II (BDI-II) (Beck et al., 1996) were used to determine symptom prevalence for each of these, respectively. The Perceived Stress Scale (Cohen et al., 1983) serves as an assessment of symptoms of stress, and more specifically how much a person has been bothered by these symptoms during the previous month. It is scored using a 5-point Likert scale: higher scores indicate higher stress. It is a valid instrument and demonstrates strong internal consistency (Cronbach's Alpha ranging from 0.84 to 0.86) and test-retest reliability ($r = 0.85$) (Cohen et al., 1983; Wolf et al., 2015). The Beck Anxiety Inventory (BAI) measures anxiety symptom severity using a 4-point Likert scale (Beck et al., 1988). Higher scores are indicative of higher anxiety and thus a higher likelihood of an anxiety-related issue. A score of 36 or more is considered concerning (Beck et al., 1988). The Beck Anxiety Inventory has strong internal consistency ($\alpha = .92$) and good test-retest reliability (1 week: $r(81) = .75$), as well as appropriate convergent/discriminant validity (Beck et al., 1988). It is therefore a reliable and valid instrument. The Beck Depression Inventory II is an assessment of depressive-related symptoms (Beck et al., 1996). Each question measures the severity of a symptom of depression; greater severity is indicated by a higher score, and overall scores can distinguish between normal mood fluctuations and symptoms indicative of depression (Beck et al., 1996). The authors of the Beck Depression Inventory II have demonstrated that it is a valid instrument that allows for diagnostic discrimination, and it has strong internal consistency (alpha ranging from 0.92 to 0.93) (Beck et al., 1996). The Beck Anxiety Inventory and the Beck Depression Inventory II are often used by mental health professionals in clinical settings as part of diagnostic assessments, but it is

important to note that they were not used in this manner for this study. Nonetheless, they remain reliable indicators of symptoms suggestive of anxiety and depression.

In addition to assessing stress, anxiety and depression symptoms, the survey instrument included a series of demographic questions, as well as assessments of work-related factors previously discussed that may be associated with stress, anxiety, and depression. Various subscales of the NIOSH Generic Job Stress Questionnaire (Hurrell & McLaney, 1988) were used to assess some of these workplace-related factors. Specifically, the Mental Demands, Physical Environment, Job Requirements, Workload & Responsibility, Job Satisfaction, and Work Hazards subscales were included in the analyses for this paper. Other work-related factors assessed include time spent working underground, employment status, work schedule, and workplace discrimination, bullying, or harassment. Effort-reward imbalance was measured using the Effort-Reward Imbalance Questionnaire (ERI) (Siegrist et al., 2014), and the Job Insecurity Measure (O'Neill & Sevastos, 2013) was used to evaluate job insecurity. Finally, the Guarding Minds at Work (Samra et al., 2009-2020) questionnaire was used to assess the thirteen psychosocial factors identified in the *Canadian Standard for Psychological Health and Safety in the workplace* previously discussed (CSA Group & Bureau de Normalisation du Québec, 2013; Samra et al., 2009-2020).

7.2.3 Data Collection

Data collection occurred on most weekdays throughout the summer of 2016. Workers were given the opportunity to complete the survey during work hours. Our research team members were on-

site to explain the purpose of the study and administer the surveys in paper format. Due to the nature of this organization, which has many worksites and varied shift schedules, data collection occurred at multiple sites daily to ensure crews on all shift rotations were given the opportunity to participate. No data collection occurred underground; workers who normally work underground were given the opportunity to participate during their regularly scheduled health and safety training days during which they remain on surface. There were also regularly scheduled open sessions for workers who may have missed the session at their worksite or who preferred to complete the survey on their own time. On average, it took workers approximately 40 to 60 minutes to complete the survey.

7.2.4 Data Analysis

Analyses were conducted using IBM® SPSS® 28 (International Business Machines Corporation, 2021). Descriptive statistics describe this sample of workers' personal and work-related characteristics, as well as the prevalence of stress, anxiety, and depression symptoms. Forward stepwise multiple regression ($F \geq 0.05$ for entry and $F \leq 0.1$ for removal) was used to predict stress, anxiety, and depression from the following workplace-related factors: mental demands at work, time spent working underground, physical work environment, employment status, work schedule, effort-reward imbalance, job insecurity, workload, job satisfaction, work hazards, workplace discrimination, workplace bullying or harassment, psychological support within the workplace, organizational culture, leadership and expectations, civility and respect, psychological competencies and requirements, growth and development opportunities,

recognition and reward, involvement and influence, workload management, engagement, ability to balance home and work life, psychological protection, and protection of physical safety. The forward stepwise method was selected because while we had strong theoretical reasons for including each of the selected variables, there were no theoretical reasons for entering them in a specific order.

Following the regression analyses, we also conducted several post-hoc analyses to verify the significance of certain key predictors. These key findings were selected based on our hypotheses, which are based on previous findings from the mining-specific occupational mental health literature. Specifically, we conducted independent samples T-tests to compare mean job satisfaction scores between workers who are stressed and those who are not, and between workers with symptoms of depression and those without. Mann-Whitney U tests were used to compare mean job insecurity scores between workers who are stressed and those who are not, between workers with symptoms of depression and those without, and between workers with symptoms of low anxiety and those with moderate or concerning symptoms of anxiety.

7.3 Results

7.3.1 Demographics

In total, 2,224 workers from 25 different worksites chose to participate. Of these workers, 88.8% were male. The mean age of workers was 43.6 (± 9.8) years of age, and workers surveyed had been employed by the mining industry for an average of 17.2 (± 10.2) years. Employment in mining is vast, therefore job categories were diverse. While one-half of the workers surveyed

(50.8%) were employed at mine sites, the other half were employed in various other field and office settings: 19.9% worked in milling and smelting, 11.5% had jobs related to the refining process, 7.1% of workers had jobs in production services and support, and 10.3% had jobs in safety, health, environment, human resources, corporate, engineering, finance, or other. Workers surveyed also worked varying shift schedules: 40.7% of workers (n=906) indicated that they worked rotating shifts, 54% (n=1,201) identified that they worked steady days, and 4.6% (n=102) had other shift schedules such as steady afternoons or nights, relief work, or other varying shift schedules. Finally, just over one-third (34.8%) indicated that nearly all their work time (61-100%) was spent underground, while nearly half of workers (47.4%) reported never working underground. A descriptive summary of these demographic and work characteristics is presented in Table 7.

Table 7. Worker Characteristics

	n	%
Gender		
Male	1975	88.8
Female	243	10.9
Missing	6	0.3
Age	n	%
<30	177	8
30-39	614	27.6
40-49	722	32.5
50-59	594	26.7
60+	88	4
Missing	29	1.3
Job Category	n	%
Mine Sites	1129	50.8
Milling & Smelting	442	19.9
Refining	255	11.5
Production Services and Support	159	7.1
Safety, Health, Environment, Human Resources, Corporate, Engineering, Finance, etc.	228	10.3
Missing	11	0.5
Time Spent Working Underground	n	%
No underground work	1054	47.4

Some underground work	393	17.7
Nearly always working underground	774	34.8
Missing	3	0.1
Type of Shifts^a	n	%
Steady days ((8, 10.5 or 12hr)	1201	54
Rotating shifts (8, 10.5 or 12hr)	906	40.7
Other (steady afternoons, steady nights, relief, combination of many)	102	4.6
Missing	15	0.7

^a Participants were asked to check all that apply, therefore total can exceed 2224 (>100%)

7.3.2 Prevalence of Stress, Anxiety & Depression-Related Symptoms

In this sample, nearly one-quarter (23.3%) of workers surveyed were experiencing concerning levels of stress. Moderate or concerning symptoms of anxiety as evidenced by their BAI ($\alpha=0.914$) scores were found in 5.9% of workers, and 12.5% of workers had Beck Depression Inventory II (BDI-II) ($\alpha=0.930$) scores indicating symptoms consistent with a depressive experience. Statistically significant differences between genders were observed for stress, anxiety, and depression symptoms (Table 8). Women were more likely to have scores indicating severe levels of stress, moderate or concerning symptoms of anxiety indicative of a likely anxiety disorder, and depressive symptoms suggestive of a depressive disorder. Perceived Stress Scale ($\alpha=0.862$) scores revealed that 34.7% of female workers, and 22.8% of male workers had scores situated at the moderate to severe level ($X^2(1)=16.482$, $p<.001$). Symptoms consistent with moderate or concerning anxiety were found in 9.4% of women and 5.7% of men ($X^2(1)=5.239$, $p < .05$). Finally, 18.9% of women and 12.5% of men had Beck Depression Inventory II scores indicating the likelihood of a depressive disorder ($X^2(1)=7.275$, $p< 0.01$).

Table 8. Prevalence of Stress, Anxiety and Depression

	by Gender <i>n</i> (%)		
	Overall	Male	Female
Moderate to severe stress	519 (23.3)	434 (22.8)	83 (34.7)
Moderate to concerning anxiety (Suggestive of an anxiety disorder)	131 (5.9)	108 (5.7)	22 (9.4)
Moderate to extreme depressive symptoms (Suggestive of a depressive disorder)	279 (12.5)	235 (12.5)	43 (18.9)

Further chi-square analyses also revealed statistically significant differences between age groups (Table 9) for stress severity ($\chi^2(4)=27.190$, $p<.001$) and depressive symptom severity ($\chi^2(4)=14.378$, $p<0.01$). There were no significant differences in anxiety levels between age groups. For both stress and depression, older workers were least likely to have concerning symptoms. Among workers aged 60 or over, 11.1% reported being significantly stressed, and 6.3% had symptoms of depression in the moderate or concerning range. By comparison, those between the ages of 30 and 49 had the highest stress levels: 27.9% of workers 30 to 39, and 27.4% of workers aged 40 to 49 reported moderate to severe stress. For depression, workers between the ages of 40 and 49 had the highest prevalence of moderate to severe symptom scores; 16.3% of these workers had symptoms consistent with a likely depressive disorder. Additional chi-square analyses revealed that there were no statistically significant differences between shift schedules for stress, anxiety, or depression symptoms. As for underground work, there was a statistically significant association between time spent working underground and severity of stress ($\chi^2(2) = 6.608$, $p < .05$). However, underground work was not found to be significantly associated with greater anxiety or depression symptoms. The percentage of workers experiencing moderate to severe stress was slightly higher in those who spent most of their time (>60% of

their time) working underground than in those who spent none or only some of their time working underground. Twenty-six percent of workers who spend most of their time underground, and 24.7% of workers who work strictly on surface experienced moderate to severe stress.

Table 9. Prevalence of Stress and Depression by Age Group

	Age <i>n</i> (%)				
	<30	30-39	40-49	50-59	60+
Moderate to severe stress	36 (21.6)	165 (27.9)	193 (27.4)	108 (18.4)	9 (11.1)
Moderate to extreme depressive symptoms (Suggestive of a depressive disorder)	15 (8.8)	73 (12.6)	112 (16.3)	64 (11.1)	5 (6.3)

7.3.3 Workplace-Related Predictors of Stress, Anxiety & Depression

Stepwise multiple regression analyses were used to predict stress, anxiety, and depression symptoms from the following workplace-related factors: mental demands at work, time spent working underground, physical work environment, employment status, work schedule, effort-reward imbalance, job insecurity, workload, job satisfaction, work hazards, workplace discrimination, workplace bullying or harassment, psychological support within the workplace, organizational culture, leadership and expectations, civility and respect, psychological competencies and requirements, growth and development opportunities, recognition and reward, involvement and influence, workload management, engagement, ability to balance home and work life, psychological protection, and protection of physical safety. All multiple regression assumptions were verified and met: visual inspection of scatterplots confirmed linearity and

homoscedasticity, Durbin-Watson statistics were verified to confirm independence of residuals, tolerance values were inspected revealing no evidence of multicollinearity, there were no significant outliers, leverage points, or highly influential points, and visual inspection of the histograms and P-Plots confirmed that the residuals were approximately normally distributed. The results of these analyses are presented in Table 10. To see the change in the model at each step, please see Appendix C, Sections C7, C8, and C9.

Table 10. Multiple Regression for Work-Related Factors

	B	95% CI for B		SE B	β	R ²	ΔR^2
		LL	UL				
STRESS							
Model						.279	.274
Constant	20.878	16.493	25.263	2.236			
Ability to balance home and work-life	-.914***	-1.083	-.746	.086	-.392		
Job Insecurity	1.781***	1.362	2.200	.214	.262		
Recognition and Reward	.363***	.168	.557	.099	.159		
Job Satisfaction	-1.300**	-2.159	-.442	.438	-.085		
Shift:8-hour steady days	1.379***	.656	2.101	.368	.088		
Effort-Reward Imbalance	1.316**	.492	2.141	.420	.084		
Physical Work Environment	1.626**	.352	2.900	.650	.064		
Victim of discrimination	1.487**	.616	2.357	.444	.077		
Psychological Protection	.341**	.136	.545	.104	.153		
Growth and Development	.303**	.116	.490	.095	.135		
Engagement	-.209**	-.362	-.056	.078	-.078		
Civility and Respect	-.199*	-.376	-.023	.090	-.083		

ANXIETY

Model						.202	.198
Constant	-5.063	-9.433	-.694	2.228			
Job Insecurity	1.634***	1.233	2.035	.204	.251		
Ability to balance home and work-life	-.565***	-.716	-.414	.077	-.251		
Victim of discrimination	2.498***	1.641	3.356	.437	.133		
Recognition and Reward	.447***	.292	.602	.079	.203		
Quantitative Workload	.703*	.128	1.277	.293	.059		
Shift:8-hour steady days	1.498***	.756	2.241	.378	.100		
Physical Work Environment	1.642*	.357	2.927	.655	.068		
Work Hazards	.631*	.092	1.169	.275	.059		

DEPRESSION

Model						.298	.293
Constant	11.939	7.177	16.701	2.428			
Ability to balance home and work-life	-1.079***	-1.270	-.888	.098	-.399		
Job insecurity	1.876***	1.402	2.351	.242	.240		
Recognition and Reward	.593***	.394	.792	.101	.222		
Victim of discrimination	2.626***	1.582	3.669	.532	.116		
Shift:8-hour steady days	1.775***	1.026	2.524	.382	.099		
Job Satisfaction	-2.023***	-2.951	-1.096	.473	-.114		
Victim of bullying/harassment	2.385***	1.115	3.654	.647	.086		
Psychological protection	.471***	.249	.693	.113	.183		
Effort-Reward Imbalance	1.195*	.257	2.134	.478	.066		
Organizational Culture	-.253**	-.443	-.063	.097	-.094		
Employment status: casual	-6.888**	-11.998	-1.778	2.605	-.059		

Employment status: full time permanent	-2.106*	-4.167	-.044	1.051	-.045
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Note. Model = “Stepwise” method in SPSS Statistics; B = unstandardized regression coefficient; CI = confidence interval; LL = lower limit; UL = upper limit, SE B = standard error of the coefficient; β = standardized coefficient; R^2 = coefficient of determination; ΔR^2 = adjusted R^2 * p <.05 ** p <.01 *** p <.001

7.3.3.1 Workplace-Related Factors associated with Stress

The following variables (Table 10) were found to be statistically significant predictors of stress ($F(12,1679)=54.191$, $p<.001$, $R^2=0.279$): balance between the demands of home and work-life, job insecurity, recognition and reward, job satisfaction, having an 8-hour steady days work schedule, effort-reward imbalance, the physical work environment, identifying as a victim of discrimination in the workplace, psychological protection, growth and development, engagement, and civility and respect. The combination of these workplace-related factors explained 27.9% of the variance of stress.

Feeling able to balance the demands of home and work-life ($B=-0.914$, $p<.001$), having greater job satisfaction ($B=-1.300$, $p<.001$), having a sense of engagement ($B=-0.209$, $p<.01$) towards work, and feeling that the workplace fosters civility and respect ($B=-0.199$, $p<.05$) were all associated with lower stress. A post-hoc Independent samples T-test confirmed the association between stress and job satisfaction: workers who are not stressed scored higher than workers who are, $M = 0.31$ 95% CI [0.25 to 0.37], $t(403.120) = 10.418$, $p < .001$, indicating that stressed workers were on average less satisfied with their job, whereas those who are not stressed have greater job satisfaction. Job insecurity ($B=1.781$, $p<.001$), effort-reward imbalance ($B=1.316$, $p<.01$), and working steady 8-hour days ($B=1.379$, $p<.001$) were all associated with higher

stress. A post-hoc Mann-Whitney U test also confirmed that job insecurity scores were statistically significantly higher for stressed workers ($Mdn = 3.94$) than for workers who were not stressed ($Mdn = 3.06$), $U = 366615$, $z = 11.342$ $p < .001$. Perceiving the work environment as hazardous (1.626 , $p < .01$) and being discriminated against in the workplace ($B=1.487$, $p < .01$) also resulted in higher stress.

7.3.3.2 Workplace-Related Factors associated with Anxiety-Related Symptoms

The following variables (Table 10) were found to be statistically significant predictors of anxiety ($F(8,1669)=52.657$, $p < .001$, $R^2=0.202$): job insecurity, ability to balance the demands of work and home, identifying as a victim of discrimination, recognition and reward, quantitative workload, having an 8-hour steady days work schedule, the physical work environment, and work hazards. The combination of these workplace-related factors explained 20.2% of the variance of anxiety.

Feelings of job insecurity ($B=1.634$, $p < .001$), working 8-hour steady days ($B=1.498$, $p < .001$), and having a greater workload ($B=0.703$, $p < .05$) were all associated with higher anxiety, as was being discriminated against in the workplace ($B=2.498$, $p < .001$). A post-hoc Mann-Whitney U test also confirmed that perceived job insecurity was statistically significantly greater for workers experiencing moderate or concerning symptoms of anxiety ($Mdn = 4.89$) than for workers with low anxiety ($Mdn = 3.83$), $U = 183788.5$, $z = 8.901$ $p < .001$. Working in a hazardous environment ($B=1.642$, $p < .05$) was also a predictor of anxiety, with greater work hazards

($B=.631$, $p<.05$) resulting in higher anxiety. Unusually, more recognition and reward ($B=0.447$, $p<.001$) was associated with greater anxiety.

7.3.3.3 Workplace-Related Factors associated with Depression-Related Symptoms

The following variables (Table 10) were found to be statistically significant predictors of depression ($F(12,1653)=58.438$, $p<.001$, $R^2=0.298$): balance between the demands of home and work life, job insecurity, recognition and reward, identifying as a victim of discrimination, working 8-hour steady days, job satisfaction, identifying as a victim of bullying or harassment, psychological protection, effort-reward imbalance, organizational culture, being a casual employee, and being a full-time permanent employee. The combination of these workplace-related factors explains 29.8% of the variance of depression.

Feeling able to balance demands of work and home ($B=-1.079$, $p<.001$), and having greater job satisfaction ($B=-2.023$, $p<.001$) were associated with lower BDI-II scores, suggesting that these factors are protective against depression. A post-hoc Independent samples T-test confirmed that there was a statistically significant difference in mean job satisfaction scores between workers who had symptoms of depression and those who did not, with workers with depressive symptoms scoring lower on average than workers without depressive symptoms, $M= 0.37$ 95% CI [0.31 to 0.44], $t(2073) = 11.771$, $p < .001$. Employment status was associated with lower BDI-II scores as well, with casual employees ($B=-6.888$, $p<.01$) and full-time permanent employees ($B=-2.106$, $p<.05$) less likely to exhibit depressive symptoms. Organizational culture

was also negatively associated with depression ($B=-0.253$, $p<.01$), indicating that workers who felt their workplace had a good organizational culture were less likely to report symptoms of depression. Conversely, those working 8-hour steady days were more likely to experience depressive symptoms ($B=1.775$, $p<.001$), as were those identifying as victims of discrimination ($B=2.626$, $p<.001$) or of bullying or harassment ($B=2.385$, $p<.001$). Feelings of job insecurity ($B=1.876$, $p<.001$) were also associated with a higher likelihood of having symptoms consistent with depression. This association was confirmed by a post-hoc Mann-Whitney U test: job insecurity scores were statistically significantly higher for workers experiencing symptoms of depression ($Mdn = 4.67$) than for those who were not ($Mdn = 3.72$), $U = 354105$, $z = 12.166$, $p<.001$. Workers who felt there was an imbalance between their effort and associated rewards (i.e., more effort for each reward) had higher depression scores ($B=1.195$, $p<.05$).

7.4 Discussion

7.4.1 Prevalence of Stress, Anxiety & Depression-Related Symptoms

As previously discussed, the literature has revealed higher than average rates of mental ill-health among workers in male-dominated industries, and more specifically in mining (Considine et al., 2017; James et al., 2018; Roche et al., 2016; Shandro et al., 2011; Tynan et al., 2016). As expected, this was also the case in our sample, notably for anxiety and depression symptoms. In Canada, the average number of working-age people with an anxiety disorder between the years 2000 and 2016 was 4.6% (Dobson et al., 2020). By comparison, 5.9% of workers surveyed in our study had moderate to concerning Beck Anxiety Inventory scores, indicating the likelihood of an

anxiety disorder. For depression, the difference is even more notable; while on average 5.4% of working-age Canadians experienced depression between 2000 and 2016 (Dobson et al., 2020), 12.5% of our study population had symptoms consistent with a likely depressive disorder. While measures of anxiety and depression used for the broader population assessments were not the same as the tools used in our study, both used reliable methods of approximating anxiety and depression in study populations. We can therefore still make comparisons with confidence, and confirm that symptoms of anxiety and depression were, in fact, higher among this sample of Canadian mining workers than in the general working-age population of Canada.

Findings relating to stress, however, were less compelling. While stress is a known risk factor for anxiety and depression (National Institute of Mental Health, 2021a; Thoits, 2013), and has been found to be a predictor of anxiety and depression in this sample of workers (Dignard et al., 2022), prevalence of stress was surprisingly lower among the workers surveyed than among Canadian adults between the ages of 18 and 64. However, the difference was quite modest, with 23.3% of workers surveyed experiencing high levels of stress compared to 24.8% of Canadian adults (Statistics Canada, 2021b). It is important to note that these differences could be due to how stress was assessed. While our survey included a comprehensive measure of stress that has been psychometrically validated (Cohen et al., 1983), the Canadian statistics are based on subjective self-reported levels of stress: these results reflect the number of people who answered that they perceived “most days as quite a bit or extremely stressful” on the Canadian Community Health Survey (Statistics Canada, 2021b). This comparison of findings should therefore be interpreted with caution. Moreover, stress varies with age (Statistics Canada, 2015; Statistics Canada, 2021b), therefore the difference in age ranges and proportions of age groups (i.e.

broader for the general working population) between our study sample and the Canadian comparison group could have skewed results as well.

As for comparisons based on work characteristics, there were no differences based on shift type, but there were differences in stress levels based on the frequency of underground work. While underground work was not associated with depression and anxiety symptoms, nor were these more prevalent among underground workers, the percentage of workers experiencing moderate to severe stress was slightly higher in those who spent most of their time (>60% of their time) working underground than in those who spent none or only some of their time working underground. The inherent risks associated with underground work may have contributed to these elevated stress levels.

7.4.2 Predictors of Stress, Anxiety and Depression-Related Symptoms

Even though all workplaces are different and have characteristics that distinguish them from others, there are shared factors that contribute to worker wellbeing, regardless of occupation. These factors are well-documented and include various aspects of the work environment and the nature of the work itself, such as work schedules, physical and psychological demands, workload, balance, or lack thereof, etc. (Canadian Centre for Occupational Health and Safety, 2012; CSA Group & Bureau de Normalisation du Québec, 2013; Samra et al., 2009-2020). While these factors all contribute to worker wellbeing, each workplace is unique and has certain factors that are strengths and others that are weaknesses. In our sample of Ontario mining workers, several significant recurring predictors of stress, anxiety and depression symptoms were

identified. These can be grouped into four categories: (1) work schedule and demands, (2) effort-reward imbalance, and recognition and reward, (3) job insecurity and job satisfaction, and (4) the physical and psychological work environment.

7.4.2.1 Work Schedule and Demands

Psychological demands of work can include a number of stressors such as shift schedules and rotations, inadequate rest periods during and between work, the quantitative workload, time sensitivity of work and time allowance for completing work tasks, and the nature of the work itself (e.g. repetitive or monotonous) (CSA Group & Bureau de Normalisation du Québec, 2013). Noteworthy in our sample is the importance of work-life balance; those who felt able to adequately balance the demands of work and home as assessed in the Guarding Minds at Work questionnaire (Samra et al., 2009-2020) were less stressed, less anxious, and less likely to experience depressive symptoms. This, in combination with the fact that more than 66% of workers scored 3 or more on the Satisfaction with Work-Life Balance Scale (where 1 represents very dissatisfied, and 5 represents very satisfied) (Valcour, 2007), indicates that work-life balance is a relative strength of this workplace: approximately two-thirds of workers were at least moderately satisfied with their ability to balance the demands of work and home. This is unexpected, as mining employment has previously been characterized by lack of work-life balance, particularly as a result of rotating shift schedules (Hongxia et al., 2014; Mactaggart et al., 2016; Peetz & Murray, 2011; Peetz et al., 2014). For instance, the imbalance between work and family was identified as a significant job stressor for mining workers in China (Hongxia et

al., 2014), and a systematic review of health and wellbeing outcomes in mining found that long hours and shift schedules contributed to work-family conflict for mining workers in several countries (Mactaggart et al., 2016). Other research has also found that the long work hours in mining are detrimental to work-life balance (Peetz & Murray, 2011; Peetz et al., 2014).

Surprisingly, especially as it was mentioned by many workers in the pilot study as detrimental to their wellbeing (Dignard, 2016; Dignard et al., 2016), shiftwork was not found to be a predictor for stress, anxiety, or depression symptoms in our study population, nor were there significant differences in prevalence rates of each of these based on type of shift worked. This may also help explain why work-life balance was not found to be problematic, but nonetheless raises more questions as it contradicts our knowledge of the harmful impacts of shiftwork, both alone and as it relates to work-life balance, specifically in mining (Bowers et al., 2018; Hui et al., 2011; James et al., 2018; Legault, 2011; Mclean, 2012). A possible explanation could be that our classification of work schedules was too broad. Shiftwork is variable and therefore remains a very vague concept; within this single company, there were several different shift schedules, many of which can be classified under the umbrella of shiftwork. Future research might therefore benefit from identifying specific shift rotations and lengths within the context of shiftwork that are detrimental, both within and outside mining employment. Unfortunately, the vast number of shift types within this organization made it impossible for us to compare each specific shift type and rotation, because some shift categories had too few workers; comparing each type lacked statistical power and could have resulted in confidentiality breach concerns.

While shiftwork was not found to be a significant predictor of stress, anxiety, or depression symptoms for these workers, having a steady eight-hour work schedule was: stress, anxiety, and

depression scores were all higher for workers with this type of regular schedule. This could have to do with the types of jobs with this schedule. Although mining typically operates 24/7, workers in white-collar occupations within the mining industry are most likely to work regular daytime schedules, whereas shiftwork is most common among the blue-collar workers. Due to the nature of work in white-collar jobs, it may be that workers in these occupations are having to bring work home, especially if their workload is disproportionate to the amount of work time allotted to complete tasks. This is likely and would explain why this is a predictor of mental ill-health for these workers; having too much work and not enough time to get it done is one of the biggest workplace stressors of working Canadians (CSA Group & Bureau de Normalisation du Québec, 2013). Moreover, our findings revealed that workload was associated with greater anxiety in this workforce, and workers at this company have previously revealed that there are sometimes unwritten expectations that workers will complete tasks outside work hours. While production workers (i.e. blue-collar workers) had clearly defined overtime hours and incentives, workers in white-collar occupations admitted to working regular unpaid overtime, both because their workload required it, and they felt it was the expectation of management (Dignard, 2016; Dignard et al., 2016).

7.4.2.2 Effort-Reward Imbalance and Recognition and Reward

The model of effort-reward imbalance at work posits that a lack of reciprocity between an employee and an employer, that is when a worker exerts high effort but perceives inadequate rewards, has a negative impact on the health and wellbeing of that worker (Siegrist, 1996;

Siegrist, 2012; Siegrist, 2016). More specifically, this leads to negative emotions and a prolonged stress response, resulting in poor physical and mental health outcomes. On the contrary, adequately rewarding workers for their efforts fosters health and wellbeing (Siegrist, 1996; Siegrist, 2012; Siegrist, 2016). The underlying stress paradigm on which this model is based recognizes the evolution of workplaces over the last several decades, and therefore the need to include psychosocial work-related stressors in occupational health research (Siegrist, 2016). Among the numerous psychosocial work-related stressors assessed as part of our study, effort-reward imbalance was a significant predictor of stress and depression symptoms: workers experiencing effort-reward imbalance (i.e., more perceived effort than reward) had higher stress and depression scores. These findings are not surprising in and of themselves given the extensive literature on the negative impacts of effort-reward imbalance but remain an important finding and point of discussion as a predictor of stress and depression symptoms for these workers, as it suggests that a significant number of workers at this company feel their efforts are not adequately rewarded. In fact, a sub-group of workers who participated in focus groups as part of the pilot phase of this study identified issues of effort-reward imbalance within their respective workplaces, thus recommending the inclusion of a more detailed assessment of effort-reward imbalance. This subsequently led to the addition of the Effort-Reward Imbalance scale to the survey. Evidently, the workers already recognized that this was an issue, which our quantitative findings confirmed. Moreover, and most importantly, this imbalance is affecting this workforce's mental health and must therefore be addressed if their mental health is to be improved.

A very closely related concept, which operates on the same theoretical assumptions, and one which merits discussion due to its unusual and contradicting results in our study population, is

that of recognition and reward. Characterized by an environment in which workers receive appropriate acknowledgement and appreciation for their efforts, this is one of the thirteen workplace factors identified in the National Standard of Canada for Psychological health and safety in the workplace (CSA Group & Bureau de Normalisation du Québec, 2013). We would therefore expect this to be negatively related to mental health outcomes (i.e., lower scores on the stress, anxiety and depression scales with greater recognition and reward). Surprisingly, the opposite was found to be true: greater recognition and reward was associated with higher scores on the Perceived Stress Scale, the Beck Anxiety Inventory, and the Beck Depression Inventory II. This contradicts the theory that underpins this factor and the findings relating to effort-reward imbalance previously discussed. While these findings are conflicting, a possible explanation could be that these are the result of the nature of mining employment at this company which operates with certain incentive pay programs, such as production bonuses. The model of effort-reward imbalance stipulates that there are three categories of rewards: financial, status-related, and socio-emotional (Siegrist, 2016). Socio-emotional rewards include recognition and esteem, and status-related rewards include job security and opportunities for growth and development (i.e., possibilities of promotions) (Siegrist, 2016), both of which will be discussed later in this paper. The final category, financial rewards, refer to wages (Siegrist, 2016), which in this context includes the addition of incentive pay for some workers. Theoretically, being rewarded with incentive pay for their efforts should lead to a state of balance reflecting adequate reciprocity for workers. However, even if there is adequate reciprocity between effort and reward (e.g., bonuses reflective of quantifiable production output), it is possible that this results in added pressure to overachieve. This logic could also explain why opportunities for growth and development was

associated with higher stress; knowing the opportunities exist could make workers feel like they must progress towards them, causing them additional stress in their attempt to achieve expectations. Furthermore, the prospect of additional income alone could be the motivation for putting in extra effort, even if this is to the detriment of the workers' health and wellbeing. In other words, workers may be over-exerting themselves to obtain incentive pay, thus throwing off the scales between effort and reward due to overcommitment (Siegrist, 2016). This could therefore explain why recognition and reward led to higher stress, anxiety, and depression scores. It is also noteworthy to mention that there are numerous labour groups (e.g., staff, multiple unions, etc.) within this organization. This means that incentive programs are not the same for all workers, and even do not exist for some (Dignard, 2016; Dignard et al., 2016; Dignard, Kerekes, Larivière, & Nowrouzi-Kia, 2022). This may also help to explain our conflicting results; while some workers' mental health may be impacted by their overcommitment to receive incentive pay, others may be feeling inadequately rewarded due to the absence of any such incentive pay program.

7.4.2.3 Job Insecurity and Job Satisfaction

It is well established that job insecurity is detrimental to mental health (Llosa-Fernández, Menéndez-Espina, Agulló-Tomás, & Rodríguez-Suárez, 2018). It was therefore not surprising that job insecurity was identified as a significant predictor of stress, anxiety, and depression symptoms in our study population. Post-hoc analyses also confirmed that perceived job insecurity was greater among workers experiencing symptoms of stress, anxiety, and depression.

Mann-Whitney U tests revealed that job insecurity scores were statistically significantly higher for stressed workers than for workers who were not stressed, for workers experiencing moderate or concerning symptoms of anxiety than for workers with low anxiety, and for workers experiencing symptoms of depression than for those who were not. In other words, perceived job security was indeed lower for stressed workers, and for those with symptoms of anxiety or depression. Interestingly, full-time permanent employees had lower average depression scores. This may suggest that job permanence, particularly as a full-time employee, is associated with better perceived job security, while less stable work could lead to greater feelings of insecurity. This is consistent with the literature: temporary employment has repeatedly been found to be associated with greater job insecurity than permanent employment (Keim, Landis, Pierce, & Earnest, 2014). However, casual employees were also less likely to exhibit depressive symptoms in our sample. While we might expect perceived job security to be lower in casual employment due to its unpredictable nature, workers in these positions may have to deal with workplace stressors less frequently, thus explaining their decreased likelihood of experiencing symptoms of depression. Moreover, such employees may have the opportunity to work at multiple sites, therefore they could be subjected to various work environments as opposed to being constantly confronted with the same workplace stressors that may be plaguing a specific work site. Finally, casual workers may have chosen employment with this type of schedule because it fits their lifestyle, or because it is an optional supplemental income, therefore job security may be of less concern to them than a full-time worker who depends on the predictable consistency of their employment. Job insecurity in the mining industry is not new nor surprising; it has previously been reported as problematic for mining workers. Job insecurity negatively impacted quality of

work-life of miners in Ghana (Amponsah-Tawiah et al., 2014), and was associated with greater psychological distress of coal miners (Considine et al., 2017) and remote metalliferous miners (James et al., 2018) in Australia. Concerns over job security was also associated with the likelihood of seeking professional and non-professional mental health support for miners in Australia (Tynan et al., 2016). It could be argued that mining may be especially susceptible to perceptions of job insecurity due to the nature of this industry: although there is always demand for products of the minerals industry (Mining Association of Canada, 2022), mining operations are not indefinite. While sometimes ill-defined, there is nearly always an expiration date on mining operations because of the extraction of non-renewable resources, which will eventually be depleted. This could lead to perceived employment instability for mining workers.

Another important predictor of mental health in the workplace is job satisfaction (CSA Group & Bureau de Normalisation du Québec, 2013). In mining, job dissatisfaction has previously been associated with higher levels of psychological distress (Considine et al., 2017), whereas work satisfaction was found to decrease the odds of high psychological distress (James et al., 2018). Moreover, a study of Australian coal miners found that workers who felt satisfied with their work were significantly less likely to seek professional mental health support (Tynan et al., 2016). In our sample, job satisfaction was found to be protective against stress and symptoms of depression, upholding the premise that job satisfaction is an important predictor of psychological health for this workforce. Post-hoc analyses also confirmed this association. There was a statistically significant difference in mean job satisfaction scores between workers who are stressed and those who are not: workers who are not stressed scored higher than workers who are, indicating that stressed workers were on average less satisfied with their job, whereas those

who are not stressed have greater job satisfaction. There was also a statistically significant difference in mean job satisfaction scores between workers who had symptoms of depression and those who did not, with workers with depressive symptoms scoring lower on average than workers without depressive symptoms. This confirms that job satisfaction was on average greater in workers who were not experiencing symptoms of depression, whereas job satisfaction was lower among workers with depressive symptoms. These findings support the importance of striving for employment that gives workers a sense of satisfaction. Closely related is having a sense of engagement, i.e., feeling connected, motivated, and enjoying one's work (CSA Group & Bureau de Normalisation du Québec, 2013). It is therefore not surprising that our results also revealed that having a sense of engagement at work was associated with decreased stress.

7.4.2.4 The Physical and Psychological Work Environment

The physical work environment can impact both the physical and mental health of workers. Some hazards are inherently physical and can lead to physical harm, but the physical environment can also create worry and fear if workers feel unsafe, which can impact their mental health as well (CSA Group & Bureau de Normalisation du Québec, 2013). Moreover, a truly healthy and safe workplace requires psychological protection: a workplace in which wellbeing is promoted and all reasonable measures are taken to reduce work stress. This also includes ensuring that the workplace is free of discrimination, bullying, and harassment, and that stigma is addressed (CSA Group & Bureau de Normalisation du Québec, 2013).

In the context of mining employment, physical hazards are numerous. Extensive literature has discussed the implications of hazards such as airborne toxins that affect respiratory health (Centers for Disease Control and Prevention, 2013; Donoghue, 2004b) environmental conditions like heat (Donoghue, 2004a; Donoghue et al., 2000) and noise (Centers for Disease Control and Prevention, 2014; Hermanus, 2007), and mining equipment hazards such as vibration (Eger, Stevenson, Boileau, & Salmoni, 2008; Kunimatsu & Pathak, 2012) and line-of-sight implications (Eger, Salmoni, & Whissell, 2004; Gauthier, Leduc, Perfetto, & Godwin, 2022). It is therefore not surprising that the perception of their workplace as hazardous was associated with greater stress and anxiety for these workers, as the hazards are numerous and well-established.

As for the psychological protection of workers in this workplace, some findings were unusual: we might expect workers who feel their workplace addresses and promotes psychological wellbeing in the workplace would feel reassured and thus have better mental health, but this was not the case in our sample. Rather, our findings revealed higher stress and depression scores for workers who perceived their workplace as psychologically healthy and safe. However, a psychologically healthy workplace does not mean one in which there are no mental health problems, only one in which the organization actively strives to create an environment where workers feel respected and safe from psychological harm. A possible explanation for these findings could be that workers experiencing mental health problems are more likely to recognize efforts made by their employer, in addition to being more aware of existing measures that are in place to foster a psychologically healthy workplace, as they may have requested help or sought services themselves. Although some workers at this company have previously expressed frustration in attempting to access some of the mental health services available to them, they

nonetheless appreciated their existence (Dignard, 2016; Dignard et al., 2022). A worker who has not experienced any mental health problems, on the other hand, may not notice or recognize that such services exist, thus this lack of awareness could be the reason they did not perceive the workplace as psychologically healthy and safe. These findings are not without merit, however, as they suggest that more needs to be done to ensure all workers are aware of the employer's efforts towards creating a psychologically healthy workplace.

Finally, the overall organizational culture of a workplace has a tremendous impact on worker wellbeing (CSA Group & Bureau de Normalisation du Québec, 2013). It is therefore not surprising that the perception of good organizational culture and the feeling that the organization fosters civility and respect were associated with lower depression and stress scores, respectively. Unfortunately, there appear to be issues of discrimination, bullying and harassment in this workplace, which were found to be detrimental to workers' mental health. Upon further investigation, we found that 19.9% of workers surveyed reported having been discriminated against in the workplace, and 12.1% identified as victims of bullying or harassment. This is evidently problematic and must be addressed. Whether it is characteristic of mining employment in general, or a problem limited to this workplace remains to be determined, as other mining-specific mental health studies have scarcely explored this topic. Either way, this employer and its workers would benefit from addressing issues of discrimination, bullying and harassment, as its prevalence is concerning.

7.5 Conclusion

As part of a larger project studying the mental health and wellbeing of mining industry workers in Ontario, Canada, the current paper's primary objective was to identify work-related predictors of stress, anxiety, and depression symptoms for these workers. Using the *National Standard of Canada for Psychological health and safety in the workplace* (CSA Group & Bureau de Normalisation du Québec, 2013) as our guide, we included several work-related factors in our analyses. These include factors that have repeatedly been demonstrated to affect worker wellbeing in the literature, in addition to several others identified as potentially problematic by a sample of workers at this company who participated in our pilot study. While we recognize that each of the factors included in our analyses are important determinants of psychological health and safety, our findings helped determine which of these are particularly problematic or relative strengths at this company, and which may be of greater importance within the context of mining more broadly. Significant predictors were grouped into four categories: (1) work schedule and demands, (2) effort-reward imbalance, and recognition and reward, (3) job insecurity and job satisfaction, and (4) the physical and psychological work environment, each of which has several factors that were found to contribute to the decline and/or the protection of worker wellbeing. Moreover, consistent with the literature, our findings also revealed that the prevalence of mental ill-health was greater in our study population than in the general working-age population of Canada.

Although a few general recommendations were made based on the discussion of findings, the mining industry could benefit from a larger set of evidence-based recommendations to improve the mental health of mining workers. The authors of this paper are currently working on a set of

such recommendations to address this gap. Several limitations of this study are also noteworthy. First, due to the cross-sectional nature of the study in which workers had to reflect on events and feelings of the past, recall bias is a possibility. Moreover, due to the large number of respondents, some findings could have been found by chance. The healthy worker effect could also have skewed results, but measures were taken to mitigate this risk: recruitment was expanded to include workers on leave at the time of data collection. Finally, while work-related factors are important determinants of worker wellbeing, it is important to remember that a person's mental health is reflective of many interrelated factors, including those outside the workplace. Demographic, health-related and other psychosocial factors specific to each individual (e.g., income, job category, social support) are important to consider in order to get a more comprehensive understanding of mining worker wellbeing. Additional analyses of this dataset have examined such other factors and will be reported elsewhere.

Chapter 8

8 Paper #3: Evidence-Based Recommendations for Improving the Mental Health and Wellbeing of Ontario Mining Workers

Abstract

Mental health problems negatively impact workplaces. Poor mental health in the workplace contributes to higher turnover, poor worker engagement, and job dissatisfaction. The health and safety implications can be especially serious: poor mental health in the workplace increases the risk of accidents and injuries. This risk is notably elevated in industrial settings, such as in the mining industry, where accidents can be fatal. This is relevant in the Canadian context because mining employs hundreds of thousands of workers in Canada. Despite the known implications of poor mental health in the workplace, and the possible severity of its ramifications in industrial settings, research specific to mental health in the mining industry is limited. However, existing literature has revealed concerning findings: mining workers appear to experience higher rates of mental-ill health. Therefore, the need for further research to better understand the mental health implications of employment in the mining industry in Canada is clear. Our research team conducted a study to better understand the mental health of mining industry workers in Ontario, Canada. As part of this study, the authors of this paper sought to examine the prevalence and determinants (e.g., demographic, health-related, and psychosocial factors, including work and non-work-related factors), of stress, anxiety, and depression for this workforce. While the methods and quantitative findings are reported elsewhere, the current paper proposes eight evidence-based recommendations for improving mental health and wellbeing of Ontario mining

workers. These recommendations are based on our research findings and are supported by the literature.

8.1 Background

Mental health problems affect one in five Canadians (Mental Health Commission of Canada, 2013). The prevalence varies by age group but is most pronounced among working-age Canadians (Mental Health Commission of Canada, 2017). In addition to their impact on individual worker wellbeing, mental health problems negatively impact workplaces. From a business perspective, the impetus for addressing workplace mental health is well established: weekly, approximately 500,000 working Canadians miss work for mental health-related reasons, and mental health problems represent an estimated 30% of short- and long-term disability claims (Mental Health Commission of Canada, 2013). A study across seventy Canadian companies determined that as many as 78% of short-term disability claims and 67% of long-term disability claims were related to mental health problems (Towers Watson, 2011). Moreover, the resulting lost productivity is estimated at \$6 billion annually (Mental Health Commission of Canada, 2013). Poor mental health in the workplace also contributes to higher turnover, poor worker engagement, and job dissatisfaction (CSA Group & Bureau de Normalisation du Québec, 2013). The consequences can be especially serious from a health and safety perspective: poor mental health in the workplace increases the risk of accidents and injuries (Hilton & Whiteford, 2010). This risk is notably elevated in industrial settings, such as in the mining industry, where accidents can be fatal. This is relevant in the Canadian context because mining employs hundreds of thousands of workers in Canada (Mining Association of Canada, 2022). In Ontario alone, there are over forty active mine sites, and multiple supporting worksites such as mills,

smelters, and refineries (Ontario Mining Association, 2021a; Ontario Mining Association, 2021b).

Despite the known safety implications of poor mental health in the workplace, and the possible severity of its ramifications in industrial settings, research specific to mental health in the mining industry is limited. However, the literature has revealed concerning findings: mining workers appear to experience higher rates of mental-ill health (Considine et al., 2017; James et al., 2018; Liu et al., 2014; Roche et al., 2016; Shandro et al., 2011; Tynan et al., 2016). Therefore, the need for further research to better understand the mental health implications of employment in the mining industry is clear. Addressing this gap requires an in-depth look at prevalence trends and contributing factors. To address this gap, our research team conducted a large study to better understand the mental health of mining industry workers in Ontario. As part of this study, the authors of this paper sought to examine the prevalence and predicting demographic, health-related, and psychosocial factors, including work and non-work-related factors, of stress, anxiety, and depression symptoms for this workforce. While the methods and quantitative findings of our analyses are reported elsewhere, the current paper proposes evidence-based recommendations for improving mental health and wellbeing of Ontario mining workers. These recommendations are based on our study findings and supported by the literature.

8.2 Context

The study was conducted at the Ontario operation worksites of an international mining company in Canada. It was funded by the company and its labour unions, all of whom participated in its development and implementation. In collaboration with these stakeholders, our research team

developed a survey instrument to assess several key indicators of mental health and wellbeing, as well as multiple work and non-work-related factors that may be contributing to these workers' mental health. The survey used several questionnaires that have been psychometrically validated and used extensively in the literature such as the Perceived Stress Scale (Cohen et al., 1983), the Beck Anxiety Inventory (Beck et al., 1988), the Beck Depression Inventory II (Beck et al., 1996), the Copenhagen Burnout Inventory (Kristensen et al., 2005), the Guarding Minds at Work Questionnaire (Samra et al., 2009-2020), and the Alcohol Use Disorders Identification Test (Saunders et al., 1993), to illustrate a few. Upon agreement on its content by all stakeholders, the survey was tested among a sample of workers (n=31) in a pilot study. Through focus group discussions, we obtained feedback from workers and revised the questionnaire accordingly. Upon finalizing the survey instrument, all workers at this company's Ontario operations worksites were given the opportunity to complete the survey. Of the approximately four thousand workers employed at these worksites, two thousand two hundred twenty-four workers chose to participate.

Evidently, due to the nature of the study and the extensive dataset, there is opportunity for numerous analyses exploring many topics. The recommendations advanced in this paper stem from findings of analyses used to determine the prevalence and predictors of stress, anxiety, and depression-related symptoms, specifically. While mental health is complex and does not merely reflect an absence of mental disorders (World Health Organization, 2022), mood and anxiety disorders are the most common mental disorders (World Health Organization, 2022) and are thus a good indication of mental ill health. Moreover, stress can be a good indicator of strain on one's mental health and often contributes to mood and anxiety disorders (National Institute of Mental

Health, 2021a). Our recommendations therefore aim to improve the overall mental health and wellbeing of mining workers.

8.3 Methodology

While the prevalence and key predictors of stress, anxiety and depression symptoms were determined through quantitative analyses of a large dataset, the proposed recommendations are the result of a subsequent qualitative analysis of these findings. The qualitative analysis began by listing all significant quantitative findings obtained. First, open descriptive codes (Merriam, 2009) were assigned to each finding. Then, findings with similar codes or that seemed to fit well together were grouped. Subsequent analytical coding ensued: the meaning of findings was considered, and categories were created based on these interpretations (Merriam, 2009) and with the research objectives in mind. As such, the analysis process began as inductive and as is typically the case, the creation of categories was intuitive (Merriam, 2009). Triangulation also validated the emergence of these categories: multiple researchers reviewed and agreed upon the categories derived from the qualitative analysis. The following outlines each step of the qualitative analysis as it relates to the development of the recommendations proposed in this paper.

Upon determining the prevalence and demographic, psychosocial, health-related, and work-related predictors of stress, anxiety and depression symptoms through quantitative analyses, the key findings were listed then sorted into two main categories of factors based on the research objectives: (1) individual factors and (2) workplace-related factors. Each factor was then sorted further and grouped with similar findings to create more specific categories. These categories

were then labelled, and recommendations to address the factors within each category were developed. As a result, eight recommendations are proposed.

8.4 Recommendations

The following describes the eight evidence-based recommendations developed as a result of our analyses.

8.4.1 Recommendation #1: Know the demographics, identify at-risk groups, and tailor programs accordingly.

The prevalence of mood and anxiety disorders vary between genders. More specifically, these disorders are more prevalent among women than men (American Psychiatric Association, 2013). For example, generalized anxiety disorder affects approximately twice as many women than men, and major depression occurs in women one-half to three times more often than in men (American Psychiatric Association, 2013). Predictably, our study findings revealed higher symptom prevalence of anxiety and depression symptoms in women (i.e., a higher percentage of women than men had symptoms indicative of a likely anxiety or depressive disorder). However, average scores on the tools used to assess anxiety and depression symptoms were higher for male workers than for female workers. In addition, the ratio between genders (e.g., normally twice as many women than men for anxiety) was much lower; there was far less of a difference between women and men than what is typically observed. It is therefore important to reflect on the context of these findings. Notably, data were collected among a sample of workers in a male-dominated industry, a group that previous research has revealed higher rates of mental ill-health (Battams et al., 2014). In our report of quantitative findings, we proposed that the smaller female population within a group of workers already predisposed to a higher risk of mental health

problems may have contributed to the less pronounced differences between genders and the higher average scores among men. An important first step to improving these workers' mental health and wellbeing is to recognize this demographic's uniqueness. Notably, knowing the male-dominant nature of this workforce, in combination with these findings, suggests that an approach better-suited to male workers is needed to address the gaps in mental health promotion and services. In other words, using a templated approach to addressing mental health in the workplace is not likely to have the desired effect in this population. Rather, specific areas for improvement need to be identified, and health promotion initiatives and programs need to be tailored with this workforce's male-dominant and significantly blue-collared nature in mind. For instance, in attempting to implement any initiative, computer-based training programs may not be well-received or effective among workers who spend their days doing physical labour, whereas they may be an appropriate approach for white-collar workers. Ultimately, different groups in this vast organization need to have different programs tailored to their specific needs. This reflects what is proposed in the broader health promotion in the workplace literature; recommendations for successfully integrating health promotion activities in occupational health and safety include tailoring communications to the different groups of employees (Biswas, Begum, Van Eerd, Smith, & Gignac, 2021).

A second important demographic characteristic to consider is age. Age is an important determinant of mental health (American Psychiatric Association, 2013). Among working-age adults in Canada, younger and particularly middle-aged workers experience more stress than older workers (Statistics Canada, 2021b). The demands upon this sub-group of workers may be an important contributing factor. Notably, middle-aged workers have been referred to as the

sandwich generation due to the increasing need for this generation to be caretakers for both their children and aging parents (Dignard, Larivière, Larivière, & Schoenenberger, 2022). The stressors upon these workers may therefore be greater. In seeking to improve the mental health and wellbeing of a workforce, it would therefore be beneficial to recognize the different stressors that occur at different stages of one's life and offer programs and services tailored for specific age groups. For example, financial concerns can occur at any age, but while a forty-five-year-old worker may be worried about managing money adequately to support their dependents, older workers may have worries about the financial implications of retirement. Offering money management programs to reduce stress in workers would therefore appear different for a middle-aged worker and a worker nearing retirement. In essence, we need to recognize that various subgroups exist within a mining organization, and to be successful, any attempt to improve the mental health and wellbeing of this workforce must be mindful of the demographics and differing needs among these numerous subgroups of workers.

8.4.2 Recommendation #2: Develop and implement health promotion initiatives that target lifestyle choices.

Health, as defined by the World Health Organization, is not just the absence of health problems, but rather a complete state of wellbeing, which includes physical, mental, and social dimensions (World Health Organization, 1946). Therefore, recognizing the interrelationships between the dimensions of health is paramount to effectively improving worker wellbeing. In the mining industry, some important predictors of mental-ill health are reflective of lifestyle choices, which can also be detrimental to physical health. Notably, problematic drug and alcohol consumption has been found to be more prevalent among mining workers (Tynan et al., 2017), and risky

alcohol consumption was found to be significantly more prevalent in our study population than in the general population. Moreover, alcohol consumption was found to be a significant correlate of stress, and drug use a significant correlate of anxiety. Evidently, health promotion initiatives targeting substance use and other supports such as treatment and recovery options would benefit this workforce.

Another concerning finding reported in our study was body mass index (BMI). Although using BMI as an indicator of obesity has been criticized (Rothman, 2008), it remains a widely used tool to approximate obesity in study populations. In the context of our study, more than 80% of workers surveyed had a BMI in the overweight or obese range. While it is possible that this is an overestimation due to the limitations of the BMI (Rothman, 2008), it remains concerningly high and indicates that these workers could benefit from programs aimed at maintaining a healthy body composition, such as programs targeting nutrition and physical activity. It is also important to note that merely educating workers is not likely to be enough. Workplaces committed to improving the mental health of their workforce need to offer both preventative measures (e.g., health promotion and education, incentives for adopting a healthy lifestyle, etc.) and accessible treatment options (Goetzel et al., 2018) (e.g., drug and alcohol rehabilitation programs).

Ultimately, the evidence warrants the need for addressing issues of lifestyle for mining workers, but it is up to employers to devise appropriate evidence-based plans of action that are tailored to the specific needs of their workers. It is also important to note that this recommendation does not imply that the workplace must develop and offer these programs in-house. Contracting out when appropriate is recommended, especially for issues of a more sensitive nature; workers may be

more reluctant to participate if the program is directly associated with their employer (Dignard, 2016).

8.4.3 Recommendation #3: Prioritize stress management.

In addition to being a predictor of anxiety and depression, chronic stress also leads to burnout. Interestingly, burnout also contributes to increased stress, and is associated to anxiety and depression (Koutsimani et al., 2019). In essence, there is a vicious cycle between stress, burnout, anxiety, and depression, and chronic stress is at the root of multiple mental health problems. It is therefore not surprising that our study findings revealed that burnout was a significant predictor of stress, and that stress and burnout were predictors of anxiety and depression. While we cannot claim a causal relationship between stress and poor mental health outcomes, nor can we state that stress is always the underlying problem, there is no doubt that stress has an important relationship on these workers' wellbeing. Ultimately, mining industry workers could benefit tremendously from reduced stress. Stress management should therefore be prioritized if mining employers wish to see an improvement in the wellbeing of their workers.

8.4.4 Recommendation #4: Train supervisors to be supportive.

When people feel supported, they are much more likely to report better mental health (CSA Group & Bureau de Normalisation du Québec, 2013; Harandi et al., 2017). While employers have little control over the support workers get from personal relationships outside the workplace, they can take measures to ensure supportive behaviours in the workplace. Notably, ensuring that supervisors are well-trained and educated in mental health literacy would help them

adequately support workers. This need to properly train supervisors and managers is well-established (Dignard et al., 2022). In the context of this workforce, findings are mixed but support the need for enabling supervisors to be supportive. Our quantitative study findings revealed that adequate support in the workplace was conducive to better mental health. On the other hand, findings from our pilot study, which included interviews and focus groups with workers, revealed that lack of support or understanding from their superiors was a very significant obstacle to recovery, and to return to work for those having been on leave (Dignard, 2016). The importance of creating a supportive work environment to promote better mental health should therefore be axiomatic. Employers need to ensure that its leadership is properly equipped to recognize warning signs and risk factors of people who may be experiencing mental health problems, and to properly handle the situation when someone reveals that they have a problem or are exhibiting signs that they are not mentally well (Dignard et al., 2022).

8.4.5 Recommendation #5: Create a work environment that encourages and fosters balance.

Two overlapping components need to be addressed to achieve a state of balance conducive to better mental health in this workplace: (1) balance between home life and work life, and (2) balance between effort and reward (i.e., adequate reciprocity: the model of effort-reward imbalance at work stipulates that when a worker exerts high effort but perceives inadequate rewards, it has a negative impact on the health and wellbeing of that worker (Siegrist, 1996; Siegrist, 2012; Siegrist, 2016)). While research has previously revealed issues of poor work-life balance in mining resulting in poor mental health outcomes (Hongxia et al., 2014), and an

imbalance between the demands of work and home is a known risk factor to psychological health and safety (CSA Group & Bureau de Normalisation du Québec, 2013), our findings revealed that workers who felt they were able to adequately balance the demands of work and home were less likely to experience depressive symptoms and were less stressed and anxious. Previous research and our findings therefore support the same conclusion: work-life balance is important for good mental health. It is therefore in employers' best interest to ensure that policies and procedures reflect a commitment to ensuring workers can effectively divide their home and work demands without adverse spillover. One way to achieve this goal, which relates to the second key concept that requires attention (i.e., effort-reward imbalance), is to ensure fair workloads. This includes both the quantity of work and the amount of time allocated to complete work tasks. Despite the seemingly positive findings, there is a caveat: while workers who felt able to adequately balance the demands of work and home had better mental health, not all workers felt they were able to achieve this balance. Notably, there seems to be varying degrees of acceptability of exceeding one's normal workday which reflects both an imbalance between home and work-life and between effort and reward: while production workers reported clearly defined overtime incentives (resulting in adequate reciprocity between their effort and the resulting reward), white-collar workers revealed that there are sometimes unwritten expectations to work unpaid overtime, both because their workload was too heavy to complete during their regular hours, and because it was an expectation of management (Dignard, 2016). Addressing this issue by devising fair and appropriate incentives for effort beyond the regular work expectations is therefore recommended. Moreover, this again supports the need to recognize the diversity of sub-groups within this workforce and to tailor efforts to improve mental health to each of their needs. For

instance, revising the current operational model in which some workers have paid overtime while others do not would be a very important first step.

8.4.6 Recommendation #6: Prioritize permanent full-time employment.

There are many job characteristics that contribute to worker wellbeing, some of which are interrelated. Among these are job security, job satisfaction and engagement. Consistent with the literature (CSA Group & Bureau de Normalisation du Québec, 2013), our findings revealed that job satisfaction and engagement were related to better mental health. Specifically, job satisfaction was found to be protective against stress and symptoms of depression, and having a sense of engagement at work was associated with decreased stress. Impeding on this, however, and therefore associated with poor mental health outcomes, was lack of job security, which was identified as a significant predictor of stress, anxiety, and depression symptoms in our study population. These findings are consistent with previous mining-specific research, which has revealed problems with job security and its association with declining psychological wellbeing (Amponsah-Tawiah et al., 2014; Considine et al., 2017; James et al., 2018). In essence, our findings along with the literature suggest that permanent full-time employment is most conducive to perceived job security thus fostering better mental health. If mining employers want their workers to be more engaged, satisfied with their work, and ultimately well, thus also supporting the bottom line, it may be beneficial to prioritize full-time permanent employment.

8.4.7 Recommendation #7: (Continue to) make safety a priority.

One of the strengths of the Ontario operations of the company at which our study was conducted is its commitment to health and safety: they have a joint occupational health and safety committee, they have numerous health and safety initiatives, and they ensure safety protocols are adhered to. Their commitment to improving mental health in their workplace is also applaudable; in commissioning our research team to conduct an extensive study of mental health in their workplace, they have demonstrated their understanding of the connection between physical and mental health and the importance of addressing both in creating a healthy and safe work environment. Unfortunately, mining is inherently hazardous; the nature of mineral extraction and processing is fraught with physical hazards (Donoghue, 2004b). Inevitably, the perception of their workplace as physically hazardous for our study population was associated with increased stress and anxiety-related symptoms for these workers. While the nature of this industry remains unequivocally hazardous, continuing to prioritize health and safety is the best way to reduce physical and psychological hazards for these workers. Ultimately, these workers' mental health and wellbeing depend upon them also remaining physically healthy and safe.

8.4.8 Recommendation #8: Demand a respectful and inclusive workplace and invoke a zero-tolerance policy on discrimination, bullying, and harassment.

Overall organizational culture impacts worker mental health tremendously. A workplace characterized by mutual respect, civility, and free of bullying, discrimination, and harassment is of the utmost importance for worker wellbeing (CSA Group & Bureau de Normalisation du Québec, 2013). On the one hand, our findings revealed that those who felt their workplace had good organizational culture characterized by civility and respect were less likely to exhibit

symptoms of stress and depression. Unfortunately, bullying, discrimination, and harassment were found to be very common and unsurprisingly detrimental to this workforce's mental health and wellbeing: 19.9% of workers surveyed reported having been discriminated against in the workplace, and 12.1% identified as victims of bullying or harassment. It is unclear whether this is a problem that is characteristic of mining employment more broadly or specific to this workplace, because mining-specific research has seldom explored this topic. In any case, this employer must address this problem, as it is concerning. It is imperative that policies and procedures be implemented to foster a respectful and inclusive workplace in which workers feel safe from discrimination, bullying, and harassment.

8.5 Discussion and Conclusion

Workplace health promotion is a complex undertaking, but there are effective strategies for integrating health promotion within occupational health and safety (Biswas et al., 2021). An important first step is conducting an appropriate assessment so that strategies may address and be tailored to specific needs (Dombrowski, Snelling, & Kalicki, 2014). One of the ways in which this can be done is through partnerships with researchers who have the knowledge and skills to conduct a proper assessment. Indeed, forming partnerships that will allow for the creation of a diverse team representing different key interests has been recommended as a strategy for successful integration of health promotion into occupational health and safety (Biswas et al., 2021). Essentially, a solid evidence base is required before developing effective health

promotion strategies and policy changes. Moreover, collaborative efforts in which all key stakeholders are involved in achieving this is preferable.

Another important consideration is that worker wellbeing is complex. The National Institute for Occupational Safety and Health (NIOSH), for example, recognizes that factors inside and outside the workplace contribute to worker health and wellbeing. As a result, they have developed a wellbeing framework comprised of five domains: the workplace physical environment and safety climate, the workplace policies and culture, the worker's health status, the evaluation and experience of work, and the worker's home, community, and society (Chari et al., 2018).

The purpose of this paper was to propose evidence-based recommendations for improving the mental health and wellbeing of Ontario mining workers. With the complexities of wellbeing and workplace health promotion in mind, our research team, in collaboration with the employer and labour unions, started by collecting extensive data to establish a proper baseline assessment.

Through subsequent quantitative and qualitative analyses, eight evidence-based recommendations were developed. These recommendations are an important step toward the development of appropriate health promotion strategies and policy changes. Although they are not a framework or step-by-step instructions on how to improve these workers' mental health, they do provide a starting point for developing appropriate strategies by outlining key areas requiring attention. This includes both individual and work characteristics, as is recommended for achieving worker wellbeing (Chari et al., 2018). Finally, it is important to note that these recommendations are intended to help guide employers in deciding what strategies to employ. This does not mean that they must develop their own health promotion programs, for example,

but is intended to help them in their selection of appropriate next steps. Nonetheless, moving forward will require employers to identify and assess the quality and fit of existing programs and strategies aimed at addressing each of our recommendations.

In developing our recommendations, we established that in the context of mining, eight key factors need to be considered to improve mental health and wellbeing: demographics, lifestyle, stress, support, balance, job characteristics, physical health and safety, and the psychological environment and organizational culture. Addressing these recommendations will require policy and practice changes, in addition to implementing proper health promotion and treatment programs. In essence, improving these workers' wellbeing will require the acknowledgement that there needs to be changes targeting both the individual and the underlying organizational structure. An important limitation to note is that these recommendations stem from findings at one specific mining company in Ontario, therefore it is difficult to generalize the findings beyond this context. However, the literature presented supports the premise that the broader mining industry shares many of these issues. In any case, the NIOSH's wellbeing framework (Chari et al., 2018) and our recommendations support the need to identify key individual and work-related factors contributing to the wellbeing of workers and tailor health promotion, treatment, and policy revisions accordingly.

Chapter 9

9 Discussion: Re-Examining Findings Through the Lens of the Biopsychosocial Model

While significant findings have been discussed thoroughly in Chapters 6 and 7, and recommendations based on these findings have already been proposed in Chapter 8, it remains important to reflect upon the significance of findings overall. Notably, it is important to re-examine the conceptual framework upon which this research was designed and to look back on the broader research objectives, notably that of identifying what factors are related to these workers' mental health and wellbeing. Particularly, beyond reviewing how the framework was used to conceptualize this research, it is important to also view the findings through this lens.

As explained in Chapter 4, health psychology and the theory underpinning the biopsychosocial model postulate that health is determined by multiple factors, including biological, psychological, and social factors (Ayers & De Visser, 2010; Engel, 1977; Ogden, 2007).

Biological factors include innate characteristics such as age, gender, genetics, health history, including anything that may modify one's health at the biological level, such as medication.

Psychological factors refer to behaviours, beliefs, emotions, and other cognitive factors.

Examples include personality, stress, and various lifestyle habits such as exercise, smoking, and substance use. Finally, the social dimension primarily reflects a person's environment and their interaction with this environment. In the context of occupational safety and health, this would therefore include psychosocial risk factors in the workplace. Fundamentally, the biopsychosocial model is a relatively flexible model that proposes three broad (sometimes overlapping)

categories of factors that must be considered but can be adapted to include relevant factors based on context.

In conceptualizing my dissertation research, the biopsychosocial model was embraced as a framework for two reasons. First, there are decades of evidence that support the premise upon which this model was designed. Notably, its application to understanding mental health and illness is also supported (Cardoso, 2013; Garcia-Toro & Aguirre, 2007; Nemade et al., 2007). Second, the mental health in the workplace literature, notably in mining, has also revealed that the mental health of workers depends upon numerous interrelated factors such as those specific to an individual, their choices, and the environment in which they live and work. The theoretical and practical reasons for choosing to conceptualize my dissertation through this lens were therefore appropriate, as both the literature and theory underpinning the biopsychosocial model support it.

With the literature as a guide of possible relevant factors, the biopsychosocial model was therefore used to organize my data and conceptualize my analyses, including the selection of variables to include and how. Beyond its use for determining a starting point and conceptualizing my research approach, the model can also be applied to presenting my findings in a way that reflects the interrelationships between the three dimensions and their impact on the mental health and wellbeing of mining workers. As such, it is possible to create a visual representation of my findings viewed through the lens of the biopsychosocial model. Figure 1 depicts each of the significant predictors revealed in my analyses organized by dimension of the biopsychosocial model.

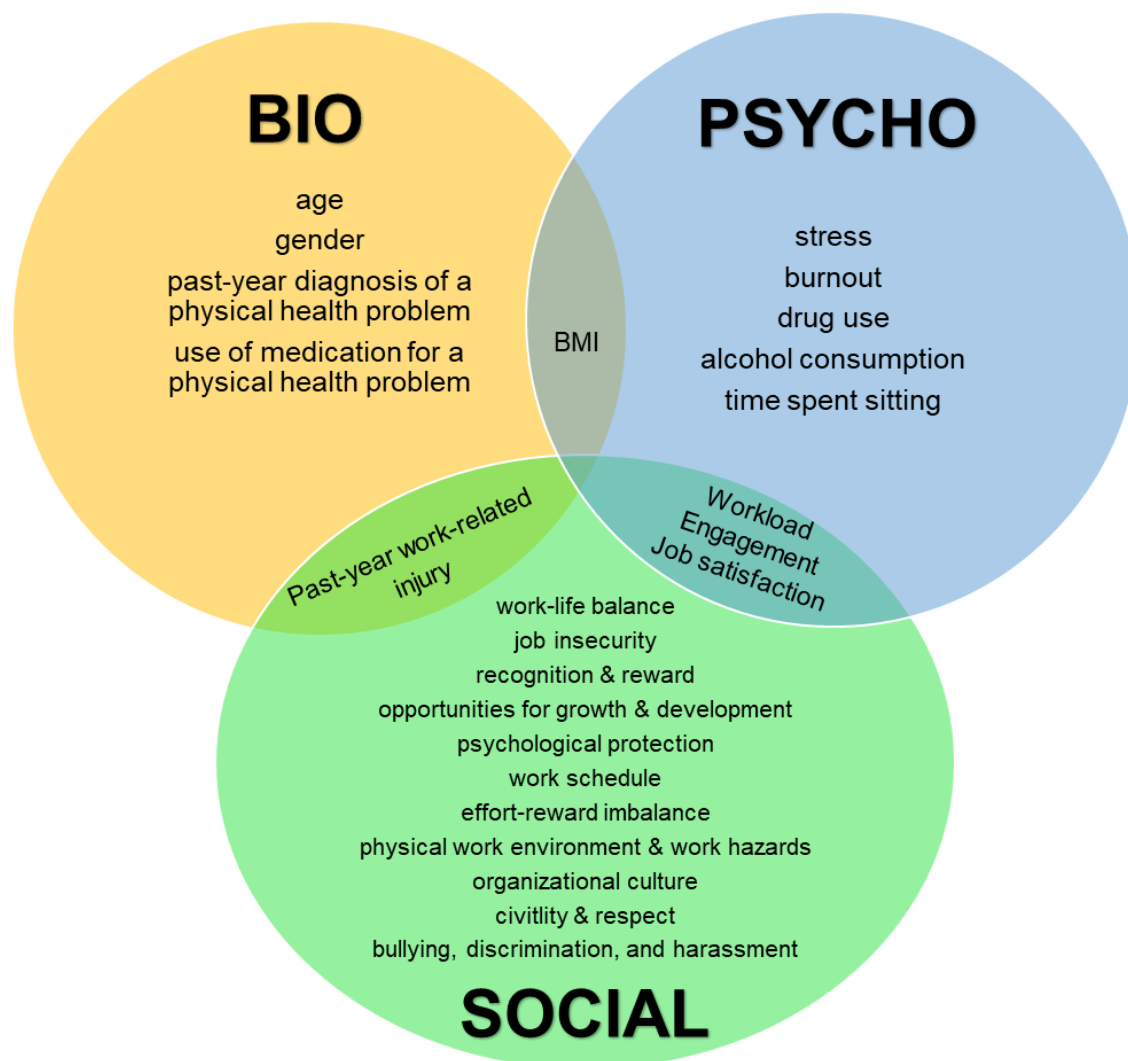


Figure 1 Determinants of Mining Worker Wellbeing

Because the classification of factors requires a certain amount of subjectivity, a few factors merit further discussion. Particularly, several factors were placed in categories between dimensions. Body mass index (BMI), for instance, is a measure that considers biological features, but is heavily influenced by lifestyle choices. For this reason, it can arguably be placed into either the

biological or psychological dimension. It therefore seemed a more appropriate approach to include it between dimensions so that both perspectives could be highlighted. Likewise, being injured at work during the last year was placed between the biological and social dimensions because even though an injury is considered a biological factor, the implications of the injury having occurred at work cannot be ignored, as the workplace represents a social factor. Finally, workload, engagement, and job satisfaction were placed between the psychological and social dimensions as they reflect one's perception (psychological) of an element of their work environment (social). Ultimately, the distinction between the three dimensions serves as a guide but categorizing the factors among the dimensions requires a certain amount of theory-driven subjectivity. Though at first glance this may appear ambiguous, further reflection merely supports the premise upon which this model was developed: health is impacted by three key dimensions of factors, but we must treat these as interrelated rather than as separate entities. In essence, health and illness are complex, and this holds true for mental health and illness; seeking to understand determinants of a population's mental health and wellbeing requires acknowledging that biological, psychological, and social factors contribute, but the distinctions between these dimensions is not always clear cut. In the context of our study population, the overlap between dimensions and the important contribution of each is depicted in Figure 1.

Chapter 10

10 Conclusion

10.1 Brief Summary

As part of a large study examining the mental health and wellbeing of mining workers in Ontario, Canada, my thesis research objectives were to determine the prevalence of stress, anxiety, and depression symptoms in this sample of Canadian mine workers, as well as the demographic, health-related, psychosocial, and work-related predictors of stress, anxiety, and depression symptoms for these workers.

As presented in Chapters 6 and 7, my findings confirmed our presumption that symptom prevalence of anxiety and depression would be greater among this workforce than in the general working population of Canada. While the prevalence of stress was found to be comparable, possible explanations for this proposed in Chapter 7 included the inconsistency between measurements of stress (i.e., our assessment used a psychometrically validated questionnaire while the Canadian statistics present subjective self-reports of stress), and differences in the age range between populations.

As expected, the predictors of stress, anxiety and depression for these workers were a combination of biological, psychological, and social factors, including many specific to the workplace. Significant findings were grouped into the following categories of predictors: individual characteristics, interpersonal relationships, lifestyle, and the overlap between physical and mental health (see Chapter 6), as well as work schedule and demands, effort-reward imbalance and recognition and reward, job insecurity and job satisfaction, and the physical and

psychological work environment (see Chapter 7). Upon completion and interpretation of the quantitative analyses that revealed these results, findings were re-examined through a qualitative lens and evidence-based recommendations for addressing the key issues in this workplace were proposed in Chapter 8.

10.2 Further Discussion of Findings

10.2.1 A Look Back at Key Predictors & Recommendations

As a reminder, the eight recommendations advanced in Chapter 8 are the following:

1. Know the demographics, identify at risk groups, and tailor programs accordingly;
2. Develop and implement health promotion initiatives that target lifestyle choices;
3. Prioritize stress management;
4. Train supervisors to be supportive;
5. Create a work environment that encourages and fosters balance;
6. Prioritize permanent full-time employment;
7. (Continue to) make safety a priority;
8. Demand a respectful and inclusive workplace and invoke a zero-tolerance policy on discrimination, bullying, and harassment.

As previously discussed, several individual characteristics, such as age, gender, and socioeconomic status were found to be associated with poor mental health outcomes for this workforce. While these findings were expected because the prevalence of mental health problems varies by age and gender (American Psychiatric Association, 2013) and socioeconomic status is an important social determinant of health (Allen et al., 2014; Kim & Cho, 2020), it remained imperative to examine how this translates to a mining workforce. This turned out to be crucial, because in addition to corresponding with other mining-specific research (see Chapter 6), it confirmed the importance of acknowledging that mental health problems affect people differently based on certain demographic characteristics. As such, individual factors such as these were the foundation of the first recommendation advanced in Chapter 8; to be successful at improving the mental health and wellbeing of mining workers, we must recognize the implications of demographic factors and be mindful of differing needs among the various groups of workers within a mining organization. Fundamentally, any effort to improve this workforce's mental health and wellbeing must be tailored to individual groups rather than being designed for the workplace as a whole.

The second category of predictors, interpersonal relationships, also revealed trends that were consistent with mining specific mental health literature (Bowers et al., 2018; Hongxia et al., 2014; Mclean, 2012). Notably, separated workers in our study population and elsewhere (Tynan et al., 2016) experienced poorer mental health than other workers. While this is not a workplace factor, and our recommendations do not target personal relationships directly, employers still have the ability to help workers who may be experiencing personal relationship problems. Moreover, the benefit to the employer would be substantial; the literature presented throughout

this thesis clearly indicates that a happy and healthy worker is a more productive, engaged, and efficient worker who is less prone to accidents or injuries (CSA Group & Bureau de Normalisation du Québec, 2013; Hilton & Whiteford, 2010). To address personal relationship problems among their employees, thus supporting these workers' wellbeing and the company's bottom line, employers could ensure that programs such as employee and family assistance programs offer relationship support. It is also noteworthy to acknowledge that personal relationship problems could still be influenced by work-related factors such as work demands that impede on family life, thus supporting recommendation #5: *Create a work environment that encourages and fosters balance.*

In addition to personal relationships, relationships within the workplace also play an essential role in determining worker wellbeing. Consistent with the literature (CSA Group & Bureau de Normalisation du Québec, 2013; Harandi et al., 2017; Hongxia et al., 2014; World Health Organization, 2020), our study findings revealed that adequate support in the workplace was conducive to better mental health whereas lack of support was detrimental to worker wellbeing. Worker wellbeing therefore depends upon workers feeling supported by their superiors. Ultimately, our findings, in conjunction with the broader literature that supports this premise, led to the development of recommendation #4: *Train supervisors to be supportive* (see Chapter 8). This is essential to improving mining worker wellbeing; a workplace which lacks support will undoubtedly be lacking in other related areas, such as overall organisational culture, thus exacerbating mental ill-health.

Beyond individual characteristics and interpersonal relationships, workers' lifestyle choices were also found to be important predictors of mental health. This led to the development of recommendation #2: *Develop and implement health promotion initiatives that target lifestyle choices*. As discussed in Chapters 6 and 8, risky alcohol consumption is widespread among mining workers (Considine et al., 2017; Tynan et al., 2017), including among our study population, and is associated with poorer mental health. What is more, we expect that the actual prevalence of problematic drinking may have been underestimated, as people are not always entirely honest when reporting such behaviours. Moreover, the association between illicit drug use and alcohol among mining workers, and their potential combined negative impact to worker wellbeing is also concerning. Notably, with the legalization of marijuana in Canada, there appears to have been a shift towards acceptance which could potentially result in higher rates of substance use. As such, successfully implementing Recommendation #2 would require health promotion initiatives and treatment programs targeting both alcohol and drug consumption, perhaps concurrently, since we know that these two behaviours often co-occur.

Other important lifestyle choices that merit attention are those that affect body composition and overall health and wellbeing. These include physical activity, time spent sitting, and nutrition (Chevalier, 2006). While some results were mixed (e.g., time spent sitting was associated with poor mental health outcomes, but physical activity was not found to be a predictor of stress, anxiety, or depression), sedentary behaviours remain important to address. As discussed in chapter 6, these results may have been influenced by the large variety of occupations within our study population: while some jobs are physically demanding and workers are required to be active throughout their shift, others are much more sedentary, with workers confined to a desk

for a large portion of their workday. In essence, the physical activity of workers in active jobs could have masked the negative effect of insufficient physical activity among other workers. Nevertheless, more than 80% of these workers' body mass index (BMI) was in the overweight or obese range. It is therefore clear that recommendation #2 is of the utmost importance. Moreover, health is multidimensional and there is an undeniable relationship between physical and mental health; to improve mental health therefore requires addressing both psychological and physical factors. In this case, workers' BMI and our findings regarding sedentary behaviours support the need to promote healthy lifestyles such as regular physical activity. Furthermore, body composition is the result of more than just physical activity practices. While nutrition habits were not assessed in this study, it would be senseless to omit this crucial piece of the puzzle.

Adequately addressing recommendation #2 (*develop and implement health promotion initiatives that target lifestyle choices*) therefore requires a holistic approach to promoting a healthy lifestyle. This includes targeting both physical activity and healthy eating habits. A truly holistic approach to achieving health and wellbeing also requires reducing stress, thus supporting recommendation #3 which outlines the importance of stress reduction and management.

Thus far, discussion points have focused primarily on characteristics relating to individual workers. While the need to create tailored individualized approaches has been established, there are also several factors specific to the workplace that require broader organizational changes. Notably, issues of work demands, work-life balance, effort-reward imbalance, job insecurity, and job satisfaction, in addition to various aspects of the physical and psychological work environments, including overall organizational culture, and discrimination, bullying, and harassment, led to the development of recommendations 5 through 8. As discussed in section

8.4.5 (Recommendation #5: *Create a work environment that encourages and fosters balance*), it is imperative that the current operational model be revised to devise fair and equitable rewards for workers' effort. As it stands, there are groups of workers who benefit from overtime and/or incentive pay, while others are expected to work overtime without pay and do not have additional incentives. Workers have also expressed that efforts are not adequately rewarded. In addition, workloads have been found to be problematic. To foster worker wellbeing, employers and supervisors must ensure that workloads and timelines are proportionate. Ultimately, there is cogent evidence that committing to creating a workplace where workers are adequately rewarded for their efforts, compensations are fair, and workers feel able to balance the demands of work and home is conducive to worker wellbeing and productivity.

As discussed in Chapter 7, job insecurity is detrimental to mental health. Unfortunately, the boom-and-bust nature of the mining industry means that periods of uncertainty are inevitable. Nonetheless, mine production timelines are normally predictable, making it possible to depend upon mining employment for a foreseeable timeframe, even if it does have an expiration date. While this aspect of mining employment cannot be modified, other steps can be taken to foster a sense of job security conducive to worker wellbeing. As explained in Chapter 8 (section 8.4.6), prioritizing permanent full-time employment is key.

One of the strengths of this employer is its commitment to health and safety. As outlined in Chapter 8, their numerous health and safety initiatives and their pledge to improving the mental health and wellbeing of their workers is commendable. Addressing recommendation #7 (*Continue to make safety a priority*), should therefore be easily achievable, particularly for the

physical aspects of health and safety. However, while the safety culture is strong, and maintaining high standards of physical health and safety is ongoing, some challenges may be encountered in addressing the seven other recommendations proposed for better mental health and wellbeing. While this employer has committed to studying the mental health of their workforce with the goal of improving worker wellbeing, further investment is needed to follow through on this commitment and achieve this goal. In other words, a favorable outcome depends on continued effort, and this will require being amenable to change. While not without foreseeable challenges, which will be discussed further in section 10.2.2, addressing the eight recommendations advanced in Chapter 8 should be the employer's priority.

Looking back at key predictors and the associated recommendations developed accordingly, one thing is very clear: improving the mental health and wellbeing of workers requires targeting both personal and work-related characteristics. Moreover, there is undeniable overlap between the two. Personal and professional factors are not mutually exclusive, and the recommendations therefore stem from the interconnection between the two. Ultimately, while we are targeting a specific group of workers, we need to remember that workers are people: we cannot separate the worker from the individual. Each worker is a person with demands and obligations both inside and outside work. Therefore, to truly understand worker wellbeing, we must look at the whole picture and be mindful of each of these contributing factors and the influence they have on each other and the individual.

10.2.2 Foreseeable Challenges in Addressing the Recommendations

Chapter 8 presents eight recommendations for improving the mental health and wellbeing of Ontario mining workers. These recommendations derive from a qualitative analysis of quantitative study findings and are supported by the literature. Although they do not provide step-by-step instructions, they outline key areas requiring improvement, thus serving as a starting point to help guide employers' decision-making for better mental health. However, despite their evidence-based foundation and good intentions, these recommendations are not without challenges.

The first recommendation aims to highlight the diversity of workers within an organization and underlines the importance of tailoring programs accordingly. While this may appear relatively simple, it has the potential to become overwhelming as there are many subgroups of workers. As a result, employers may be unsure where to begin. For example, in attempting to recognize and address the different stressors based on age, employers may struggle to devise appropriate strategies without singling out specific age groups. This is where applying the recommendations requires thoughtful consideration. Recognizing the importance of demographic implications does not mean, for example, devising programs labelled with specific age ranges. Rather, it means identifying stressors that are possible for various age groups and creating supports to address each of these rather than a one size fits all approach. Going back to the example presented in Chapter 8, financial stress can affect any worker of any age. However, the sources of this stress may look different based on a worker's age and experience. To be mindful of age in this case could therefore mean creating multiple financial literacy and financial stress management programs. For instance, one program could be tailored to young workers who may be just

learning money management and potentially saving for large purchases (e.g., first-time home buyers). Debt management programs could also look different for a young worker trying to pay off school debt, a middle-aged worker trying to balance current debt, taking care of dependents, and saving for the future, and an older worker nearing retirement. In essence, there are innumerable possibilities. Employers therefore need to narrow down priorities and devise action plans accordingly. This also further illustrates the interconnectedness between recommendations; recommendation #1 must be applied to essentially all other recommendations. In other words, this recommendation is not a stand-alone action item, but rather an approach that must be consistently applied. Nonetheless, it can also help to advise additional measures. For example, the uniqueness of having a minority gender group within this industry could prompt the employer to get additional insight from women, as their perceptions and needs are likely to differ from the male perspective, especially in this male-dominated context. This would certainly be wise and translate to a more efficient application of other recommendations. For example, work-life balance challenges are likely to differ between genders based on each gender's role in and out of work. Keeping this in mind and tailoring approaches accordingly when seeking to address recommendation #5 (creating a work environment that encourages and fosters balance) would therefore be more likely to lead to a favorable outcome.

Another way in which workers can be categorized is by labour group. In and of itself, this division is a challenge. The diversity of workers (e.g., unionized, non-unionized, staff, contract) results in numerous inconsistencies despite being part of the same organization. Most notably, this may make recommendation #5 (*create a work environment that encourages and fosters balance*) especially challenging. As outlined in Chapter 8 (section 8.4.5), rewards and incentives

differ for workers based on their labour group. This means that it may not be possible for all workers to have equal benefits and incentives. In any case, this would not be logical and would completely negate recommendation #1. For example, it may not be possible to quantify an office worker's contribution to production, nor would it be fair for workers with completely different demands to receive identical rewards. Ultimately, the goal needs to be the pursuit of equity rather than equality for workers. And while the different labour groups operate with their own policies and procedures, the employer should strive to ensure each group prioritizes adequate reciprocity between effort and reward and fosters work-life balance.

Another challenge may be the disconnect that exists between the employer and employees' perceptions. For example, some supervisors may be doing their best to be supportive and feel that their approach is adequate whereas workers reporting to them may feel differently. It must be acknowledged that any effort to improve the supervisor-worker relationship may be viewed as unnecessary and critical by supervisors, despite overwhelming evidence that it is necessary. Supervisors need to accept that any attempt to foster a more supportive work environment is not intended as a personal attack to any individual, but rather a strategy for improving overall worker wellbeing. Nonetheless, recommendation #4 (*Train supervisors to be supportive*) may be met with some hesitancy. The employer will need to find strategies to overcome this hesitancy.

In light of the previous discussion around the various labour groups within this organization, it is conceivable that the recommendation to prioritize permanent full-time employment may be met with varying degrees of reservations from these groups. Once again, while the employer may have limited control over some of these groups' employment contracts, they could all benefit

tremendously from prioritizing permanent full-time employment. The employer should therefore at least devise a strategy to engage each of these stakeholders and establish best practices to prioritize permanent full-time employment. Nevertheless, the complex nature of labour relations within a large mining organization will undoubtedly be an ongoing challenge of its own. While all parties (management and the different unions) could benefit from working together toward achieving the goal of better mental health and wellbeing for this workforce, the recommendations are not likely to be received openly by all. While all parties may agree with the need to make improvements, there may be resistance when these improvements involve structural changes such as changes to contracts, work hours, and incentives. As is always the case, each of these stakeholders will need to negotiate and work together to come to an agreement and avoid labour disputes.

Finally, recommendation #8 (*demand a respectful and inclusive workplace and invoke a zero-tolerance policy on discrimination, bullying, and harassment*) brought to light problems with discrimination, bullying, and harassment. While the employer might think their current policies are sufficient, the evidence reveals that this is not the case. Moreover, while the recommendations were developed with the aim to improve worker wellbeing, recommendation #8 extends beyond the objectives of this study; employers have a legal obligation to ensure safe and respectful workplaces free of discrimination, bullying, and harassment. The employer therefore has an obligation to address this recommendation.

10.2.3 Concluding Thoughts

While it may appear critical at times, the purpose of this study and of the recommendations was not to emphasize shortcomings or reproach current policies and procedures. Rather, the objective was to outline ways in which improvements can be made to foster better mental health and wellbeing for this workforce. While we don't expect this to be a magic solution to all problems, tailoring approaches to various groups and addressing each of the recommendations provides a path forward toward better mental health and wellbeing for mining workers.

10.3 Limitations and Potential Biases

As with all research, these study findings are not without limitations. In addition to the statistical limitations discussed in section 5.8, there are several possibilities of bias. First, because of the voluntary nature of participation, selection bias is likely because those who chose to participate are likely to differ in some important ways from those who did not. Second, most questions required participants to reflect on their feelings and events from the past (in some cases, during the past week or weeks, and in other cases, longer periods such as the last month or year).

Therefore, recall bias is a possibility as errors in memory may have occurred. Another limitation that was considered and addressed proactively is the healthy worker effect. To avoid this bias, the research team invited not only those working, but also those on leave at time of data collection so they may have an opportunity to participate if they wished. As discussed in Chapter 6, social desirability bias is also possible, especially when reporting on lifestyle behaviours, such

as alcohol and drug consumption, as well as sitting and exercise habits. Therefore, undesirable behaviours may have been underreported.

It is also important to reiterate that the tools used for the detection of anxiety and depression symptoms cannot be used for diagnostic purposes in this context. Although they are often used to aid in diagnostic assessments in clinical settings, they can only be used to determine symptom prevalence and approximate the likelihood of an anxiety or depressive disorder in the context of this study.

Another important limitation to note is that these findings are from one specific mining company in Ontario, therefore it is difficult to generalize the findings beyond this context. However, the literature presented supports the premise that many of these issues are shared by the broader mining industry. This limitation also extends to the recommendations advanced in Chapter 8, as they are based on data collected at this company.

Finally, some methodological limitations are noteworthy. Although the intention was to be inclusive and including all workers at the company was requested by the Joint Occupational Health Committee, this approach has some limitations. While it provided important insight into the mental health and wellbeing of mining industry workers, looking at this workforce as a whole may have masked other important findings specific to subgroups within this workforce (e.g., underground miners vs workers in other field or office settings). Although some comparisons were possible and were discussed, predictors were based on stress, anxiety, and depression overall. While still valuable, these findings do not distinguish between actual miners and others

in mining-related occupations. For instance, we were unable to distinguish between white-collar and blue-collar workers due to the nature of our survey questions.

Other methodological considerations include the length and time of the survey, which was a concern. However, our pilot study revealed that workers wanted an extensive survey. In fact, they requested additions which were included following the pilot study. Moreover, workers were able to complete the survey on work time. Nonetheless, some workers may have chosen not to complete the survey upon learning how much time it would require.

Having workers complete a survey with sensitive questions in a group setting was also a concern, but appropriate measures were taken to ensure privacy: groups were limited, rooms had to be big enough for workers to have space to complete the survey privately, and privacy barriers were available. Workers also handed in their surveys in an envelope, therefore there were no risks of others seeing their responses. Each of these procedures were carefully considered and approved by both the Laurentian University Research Ethics Board and the Joint Occupational Health Committee representing workers.

A final limitation is the nature of this doctoral work: the time needed to complete program requirements has created a gap of several years between the time of data collection (which began before the beginning of these doctoral studies) and the completion of this work.

10.4 Implications and Next Steps

To our knowledge, this study is a first of its kind specific to mining mental health in a large sample of workers in Canada. Moreover, my thesis analyses and findings, which target specific mental health problems rather than broader concepts that approximate wellbeing (such as “psychological distress”) add a unique perspective to the literature.

Findings from this study are helping to shape policy and practice at this company to improve the mental health and wellbeing of their workers. In fact, other results from the study have already been shared with the company’s Joint Occupational Health Committee, and results from my thesis-related analyses are being converted into accessible formats such as infographics and pamphlets, which will be shared with the company and accessible to the public. While I recognize the limitations in generalizing findings, my thesis research results may still contribute to the improvement of the psychological health of mining industry workers more broadly. For instance, the findings summarized through the lens of the biopsychosocial model could serve as a starting point for future research seeking to examine and improve the mental health and wellbeing of similar workforces.

In light of some of the limitations and recommendations discussed, future research should seek to distinguish between subgroups of workers (e.g. miners vs. others, white-collar vs. blue-collar workers). In other words, studying various subgroups within a mining organization separately may lead to more precise results. While all workers employed by a mining company can be considered mining industry workers, and the objective of this study was to be inclusive of all workers at this company, our ability to conduct analyses comparing certain specific groups of

workers was limited. Notably, due to confidentiality concerns and lack of statistical power in some instances, it was not possible to compare specific job categories. Future research should therefore target specific groups within a mining organization and limit recruitment to one group at a time. As an example, a study of only underground miners using appropriate sampling methods to ensure statistical power would provide unique insight into the mental health implications of this particular occupational group.

Next steps should also include program evaluation studies following the implementation of new programs and policies, including follow-up assessments of worker mental health. Forming partnerships with researchers whose area of expertise include workplace health promotion and program evaluation would provide a solid foundation for moving forward with the recommendations, in addition to evidence to support program effectiveness (or lack thereof). This may also include follow-up cross-sectional studies at regular intervals to track any changes in worker wellbeing trends and devise updated evidence-based strategies on an ongoing basis.

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Appendices

Appendix A - Survey Instrument



Mental Health and Well-Being Questionnaire

The questionnaire will take approximately 40 to 50 minutes to complete. Your participation is completely voluntary. You may withdraw at any time. All questions contained in this questionnaire are strictly confidential; none of your individual responses will be shared with Vale or your union. You may skip any question that you are uncomfortable answering. If you do not wish to participate please return the blank questionnaire in the enclosed envelope. Thank you for your time.

DEMOGRAPHICS AND OVERALL HEALTH

1) What is your gender?

- Male Female Other

2) What is your primary language? _____

3) What is your age as of your last birthday (in years)? _____

4) What is the highest level of education that you have achieved?

- | | |
|--|---|
| <input type="checkbox"/> Less than High School | <input type="checkbox"/> Some University |
| <input type="checkbox"/> Some High School | <input type="checkbox"/> Undergraduate Degree |
| <input type="checkbox"/> High School Graduate | <input type="checkbox"/> Master's Degree |
| <input type="checkbox"/> Some College | <input type="checkbox"/> Doctoral Degree |
| <input type="checkbox"/> College Graduate | |

5) Were you born in Canada?

- Yes
 No

6) What is your ethnicity (*Check all that apply*)

- | | | |
|---|---|---|
| <input type="checkbox"/> White/Caucasian | <input type="checkbox"/> Eastern European | <input type="checkbox"/> West Asian |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Southeast Asian | <input type="checkbox"/> Western European |
| <input type="checkbox"/> Latin American | <input type="checkbox"/> Black | <input type="checkbox"/> Korean |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> South Asian | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Aboriginal, Métis
or Inuit? | <input type="checkbox"/> Filipino | |

7) What is your marital status? (Check all that apply)

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> Never legally married (single) | <input type="checkbox"/> Common law |
| <input type="checkbox"/> Legally married | <input type="checkbox"/> Divorced |
| <input type="checkbox"/> Separated | <input type="checkbox"/> Widowed |

8) How long have you worked in the mining industry? _____

9) Have you worked for mining companies other than Vale?

- Yes
 No

10) How long have you been working at Vale (in years)? _____

11) How many generations of your immediate family have been employed by Inco/Vale (e.g., mother/father, grandmother/grandfather)?

- 1 (Myself only)
 2 (Myself and a parent)
 3 (Myself, a parent, and a grandparent)
 4 (Myself, a parent, a grandparent, and a great-grandparent)

12) At which worksite are you currently employed? (Your primary worksite. If you work at multiple worksites, please identify the one you work at most often)

- | | |
|---|--|
| <input type="checkbox"/> Port Colborne Refinery | <input type="checkbox"/> Coleman Mine |
| <input type="checkbox"/> Creighton Mine | <input type="checkbox"/> Totten Mine |
| <input type="checkbox"/> Stobie Mine | <input type="checkbox"/> Copper Cliff Mine |
| <input type="checkbox"/> Garson Mine | <input type="checkbox"/> Smelter |
| <input type="checkbox"/> Matte Processing | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Power Department | <input type="checkbox"/> General Office |
| <input type="checkbox"/> General Engineering Building | <input type="checkbox"/> Clarabelle Mill |
| <input type="checkbox"/> Booster Station | <input type="checkbox"/> Filter Plant |
| <input type="checkbox"/> Nickel Refinery | <input type="checkbox"/> Electrowinning |
| <input type="checkbox"/> Reconditioning Shop | <input type="checkbox"/> Divisional Shops |
| <input type="checkbox"/> Central Lab | <input type="checkbox"/> Warehouse |
| <input type="checkbox"/> Acid Plant | <input type="checkbox"/> Oxygen Plant |
| <input type="checkbox"/> Water Plants | <input type="checkbox"/> Other: _____ |

13) To which of the following do you belong?

- USW Local 2020 CGA 105
 USW Local 6500 Non-Union Staff
 USW Local 6200

14) Which of the following categories best describes your occupation?

- | | |
|---|--|
| <input type="checkbox"/> Operations – Surface | <input type="checkbox"/> Engineer |
| <input type="checkbox"/> Operations – Underground | <input type="checkbox"/> Geologist |
| <input type="checkbox"/> Maintenance and Trades – Surface | <input type="checkbox"/> Front Line Supervisor (Ops & Mtce) |
| <input type="checkbox"/> Maintenance and Trades – Underground | <input type="checkbox"/> Superintendent/Manager (Ops & Mtce) |
| <input type="checkbox"/> Mines Tech | <input type="checkbox"/> Safety, Health or Environment Staff |
| <input type="checkbox"/> Process Tech | <input type="checkbox"/> Support Staff (e.g. HR, Plant Protection, L&D, Contract, Admin, etc.) |

15) How long have you been working at the occupation you identified in the previous question (Q14)?

_____ years and/or _____ months

16) Do you have people that report directly to you?

- Yes
 No

17) What is your current employment status? *Please check one.*

- Full-time, permanent
 Full-time, contract
 Casual
 Other, *please specify* _____

18) How much of your work is spent underground?

- None
 1 – 20 %
 21 – 40 %
 41 – 60 %
 61 – 80 %
 81 – 100 %

19) How much of your work is spent working on work-related committees (e.g. health and safety committee)?

- None
- 1 – 20 %
- 21 – 40 %
- 41 – 60 %
- 61 – 80 %
- 81 – 100 %

20) Do you participate in emergency response or mine rescue?

- Yes
- No

21) Please indicate the type of shifts you work. Please check all that apply.

- 8 hour Steady Days
- 8 hour Steady Afternoons
- 8 hour Steady Nights
- 8 hour Rotating Days and Afternoons
- 10.5 hour Steady Days
- 10.5 hour Steady Nights
- 10.5 hour Rotating Days and Nights
- 12 hour Steady Days
- 12 hour Steady Nights
- 12 hour Rotating Days and Nights
- Relief
- Other (Please explain - identify rotation and duration) _____

22) Does your schedule often change unexpectedly?

- Yes, often
- Yes, sometimes
- Yes, but rarely
- No

23) How long have you worked the shift you indicated above? (Q21)

_____ Years _____ Months

24) Are you satisfied with your current shift schedule?

- Yes
 Somewhat
 No

25) Do you work paid overtime?

- Yes
 No

If so, on average, how many paid overtime hours do you work per month? _____

26) Do you work unpaid overtime?

- Yes
 No

If so, on average, how many unpaid overtime hours do you work per month? _____

27) How many hours per week do you work in any other paid employment (outside of Vale)?
(Please mark "0" if no other employment)

_____ hours

28) Which of the following best describes your annual salary (without annual or quarterly bonuses or overtime)?

- | | |
|---|--|
| <input type="checkbox"/> Less than \$50,000 | <input type="checkbox"/> \$90,000-\$99,999 |
| <input type="checkbox"/> \$50,000-\$59,999 | <input type="checkbox"/> \$100,000-\$124,999 |
| <input type="checkbox"/> \$60,000-\$69,999 | <input type="checkbox"/> \$125,000-\$149,999 |
| <input type="checkbox"/> \$70,000-\$79,999 | <input type="checkbox"/> \$150,000 and above |
| <input type="checkbox"/> \$80,000-\$89,999 | |

29) Think back over the past year and tell us how much difficulty you had with paying your bills.
Would you say you had:

- A great deal of difficulty
- Quite a bit of difficulty
- Some difficulty
- A little difficulty
- No difficulty at all

30) What is your height?

_____ Feet (0-9) _____ Inches (Please round to the nearest inch)

31) What is your weight (in pounds)? _____ lbs

32) Within the past twelve months, has a doctor ever treated you for, or told you that you had any of the following? Please check all that apply if "Yes".

- | | |
|---|--|
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Stroke |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Anemia |
| <input type="checkbox"/> Hernia or rupture | <input type="checkbox"/> Gall Bladder, liver, or pancreas trouble |
| <input type="checkbox"/> Tuberculosis | <input type="checkbox"/> Thyroid trouble or goiter |
| <input type="checkbox"/> Asthma | <input type="checkbox"/> Insomnia |
| <input type="checkbox"/> "High" blood pressure | <input type="checkbox"/> Gastritis |
| <input type="checkbox"/> Heart disease | <input type="checkbox"/> Colitis |
| <input type="checkbox"/> Arthritis | <input type="checkbox"/> Reproductive health problems (e.g., erectile dysfunction) |
| <input type="checkbox"/> Lung or breathing problems | <input type="checkbox"/> No, I have not been treated for, or told that I have any of the above |

33) Would you consider yourself to be:

- A daily smoker
- An occasional smoker
- A former daily or occasional smoker
- A never smoker

34) If you are a current cigarette smoker, on average, how many cigarettes do you smoke per day?

- 14 or fewer cigarettes per day
 15 to 24 cigarettes per day
 25 or more cigarettes per day
 N/A

35) If you are a current or former cigarette smoker, how many total years have you smoked?

_____ years N/A

	Number of Hours
36) How much time do you usually spend sitting or reclining on a typical DAY? (Including at work, commuting, at home, sitting with friends, watching television, reading, etc. EXCLUDING SLEEP)	
37) How much time do you spend doing <u>moderate or vigorous intensity</u> physical activity at work on a typical DAY?	
38) How much time do you spend doing <u>moderate or vigorous intensity</u> leisure physical activity in a typical WEEK?	

39) During the past year, have you had a work-related injury?

- Yes
 No

If yes, how many? _____

40) Were these injuries reported?

- Yes
 No
 Some but not all
 N/A

41) Have you ever been on a disability leave (work-related or non-work related) for physical health reasons?

- Yes
 No

42) Have you been on a disability leave (work-related or non-work related) for physical health reasons in the last year?

- Yes
 No

43) Have you ever been on a disability leave (work-related or non-work related) for mental health reasons?

- Yes
 No

44) Have you been on a disability leave (work-related or non-work related) for mental health reasons in the last year?

- Yes
 No

45) Are you currently off work for physical health reasons?

- Yes
 No

46) Are you currently off work for mental health reasons?

- Yes
 No

47) During the past year about how many days (in total) were you absent from work due to work-related physical injury or illness?

- 0
 1 – 5
 6 – 10
 11 – 15
 16 or more

48) During the past year, about how many days (in total) were you absent due to non-work related physical injury or illness?

- 0
- 1 – 5
- 6 – 10
- 11 – 15
- 16 or more

49) During the past year about how many days (in total) were you absent due to work-related mental health issues?

- 0
- 1 – 5
- 6 – 10
- 11 – 15
- 16 or more

50) During the past year, about how many days (in total) were you absent due to non-work related mental health issues?

- 0
- 1 – 5
- 6 – 10
- 11 – 15
- 16 or more

51) On approximately how many days during the past year did you attend work while ill or injured?

_____ days

52) Here is a list of possible factors that could facilitate returning to work following a disability leave. If you have been on a disability leave (recently or in the past), please check all the factors that facilitated your return to work.

- | | |
|--|---|
| <input type="checkbox"/> Good medical support from my health care provider(s) | <input type="checkbox"/> My supervisor supported my return to work |
| <input type="checkbox"/> I received appropriate and timely medical treatment for my condition | <input type="checkbox"/> My coworkers supported my return to work |
| <input type="checkbox"/> I received good mental health services | <input type="checkbox"/> My family supported my return to work |
| <input type="checkbox"/> My treatment providers encouraged me to return to work (modified work or other) | <input type="checkbox"/> My friends supported my return to work |
| <input type="checkbox"/> I received support and assistance from Vale Occupational Medicine | <input type="checkbox"/> Financially, I had no other choice |
| <input type="checkbox"/> My employer offered suitable modified work | <input type="checkbox"/> Other: _____ |
| | <input type="checkbox"/> N/A, I have not been on a disability leave |
| | <input type="checkbox"/> N/A, I am currently off work on disability leave |

53) Here is a list of possible barriers to returning to work following a disability leave. If you have been on a disability leave (recently or in the past), please check all those that were barriers to your return to work.

- | | |
|---|--|
| <input type="checkbox"/> Lack of medical support from my health care provider(s) | <input type="checkbox"/> My supervisor did not support my return to work |
| <input type="checkbox"/> I did not receive appropriate and timely medical treatment for my condition | <input type="checkbox"/> My coworkers did not support my return to work |
| <input type="checkbox"/> I did not receive good mental health services | <input type="checkbox"/> My family did not support my return to work |
| <input type="checkbox"/> My treatment providers did not encourage me to return to work (modified work or other) | <input type="checkbox"/> My friends did not support my return to work |
| <input type="checkbox"/> I did not receive support and assistance from Vale Occupational Medicine | <input type="checkbox"/> I did not feel ready, but financially I had no choice but to return to work |
| <input type="checkbox"/> My employer did not offer suitable modified work | <input type="checkbox"/> Other: _____ |
| | <input type="checkbox"/> N/A, I have not been on a disability leave |
| | <input type="checkbox"/> N/A, I am currently off work on disability leave |

54) Have you ever been diagnosed with a mental health related issue (e.g. depression or anxiety or other)?

- Yes
 No

If so, please state this diagnosis _____

55) Have you been diagnosed with a mental health related issue in the last year?

- Yes
 No

If so, please state this diagnosis _____

56) Have you ever received treatment for any mental health related issues?

- Yes
 No

If so, from whom did you receive this treatment? (Check all that apply)

- Psychologist
 Psychiatrist
 Family Physician
 Social Worker
 Religious or Spiritual Leader
 Employee Assistance Program Provider
 Other: _____

57) Are you taking any medication for a mental health related issue?

- Yes
 No

If yes, please specify: _____

58) Are you taking any medication for a physical health related issue?

- Yes
 No

If yes, please specify: _____

59) Have you lost a family member or close friend in the last year?

- Yes
 No

60) How many dependent children do you have? _____

	YES	NO
61) Do you have responsibility for the care of an elderly person on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>
62) Do you have responsibility for the care of any other person with a disability on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>
63) Are you going to school or taking courses for credit toward a degree or diploma?	<input type="checkbox"/>	<input type="checkbox"/>
64) Do you belong to a religious/spiritual organization?	<input type="checkbox"/>	<input type="checkbox"/>

65) On average, how much time do you spend commuting to work (one roundtrip)?

- Less than 30 minutes
 30 minutes to 1 hour
 1 hour to 1 hour and 30 minutes
 1 hour and 30 minutes to 2 hours
 More than 2 hours

MENTAL HEALTH

Instructions: Below is a list of problems that people sometimes have in response to a very **stressful experience**. Please read each problem carefully and then check one of the boxes to indicate how much you have been bothered by that problem **in the past month**.

IN THE PAST MONTH, HOW MUCH WERE YOU BOTHERED BY:

	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of stressful experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Repeated, disturbing dreams of the stressful experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Feeling very upset when something reminded you of the stressful experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Having strong physical reactions when something reminded you of the stressful experience) for example, heart pounding, trouble breathing, sweating)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Trouble remembering important parts of the stressful experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IN THE PAST MONTH, HOW MUCH WERE YOU BOTHERED BY:	Not at all	A little bit	Moderately	Quite a bit	Extremely
10. Blaming yourself or someone else for the stressful experience or what happened after it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Loss of interest in activities that you used to enjoy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Feeling distant or cut off from other people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Irritable behavior, angry outburst, or acting aggressively?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Taking too many risks or doing things that could cause you harm?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Being "superalert" or watchful or on guard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Feeling jumpy or easily startled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Having difficulty concentrating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Trouble falling or staying asleep?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Have you ever participated in Critical Incident Stress Management/Debriefing process?

- YES
 NO
 I don't know what the Critical Incident Stress Management/Debriefing process is

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling **DURING THE PAST TWO WEEKS, INCLUDING TODAY**. Check the box beside the statement you have picked. If several statements in the group seem to apply equally well, check the one that is furthest to the right for that group. Be sure that you do not choose more than one statement for any group.

Sadness	<input type="checkbox"/> I do not feel sad.	<input type="checkbox"/> I feel sad much of the time.	<input type="checkbox"/> I am sad all the time.	<input type="checkbox"/> I am so sad or unhappy that I can't stand it.
Pessimism	<input type="checkbox"/> I am not discouraged about my future.	<input type="checkbox"/> I feel more discouraged about my future than I used to be.	<input type="checkbox"/> I do not expect things to work out for me.	<input type="checkbox"/> I feel my future is hopeless and will only get worse.
Past Failure	<input type="checkbox"/> I do not feel like a failure	<input type="checkbox"/> I have failed more than I should have	<input type="checkbox"/> As I look back, I see a lot of failures	<input type="checkbox"/> I feel I am a total failure as a person
Loss of Pleasure	<input type="checkbox"/> I get as much pleasure as I ever did from things I enjoy.	<input type="checkbox"/> I don't enjoy things as much as I used to.	<input type="checkbox"/> I get very little pleasure from the things I used to enjoy.	<input type="checkbox"/> I can't get any pleasure from the things I used to enjoy.
Guilty feelings	<input type="checkbox"/> I don't feel particularly guilty.	<input type="checkbox"/> I feel guilty over many things I have done or should have done.	<input type="checkbox"/> I feel quite guilty most of the time.	<input type="checkbox"/> I feel guilty all of the time.
Punishment Feelings	<input type="checkbox"/> I don't feel I am being punished.	<input type="checkbox"/> I feel I may be punished.	<input type="checkbox"/> I expect to be punished.	<input type="checkbox"/> I feel I am being punished
Self-Dislike	<input type="checkbox"/> I feel the same about myself as ever.	<input type="checkbox"/> I have lost confidence in myself.	<input type="checkbox"/> I am disappointed in myself.	<input type="checkbox"/> I dislike myself.
Self-Criticalness	<input type="checkbox"/> I don't criticize or blame myself more than usual.	<input type="checkbox"/> I am more critical of myself than I used to be.	<input type="checkbox"/> I criticize myself for all my faults.	<input type="checkbox"/> I blame myself for everything bad that happens.
Suicidal Thoughts or Wishes	<input type="checkbox"/> I don't have any thoughts of killing myself.	<input type="checkbox"/> I have thoughts of killing myself, but I would not carry them out.	<input type="checkbox"/> I would like to kill myself.	<input type="checkbox"/> I would kill myself if I had the chance.

Crying	<input type="checkbox"/> I don't cry any more than I used to.	<input type="checkbox"/> I cry more than I used to.	<input type="checkbox"/> I cry over every little thing.	<input type="checkbox"/> I feel like crying, but I can't.
Agitation	<input type="checkbox"/> I am no more restless or wound up than usual.	<input type="checkbox"/> I feel more restless or wound up than usual.	<input type="checkbox"/> I am so restless or agitated that it's hard to stay still.	<input type="checkbox"/> I am so restless or agitated that I have to keep moving or doing something.
Loss of Interest	<input type="checkbox"/> I have not lost interest in other people or activities.	<input type="checkbox"/> I am less interested in other people or things than before.	<input type="checkbox"/> I have lost most of my interest in other people or things.	<input type="checkbox"/> It's hard to get interested in anything.
Indecisiveness	<input type="checkbox"/> I make decisions about as well as ever.	<input type="checkbox"/> I find it more difficult to make decisions than usual.	<input type="checkbox"/> I have much greater difficulty in making decisions than I used to.	<input type="checkbox"/> I have trouble making any decisions
Worthlessness	<input type="checkbox"/> I do not feel I am worthless.	<input type="checkbox"/> I don't consider myself as worthwhile and useful as I used to.	<input type="checkbox"/> I feel more worthless as compared to other people.	<input type="checkbox"/> I feel utterly worthless.
Loss of Energy	<input type="checkbox"/> I have as much energy as ever.	<input type="checkbox"/> I have less energy than I used to have.	<input type="checkbox"/> I don't have enough energy to do very much.	<input type="checkbox"/> I don't have enough energy to do anything.
Irritability	<input type="checkbox"/> I am not more irritable than usual.	<input type="checkbox"/> I am more irritable than usual.	<input type="checkbox"/> I am much more irritable than usual.	<input type="checkbox"/> I am irritable all the time.
Concentration Difficulty	<input type="checkbox"/> I can concentrate as well as ever.	<input type="checkbox"/> I can't concentrate as well as usual.	<input type="checkbox"/> It's hard to keep my mind on anything for very long.	<input type="checkbox"/> I find I can't concentrate on anything.
Tiredness or Fatigue	<input type="checkbox"/> I am no more tired or fatigued than usual.	<input type="checkbox"/> I get more tired or fatigued more easily than usual.	<input type="checkbox"/> I am too tired or fatigued to do a lot of things I used to do.	<input type="checkbox"/> I am too tired or fatigued to do most of the things I used to.

Loss of interest in Sex	<input type="checkbox"/> I have not noticed any recent change in my interest in sex	<input type="checkbox"/> I am less interested in sex than I used to be.	<input type="checkbox"/> I am much less interested in sex now.	<input type="checkbox"/> I have lost interest in sex completely.
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Changes in Sleeping Pattern						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have not experienced any change in my sleeping pattern	I sleep somewhat more than usual.	I sleep somewhat less than usual.	I sleep a lot more than usual.	I sleep a lot less than usual.	I sleep most of the day.	I wake up 1-2 hours early and can't get back to sleep.

Changes in Appetite						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have not experienced any change in my appetite.	My appetite is somewhat less than usual.	My appetite is somewhat greater than usual.	My appetite is much less than before.	My appetite is much greater than usual.	I have no appetite at all.	I crave food all the time.

Below is a list of symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by each symptom during the **PAST WEEK, INCLUDING TODAY**, by placing an X (or check mark) in the corresponding space in the column next to each symptom.

(PAST WEEK, INCLUDING TODAY)	Not at all	Mildly It did not bother me much	Moderately It was very unpleasant, but I could stand it	Severely I could barely stand it
1. Numbness or tingling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Feeling hot.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Wobbliness in legs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Unable to relax.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Fear of the worst happening.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(PAST WEEK, INCLUDING TODAY)	Not at all	Mildly It did not bother me much	Moderately It was very unpleasant, but I could stand it	Severely I could barely stand it
6. Dizzy or lightheaded.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Heart pounding or racing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Unsteady.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Terrified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Nervous.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Feelings of choking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Hands trembling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Shaky.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Fear of losing control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Difficulty breathing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Fear of dying.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Scared.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Indigestion or discomfort in abdomen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Faint.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Face flushed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Sweating (not due to heat).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SLEEP AND FATIGUE

The following questions relate to your **usual sleep habits** during the **past month only**. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, how would you rate your sleep quality overall?

- Very good
- Fairly good
- Fairly bad
- Very bad

	YES	NO
2. Have you experienced any difficulties falling asleep for (longer than one month)?	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you experienced difficulties with maintaining your daily sleep period (longer than one month)?	<input type="checkbox"/>	<input type="checkbox"/>
4. Have you experienced early morning awakening with the inability to return to sleep (longer than one month)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Have you been diagnosed with any kind of sleep disorder? If yes, please specify : _____	<input type="checkbox"/>	<input type="checkbox"/>

6. If you are a steady days worker, how many hours of actual sleep do you get at night? (This may be different than the number of hours you spend in bed)

_____ hours of sleep

7. If you are a shiftworker, please identify the number of hours of actual sleep you get between working each shift (this may be different than the number of hours you spend in bed.)

When on nightshift: _____ hours of sleep

When on dayshift: _____ hours of sleep

When on afternoon shift: _____ hours of sleep

8. During the past month, how often have you had trouble sleeping because you...

	Not during the past month	Less than once a week	Once or twice a week	Three or more times a week
a) Cannot get to sleep in 30 minutes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Wake up in the middle of the night or early morning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have to get up to use the bathroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Cannot breathe comfortably	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Cough or snore loudly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Feel too cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Feel too hot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Have bad dreams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Have pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Other reason(s), please describe :	<hr/> <hr/> <hr/> <hr/>			
During the past month...	Not during the past month	Less than once a week	Once or twice a week	Three or more times a week
9. How often have you taken medicine to help you sleep (prescribed or "over the counter")?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

- No problem at all
- Only a very slight problem
- Somewhat of a problem
- A very big problem

During the past week, I have found that:

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
My motivation is lower when I am fatigued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exercise brings on my fatigue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am easily fatigued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue interferes with my physical functioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue causes frequent problems for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My fatigue prevents sustained physical functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue interferes with carrying out certain duties and responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue is among my most disabling symptoms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue interferes with my work, family, or social life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ADDITIONAL COMMENTS:

ALCOHOL CONSUMPTION & DRUG USE

Please read the questions carefully. The questions are about your use of alcoholic beverages during **THE PAST YEAR**.

1. When drinking, how many standard drinks containing alcohol (12 oz regular beer or 5oz of wine or 1.5oz of hard liquor) do you have on a typical day?

1 or 2

3 or 4

5 or 6

7 to 9

10 or more

I never drink

	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
2. How often do you have a drink containing alcohol?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How often do you have six or more drinks on one occasion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. During the past year, how often have you found that you were not able to stop drinking once you had started?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. During the past year, how often have you failed to do what was normally expected of you because of drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. During the past year, how often have you had a feeling of guilt or remorse after drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. During the past year, have you been unable to remember what happened the night before because you had been drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	NO	YES	YES, IN THE LAST YEAR
9. Have you been injured as a result of your drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Has someone else been injured as a result of your drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested you cut down?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Have you ever seen one of your co-workers or colleagues use alcohol or under the influence of alcohol while on the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have you ever drunk at work or attended work under the influence of alcohol?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following questions concern your potential involvement with drugs other than alcohol. When you answer the questions, remember that the term **“drug abuse” does not include alcohol**. Instead, it refers to your use of **prescribed or over the counter drugs in excess of the recommended dosage**. For example, if you were given a prescription for pain killers, but took more than you were supposed to, that would be included. The phrase “drug abuse” also includes **any non-medical drug use, including illegal drugs**. This includes substances such as marijuana, valium, cocaine, amphetamines, LSD, and heroin. Remember that the term “drug abuse” does not include alcohol. If you have difficulty with a statement, then choose the response that is mostly right.

1. How often do you use drugs?

Never Monthly or less 2-4 times a month 2-3 times a week 4 or more times a week Daily

2. During the past year, how often have you failed to do what was normally expected of you because of your use of drugs?

Never Less than monthly Monthly Weekly Daily or almost daily

	NO	YES	YES, IN THE LAST YEAR
3. Have you ever felt you ought to cut down on your drug use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Have you been injured as a result of your drug use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Has someone else been injured as a result of your drug use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Have you ever observed a workplace incident/accident caused by someone's use of drugs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Have you ever seen one of your coworkers or colleagues use drugs or under the influence of drugs while on the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Have you ever used drugs at work or attended work under the influence of drugs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	NO	YES
1. Have you used drugs other than those required for medical reasons?	<input type="checkbox"/>	<input type="checkbox"/>
2. Have you abused prescription drugs?	<input type="checkbox"/>	<input type="checkbox"/>
3. Do you abuse more than one drug at a time?	<input type="checkbox"/>	<input type="checkbox"/>
4. Can you get through the week without using drugs?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are you always able to stop using drugs when you want to?	<input type="checkbox"/>	<input type="checkbox"/>
6. Have you had "blackouts" or "flashbacks" as a result of drug use?	<input type="checkbox"/>	<input type="checkbox"/>
7. Do you ever feel bad or guilty about your drug use?	<input type="checkbox"/>	<input type="checkbox"/>
8. Does your spouse (or parents) ever complain about your involvement with drugs?	<input type="checkbox"/>	<input type="checkbox"/>
9. Has drug abuse created problems between you and your spouse or your parents?	<input type="checkbox"/>	<input type="checkbox"/>
10. Have you lost friends because of your use of drugs?	<input type="checkbox"/>	<input type="checkbox"/>
11. Have you neglected your family because of your use of drugs?	<input type="checkbox"/>	<input type="checkbox"/>
12. Have you been in trouble at work (or school) because of drug abuse?	<input type="checkbox"/>	<input type="checkbox"/>
13. Have you lost a job because of drug abuse?	<input type="checkbox"/>	<input type="checkbox"/>

	NO	YES
14. Have you gotten into fights when under the influence of drugs?	<input type="checkbox"/>	<input type="checkbox"/>
15. Have you engaged in illegal activities in order to obtain drugs?	<input type="checkbox"/>	<input type="checkbox"/>
16. Have you been arrested for possession of illegal drugs?	<input type="checkbox"/>	<input type="checkbox"/>
17. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	<input type="checkbox"/>	<input type="checkbox"/>
18. Have you had medical problems as a result of your drug use? (e.g. memory loss, hepatitis, convulsions, bleeding, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
19. Have you gone to anyone for help for a drug problem?	<input type="checkbox"/>	<input type="checkbox"/>
20. Have you been involved in a treatment program specifically related to drug use?	<input type="checkbox"/>	<input type="checkbox"/>

BURNOUT

	Never/almost never or to a very low degree	Seldom or to a low degree	Sometimes or somewhat	Often or to a high degree	Always or to a very high degree
Personal Burnout					
How often do you feel tired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often are you physically exhausted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often are you emotionally exhausted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often do you think: "I can't take anymore"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often do you feel worn out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often do you feel weak and susceptible to illness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work related burnout					
Do you feel worn out at the end of the working day?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you exhausted in the morning at the thought of another day at work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you feel that every working hour is tiring for you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have enough energy for family and friends during leisure time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is your work emotionally exhausting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your work frustrate you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you feel burnt out because of your work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colleague-related burnout					
Do you find it hard to work with colleagues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does it drain your energy to work with colleagues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you find it frustrating to work with colleagues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you feel that you give more than you get back when you work with colleagues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you tired of working with colleagues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you sometimes wonder how long you will be able to continue working with colleagues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RELATIONSHIPS, FAMILY & WORK-LIFE BALANCE

Please **check the number** that best describes your current relationship. You may skip the following 7 questions if you are not currently in a relationship.

1. How well does your partner meet your needs?

Poorly		Average		Extremely well
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. In general, how satisfied are you with your relationship?

Unsatisfied		Average		Extremely satisfied
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. How good is your relationship compared to most?

Poor		Average		Excellent
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. How often do you wish you hadn't gotten in this relationship?

Never		Average		Very often
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. To what extent has your relationship met your original expectations?

Hardly at all		Average		Completely
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. How much do you love your partner?

Not much		Average		Very much
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How many problems are there in your relationship?

Very few		Average		Very many
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Generally, how satisfied are you with your relationship with your children (if you have any)?

Very satisfied

Unsatisfied

Satisfied

Very unsatisfied

Somewhat satisfied

N/A

How satisfied are you with...	Very unsatisfied	Unsatisfied	Somewhat satisfied	Satisfied	Very satisfied
1. The way you divide your time between work and personal or family life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The way you divide your attention between work and home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How well your work life and your personal or family life fit together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Your ability to balance the needs of your job with those of your personal or family life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The opportunity you have to perform your job well and yet be able to perform home-related duties adequately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PERCEIVED STRESS

IN THE LAST MONTH...	Never	Almost Never	Sometimes	Fairly Often	Very Often
1. How often have you been upset because of something that happened unexpectedly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How often have you felt that you were unable to control the important things in your life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How often have you felt nervous and "stressed"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How often have you dealt successfully with day to day problems and annoyances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. How often have you felt that you were effectively coping with important changes that were occurring in your life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. How often have you felt confident about your ability to handle your personal problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. How often have you felt that things were going your way?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. How often have you found that you could not cope with all the things that you had to do?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. How often have you been able to control irritations in your life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. How often have you felt that you were on top of things?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. How often have you been angered because of things that happened that were outside of your control?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. How often have you found yourself thinking about things that you have to accomplish?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. How often have you been able to control the way you spend your time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. How often have you felt difficulties were piling up so high that you could not overcome them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly disagree	Disagree	Agree	Strongly Agree
1. I have constant time pressure due to a heavy workload.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I have many interruptions and disturbances while performing my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I have a lot of responsibility in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am often pressured to work overtime.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. My job is physically demanding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Over the past few years, my job has become more and more demanding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I receive the respect I deserve from my superior or a respective relevant person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I experience adequate support in difficult situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I am treated unfairly at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. My job promotion prospects are poor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I have experienced or I expect to experience an undesirable change in my work situation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. My employment security is poor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. My current occupational position adequately reflects my education and training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Considering all my efforts and achievements, I receive the respect and prestige I deserve at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Considering all my efforts and achievements, my job promotion prospects are adequate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Considering all my efforts and achievements, my salary / income is adequate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1. The possibility of losing my job occupies my thoughts constantly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. No matter how hard I work there is no guarantee that I am going to keep my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am certain of losing my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I'm not sure of how long my job will last.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I am uncertain about my future with this organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The probability of being laid-off is high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Senior management is really trying to build this organization and make it successful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Management appears to be preparing in advance and planning for the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. This organization seems to have clear goals and a definite strategy for achieving them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Overall, my physical working conditions are likely to deteriorate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I am expecting unfavorable changes to my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I expect to have fewer resources to meet the performance requirements of my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
13. The rewards of my job are likely to diminish.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I will probably lose many features of my job that I value the most.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I wish my job could go back to the way it used to be.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I feel like I am being given the "silent treatment" in this organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I am often excluded from discussions or meetings that affect me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I feel as though management is avoiding me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

JOB REQUIREMENTS

	Rarely	Occasionally	Sometimes	Fairly Often	Very Often
1. How often does your job require you to work <i>very fast</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How often does your job require you to work <i>very hard</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How often does your job leave you with little time to get things done?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How often is there a great deal to be done?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. How often is there a marked increase in the work load?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. How often is there a marked increase in the amount of concentration required on your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. How often is there a marked increase in <i>how fast</i> you have to think?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. How often does your job let you use the skills and knowledge you learned in school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. How often are you given a chance to do the things you do best?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. How often can you use the skills from your previous experience and training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

JOB SATISFACTION

1. Knowing what you know now, if you had to decide all over again whether to take the type of job you now have, what would you decide?
 - I would decide without hesitation to take the same job
 - I would have some second thoughts

2. If you were free right now to go into any type of job you wanted, what would your choice be?
 - I would take the same job.
 - I would take a different job.
 - I would not want to work.

3. As long as I am making money, it doesn't matter to me what job I have.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

4. If a friend of yours told you he/she was interested in working in a job like yours, what would you tell him/her?
 - I would strongly recommend it.
 - I would have doubts about recommending it.
 - I would advise against it.

5. All in all, how satisfied would you say you are with your job?
 - I am very satisfied.
 - I am somewhat satisfied.
 - I am not too satisfied.
 - I am not at all satisfied.

MENTAL DEMANDS

	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
1. My job requires a great deal of concentration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. My job requires me to remember many different things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I must keep my mind on my work at all times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I can take it easy and still get my work done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I can let my mind wander and still do the work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PHYSICAL ENVIRONMENT

(The environment you usually or most frequently work in)	TRUE	FALSE
1. The level of NOISE in the area(s) in which I work is usually high.	<input type="checkbox"/>	<input type="checkbox"/>
2. The level of LIGHTING in the area(s) in which I work is usually poor.	<input type="checkbox"/>	<input type="checkbox"/>
3. The TEMPERATURE of my work area(s) during the SUMMER is usually comfortable.	<input type="checkbox"/>	<input type="checkbox"/>
4. The TEMPERATURE of my work area(s) during the WINTER is usually comfortable.	<input type="checkbox"/>	<input type="checkbox"/>
5. The HUMIDITY in my work area(s) is usually either too high or too low.	<input type="checkbox"/>	<input type="checkbox"/>
6. The level of AIR CIRCULATION in my work area(s) is good.	<input type="checkbox"/>	<input type="checkbox"/>
7. The AIR in my work area(s) is clean and free of pollution.	<input type="checkbox"/>	<input type="checkbox"/>
8. In my job, I am well protected from exposure to DANGEROUS SUBSTANCES.	<input type="checkbox"/>	<input type="checkbox"/>
9. The overall quality of the PHYSICAL ENVIRONMENT where I work is poor.	<input type="checkbox"/>	<input type="checkbox"/>
10. My WORK AREA(S) is/are awfully crowded.	<input type="checkbox"/>	<input type="checkbox"/>

WORK HAZARDS

	Never	Occasionally	Sometimes	Fairly Often	Very Often
1. How often does your job expose you to verbal abuse and/or confrontations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How often does your job expose you to the threat of physical harm or injury?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How often have you been physically assaulted within the past 12 months while performing your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How often does your job personally subject you to potential legal liability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WORKLOAD AND RESPONSIBILITY

	Hardly any	A little	Some	A Lot	A Great Deal
1. How much slowdown in the work load do you experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How much time do you have to think and contemplate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How much work load do you have?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. What quantity of work do others expect you to do?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. How much time do you have to do all your work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. How many projects, assignments, or tasks do you have?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. How many lulls between heavy work load periods do you have?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Hardly any	A little	Some	A Lot	A Great Deal
8. How much responsibility do you have for the future of others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. How much responsibility do you have for the job security of others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. How much responsibility do you have for the morale of others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. How much responsibility do you have for the welfare and lives of others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SOCIAL SUPPORT

	Very Much	Somewhat	A little	Not at All	Don't Have Any Such Person
1. How much do each of these people go out of their way to do things to <i>make your work life easier</i> for you?					
a) Your immediate supervisor (boss)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Other people at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Your spouse, friends and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How easy is it for you to talk with each of the following people?					
a) Your immediate supervisor (boss)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Other people at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Your spouse, friends and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Very Much	Somewhat	A little	Not at All	Don't Have Any Such Person
3. How much can each of these people be <i>relied</i> on when things get tough at work?					
a) Your immediate supervisor (boss)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Other people at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Your spouse, friends and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How much is each of the following <i>willing to listen</i> to your personal problems?					
d) Your immediate supervisor (boss)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other people at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Your spouse, friends and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ADDITIONAL COMMENTS:

WELL-BEING AT WORK

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
1. My employer offers services or benefits that adequately address my psychological and mental health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. All people in our workplace are held accountable for their actions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. In my job, I know what I am expected to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. People treat each other with respect and consideration in our workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Hiring/promotion decisions consider the "people skills" necessary for specific positions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I receive feedback at work that helps me grow and develop.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. My immediate supervisor appreciates my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I am able to talk to my immediate supervisor about how I do my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The amount of work I am expected to do is reasonable for my position.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I enjoy my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. My employer encourages me to take my entitled breaks (e.g., lunchtime, sick time, vacation time, earned days off, parental leave).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. My employer is committed to minimizing unnecessary stress at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Management takes appropriate action to protect my physical safety at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. My supervisor would say or do something helpful if I looked distressed while at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. People at work show sincere respect for others' ideas, values and beliefs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
16. Leadership in my workplace is effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Our workplace effectively handles "people problems" that exist between staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. My company hires people who fit well within the organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. My supervisor is open to my ideas for taking on new opportunities and challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I am paid fairly for the work I do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I have some control over how I organize my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I can talk to my supervisor about the amount of work I have to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I am willing to give extra effort at work if needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I am able to reasonably balance the demands of work and personal life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. My immediate supervisor cares about my emotional well-being	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. My employer offers sufficient training to help protect my physical safety at work (emergency preparedness, safe lifting, violence prevention).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I feel supported in my workplace when I am dealing with personal or family issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Difficult situations at work are addressed effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. I am informed about important changes at work in a timely manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. People from all backgrounds are treated fairly in our workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. I have the social and emotional skills needed to do my job well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. I have the opportunity to advance within my organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. My company appreciates extra effort made by employees.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
34. My opinions and suggestions are considered at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. I have the equipment and resources needed to do my job well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. My work is an important part of who I am.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. My employer promotes work-life balance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. My employer makes efforts to prevent harm to employees from harassment, discrimination or violence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. When physical accidents occur or physical risks are identified, my employer responds effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. My workplace supports employees who are returning to work after time off due to a mental health condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. I feel that I am part of a community at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. My supervisor provides helpful feedback on my performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Unnecessary conflict is kept to a minimum in our workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. My supervisor believes that social skills are as valuable as other skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. My company values employees' ongoing growth and development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. Our organization celebrates our shared accomplishments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. I am informed of important changes that may impact how my work is done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. My work is free from unnecessary interruptions and disruptions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. I am committed to the success of my organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. I can talk to my supervisor when I am having trouble maintaining work-life balance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
51. I would describe my workplace as being psychologically healthy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. I have the equipment and tools I need to do my job in a physically safe way (protective clothing, adequate lighting, ergonomic seating).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. People in my workplace have a good understanding of the importance of employee mental health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. Employees and management trust one another.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. My organization provides clear, effective communication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. My workplace has effective ways of addressing inappropriate behaviour by customers or clients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. My position makes good use of my personal strengths.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. I have the opportunity to develop my "people skills" at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59. My employer values my commitment and passion for my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60. My employer encourages input from all staff on important issues related to their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61. I have control over prioritizing tasks and responsibilities when facing multiple demands at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62. I am proud of the work I do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63. I have energy left at the end of most workdays for my personal life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64. My employer deals effectively with situations that may threaten or harm employees (e.g., harassment, discrimination, violence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65. My employer responds appropriately when workers raise concerns about physical safety.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

66. I have been discriminated against in the workplace.

Yes

No

If yes, for what reasons? (Check all that apply)

Gender

Race or cultural/ethnic background

Age

Mental illness

Pregnancy

Religion/spiritual beliefs

Disability

Sexual orientation

Other : _____

67. In my workplace, I am being bullied or harassed, either verbally, physically or sexually.

Yes

No

68. In my workplace, I am being treated unfairly because I have a mental illness.

Yes

No

ATTITUDE TOWARDS MENTAL HEALTH

The following 5 questions are about attitudes toward mental health/illness. If you have never experienced any mental health issues, you may skip these 5 questions.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1. I am scared of how other people will react if they find out about my mental health problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I worry about telling people I receive psychological treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I would say I have had mental health problems if I was applying for a job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I avoid telling people about my mental health problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I feel the need to hide my mental health problems from my friends and family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ADDITIONAL COMMENTS:

VACATION AND TIME OFF

1. Are you able to take your vacation when desired?

- Yes
- No

If no, does this have an impact on any of the following? (check all that apply)

- Physical health
- Mental health
- Family or personal life
- Work relationships
- Other (please explain): _____

WHEN I AM ON MY DAYS OFF OR ON VACATION:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2. I forget about work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I get a break from the demands of work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I do relaxing things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I feel like I can decide for myself what to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I get more sleep than I would if I was working.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments

You are welcome to comment, make suggestions or add any further information you believe has not been addressed.

Appendix B - Independent Regression Variables

Analysis Guide

Individual and Demographic Factors		
Variable	Description	Dummy Variables
Gender	Demographics question 1 “What is your gender?” Name: gender1 Label: What is your gender? Categorical variable (nominal – dichotomous) 0=male 1=female *no one selected “other” therefore it was excluded as a category	N/A
Education	Demographics question 4 “What is the highest level of education that you have achieved?” Name : education Label : What is the highest level of education that you have achieved? Categorical variable (ordinal) 1= less than high school 2= some high school 3= high school graduate 4= some college 5= college graduate 6= some university 7= undergraduate degree 8= master’s degree 9= doctoral degree	Names: Ed_LessThanHighschool Ed_SomeHighSchool Ed_HighSchoolGrad Ed_SomeCollege Ed_CollegeGrad Ed_SomeUniversity Ed_Undergrad Ed_Masters Ed_PhD (Ed_missing) Labels: education=Less than High School education=Some High School education=High School Graduate education=Some College

		education=College Graduate education=Some University education=Undergraduate Degree education=Master's Degree education=Doctoral Degree
Salary	Demographics question 28 “Which of the following best describes your annual salary (without annual or quarterly bonuses or overtime)?” Name: income Label: Which of the following best describes your annual salary? Categorical variable (ordinal): 1= Less than \$50 000 2= \$50,000-\$59,999 3= \$60,000-\$69,999 4= \$70,000-\$79,999 5= \$80,000-\$89,999 6= \$90,000-\$99,999 7= \$100,000-\$124,999 8= \$125,000-\$149,999 9= \$150,000 and above	Names: Salary_1 Salary_2 Salary_3 Salary_4 Salary_5 Salary_6 Salary_7 Salary_8 Salary_9 (Salary_10 = missing) Labels: income=Less than 50,000 income=50,000-59,999 income=60,000-69,999 income=70,000-79,000 income=80,000-89,999 income=90,000-99,999 income=100,000-124,999 income=125,000-149,999 income=150,000 and above
Marital status	Demographics question 7 “What is your marital status? (check all that apply)” Already dichotomized – no need to create dummy variables Categorical variables (nominal – dichotomous) 0=no, 1=yes Names:	Not necessary, already dichotomized (0,1)

	<p>marital_single marital_married marital_separated marital_commonlaw marital_divorced marital_widowed</p> <p>Labels: What is your marital status?-never legally married (single) What is your marital status?-legally married What is your marital status?-separated What is your marital status?-common law What is your marital status?-divorced What is your marital status?-widowed</p>	
<p>Age*</p>	<p>Demographics question 3 “What is your age as of your last birthday (in years)?”</p> <p>Option 1 : continuous variable Name: age Label: What is your age as of your last birthday (in years)?</p> <p>Option 2: Categorical variable (ordinal) Name: Age_categoriesNEW Label: Age categories REVISED</p> <p>1= <30 2= 30-39 3= 40-49 4= 50-59 5= 60+</p>	<p>Option 1: N/A – continuous variable</p> <p>Option 2: (recoded manually)</p> <p>Names: Age_lessthan30 Age_30to39 Age_40to49 Age_50to59 Age_60orolder</p> <p>Labels:</p>

		age <30 age 30-39 age 40-49 age 50-59 age 60+
Ethnicity	Demographics question 6 “What is your ethnicity?” Already dichotomized – no need to create dummy variables Categorical variables (nominal – dichotomous) 0=no, 1=yes Name: WhiteCaucasian Label: Ethnicity_whitecaucasian Name: Aboriginal Label: Ethnicity_aboriginal_inuit_métis Name: OtherEthnicitiesCombinedNEW Label: ethnicity_other	Not necessary, already dichotomized (0,1) Note: combined all other ethnicities because the cell sizes were much too small to keep separate
Past-year diagnosis of a physical health problem	Demographics question 32 “Within the past twelve months, has a doctor ever treated you for, or told you that you had any of the following? Please check all that apply if "Yes".” Option 1: keep all individual health problems Categorical variables (nominal – dichotomous) 0=no, 1=yes Names: diabetes cancer hernia tuberculosis asthma high_blood	Not necessary, already dichotomized (0,1)

	<p>heart_disease arthritis lung_breathing stroke anemia gall_bladder thyroid insomnia gastritis colitis reproductive_health</p> <p>Labels: Within the past twelve months, has a doctor ever treated you for, or told you that you had any of the following? – (insert disease name)</p> <p>Option 2: only 2 groups – disease or no disease</p> <p>Categorical variables (nominal – dichotomous) 0=none, 1=diagnosed with any disease</p> <p>Name: pastyear_physicalhealthdiagnosis Label: Diagnosed with any kind of physical disease within the last 12 months</p>	
Past-year work-related injury	<p>Demographics question 39 “During the past year, have you had a work-related injury?”</p> <p>Categorical variable (nominal – dichotomous) 0=no, 1=yes</p> <p>Name : workrelated_injuries Label: During the past year, have you had a reportable work-related injury?</p>	Not necessary, already dichotomized (0,1)
BMI*	Calculated from height and weight recorded in demographics	Option 2:

	<p>Option 1: Continuous variable Name : BMI Label : What is your body mass index (weight, in kilograms, over height, in meters, squared)?</p> <p>Option 2: Categorical variable (ordinal) Name: BMI_categories Label: What is your body mass index (weight, in kilograms, over height, in meters, squared)?</p>	<p>Names: BMI_underweight BMI_normalweight BMI_overweight BMI_obeseI BMI_obeseII BMI_obeseIII BMI_missing</p> <p>Labels: BMI__categories=underweight - increased health risk BMI__categories=normal weight - least health risk BMI__categories=overweight - increased health risk BMI__categories=obes I - high health risk BMI__categories=Obes II - very high health risk BMI__categories=obes III - extremely high health risk BMI__categories=999.0</p>
Psychosocial and Health-Related Factors		
Relationship satisfaction*	<p>Scores for each of the 7 items averaged Scores can therefore range between 1 and 5</p> <p>Higher score = higher satisfaction</p> <p>Name: RAS_Score Label: Relationship Assessment Scale (average of 7 items)</p>	N/A – continuous
Social support*	<p>Social Support subscale of the NIOSH Generic Job Stress Questionnaire (Factors 9, 10 &11)</p> <p>3 dimensions:</p>	Notes:

	<p>1. from supervisor 2. from coworkers 3. from family/friends</p> <p>Each item scored on a scale of 1 to 5 Average computed for each dimension Higher average score = greater support</p> <p>Names: NIOSH_Support_Supervisor NIOSH_Support_CoWorkers NIOSH_Support_Family_Friends</p> <p>Labels: Average score from support 1a2a3a4d Average score from support 1b2b3b4e Average score from support 1c2c3c4f</p>	<p>The scoring was accidentally reversed in the database, therefore I recoded each variable with the proper scoring and recalculated the scores. The variables identified in the description are the new (correctly scored) variables. They were scored as follows:</p> <p>1=no such person 2=not at all 3=a little 4= somewhat 5= very much</p> <p>No dummy variables needed, final scores are continuous variables</p> <p>Missing data excluded – i.e. if not all items had a score, no average was computed</p>
<p>Recent loss of a loved one (past-year)</p>	<p>Demographics question 59 “Have you lost a family member or close friend in the last year?”</p> <p>Name: lost_family Label: Have you lost a family member or close friend in the last year?</p> <p>Categorical variables (nominal – dichotomous) 0=no, 1=yes</p>	<p>Not necessary, dichotomous variable (0,1)</p>
<p>Stress*</p>	<p>Measured using the Perceived Stress Scale Scores can range from 0 to 56 Higher score = higher stress</p> <p>Name: Perceived_Stress_Score Label: Perceived stress score (Upset_Unexpected to Difficulties_Piling)</p>	<p>N/A – continuous variable</p>

<p>Burnout*</p>	<p>Measured using the Copenhagen Burnout Inventory</p> <p>Scores range from 0-100 for each of the three dimensions (personal burnout, work-related burnout, colleague-related burnout)</p> <p>50 or more indicates a high degree of burnout</p> <p>Option 1: continuous variables (raw scores)</p> <p>Names:</p> <ol style="list-style-type: none"> 1. Burnout_Personal_Score 2. Burnout_Work_Score_Edit 3. Burnout_Colleague_Score <p>Labels :</p> <ol style="list-style-type: none"> 1. Personal burnout score (Average burnout_tired to burnout_illness) 2. Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored 3. Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues) <p>Option 2: based on cutoff of 50 – dichotomous 0=no, 1=screened positive for burnout</p> <p>Names:</p> <ol style="list-style-type: none"> 1. Burnout_Personal_Cutoff_0_1 2. Burnout_Work_Cutoff_0_1 3. Burnout_Colleague_Cutoff_0_1 <p>Labels:</p> <ol style="list-style-type: none"> 1. Burnout personal cutoff (0,1) 2. Burnout work cutoff (0,1) 3. Burnout colleague cutoff (0,1) 	<p>Option 1: N/A – continuous</p> <p>Option 2: Not necessary, dichotomous variable (0,1)</p>
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<p>Current medication use (for a physical health problem)</p>	<p>Demographics question 58 “Are you taking any medication for a physical health related issue?”</p> <p>Name: medication_physical_health Label: Are you taking any medication for a physical health related issue?</p> <p>Categorical variable (nominal – dichotomous) 0=no, 1=yes</p>	<p>Not necessary, dichotomous variable (0,1)</p>
<p>Smoking habits</p>	<p>Demographics question 33 – reclassified to distinguish between current (occasional or daily) smokers, and non-smokers/former smokers</p> <p>Name: Smoking_Habits Label: Smoking habits</p> <p>Categorical variable (nominal – dichotomous) 0=never or former smoker 1=occasional or daily smoker</p>	<p>Not necessary, dichotomous variable (0,1)</p> <p>(distinguishes between CURRENT smokers and non smokers)</p>
<p>Time spent sitting*</p>	<p>Demographics question 36 “How much time do you usually spend sitting or reclining on a typical DAY? (Including at work, commuting, at home, sitting with friends, watching television, reading, etc. EXCLUDING SLEEP)” – measured in hours</p> <p>Name: Time_sitting36 Label: How much time do you usually spend sitting or reclining on a typical day?</p>	<p>N/A – continuous</p>
<p>Physical Activity* (leisure)</p>	<p>Demographics question “How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical WEEK?” – measured in hours per week</p> <p>Name: PA_weekly_leisure Label: How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?</p>	<p>N/A – continuous</p>
<p>Drug use*</p>	<p>Measured using the Drug Abuse Screening Test (DAST-20)</p>	<p>Option 1: N/A – continuous Option 2: N/A – already dichotomized 0,1</p>

	<p>Option 1: use raw score (sum of points)</p> <p>Name: DAST20_Score Label: DAST 20 score for drug use</p> <p>Interpretation (severity of drug abuse): 0= N/A 1-5 = low 6-10 = intermediate* (likely meets DSM criteria) 11-15 = substantial 16-20 = severe</p> <p>Option 2 : cutoff for likely drug problem</p> <p>Name: SLDAST20Cutoff Label: DAST20 cutoff recoded 0,1</p> <p>0=N/A or low severity 1=intermediate, substantial or severe</p>	
<p>Alcohol consumption*</p>	<p>Measured using the Alcohol Use Disorders Identification Test (AUDIT)</p> <p>Score of 8 or more indicates hazardous drinking behaviour</p> <p>Option 1: use raw score (sum of points) – higher score = more likely suffering from risky drinking</p> <p>Name: Alcohol_Sum_Score2 Label: Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol</p> <p>Option 2: use cutoff score of 8 (normal vs. hazardous drinking) Name: Alcohol_normal_vs_hazardous_REVISED Label: Normal vs Hazardous drinking (0-7 vs 8+)</p> <p>0=normal drinking, 1=hazardous drinking</p>	<p>Option 1: N/A – continuous Option 2: N/A – already dichotomized 0,1</p>

Workplace-Related Factors		
Mental demands at work*	<p>Measured using the Mental Demands subscale of the NIOSH Generic Job Stress Questionnaire (score = average from the 5 items, ranging from 1 to 4) higher score = higher mental demands</p> <p>Name: Mental_Demands_Average_Score Label: Mental demandes average score</p>	N/A – continuous
Time spent working underground	<p>Demographics question 18 “How much of your work is spent underground?”</p> <p>Name: UGwork_3REVISEDcategories Label: UG work (3) revised</p> <p>Categorical variable (ordinal) 0= no UG work 1= some UG work (1-60% of the time) 2= nearly always UG (61-100% of the time)</p>	<p>Names: UndergroundWork_NONE UndergroundWork_SOME UndergroundWork_NearlyAlways</p> <p>Labels: UGwork_3REVISEDcategories=No UG work UGwork_3REVISEDcategories=Some UG work (1-60% of time) UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)</p>
Physical work environment*	<p>Measured using the Physical Environment subscale of the NIOSH Generic Job Stress Questionnaire (score = average from the 10 items, ranging from 1 to 2) – higher score (i.e closer to 2) = more problematic/hazardous work environment</p> <p>Name: Physical_Environment_Average_Score Label: Physical Environment Average Score</p>	N/A – continuous variable
Employment status	<p>1) Demographics questions 17 “What is your current employment status?”</p> <p>Name: employment_status Label: What is your current employment status?</p>	<p>1) Current Employment Status</p> <p>Names: EmploymentStatus_FT_permanent EmploymentStatus_FT_contract EmploymentStatus_Casual</p>

	<p>Categorical variable (nominal) 1= full time, permanent 2= full time, contract 3= casual 4= other</p> <p>2) Demographics question 45 “Are you currently off work for physical health reasons?”</p> <p>Name: currently_offwork_phys Label: Are you currently off work for physical health reasons?</p> <p>Categorical variable (nominal – dichotomous) 0=no, 1=yes</p>	<p>EmploymentStatus_Other EmploymentStatus_missing999</p> <p>Labels: employment_status=Full-time, permanent employment_status=Full-time, contract employment_status=Casual employment_status=other employment_status=999.0</p> <p>2) N/A already dichotomized (0,1)</p>
<p>Work schedule</p>	<p>Demographics question 21 “Please indicate the type of shifts you work” – not enough data points to be able to keep all original categories – all categories with insufficient data combined to create “other” category. Therefore, the categories are:</p> <p>8hr steady days 10.5hr steady days 10.5hr rotating days and nights 12hr rotating days and nights Other</p> <p>Names: shift_8_days shift_10.5_days shift_10.5_rotating shift_12_rotating shift_otherNEW</p> <p>Labels: SHIFT (8 hour steady days) SHIFT (10.5 hour steady days)</p>	<p>Not necessary, dichotomous variables (0,1)</p>

	SHIFT (10.5 rotating) SHIFT (12 hour rotating) SHIFT all other combined (insufficient data to keep separate)	
ERI	Effort-Reward Imbalance Questionnaire (ERI) Calculated by determining the ratio between effort and reward ER ratio > 1 = more effort per reward Name: ERI_Interpretation_Dummy Label : ERI interpretation recoded 0= less effort for each reward 1= more effort for each reward	Not necessary, dichotomous variable (0,1)
Job insecurity*	Job Insecurity Measure 18 items scored 1-7 (total score up to 126) Higher scores = higher levels of job insecurity (Average is easier to interpret) If using average scores (range from 1 to 7): Name: Job_Insecurity_Score_Average Label: Job Insecurity Average Score OR If using raw scores (range from 18-126): Name: Job_Insecurity_Score Label: Job insecurity score (Lose_Job to Management_Avoidance)	N/A – continuous variable
Workload*	Job Requirements subscale of the NIOSH Generic Job Stress Questionnaire & Workload & Responsibility subscale of the NIOSH Generic Job Stress Questionnaire	N/A – continuous variable

	<p>(Factor 12: Quantitative Workload)</p> <p>Higher score = larger quantitative workload</p> <p>can use total score or average score – average selected because easier to interpret (range: 1-5)</p> <p>Name: Quantitative_Workload_Score Label: NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility</p>	
Job satisfaction*	<p>Job Satisfaction subscale of the NIOSH Generic Job Stress Questionnaire</p> <p>Higher score = greater job satisfaction</p> <p>can use total score or average score – average selected because easier to interpret (range: 1-3.25)</p> <p>Name: Job_Satisfaction_Score Label: Job Satisfaction Score Q1,2,4,5 Job Satisfaction</p>	N/A – continuous variable
Work hazards*	<p>Work Hazards subscale of the NIOSH Generic Job Stress Questionnaire</p> <p>Higher score = greater hazards</p> <p>can use total score or average score – average selected because easier to interpret (range: 1-5)</p> <p>Name: Work_Hazards_Average_Score Label: Work Hazard Average Score</p>	N/A – continuous variable
Workplace discrimination	<p>p. 43, question 66 “I have been discriminated against in the workplace” (yes/no)</p> <p>Name: discrimination_victim Label: discrimination victim (question 66, page 43) 0=no, 1=yes</p>	Not necessary, dichotomous variable (0,1)

<p>Work-life balance* Removed because work-life balance is already assessed in the GM@W – these would be too highly correlated with each other</p>	<p>Satisfaction with Work-Life Balance Scale Average score for each item Higher score = higher satisfaction with WLB Score range: 1-5</p> <p>Name: Worklife_Balance_Score Label: Work-Life Balance: Assessment score of the balance between worklife and personal life (Work_personal_family_life to Performance_Job_Home)</p>	<p>N/A – continuous variable</p>
<p>Workplace bullying/harassment</p>	<p>p.43, question 67 “In my workplace, I am being bullied or harassed, either verbally, physically or sexually” (yes/no)</p> <p>Name: bullying_victim Label: Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually</p> <p>0=no, 1=yes</p>	<p>Not necessary, dichotomous variable (0,1)</p>
<p>PF1: Psychological Support*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name: PF1_Psychological_Support_Score Label: PF1 Guarding minds at work score 1</p>	<p>N/A – continuous variable</p>
<p>PF2: Organizational Culture*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name: PF2_Organizational_Structure_Score Label: PF2 Guarding minds at work score 2</p>	<p>N/A – continuous variable</p>

<p>PF3: Clear Leadership and Expectations*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name: PF3_Clear_Leadership_Expectations_Score Label: PF3 Guarding minds at work score 3</p>	<p>N/A – continuous variable</p>
<p>PF4: Civility and Respect*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name: PF4_Civility_respect_Score Label: PF4 Guarding minds at work score 4</p>	<p>N/A – continuous variable</p>
<p>PF5: Psychological Competencies and Requirements*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name:PF5_Psychological_Competerencies_Requirements_Score Label : PF5 Guarding minds at work score 5</p>	<p>N/A – continuous variable</p>
<p>PF6: Growth and Development*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name: PF6_Growth_Development_Score Label: PF6 Guarding minds at work score 6</p>	<p>N/A – continuous variable</p>
<p>PF7: Recognition and Reward*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p>	<p>N/A – continuous variable</p>

	Name: PF7_Recognition_Reward_Score Label: PF7 Guarding minds at work score 7	
PF8: Involvement and Influence*	Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths) Name: PF8_Involvement_Influence_Score Label : PF8 Guarding minds at work score 8	N/A – continuous variable
PF9: Workload Management*	Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths) Name: PF9_Workload_Management_Score Label : PF9 Guarding minds at work score 9	N/A – continuous variable
PF10: Engagement*	Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths) Name: PF10_Engagement_Score Label : PF10 Guarding minds at work score 10	N/A – continuous variable
PF11: Balance*	Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths) Name: PF11_Balance_Score Label : PF11 Guarding minds at work score 11	N/A – continuous variable

<p>PF12: Psychological Protection*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name: PF12_Psychological_Protection_Score Label : PF12 Guarding minds at work score 12</p>	<p>N/A – continuous variable</p>
<p>PF13: Protection of Physical Safety*</p>	<p>Guarding Minds @ Work (higher scores = better) Score range : 5-20 (lower scores reflect areas of concern; higher scores reflect relative strengths)</p> <p>Name: PF13_Protection_Physical_Safety_Score Label : PF13 Guarding minds at work score 13</p>	<p>N/A – continuous variable</p>

*continuous variables

Appendix C - SPSS Data Output for Multiple Stepwise Regression Analyses

C1. Individual and Demographic Factors – Stress

		Correlations																																
		Perceived stress score (Upset_Unexpected to Difficultes_Piling)	What is your gender?	education=Less than High School	education=Some High School	education=High School Graduate	education=Some College	education=College Graduate	education=Some University	education=Undergraduate Degree	education=Master's Degree	education=Doctoral Degree	income=Less than 50,000	income=50,000-59,999	income=60,000-69,999	income=70,000-79,000	income=80,000-89,999	income=90,000-99,999	income=100,000-124,999	income=125,000-149,999	income=150,000 and above	What is your marital status?-never legally married (single)	What is your marital status?-legally married	What is your marital status?-separated	What is your marital status?-common law	What is your marital status?-divorced	What is your marital status?-widowed	What is your age as of your last birthday (in years)?	Ethnicity_whitescasian	Ethnicity_alboriginal_muilt_rnths	ethnicity_othr	Diagnosed with any kind of physical disease within the last 12 months	During the past year, have you had a reportable work-related injury?	What is your body mass index (weight in kilograms, over height in meters, squared)?
Pearson Correlation	Perceived stress score (Upset_Unexpected to Difficultes_Piling)	1.000	-.060	.012	-.055	-.013	.016	.055	.012	-.043	-.045	-.041	.031	.007	.042	-.008	.037	.012	-.040	-.050	-.074	.016	-.052	.064	.005	-.004	.025	-.118	-.006	.048	-.010	.070	.125	.061
	What is your gender?	-.060	1.000	.029	.049	-.106	.098	.195	-.074	-.255	-.099	-.020	-.055	-.133	-.064	.014	-.015	.059	.057	.023	-.029	-.057	.047	.013	.003	-.022	-.060	.104	-.005	.028	-.052	-.014	.068	.237
	education=Less than High School	.012	.029	1.000	-.011	-.027	-.030	-.091	-.020	-.032	-.015	-.004	-.010	-.012	-.004	-.041	.037	-.003	.009	.021	-.009	-.002	-.001	-.020	.007	.005	-.006	.047	-.065	-.019	-.019	-.006	.059	.035
	education=Some High School	-.055	.049	-.011	1.000	-.047	-.051	-.140	-.035	-.055	-.027	-.006	.017	.005	-.033	-.031	.011	.028	.008	-.005	.018	-.016	.029	-.034	-.009	-.006	-.010	.169	-.016	.036	.001	.058	.025	.042
	education=High School Graduate	-.013	.106	-.027	-.047	1.000	-.128	-.347	-.087	-.137	-.066	-.016	-.026	-.041	-.027	.009	.051	.034	.050	.028	-.025	-.029	-.014	.016	.003	.052	.019	.135	.005	-.006	-.060	.026	.028	.018
	education=Some College	.016	.098	-.030	-.051	-.128	1.000	-.381	-.096	-.150	-.073	-.017	.009	.028	-.012	-.049	.030	.018	.018	-.018	-.044	-.005	-.015	.021	.009	-.005	.014	.138	.032	-.028	-.028	-.011	.070	
	education=College Graduate	.055	.105	-.081	-.140	-.347	-.381	1.000	-.261	-.409	-.198	-.047	.011	-.010	.112	.153	-.021	-.058	-.069	-.075	-.093	.031	-.038	-.020	.051	-.003	-.008	-.167	.063	.042	-.053	-.041	.053	.044
	education=Some University	.012	-.074	-.020	-.035	-.067	-.066	-.281	1.000	-.103	-.050	-.012	.043	-.025	-.012	.031	.036	.012	-.048	-.037	-.030	-.019	-.016	.037	-.001	.000	-.020	-.001	.018	-.014	-.014	.009	.007	-.021
	education=Undergraduate Degree	-.043	-.325	-.032	-.055	-.137	-.150	-.409	-.103	1.000	-.078	-.018	-.023	.059	-.068	-.130	.025	.003	.069	.072	.123	.013	.042	.008	-.055	-.030	.009	-.079	-.035	-.057	.083	.006	-.060	-.120
	education=Master's Degree	-.045	-.099	-.015	-.027	-.066	-.073	-.198	-.050	-.078	1.000	-.009	-.023	-.030	-.065	-.092	-.030	.027	.076	.100	.147	-.012	.064	-.037	-.045	-.008	-.015	-.009	-.142	-.022	.150	-.049	-.067	-.073
	education=Doctoral Degree	-.041	-.020	-.004	-.006	-.016	-.017	-.047	-.012	-.018	-.009	1.000	-.006	-.007	-.015	-.023	.003	.008	.005	-.009	.093	-.014	.032	-.012	-.018	-.012	-.004	-.015	-.037	-.011	.089	.013	-.019	.036
	income=Less than 50,000	.031	-.055	-.010	.017	-.026	.009	.011	.043	-.023	-.023	-.006	1.000	-.019	-.040	-.061	-.065	-.056	-.061	-.023	-.014	.243	-.153	-.030	.016	-.015	-.009	-.201	.011	.030	.049	-.027	-.026	-.073
	income=50,000-59,999	.007	-.133	-.012	.005	-.041	.028	-.010	-.025	.059	-.030	-.007	-.019	1.000	-.051	-.079	-.083	-.072	-.078	-.029	-.018	.087	-.026	-.024	-.021	-.014	-.012	-.068	.009	.024	.009	-.001	-.007	-.028
	income=60,000-69,999	.042	-.064	-.004	-.033	-.027	-.012	.112	-.012	-.068	-.065	-.015	-.040	-.051	1.000	-.170	-.179	-.155	-.188	-.064	-.039	.031	-.063	.006	.045	.036	.021	-.031	.001	.036	-.019	.020	.050	-.036
	income=70,000-79,000	-.008	.014	-.041	-.031	.009	-.049	.153	.031	-.130	-.092	-.023	-.081	-.079	-.170	1.000	-.274	-.239	-.259	-.098	-.060	.045	-.085	.047	.041	.012	-.022	-.046	.018	-.003	-.027	-.004	.080	.021
	income=80,000-89,999	.037	-.015	.037	.011	-.051	.030	-.021	.036	.025	-.030	.003	-.065	-.083	-.179	-.274	1.000	-.251	-.272	-.103	-.083	.004	.011	.009	.001	-.040	.026	-.010	.015	.008	.002	-.003	.017	.017
	income=90,000-99,999	.012	.059	-.003	.028	.034	.018	-.058	.012	.003	.027	.008	-.056	-.072	-.155	-.239	-.251	1.000	-.238	-.089	-.055	-.055	.047	-.001	-.040	.032	-.018	.029	-.011	-.028	-.005	-.011	-.022	-.009
	income=100,000-124,999	-.040	.057	.009	.008	.050	.018	-.099	-.048	.069	.076	.005	-.061	-.078	-.168	-.259	-.272	-.236	1.000	-.097	-.060	-.085	.065	-.022	-.021	-.012	-.004	.119	.005	-.013	.009	-.003	-.043	.031
	income=125,000-149,999	-.050	.023	.021	-.085	.026	-.019	-.075	-.037	.072	.100	-.008	-.023	-.029	-.064	-.098	-.103	-.089	-.067	1.000	-.023	-.060	.073	-.024	-.027	-.018	.023	.062	-.013	-.034	.029	.008	-.057	-.009
	income=150,000 and above	-.074	-.029	-.009	.018	-.025	-.044	-.093	-.030	.123	.147	.093	-.014	-.018	-.039	-.060	-.063	-.055	-.060	-.023	1.000	-.037	.044	-.030	-.008	.004	-.009	.098	-.008	-.009	.014	-.050	.003	.003
	What is your marital status?-never legally married (single)	.016	-.057	-.002	-.016	-.029	-.005	.031	-.018	.013	-.012	-.014	.243	.087	.031	.045	.004	-.055	-.085	-.060	-.037	1.000	-.448	-.079	-.109	-.085	-.024	-.288	-.008	.008	.045	-.063	.031	-.047
	What is your marital status?-legally married	-.052	.047	-.001	.029	-.014	-.015	-.038	-.016	.042	.064	.032	-.153	-.026	-.063	-.085	.011	.047	.085	.073	.044	-.448	1.000	-.350	-.555	-.336	-.094	.194	-.066	.011	.013	.045	-.043	.067
	What is your marital status?-separated	.064	.013	-.020	-.034	.016	.021	-.020	.037	.008	-.037	-.012	-.030	-.024	.006	.047	.009	-.001	-.022	-.024	-.030	-.079	-.350	1.000	-.017	-.041	.010	.022	.025	.027	-.032	-.035	.005	-.004
	What is your marital status?-common law	.005	.003	.007	-.009	.003	.009	.051	-.001	-.055	-.045	-.018	.016	-.021	.045	.041	.001	-.040	-.021	-.027	-.008	-.109	-.555	-.017	1.000	.050	.030	-.127	.055	.011	-.030	-.032	.017	-.041
	What is your marital status?-divorced	-.004	-.022	.005	-.006	.052	-.005	-.003	.000	-.030	-.008	-.012	-.015	-.014	.036	.012	-.040	.032	-.012	-.018	.004	-.085	-.336	-.041	.050	1.000	.007	.110	.032	-.047	-.010	.081	.055	-.004
	What is your marital status?-widowed	.025	-.060	-.006	-.010	.019	.014	-.008	-.020	.009	-.015	-.004	-.009	-.012	.021	-.022	.026	-.018	-.004	.023	-.009	-.024	-.094	.010	.030	.007	1.000	.064	.019	-.018	-.018	.028	-.013	.007
	What is your age as of your last birthday (in years)?	-.118	.104	.047	.169	.135	.138	-.187	-.001	-.079	-.009	-.015	-.201	-.068	-.031	-.046	-.048	.029	.119	.062	.098	-.288	.194	.022	-.127	.110	.064	1.000	-.013	-.069	-.009	.268	-.008	.148
	Ethnicity_whitescasian	-.006	-.005	-.065	-.016	.005	.032	.063	.018	-.035	-.142	-.037	.011	.009	.001	.018	-.010	-.011	.005	-.013	-.009	-.008	-.066	.025	.055	.032	.019	-.013	1.000	-.333	-.380	-.023	-.025	-.015
	Ethnicity_alboriginal_muilt_rnths	.048	.028	-.019	.036	-.006	.016	.042	-.014	-.047	-.022	-.011	.030	.024	.036	-.003	.015	-.028	-.013	-.034	-.008	.008	.011	.027	.011	-.047	-.069	-.333	1.000	.023	.009	.046	.060	
	ethnicity_othr	-.010	-.052	-.019	.001	-.060	-.034	-.053	-.014	.083	.150	.089	.049	.009	-.019	-.027	.008	-.005	.009	.029	-.009	.045	.013	-.032	-.030	-.010	-.018	-.009	-.380	.023	1.000	.026	-.006	-.002
	Diagnosed with any kind of physical disease within the last 12 months	.070	-.014	-.006	.058	.026	.028	-.041	.008	.006	-.048	.013	-.027	-.001	.020	-.004	.002	-.011	-.003	.008	.014	-.063	.045	-.035	-.032	.081	.028	.268	-.023	.008	.026	1.000	.051	.200
	During the past year, have you had a reportable work-related injury?	.125	.068	.059	-.025	.028	-.011	.053	.007	-.060	-.067	-.019	-.026	-.007	.050	.080	-.003	-.022	-.043	-.057	-.050	.031	-.043	.005	.017	.055	-.013	-.008	-.025	.046	-.006	.051	1.000	.026
	What is your body mass index (weight in kilograms, over height in meters, squared)?	.061	.237	.035	.042	.018	.070	.044	-.021	-.120	-.073	.036	-.073	-.028	-.036	.021	.017	-.009	.031	-.009	.003	-.047	.067	-.004	-.041	-.004	.007	.148	-.015	.080	-.002	.200	.026	1.000

Big (1-tailed)	Perceived stress score (Lease_Unexpected to Difficult things)	.005	.294	.008	.279	.237	.009	.304	.022	.025	.038	.086	.380	.035	.362	.054	.305	.042	.015	.001	.237	.012	.003	.409	.435	.140	.000	.395	.019	.325	.001	.000	.004	
	What is your gender?	.005	.107	.016	.000	.000	.000	.001	.000	.000	.194	.008	.000	.003	.265	.252	.005	.006	.155	.100	.007	.021	.291	.443	.165	.004	.000	.416	.115	.012	.272	.001	.000	
	education=Less than High School	.294	.107	.317	.118	.097	.000	.187	.081	.290	.437	.339	.296	.425	.039	.054	.455	.346	.183	.341	.470	.468	.191	.387	.416	.395	.021	.002	.292	.200	.404	.005	.004	
	education=Some High School	.008	.016	.317	.021	.013	.000	.083	.008	.123	.392	.235	.415	.078	.086	.317	.112	.357	.414	.223	.249	.100	.067	.341	.398	.324	.000	.249	.059	.481	.006	.134	.034	
	education=High School Graduate	.279	.000	.118	.021	.000	.000	.000	.000	.002	.247	.125	.037	.119	.355	.013	.070	.015	.110	.134	.197	.272	.242	.442	.012	.200	.000	.414	.390	.004	.128	.111	.218	
	education=Some College	.237	.000	.097	.013	.000	.000	.000	.001	.227	.343	.114	.304	.017	.095	.219	.218	.200	.027	.416	.262	.178	.355	.408	.275	.000	.079	.246	.067	.111	.315	.001	.001	
	education=College Graduate	.009	.000	.000	.000	.000	.000	.000	.000	.000	.021	.313	.335	.000	.000	.180	.006	.000	.001	.000	.087	.049	.191	.013	.452	.359	.000	.003	.034	.011	.037	.011	.027	
	education=Some University	.304	.001	.187	.063	.000	.000	.000	.000	.015	.304	.030	.139	.300	.087	.060	.306	.018	.053	.094	.204	.240	.052	.483	.493	.197	.475	.220	.277	.269	.344	.377	.176	
	education=Undergraduate Degree	.032	.000	.061	.008	.000	.000	.000	.000	.211	.163	.085	.002	.000	.137	.451	.001	.001	.000	.292	.034	.360	.008	.096	.341	.000	.064	.007	.000	.389	.004	.000	.000	
	education=Master's Degree	.025	.000	.250	.123	.002	.001	.000	.015	.000	.349	.155	.096	.002	.000	.095	.122	.000	.000	.000	.306	.003	.054	.025	.368	.259	.349	.000	.169	.000	.017	.002	.001	
	education=Doctoral Degree	.038	.194	.437	.392	.247	.227	.021	.304	.211	.349	.405	.379	.253	.153	.450	.356	.409	.351	.000	.265	.080	.307	.212	.294	.439	.257	.052	.315	.000	.291	.198	.058	
	income=Less than 50,000	.086	.008	.338	.235	.125	.343	.313	.030	.163	.155	.405	.210	.041	.004	.002	.007	.004	.159	.269	.000	.000	.094	.237	.260	.345	.000	.313	.098	.017	.121	.127	.001	
	income=50,000-59,999	.380	.000	.296	.415	.037	.114	.335	.139	.005	.096	.379	.210	.013	.000	.000	.001	.000	.100	.215	.000	.127	.148	.180	.274	.304	.002	.350	.144	.353	.480	.383	.110	
	income=60,000-69,999	.035	.003	.425	.078	.119	.304	.000	.300	.002	.002	.253	.041	.013	.000	.000	.000	.000	.002	.044	.087	.003	.404	.024	.059	.181	.087	.480	.059	.205	.187	.015	.060	
	income=70,000-79,000	.362	.265	.038	.086	.355	.017	.000	.087	.000	.000	.153	.004	.000	.000	.000	.000	.000	.000	.004	.026	.000	.020	.039	.393	.170	.023	.222	.447	.120	.438	.000	.176	
	income=80,000-89,999	.054	.252	.054	.317	.013	.095	.000	.060	.137	.095	.450	.002	.000	.000	.000	.000	.000	.003	.429	.322	.347	.479	.042	.133	.018	.327	.256	.390	.458	.457	.225	.000	
	income=90,000-99,999	.305	.005	.455	.112	.070	.219	.006	.306	.451	.122	.356	.007	.001	.000	.000	.000	.000	.000	.008	.008	.021	.476	.042	.081	.222	.103	.311	.112	.416	.316	.168	.348	
	income=100,000-124,999	.042	.006	.346	.357	.015	.218	.000	.018	.001	.000	.409	.004	.000	.000	.000	.000	.000	.000	.005	.000	.000	.165	.185	.301	.428	.000	.420	.291	.346	.447	.029	.089	
	income=125,000-149,999	.015	.155	.183	.414	.110	.200	.001	.053	.001	.000	.351	.159	.100	.003	.000	.000	.000	.000	.163	.004	.001	.148	.121	.221	.158	.003	.290	.072	.106	.359	.006	.340	
	income=150,000 and above	.001	.100	.341	.223	.134	.027	.000	.094	.000	.000	.269	.215	.044	.004	.003	.008	.005	.163	.054	.028	.098	.368	.428	.348	.000	.348	.356	.353	.276	.015	.443		
	What is your marital status? - never legally married (single)	.237	.007	.470	.249	.187	.416	.087	.204	.292	.309	.365	.000	.000	.087	.026	.429	.008	.000	.004	.054	.000	.000	.000	.149	.000	.000	.371	.404	.025	.003	.086	.020	
	What is your marital status? - legally married	.012	.021	.488	.100	.272	.262	.049	.240	.034	.003	.080	.000	.127	.003	.000	.322	.021	.000	.001	.028	.000	.000	.000	.000	.000	.000	.002	.315	.291	.024	.030	.002	
	What is your marital status? - separated	.003	.291	.191	.067	.242	.178	.191	.052	.360	.054	.307	.094	.148	.404	.020	.347	.476	.165	.148	.098	.000	.000	.233	.036	.330	.170	.136	.116	.084	.066	.415	.438	.000
	What is your marital status? - common law	.409	.443	.387	.341	.442	.355	.013	.483	.008	.025	.212	.237	.180	.024	.039	.479	.042	.185	.121	.368	.000	.000	.233	.015	.097	.000	.008	.315	.066	.079	.224	.036	.000
	What is your marital status? - divorced	.435	.165	.416	.399	.012	.408	.452	.493	.096	.369	.294	.260	.274	.058	.303	.042	.081	.301	.221	.429	.000	.000	.036	.015	.381	.000	.081	.021	.325	.000	.009	.437	.000
	What is your marital status? - widowed	.140	.004	.395	.324	.200	.275	.359	.197	.341	.259	.439	.345	.304	.181	.170	.133	.222	.428	.158	.348	.149	.000	.330	.097	.381	.003	.203	.212	.211	.109	.285	.374	.000
	What is your age as of your last birthday (in years)?	.000	.000	.021	.000	.000	.000	.000	.475	.000	.349	.257	.000	.002	.087	.023	.018	.193	.000	.003	.000	.000	.000	.170	.000	.000	.003	.279	.001	.352	.000	.371	.000	.000
	Ethnicity_ white/caucasian	.395	.416	.002	.249	.414	.079	.003	.220	.064	.000	.052	.313	.350	.480	.222	.327	.311	.420	.290	.349	.371	.002	.136	.008	.081	.203	.279	.000	.000	.163	.142	.261	.000
	Ethnicity_ aboriginal_nut_mids	.019	.115	.202	.059	.390	.246	.034	.277	.169	.315	.096	.144	.059	.447	.256	.112	.291	.072	.356	.404	.315	.116	.315	.021	.212	.001	.000	.161	.353	.022	.004	.000	
	ethnicity_other	.325	.012	.200	.481	.004	.067	.011	.269	.000	.000	.000	.017	.353	.205	.120	.380	.416	.346	.106	.353	.025	.291	.084	.096	.325	.211	.352	.000	.161	.129	.391	.461	.000
	Diagnosed with any kind of physical disage within the last 12 months	.001	.272	.404	.006	.128	.111	.037	.344	.389	.017	.291	.121	.480	.187	.438	.458	.316	.447	.359	.276	.003	.024	.066	.079	.000	.109	.000	.163	.353	.129	.013	.000	.000
	During the past year, have you had a reportable work-related injury?	.000	.001	.005	.134	.111	.315	.011	.377	.004	.002	.198	.127	.383	.015	.000	.457	.168	.029	.006	.015	.086	.030	.415	.224	.009	.285	.371	.142	.022	.291	.013	.126	.000
	What is your body mass index (weight in kilograms, over height in meters, squared)?	.004	.000	.084	.034	.218	.001	.027	.176	.000	.001	.058	.001	.110	.060	.176	.225	.348	.089	.340	.443	.020	.002	.438	.036	.437	.374	.000	.261	.084	.461	.000	.126	.000

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	During the past year, have you had a reportable work-related injury?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	What is your age as of your last birthday (in years)?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	Diagnosed with any kind of physical disease within the last 12 months		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	What is your marital status?-separated		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	What is your body mass index (weight, in kilograms, over height, in meters, squared)?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	What is your gender?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
7	education=Undergraduate Degree		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
8	income=150,000 and above		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

Model Summaryⁱ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.125 ^a	.016	.015	7.683	
2	.171 ^b	.029	.028	7.632	
3	.198 ^c	.039	.037	7.596	
4	.210 ^d	.044	.042	7.579	
5	.218 ^e	.048	.045	7.566	
6	.229 ^f	.052	.049	7.549	
7	.236 ^g	.056	.052	7.537	
8	.241 ^h	.058	.054	7.530	1.957

- a. Predictors: (Constant), During the past year, have you had a reportable work-related injury?
- b. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?
- c. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months
- d. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated
- e. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?
- f. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?
- g. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, education=Undergraduate Degree
- h. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, education=Undergraduate Degree, income=150,000 and above

i. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1785.382	1	1785.382	30.242	.000 ^b
	Residual	111931.769	1896	59.036		
	Total	113717.151	1897			
2	Regression	3331.904	2	1665.952	28.600	.000 ^c
	Residual	110385.246	1895	58.251		
	Total	113717.151	1897			
3	Regression	4436.078	3	1478.693	25.628	.000 ^d
	Residual	109281.073	1894	57.699		
	Total	113717.151	1897			
4	Regression	4994.479	4	1248.620	21.740	.000 ^e
	Residual	108722.671	1893	57.434		
	Total	113717.151	1897			
5	Regression	5413.786	5	1082.757	18.915	.000 ^f
	Residual	108303.365	1892	57.243		
	Total	113717.151	1897			
6	Regression	5947.426	6	991.238	17.393	.000 ^g
	Residual	107769.725	1891	56.991		
	Total	113717.151	1897			
7	Regression	6339.266	7	905.609	15.940	.000 ^h
	Residual	107377.885	1890	56.814		
	Total	113717.151	1897			
8	Regression	6612.792	8	826.599	14.579	.000 ⁱ
	Residual	107104.358	1889	56.699		
	Total	113717.151	1897			

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

b. Predictors: (Constant), During the past year, have you had a reportable work-related injury?

c. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?

d. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months

e. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated

f. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?

g. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?

h. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, education=Undergraduate Degree

i. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, education=Undergraduate Degree, income=150,000 and above

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	22.712	.192		118.572	.000	22.337	23.088					
	During the past year, have you had a reportable work-related injury?	2.700	.491	.125	5.499	.000	1.737	3.662	.125	.125	.125	1.000	1.000
2	(Constant)	26.741	.805		33.229	.000	25.163	28.320					
	During the past year, have you had a reportable work-related injury?	2.681	.488	.124	5.497	.000	1.724	3.637	.125	.125	.124	1.000	1.000
	What is your age as of your last birthday (in years)?	-.092	.018	-.117	-5.153	.000	-.127	-.057	-.118	-.118	-.117	1.000	1.000
3	(Constant)	27.105	.805		33.661	.000	25.525	28.684					
	During the past year, have you had a reportable work-related injury?	2.563	.486	.119	5.273	.000	1.610	3.516	.125	.120	.119	.997	1.003
	What is your age as of your last birthday (in years)?	-.114	.018	-.144	-6.163	.000	-.150	-.078	-.118	-.140	-.139	.928	1.078
	Diagnosed with any kind of physical disease within the last 12 months	1.645	.376	.102	4.375	.000	.907	2.382	.070	.100	.099	.925	1.081
4	(Constant)	27.033	.804		33.636	.000	25.457	28.610					
	During the past year, have you had a reportable work-related injury?	2.552	.485	.118	5.261	.000	1.600	3.503	.125	.120	.118	.997	1.003
	What is your age as of your last birthday (in years)?	-.116	.018	-.146	-6.275	.000	-.152	-.080	-.118	-.143	-.141	.927	1.079
	Diagnosed with any kind of physical disease within the last 12 months	1.695	.375	.106	4.513	.000	.958	2.431	.070	.103	.101	.924	1.083
	What is your marital status?-separated	2.295	.736	.070	3.118	.002	.851	3.738	.064	.071	.070	.998	1.002
5	(Constant)	24.376	1.268		19.225	.000	21.889	26.863					
	During the past year, have you had a reportable work-related injury?	2.527	.484	.117	5.219	.000	1.577	3.477	.125	.119	.117	.996	1.004
	What is your age as of your last birthday (in years)?	-.121	.019	-.153	-6.526	.000	-.157	-.084	-.118	-.148	-.146	.917	1.090
	Diagnosed with any kind of physical disease within the last 12 months	1.523	.380	.095	4.006	.000	.777	2.269	.070	.092	.090	.898	1.114
	What is your marital status?-separated	2.295	.735	.070	3.123	.002	.854	3.736	.064	.072	.070	.998	1.002
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.100	.037	.062	2.706	.007	.027	.172	.061	.062	.061	.950	1.053

6	(Constant)	24.904	1.277		19.504	.000	22.399	27.408					
	During the past year, have you had a reportable work-related injury?	2.630	.484	.122	5.430	.000	1.680	3.580	.125	.124	.122	.992	1.008
	What is your age as of your last birthday (in years)?	-.116	.019	-.146	-6.229	.000	-.152	-.079	-.118	-.142	-.139	.909	1.100
	Diagnosed with any kind of physical disease within the last 12 months	1.420	.381	.088	3.729	.000	.673	2.167	.070	.085	.083	.891	1.122
	What is your marital status?-separated	2.314	.733	.071	3.156	.002	.876	3.751	.064	.072	.071	.998	1.002
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.127	.038	.079	3.357	.001	.053	.201	.061	.077	.075	.897	1.114
	What is your gender?	-1.737	.568	-.071	-3.060	.002	-2.851	-.624	-.060	-.070	-.069	.928	1.078
7	(Constant)	25.691	1.310		19.617	.000	23.123	28.259					
	During the past year, have you had a reportable work-related injury?	2.571	.484	.119	5.311	.000	1.622	3.520	.125	.121	.119	.990	1.011
	What is your age as of your last birthday (in years)?	-.118	.019	-.150	-6.372	.000	-.155	-.082	-.118	-.145	-.142	.907	1.103
	Diagnosed with any kind of physical disease within the last 12 months	1.453	.380	.090	3.819	.000	.707	2.199	.070	.088	.085	.890	1.124
	What is your marital status?-separated	2.341	.732	.072	3.197	.001	.905	3.776	.064	.073	.071	.997	1.003
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.121	.038	.075	3.193	.001	.047	.195	.061	.073	.071	.894	1.119
	What is your gender?	-2.081	.582	-.085	-3.578	.000	-3.222	-.940	-.060	-.082	-.080	.880	1.136
education=Undergraduate Degree	-1.364	.520	-.061	-2.626	.009	-2.383	-.345	-.043	-.060	-.059	.926	1.080	
8	(Constant)	25.526	1.310		19.479	.000	22.956	28.096					
	During the past year, have you had a reportable work-related injury?	2.528	.484	.117	5.223	.000	1.579	3.477	.125	.119	.117	.988	1.012
	What is your age as of your last birthday (in years)?	-.114	.019	-.144	-6.104	.000	-.150	-.077	-.118	-.139	-.136	.896	1.116
	Diagnosed with any kind of physical disease within the last 12 months	1.438	.380	.090	3.784	.000	.693	2.184	.070	.087	.084	.890	1.124
	What is your marital status?-separated	2.286	.732	.070	3.124	.002	.851	3.721	.064	.072	.070	.996	1.004
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.121	.038	.076	3.214	.001	.047	.195	.061	.074	.072	.894	1.119
	What is your gender?	-2.090	.581	-.086	-3.597	.000	-3.230	-.950	-.060	-.082	-.080	.880	1.136
	education=Undergraduate Degree	-1.221	.523	-.055	-2.334	.020	-2.247	-.195	-.043	-.054	-.052	.912	1.097
	income=150,000 and above	-3.316	1.510	-.050	-2.196	.028	-6.276	-.355	-.074	-.050	-.049	.970	1.031

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

		Excluded Variables ^a				Collinearity Statistics		
Model		Beta In	t	Sig.	Partial Correlation	Tolerance	VIF	Minimum Tolerance
1	What is your gender?	-.068 ^b	-3.004	.003	-.069	.995	1.005	.995
	education=Less than High School	.005 ^b	.225	.822	.005	.997	1.003	.997
	education=Some High School	-.052 ^b	-2.269	.023	-.052	.999	1.001	.999
	education=High School Graduate	-.017 ^b	-.745	.456	-.017	.999	1.001	.999
	education=Some College	.018 ^b	.783	.434	.018	1.000	1.000	1.000
	education=College Graduate	.048 ^b	2.112	.035	.048	.997	1.003	.997
	education=Some University	.011 ^b	.477	.634	.011	1.000	1.000	1.000
	education=Undergraduate Degree	-.035 ^b	-1.542	.123	-.035	.996	1.004	.996
	education=Master's Degree	-.037 ^b	-1.609	.108	-.037	.996	1.004	.996
	education=Doctoral Degree	-.038 ^b	-1.685	.092	-.039	1.000	1.000	1.000
	income=Less than 50,000	.035 ^b	1.524	.128	.035	.999	1.001	.999
	income=50,000-59,999	.008 ^b	.347	.729	.008	1.000	1.000	1.000
	income=60,000-69,999	.035 ^b	1.550	.121	.036	.997	1.003	.997
	income=70,000-79,000	-.018 ^b	-.801	.423	-.018	.994	1.006	.994
	income=80,000-89,999	.037 ^b	1.638	.101	.038	1.000	1.000	1.000
	income=90,000-99,999	.015 ^b	.636	.525	.015	1.000	1.000	1.000
	income=100,000-124,999	-.034 ^b	-1.504	.133	-.035	.998	1.002	.998
	income=125,000-149,999	-.043 ^b	-1.879	.060	-.043	.997	1.003	.997
	income=150,000 and above	-.068 ^b	-3.005	.003	-.069	.998	1.003	.998
	What is your marital status?-never legally married (single)	.013 ^b	.550	.583	.013	.999	1.001	.999
	What is your marital status?-legally married	-.046 ^b	-2.029	.043	-.047	.998	1.002	.998
	What is your marital status?-separated	.063 ^b	2.782	.005	.064	1.000	1.000	1.000
	What is your marital status?-common law	.003 ^b	.135	.892	.003	1.000	1.000	1.000
	What is your marital status?-divorced	-.011 ^b	-.465	.642	-.011	.997	1.003	.997
	What is your marital status?-widowed	.026 ^b	1.160	.246	.027	1.000	1.000	1.000
	What is your age as of your last birthday (in years)?	-.117 ^b	-5.153	.000	-.118	1.000	1.000	1.000
	Ethnicity_whitecaucasian	-.003 ^b	-.134	.894	-.003	.999	1.001	.999
Ethnicity_aboriginal_inuit_métis	.042 ^b	1.839	.066	.042	.998	1.002	.998	
ethnicity_other	-.010 ^b	-.422	.673	-.010	1.000	1.000	1.000	
Diagnosed with any kind of physical disease within the last 12 months	.064 ^b	2.795	.005	.064	.997	1.003	.997	
What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.058 ^b	2.557	.011	.059	.999	1.001	.999	
2	What is your gender?	-.057 ^c	-2.493	.013	-.057	.984	1.016	.984
	education=Less than High School	.011 ^c	.469	.639	.011	.994	1.006	.994
	education=Some High School	-.033 ^c	-1.431	.153	-.033	.971	1.030	.971
	education=High School Graduate	-.001 ^c	-.052	.958	-.001	.981	1.020	.981
	education=Some College	.035 ^c	1.515	.130	.035	.981	1.020	.981
	education=College Graduate	.030 ^c	1.285	.199	.030	.970	1.031	.970

	education=Some University	.011 ^c	.473	.637	.011	1.000	1.000	1.000
	education=Undergraduate Degree	-.045 ^c	-1.968	.049	-.045	.990	1.010	.990
	education=Master's Degree	-.038 ^c	-1.669	.095	-.038	.995	1.005	.995
	education=Doctoral Degree	-.040 ^c	-1.775	.076	-.041	.999	1.001	.999
	income=Less than 50,000	.012 ^c	.506	.613	.012	.959	1.043	.959
	income=50,000-59,999	.000 ^c	.000	1.000	.000	.995	1.005	.995
	income=60,000-69,999	.032 ^c	1.402	.161	.032	.997	1.003	.997
	income=70,000-79,000	-.024 ^c	-1.042	.298	-.024	.992	1.009	.992
	income=80,000-89,999	.032 ^c	1.403	.161	.032	.998	1.002	.998
	income=90,000-99,999	.018 ^c	.790	.430	.018	.999	1.001	.999
	income=100,000-124,999	-.021 ^c	-.906	.365	-.021	.984	1.016	.984
	income=125,000-149,999	-.036 ^c	-1.576	.115	-.036	.993	1.007	.993
	income=150,000 and above	-.058 ^c	-2.533	.011	-.058	.988	1.012	.988
	What is your marital status?-never legally married (single)	-.023 ^c	-.972	.331	-.022	.916	1.092	.916
	What is your marital status?-legally married	-.024 ^c	-1.060	.289	-.024	.960	1.041	.960
	What is your marital status?-separated	.066 ^c	2.915	.004	.067	.999	1.001	.999
	What is your marital status?-common law	-.012 ^c	-.520	.603	-.012	.984	1.017	.984
	What is your marital status?-divorced	.002 ^c	.100	.921	.002	.985	1.015	.985
	What is your marital status?-widowed	.034 ^c	1.500	.134	.034	.996	1.004	.996
	Ethnicity_whitecaucasian	-.005 ^c	-.205	.838	-.005	.999	1.001	.999
	Ethnicity_aboriginal_inuit_métis	.034 ^c	1.502	.133	.034	.993	1.007	.993
	ethnicity_other	-.011 ^c	-.470	.638	-.011	1.000	1.000	1.000
	Diagnosed with any kind of physical disease within the last 12 months	.102 ^c	4.375	.000	.100	.925	1.081	.925
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.077 ^c	3.381	.001	.077	.977	1.023	.977
3	What is your gender?	-.052 ^d	-2.298	.022	-.053	.982	1.018	.916
	education=Less than High School	.013 ^d	.569	.570	.013	.994	1.006	.925
	education=Some High School	-.034 ^d	-1.502	.133	-.035	.971	1.030	.904
	education=High School Graduate	.000 ^d	.002	.999	.000	.981	1.020	.911
	education=Some College	.035 ^d	1.561	.119	.036	.981	1.020	.911
	education=College Graduate	.029 ^d	1.286	.198	.030	.970	1.031	.904
	education=Some University	.010 ^d	.433	.665	.010	1.000	1.000	.925
	education=Undergraduate Degree	-.048 ^d	-2.119	.034	-.049	.989	1.011	.921
	education=Master's Degree	-.034 ^d	-1.483	.138	-.034	.993	1.007	.923
	education=Doctoral Degree	-.042 ^d	-1.864	.062	-.043	.999	1.001	.925
	income=Less than 50,000	.009 ^d	.377	.706	.009	.958	1.044	.890
	income=50,000-59,999	-.002 ^d	-.080	.936	-.002	.995	1.005	.923
	income=60,000-69,999	.029 ^d	1.290	.197	.030	.996	1.004	.925
	income=70,000-79,000	-.024 ^d	-1.067	.286	-.025	.991	1.009	.925
	income=80,000-89,999	.030 ^d	1.340	.181	.031	.997	1.003	.925
	income=90,000-99,999	.020 ^d	.874	.382	.020	.998	1.002	.925

	income=100,000-124,999	-.017 ^d	-.761	.447	-.017	.983	1.017	.913
	income=125,000-149,999	-.035 ^d	-1.559	.119	-.036	.993	1.007	.924
	income=150,000 and above	-.057 ^d	-2.500	.013	-.057	.988	1.012	.919
	What is your marital status?-never legally married (single)	-.024 ^d	-1.038	.299	-.024	.916	1.092	.854
	What is your marital status?-legally married	-.024 ^d	-1.044	.297	-.024	.960	1.041	.895
	What is your marital status?-separated	.070 ^d	3.118	.002	.071	.998	1.002	.924
	What is your marital status?-common law	-.012 ^d	-.526	.599	-.012	.984	1.017	.914
	What is your marital status?-divorced	-.003 ^d	-.122	.903	-.003	.982	1.018	.920
	What is your marital status?-widowed	.033 ^d	1.454	.146	.033	.996	1.004	.925
	Ethnicity_whitecaucasian	-.003 ^d	-.125	.900	-.003	.999	1.001	.925
	Ethnicity_aboriginal_inuit_métis	.032 ^d	1.397	.163	.032	.993	1.008	.923
	ethnicity_other	-.014 ^d	-.603	.547	-.014	.999	1.001	.924
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.062 ^d	2.700	.007	.062	.950	1.053	.900
4	What is your gender?	-.053 ^e	-2.329	.020	-.053	.982	1.018	.915
	education=Less than High School	.014 ^e	.640	.522	.015	.993	1.007	.923
	education=Some High School	-.032 ^e	-1.388	.165	-.032	.969	1.032	.903
	education=High School Graduate	-.001 ^e	-.038	.970	-.001	.981	1.020	.910
	education=Some College	.034 ^e	1.508	.132	.035	.980	1.020	.910
	education=College Graduate	.031 ^e	1.342	.180	.031	.969	1.032	.903
	education=Some University	.007 ^e	.316	.752	.007	.998	1.002	.924
	education=Undergraduate Degree	-.049 ^e	-2.161	.031	-.050	.989	1.011	.920
	education=Master's Degree	-.031 ^e	-1.367	.172	-.031	.992	1.008	.922
	education=Doctoral Degree	-.041 ^e	-1.836	.066	-.042	.999	1.001	.923
	income=Less than 50,000	.010 ^e	.456	.649	.010	.957	1.045	.889
	income=50,000-59,999	.000 ^e	-.012	.990	.000	.995	1.005	.922
	income=60,000-69,999	.029 ^e	1.270	.204	.029	.996	1.004	.923
	income=70,000-79,000	-.028 ^e	-1.222	.222	-.028	.989	1.011	.924
	income=80,000-89,999	.029 ^e	1.309	.191	.030	.997	1.003	.923
	income=90,000-99,999	.020 ^e	.884	.377	.020	.998	1.002	.923
	income=100,000-124,999	-.015 ^e	-.681	.496	-.016	.982	1.018	.912
	income=125,000-149,999	-.033 ^e	-1.483	.138	-.034	.992	1.008	.923
	income=150,000 and above	-.054 ^e	-2.406	.016	-.055	.987	1.013	.918
	What is your marital status?-never legally married (single)	-.019 ^e	-.807	.420	-.019	.911	1.098	.854
	What is your marital status?-legally married	.002 ^e	.087	.931	.002	.835	1.198	.835
	What is your marital status?-common law	-.011 ^e	-.483	.629	-.011	.983	1.017	.913
	What is your marital status?-divorced	.000 ^e	.009	.992	.000	.981	1.020	.918
	What is your marital status?-widowed	.032 ^e	1.428	.153	.033	.996	1.005	.923
	Ethnicity_whitecaucasian	-.005 ^e	-.203	.839	-.005	.998	1.002	.923
	Ethnicity_aboriginal_inuit_métis	.029 ^e	1.307	.191	.030	.992	1.008	.922
	ethnicity_other	-.011 ^e	-.510	.610	-.012	.998	1.002	.923

	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.062 ^e	2.706	.007	.062	.950	1.053	.898
5	What is your gender?	-.071 ^f	-3.060	.002	-.070	.928	1.078	.891
	education=Less than High School	.013 ^f	.558	.577	.013	.992	1.008	.897
	education=Some High School	-.033 ^f	-1.433	.152	-.033	.969	1.032	.894
	education=High School Graduate	-.001 ^f	-.035	.972	-.001	.981	1.020	.898
	education=Some College	.031 ^f	1.370	.171	.031	.978	1.023	.898
	education=College Graduate	.026 ^f	1.158	.247	.027	.965	1.037	.892
	education=Some University	.009 ^f	.380	.704	.009	.998	1.002	.898
	education=Undergraduate Degree	-.042 ^f	-1.862	.063	-.043	.976	1.025	.896
	education=Master's Degree	-.027 ^f	-1.198	.231	-.028	.988	1.012	.897
	education=Doctoral Degree	-.044 ^f	-1.941	.052	-.045	.998	1.002	.898
	income=Less than 50,000	.014 ^f	.591	.555	.014	.955	1.047	.882
	income=50,000-59,999	.001 ^f	.046	.963	.001	.994	1.006	.898
	income=60,000-69,999	.031 ^f	1.376	.169	.032	.994	1.006	.897
	income=70,000-79,000	-.029 ^f	-1.295	.196	-.030	.989	1.012	.898
	income=80,000-89,999	.028 ^f	1.251	.211	.029	.997	1.003	.898
	income=90,000-99,999	.020 ^f	.913	.362	.021	.998	1.002	.898
	income=100,000-124,999	-.017 ^f	-.738	.460	-.017	.982	1.019	.897
	income=125,000-149,999	-.032 ^f	-1.441	.150	-.033	.992	1.008	.898
	income=150,000 and above	-.054 ^f	-2.387	.017	-.055	.987	1.013	.898
	What is your marital status?-never legally married (single)	-.018 ^f	-.787	.432	-.018	.911	1.098	.846
	What is your marital status?-legally married	-.001 ^f	-.034	.973	-.001	.833	1.200	.833
	What is your marital status?-common law	-.009 ^f	-.419	.675	-.010	.983	1.017	.898
	What is your marital status?-divorced	.002 ^f	.093	.926	.002	.980	1.021	.895
	What is your marital status?-widowed	.032 ^f	1.441	.150	.033	.995	1.005	.898
	Ethnicity_whitecaucasian	-.004 ^f	-.179	.858	-.004	.998	1.002	.898
	Ethnicity_aboriginal_inuit_métis	.026 ^f	1.131	.258	.026	.987	1.013	.898
	ethnicity_other	-.011 ^f	-.495	.620	-.011	.998	1.002	.897
6	education=Less than High School	.013 ^g	.596	.552	.014	.992	1.008	.890
	education=Some High School	-.030 ^g	-1.339	.181	-.031	.968	1.033	.888
	education=High School Graduate	.006 ^g	.252	.801	.006	.972	1.029	.891
	education=Some College	.037 ^g	1.609	.108	.037	.972	1.029	.891
	education=College Graduate	.034 ^g	1.501	.134	.034	.953	1.049	.881
	education=Some University	.004 ^g	.162	.871	.004	.993	1.007	.891
	education=Undergraduate Degree	-.061 ^g	-2.626	.009	-.060	.926	1.080	.880
	education=Master's Degree	-.033 ^g	-1.464	.143	-.034	.981	1.019	.889
	education=Doctoral Degree	-.045 ^g	-2.024	.043	-.047	.997	1.003	.891
	income=Less than 50,000	.012 ^g	.528	.597	.012	.955	1.048	.876
	income=50,000-59,999	-.008 ^g	-.336	.737	-.008	.979	1.022	.891
	income=60,000-69,999	.027 ^g	1.208	.227	.028	.991	1.009	.890

	income=70,000-79,000	-.029 ^e	-1.273	.203	-.029	.988	1.012	.891
	income=80,000-89,999	.027 ^e	1.206	.228	.028	.997	1.003	.891
	income=90,000-99,999	.025 ^a	1.103	.270	.025	.995	1.005	.891
	income=100,000-124,999	-.014 ^e	-.608	.543	-.014	.980	1.021	.890
	income=125,000-149,999	-.031 ^e	-1.366	.172	-.031	.991	1.009	.891
	income=150,000 and above	-.056 ^e	-2.505	.012	-.058	.986	1.015	.891
	What is your marital status?-never legally married (single)	-.021 ^e	-.874	.382	-.020	.910	1.099	.841
	What is your marital status?-legally married	.001 ^e	.044	.965	.001	.833	1.201	.833
	What is your marital status?-common law	-.008 ^e	-.353	.724	-.008	.982	1.018	.891
	What is your marital status?-divorced	.000 ^e	.004	.997	.000	.979	1.022	.889
	What is your marital status?-widowed	.028 ^e	1.241	.215	.029	.991	1.009	.891
	Ethnicity_whitecaucasian	-.004 ^e	-.181	.856	-.004	.998	1.002	.891
	Ethnicity_aboriginal_inuit_métis	.027 ^e	1.189	.235	.027	.987	1.013	.891
	ethnicity_other	-.015 ^a	-.648	.517	-.015	.996	1.004	.890
7	education=Less than High School	.012 ^h	.548	.584	.013	.992	1.008	.880
	education=Some High School	-.033 ^h	-1.438	.151	-.033	.967	1.035	.880
	education=High School Graduate	-.001 ^h	-.036	.971	-.001	.960	1.041	.877
	education=Some College	.030 ^h	1.296	.195	.030	.957	1.045	.879
	education=College Graduate	.012 ^h	.461	.645	.011	.791	1.264	.769
	education=Some University	-.004 ^h	-.173	.863	-.004	.977	1.024	.872
	education=Master's Degree	-.040 ^h	-1.773	.076	-.041	.969	1.032	.870
	education=Doctoral Degree	-.047 ^h	-2.090	.037	-.048	.996	1.004	.880
	income=Less than 50,000	.009 ^h	.388	.698	.009	.952	1.051	.872
	income=50,000-59,999	-.006 ^h	-.272	.786	-.006	.978	1.022	.869
	income=60,000-69,999	.022 ^h	.981	.327	.023	.983	1.017	.875
	income=70,000-79,000	-.037 ^h	-1.633	.103	-.038	.972	1.029	.880
	income=80,000-89,999	.028 ^h	1.263	.207	.029	.996	1.004	.880
	income=90,000-99,999	.026 ^h	1.151	.250	.026	.994	1.006	.877
	income=100,000-124,999	-.008 ^h	-.366	.715	-.008	.971	1.029	.877
	income=125,000-149,999	-.026 ^h	-1.160	.246	-.027	.985	1.015	.879
	income=150,000 and above	-.050 ^h	-2.196	.028	-.050	.970	1.031	.880
	What is your marital status?-never legally married (single)	-.022 ^h	-.918	.359	-.021	.910	1.099	.838
	What is your marital status?-legally married	.006 ^h	.250	.802	.006	.828	1.208	.828
	What is your marital status?-common law	-.012 ^h	-.524	.600	-.012	.978	1.022	.880
	What is your marital status?-divorced	-.002 ^h	-.076	.939	-.002	.978	1.023	.879
	What is your marital status?-widowed	.028 ^h	1.237	.216	.028	.991	1.009	.877
	Ethnicity_whitecaucasian	-.006 ^h	-.287	.774	-.007	.997	1.003	.880
	Ethnicity_aboriginal_inuit_métis	.024 ^h	1.058	.290	.024	.984	1.016	.880
	ethnicity_other	-.010 ^h	-.460	.645	-.011	.990	1.010	.880
8	education=Less than High School	.012 ⁱ	.529	.597	.012	.992	1.008	.880
	education=Some High School	-.032 ⁱ	-1.429	.153	-.033	.967	1.035	.876

education=High School Graduate	-.002 ^l	-.082	.935	-.002	.960	1.042	.877
education=Some College	.028 ^l	1.208	.227	.028	.956	1.046	.879
education=College Graduate	.010 ^l	.411	.681	.009	.791	1.265	.760
education=Some University	-.005 ^l	-.208	.835	-.005	.976	1.024	.872
education=Master's Degree	-.033 ^l	-1.446	.148	-.033	.944	1.059	.870
education=Doctoral Degree	-.042 ^l	-1.886	.059	-.043	.987	1.013	.880
income=Less than 50,000	.009 ^l	.409	.683	.009	.952	1.051	.862
income=50,000-59,999	-.007 ^l	-.318	.751	-.007	.978	1.023	.869
income=60,000-69,999	.021 ^l	.927	.354	.021	.983	1.018	.875
income=70,000-79,000	-.039 ^l	-1.712	.087	-.039	.970	1.030	.880
income=80,000-89,999	.025 ^l	1.129	.259	.026	.992	1.008	.880
income=90,000-99,999	.023 ^l	1.021	.307	.023	.991	1.009	.877
income=100,000-124,999	-.013 ^l	-.559	.576	-.013	.964	1.037	.877
income=125,000-149,999	-.028 ^l	-1.255	.210	-.029	.983	1.017	.879
What is your marital status?-never legally married (single)	-.022 ^l	-.939	.348	-.022	.910	1.099	.829
What is your marital status?-legally married	.006 ^l	.260	.795	.006	.828	1.208	.828
What is your marital status?-common law	-.011 ^l	-.494	.621	-.011	.978	1.022	.880
What is your marital status?-divorced	-.002 ^l	-.081	.935	-.002	.978	1.023	.879
What is your marital status?-widowed	.027 ^l	1.199	.231	.028	.991	1.009	.877
Ethnicity_whitecaucasian	-.007 ^l	-.295	.768	-.007	.997	1.003	.880
Ethnicity_aboriginal_inuit_métis	.024 ^l	1.079	.281	.025	.984	1.016	.880
ethnicity_other	-.011 ^l	-.505	.614	-.012	.990	1.010	.880

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

b. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?

c. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?

d. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months

e. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated

f. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?

g. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?

h. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, education=Undergraduate Degree

i. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, What is your age as of your last birthday (in years)?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, education=Undergraduate Degree, income=150,000 and above

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions								
					During the past year, have you had a reportable work-related injury?	What is your age as of your last birthday (in years)?	Diagnosed with any kind of physical disease within the last 12 months	What is your marital status?-separated	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	What is your gender?	education=Undergraduate Degree	income=150,000 and above	
1	1	1.390	1.000	.30	.30								
	2	.610	1.510	.70	.70								
2	1	2.219	1.000	.01	.06	.01							
	2	.757	1.712	.00	.93	.01							
	3	.024	9.585	.99	.00	.99							
3	1	2.710	1.000	.01	.04	.01	.05						
	2	.789	1.854	.00	.94	.00	.06						
	3	.478	2.381	.02	.02	.01	.86						
	4	.023	10.797	.98	.00	.98	.04						
4	1	2.787	1.000	.01	.03	.01	.04	.01					
	2	.935	1.726	.00	.03	.00	.02	.93					
	3	.787	1.882	.00	.91	.00	.07	.01					
	4	.467	2.442	.02	.02	.01	.83	.04					
	5	.023	10.949	.98	.00	.98	.04	.00					
5	1	3.703	1.000	.00	.02	.00	.02	.01	.00				
	2	.937	1.988	.00	.02	.00	.02	.95	.00				
	3	.802	2.149	.00	.95	.00	.03	.01	.00				
	4	.513	2.687	.00	.01	.00	.87	.04	.00				
	5	.033	10.554	.03	.00	.85	.02	.00	.23				
	6	.012	17.821	.97	.00	.15	.05	.00	.76				
6	1	4.580	1.000	.00	.01	.00	.01	.00	.00	.00			
	2	.938	2.210	.00	.02	.00	.02	.95	.00	.00			
	3	.808	2.382	.00	.97	.00	.01	.01	.00	.00			
	4	.550	2.887	.00	.00	.00	.86	.03	.00	.01			
	5	.081	7.519	.02	.00	.08	.04	.00	.01	.94			
	6	.032	11.905	.04	.00	.77	.01	.00	.25	.05			
	7	.012	19.827	.94	.00	.15	.05	.00	.74	.00			
7	1	4.720	1.000	.00	.01	.00	.01	.00	.00	.00	.01		
	2	.939	2.242	.00	.05	.00	.02	.88	.00	.00	.03		
	3	.910	2.277	.00	.26	.00	.00	.08	.00	.00	.56		
	4	.763	2.487	.00	.68	.00	.02	.00	.00	.00	.30		
	5	.549	2.932	.00	.00	.00	.85	.03	.00	.01	.00		
	6	.076	7.889	.02	.00	.10	.04	.00	.01	.92	.07		
	7	.032	12.137	.04	.00	.74	.01	.00	.26	.06	.01		
	8	.011	20.444	.94	.00	.15	.05	.00	.72	.00	.03		
8	1	4.739	1.000	.00	.01	.00	.01	.00	.00	.00	.01	.00	
	2	1.077	2.097	.00	.07	.00	.00	.03	.00	.00	.17	.56	
	3	.939	2.246	.00	.05	.00	.02	.88	.00	.00	.03	.00	
	4	.816	2.410	.00	.27	.00	.00	.06	.00	.00	.31	.41	
	5	.762	2.494	.00	.59	.00	.02	.00	.00	.00	.37	.01	
	6	.549	2.938	.00	.00	.00	.85	.03	.00	.01	.00	.00	
	7	.076	7.910	.02	.00	.10	.04	.00	.01	.92	.06	.00	
	8	.032	12.206	.04	.00	.74	.01	.00	.27	.06	.01	.01	
	9	.011	20.512	.95	.00	.16	.05	.00	.72	.00	.03	.00	

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

C2. Individual and Demographic Factors – Anxiety

		Correlations																																
		Sum of BA factors numiness to sweating	What is your gender?	education=Le ss than High School	education=So me High School	education=Hi gh School Graduate	education=So me College	education=Co lege Graduate	education=So me University	education=In tergraduate Degree	education=Ma ster's Degree	education=Do ctoral Degree	income=Less than 50,000	income=50, 000-59,999	income=60, 000-69,999	income=70, 000-79,000	income=80, 000-89,999	income=90, 000-99,999	income=100, 000-124,999	income=125, 000-149,999	income=150, 000 and above	What is your marital status?-never legally married (single)	What is your marital status?- legally married	What is your marital status?- separated	What is your marital status?- divorced	What is your marital status?- widowed	What is your age as of your last birthday (in years)?	Ethnicity_wht caucasian	Ethnicity_abor iginal_nut _mets	ethnicity_othe r	Diagnosed with any kind of physical disease within the last 12 months	During the past year, have you had a reportable work-related injury?	What is your body mass index (weight in kilograms, over height in meters, squared)?	
Pearson Correlation	Sum of BA factors numiness to sweating	1.000	-0.080	.014	-.054	-.040	.016	.061	.007	-.013	-.067	-.037	-.028	.013	.050	.038	.034	-.027	-.047	-.063	-.017	.015	-.101	.117	.035	.040	.006	-.062	.019	.029	.008	.211	.137	.069
	What is your gender?	-.080	1.000	.028	.050	.105	.100	.102	-.074	-.251	-.183	-.021	-.048	-.136	-.064	.015	-.021	.060	.059	.024	-.029	-.055	.044	.010	.005	-.021	-.068	.102	-.003	.023	-.051	-.018	.073	.228
	education=Less than High School	.014	.028	1.000	-.011	-.028	-.030	-.061	-.021	-.032	-.016	-.004	-.009	-.012	-.004	-.041	.038	-.003	.009	.026	-.010	-.002	-.001	-.020	.006	.005	-.006	.046	-.064	-.019	-.020	-.005	.059	.035
	education=Some High School	-.054	.050	-.011	1.000	-.049	-.053	-.143	-.037	-.056	-.027	-.006	.017	.004	-.034	-.026	-.001	.033	.014	-.007	.015	-.018	.034	-.036	-.013	-.007	-.010	.171	-.013	.051	-.002	.052	-.028	.039
	education=High School Graduate	-.040	.105	-.028	-.049	1.000	-.128	-.349	-.090	-.138	-.067	-.016	-.025	-.042	-.028	-.001	-.038	.030	.053	.023	-.027	-.030	-.010	.015	.004	.052	-.001	.137	.007	-.005	-.063	.031	.038	.021
	education=Some College	.016	.100	-.030	-.053	-.128	1.000	-.377	-.097	-.149	-.072	-.017	-.001	.028	-.016	-.046	.028	.022	.021	-.022	-.045	-.015	-.013	.022	.012	-.003	.017	.136	.033	.019	-.037	.016	-.014	.072
	education=College Graduate	.061	.102	-.081	-.143	-.349	-.377	1.000	-.264	-.404	-.197	-.047	.013	-.009	.109	.155	-.023	-.055	-.102	-.075	-.086	.030	-.045	-.014	.058	-.001	-.001	-.166	.068	.032	-.055	-.043	.048	.040
	education=Some University	.007	-.074	-.021	-.037	-.090	-.097	-.264	1.000	-.104	-.051	-.012	.045	-.026	.000	.030	.033	.006	-.051	-.028	-.031	-.007	-.019	.034	-.006	-.001	-.019	-.008	.011	-.014	-.009	.013	.022	-.023
	education=Undergraduate Degree	-.013	-.251	-.032	-.056	-.138	-.149	-.404	-.104	1.000	-.078	-.018	.019	.060	-.066	-.127	.024	-.001	.066	.076	.120	.019	.046	.003	-.064	-.034	.013	-.077	-.042	-.054	.092	.015	-.063	-.018
	education=Master's Degree	-.067	-.103	-.016	-.027	-.067	-.072	-.197	-.051	-.078	1.000	-.009	-.022	-.030	-.065	-.093	-.029	.026	.078	.096	.143	-.012	.065	-.037	-.046	-.007	-.014	-.009	-.141	-.021	.146	-.048	-.067	-.073
	education=Doctoral Degree	-.037	-.021	-.004	-.006	-.016	-.017	-.047	-.012	-.018	-.009	1.000	-.005	-.007	-.015	-.024	.003	.008	.005	-.009	.091	-.014	.032	-.012	-.019	-.012	-.003	-.015	-.037	-.011	.087	.013	-.019	.036
	income=Less than 50,000	-.028	-.048	-.009	.017	-.025	-.001	.013	.045	-.019	-.022	-.005	1.000	-.018	-.038	-.060	-.061	-.054	-.058	-.023	-.014	.223	-.145	-.029	.028	-.013	-.008	-.186	.029	.014	.051	-.020	-.023	-.068
	income=50,000-59,999	.013	-.136	-.012	.004	-.042	.028	-.009	-.026	.060	-.030	-.007	-.018	1.000	-.051	-.080	-.082	-.072	-.078	-.030	-.019	.086	-.026	-.024	-.022	-.013	-.011	-.068	.009	.026	.007	.000	-.007	-.028
	income=60,000-69,999	.050	-.064	-.004	-.034	-.028	-.016	.109	.000	-.066	-.065	-.015	-.038	-.051	1.000	-.171	-.176	-.156	-.167	-.085	-.040	.006	.049	.038	.025	-.035	-.005	.009	.031	-.029	.027	.056	-.032	
	income=70,000-79,000	.038	.015	-.041	-.026	-.001	-.046	.155	.030	-.127	-.093	-.024	-.060	-.080	-.171	1.000	-.274	-.242	-.260	-.101	-.062	.056	-.096	.056	.042	.012	-.038	-.054	.004	-.001	-.016	-.001	.081	.014
	income=80,000-89,999	.034	-.021	.038	-.001	-.038	.028	-.023	.033	.024	-.029	.003	-.061	-.082	-.176	-.274	1.000	-.249	-.268	-.194	-.064	.003	.015	.006	-.001	-.046	.032	-.042	-.011	.027	.005	-.083	.002	.023
	income=90,000-99,999	-.027	.060	-.003	.033	.030	.022	-.055	.006	-.001	.026	.008	-.054	-.072	-.156	-.242	-.249	1.000	-.236	-.092	-.056	-.056	.046	-.008	-.035	.033	-.015	.032	-.009	-.026	-.004	-.014	-.034	-.005
	income=100,000-124,999	-.047	.059	.009	.014	.053	.021	-.102	-.051	.066	.078	.005	-.058	-.078	-.167	-.260	-.236	1.000	-.099	-.061	-.085	.085	-.021	-.025	-.009	.000	-.005	-.020	.005	-.020	.005	-.087	-.046	.024
	income=125,000-149,999	-.063	.024	.020	-.007	.023	-.022	-.075	-.028	.076	.096	-.009	-.023	-.030	-.065	-.101	-.164	-.092	-.099	1.000	-.024	-.062	.078	-.026	-.031	-.019	.024	.062	.010	-.034	.036	.014	-.052	-.009
	income=150,000 and above	-.017	-.029	-.010	.015	-.027	-.045	-.086	-.031	.120	.143	.091	-.014	-.019	-.040	-.062	-.064	-.056	-.061	-.024	1.000	-.038	.047	-.030	-.010	.003	-.009	.089	-.007	-.009	-.011	.011	-.051	.000
	What is your marital status?-never legally married (single)	.015	-.055	-.002	-.018	-.030	-.015	.030	-.007	.019	-.012	-.014	.223	.066	.032	.056	.003	-.056	-.085	-.062	-.038	1.000	-.447	-.079	-.111	-.084	-.023	-.289	-.014	-.001	.057	-.058	.037	-.049
	What is your marital status?-legally married	-.101	.044	-.001	.034	-.010	-.013	-.045	-.019	.046	.065	.032	-.145	-.028	-.064	-.096	.015	.046	.085	.078	.047	-.447	1.000	-.349	-.559	-.328	-.088	.201	-.068	.022	.009	.042	-.047	.074
	What is your marital status?-separated	.117	.010	-.020	-.036	.015	.022	-.014	.034	.003	-.037	-.012	-.029	-.024	.006	.056	.006	-.008	-.021	-.026	-.030	-.079	-.349	1.000	-.018	-.050	.012	.018	.035	.020	-.034	-.029	-.001	-.016
	What is your marital status?-common law	.035	.005	.006	-.013	.004	.012	.058	-.006	-.084	-.046	-.019	.020	-.022	.049	.042	-.001	-.035	-.025	-.031	-.010	-.111	-.559	-.018	1.000	.050	.034	-.129	.057	.006	-.034	-.031	.020	-.037
	What is your marital status?-divorced	.040	-.021	.005	-.007	.052	-.003	-.001	-.001	-.034	-.007	-.012	-.013	.038	.012	-.046	.033	-.009	-.016	.003	-.084	-.328	-.050	.050	1.000	.010	.110	.032	-.045	-.012	.077	.057	-.003	
	What is your marital status?-widowed	.006	-.068	-.006	-.010	-.001	.017	-.001	-.019	.013	-.014	-.003	-.008	-.011	.025	-.038	.032	-.015	.000	.024	-.009	-.023	-.088	.012	.034	.010	1.000	.053	.018	-.017	-.018	.020	-.011	.009
	What is your age as of your last birthday (in years)?	-.062	.102	.048	.171	.137	.136	-.168	-.008	-.077	-.009	-.015	-.186	-.068	-.035	-.054	-.042	.032	.116	.062	.089	-.289	.201	.018	-.129	.110	.053	1.000	-.021	-.064	-.007	.268	-.018	.145
	Ethnicity_whitecaucasian	.019	-.003	-.084	-.013	.007	.033	.068	.011	-.042	-.141	-.037	.029	.009	.009	.004	-.011	-.009	.005	-.010	-.007	-.014	-.068	.035	.057	.032	.018	-.021	1.000	-.307	-.387	-.031	-.017	-.006
	Ethnicity_aboriginal_nut_mets	.029	.023	-.019	.051	-.005	.019	.032	.014	-.054	-.021	-.011	.014	.026	.031	-.001	.027	-.026	-.020	-.034	-.009	-.001	.022	.020	.006	-.045	-.017	-.064	-.307	1.000	.022	.015	.037	.056
	ethnicity_other	.008	-.051	-.020	-.002	-.063	-.037	-.055	-.009	.092	.146	.087	.051	.007	-.029	-.016	.005	-.004	.005	.036	-.011	.057	.009	-.034	-.034	-.012	-.018	-.007	-.397	.022	1.000	.029	-.004	-.011
	Diagnosed with any kind of physical disease within the last 12 months	.211	-.018	-.005	.052	.031	.016	-.043	.013	.015	-.048	.013	-.020	.000	.027	-.001	-.003	-.014	-.007	.014	.011	-.058	.042	-.029	-.031	.077	.020	.268	-.031	.015	.029	1.000	.849	.206
	During the past year, have you had a reportable work-related injury?	.137	.073	.059	-.028	.031	-.014	.048	.022	-.063	-.067	-.019	-.023	-.007	.056	.081	.002	-.034	-.045	-.052	-.051	.037	-.047	-.001	.020	.057	-.011	-.018	-.017	.037	-.004	.049	1.000	.025
	What is your body mass index (weight in kilograms, over height in meters, squared)?	.069	.228	.035	.039	.021	.072	.040	-.023	-.118	-.073	.036	-.068	-.028	-.032	.014	.023	-.005	.024	-.009	.000	-.049	.074	-.016	-.037	-.003	.009	.145	-.006	.056	-.011	.206	.025	1.000

Sig (1-tailed)	Sum of BA factors numbness to sweating	.000	.273	.009	.040	.248	.004	.383	.291	.002	.055	.110	.286	.015	.048	.072	.120	.020	.003	.228	.254	.000	.000	.065	.041	.404	.003	.205	.101	.367	.000	.000	.001	
	What is your gender?	.000	.111	.015	.000	.000	.000	.001	.000	.000	.185	.018	.000	.003	.252	.178	.005	.005	.148	.104	.008	.027	.331	.408	.185	.002	.000	.449	.156	.013	.218	.001	.000	
	education=Less than High School	.273	.111	.312	.116	.099	.000	.162	.082	.250	.437	.244	.296	.427	.037	.050	.450	.240	.197	.238	.469	.480	.191	.284	.411	.400	.022	.003	.205	.195	.410	.005	.066	
	education=Some High School	.009	.015	.312	.017	.011	.000	.054	.007	.116	.389	.228	.439	.069	.129	.477	.076	.265	.373	.254	.222	.069	.061	.287	.375	.327	.000	.289	.013	.463	.012	.112	.647	
	education=High School Graduate	.040	.000	.116	.017	.000	.000	.000	.000	.002	.245	.140	.035	.108	.483	.048	.097	.011	.155	.120	.094	.338	.284	.425	.012	.475	.000	.377	.406	.003	.090	.091	.179	
	education=Some College	.248	.000	.099	.011	.000	.000	.000	.001	.228	.488	.110	.246	.023	.113	.167	.178	.173	.026	.251	.287	.170	.284	.445	.225	.000	.078	.201	.055	.246	.271	.001		
	education=College Graduate	.004	.000	.000	.000	.000	.000	.000	.000	.021	.293	.351	.000	.000	.161	.006	.000	.001	.000	.099	.026	.270	.006	.483	.485	.000	.002	.079	.008	.031	.016	.040		
	education=Some University	.383	.001	.182	.054	.000	.000	.000	.014	.301	.024	.129	.499	.099	.075	.389	.013	.109	.086	.389	.208	.067	.401	.483	.204	.357	.314	.272	.349	.289	.173	.159		
	education=Undergraduat e Degree	.291	.000	.082	.007	.000	.000	.000	.000	.212	.199	.004	.002	.000	.147	.491	.002	.000	.000	.202	.023	.452	.003	.071	.284	.000	.035	.009	.000	.254	.003	.000		
	education=Master's Degree	.002	.000	.250	.116	.002	.001	.000	.014	.000	.349	.164	.096	.002	.000	.107	.130	.000	.000	.000	.304	.002	.053	.023	.379	.269	.346	.000	.180	.000	.019	.002	.001	
	education=Doctoral Degree	.055	.185	.437	.389	.245	.228	.021	.301	.212	.349	.409	.379	.253	.151	.443	.359	.406	.348	.000	.265	.080	.307	.210	.296	.442	.257	.054	.317	.000	.287	.198	.059	
	income=Less than 50,000	.110	.018	.344	.228	.140	.488	.293	.024	.199	.164	.409	.219	.047	.005	.004	.009	.006	.162	.273	.000	.000	.103	.192	.293	.357	.000	.103	.275	.013	.188	.156	.002	
	income=50,000-59,999	.286	.000	.286	.439	.025	.110	.351	.129	.004	.096	.379	.219	.013	.000	.000	.001	.000	.094	.210	.000	.130	.148	.172	.281	.313	.002	.344	.131	.380	.493	.385	.109	
	income=60,000-69,999	.015	.003	.427	.069	.108	.246	.000	.499	.002	.002	.253	.047	.013	.000	.000	.000	.000	.002	.041	.084	.003	.400	.016	.049	.143	.064	.347	.087	.194	.119	.007	.081	
	income=70,000-79,000	.048	.252	.037	.129	.483	.023	.000	.099	.000	.000	.151	.005	.000	.000	.000	.000	.000	.003	.008	.000	.007	.033	.301	.051	.010	.430	.478	.241	.490	.000	.271		
	income=80,000-89,999	.072	.178	.050	.477	.048	.113	.161	.075	.147	.107	.443	.004	.000	.000	.000	.000	.000	.003	.456	.254	.397	.478	.023	.084	.034	.310	.120	.406	.448	.464	.157		
	income=90,000-99,999	.120	.005	.450	.076	.097	.167	.008	.389	.491	.130	.359	.009	.001	.000	.000	.000	.000	.007	.007	.022	.362	.064	.074	.253	.080	.344	.130	.431	.277	.067	.419		
	income=100,000- 124,999	.020	.005	.340	.265	.011	.178	.000	.013	.002	.000	.406	.006	.000	.000	.000	.000	.000	.004	.000	.000	.176	.139	.350	.493	.000	.419	.192	.407	.373	.026	.145		
	income=125,000- 149,999	.003	.148	.197	.373	.155	.173	.001	.109	.000	.000	.348	.162	.094	.002	.000	.000	.000	.153	.004	.000	.132	.092	.205	.145	.003	.336	.069	.060	.267	.012	.350		
	income=150,000 and above	.228	.104	.338	.254	.120	.026	.000	.086	.000	.000	.000	.273	.210	.041	.003	.003	.007	.004	.153	.000	.021	.094	.332	.442	.362	.000	.375	.352	.323	.322	.013	.499	
	What is your marital status?never legally married (single)	.254	.008	.469	.222	.094	.251	.099	.389	.202	.304	.265	.000	.000	.084	.008	.456	.007	.000	.004	.050	.000	.000	.000	.000	.000	.160	.000	.264	.491	.006	.006	.055	.016
	What is your marital status?legally married	.000	.027	.490	.069	.336	.287	.026	.208	.023	.002	.080	.000	.130	.003	.000	.254	.022	.000	.000	.021	.000	.000	.000	.000	.000	.000	.000	.002	.173	.340	.034	.021	.001
	What is your marital status?separated	.000	.331	.191	.061	.264	.170	.270	.067	.452	.053	.307	.103	.148	.400	.007	.397	.362	.176	.132	.084	.000	.000	.216	.015	.265	.211	.063	.197	.072	.105	.480	.243	
	What is your marital status?common law	.065	.408	.394	.287	.425	.294	.006	.401	.003	.023	.210	.192	.172	.016	.033	.478	.064	.139	.092	.332	.000	.000	.216	.015	.072	.000	.007	.399	.068	.091	.193	.054	
	What is your marital status?divorced	.041	.185	.411	.375	.012	.445	.483	.483	.071	.379	.296	.293	.281	.049	.301	.023	.074	.350	.295	.442	.000	.000	.015	.015	.338	.000	.083	.026	.303	.000	.007	.444	
	What is your marital status?widowed	.404	.002	.400	.327	.475	.225	.485	.204	.284	.269	.442	.357	.313	.143	.051	.084	.253	.493	.145	.352	.160	.000	.295	.072	.338	.010	.212	.226	.217	.187	.323	.350	
	What is your age as of your last birthday (in years)?	.003	.000	.022	.000	.000	.000	.000	.357	.000	.346	.257	.000	.002	.064	.010	.034	.080	.000	.003	.000	.000	.000	.211	.000	.000	.010	.184	.003	.374	.000	.216	.000	
	Ethnicity_whitecaucasian	.205	.449	.003	.289	.377	.078	.002	.314	.035	.000	.054	.103	.344	.347	.430	.310	.344	.419	.336	.375	.264	.002	.063	.007	.083	.212	.184	.000	.000	.086	.223	.404	
	Ethnicity_aboriginal_inuit _metis	.101	.156	.205	.013	.406	.201	.079	.272	.009	.180	.317	.275	.131	.087	.478	.120	.130	.192	.069	.362	.491	.173	.197	.399	.026	.228	.003	.000	.169	.252	.054	.007	
	ethnicity_other	.367	.013	.195	.483	.003	.055	.008	.349	.000	.000	.000	.013	.380	.104	.241	.406	.431	.407	.060	.323	.006	.340	.072	.068	.303	.217	.374	.000	.169	.101	.437	.322	
	Diagnosed with any kind of physical disease within the last 12 months	.000	.218	.410	.012	.090	.246	.031	.288	.254	.016	.287	.188	.493	.118	.490	.448	.277	.373	.267	.322	.006	.034	.105	.091	.000	.187	.000	.086	.252	.101	.017	.000	
	During the past year, have you had a reportable work-related injury?	.000	.001	.005	.112	.091	.271	.018	.173	.003	.002	.198	.156	.385	.007	.000	.464	.067	.026	.012	.013	.055	.021	.480	.193	.007	.323	.216	.223	.054	.437	.017	.141	
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.001	.000	.066	.047	.179	.001	.040	.158	.000	.001	.059	.002	.109	.001	.271	.157	.419	.145	.350	.499	.016	.001	.243	.054	.444	.350	.000	.404	.007	.322	.000	.141	

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Diagnosed with any kind of physical disease within the last 12 months		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	During the past year, have you had a reportable work-related injury?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	What is your marital status?-separated		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	What is your age as of your last birthday (in years)?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	What is your gender?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	What is your body mass index (weight, in kilograms, over height, in meters, squared)?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
7	education=College Graduate		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
8	education=Some College		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Sum of BAI factors numbness to sweating

Model Summary¹

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.211 ^a	.045	.044	7.380	
2	.246 ^b	.061	.060	7.319	
3	.276 ^c	.076	.074	7.262	
4	.302 ^d	.091	.089	7.204	
5	.311 ^e	.096	.094	7.184	
6	.316 ^f	.100	.097	7.174	
7	.320 ^g	.102	.099	7.164	
8	.325 ^h	.106	.102	7.153	1.915

- a. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months
- b. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?
- c. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated
- d. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?
- e. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?
- f. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?
- g. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, education=College Graduate
- h. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, education=College Graduate, education=Some College
- i. Dependent Variable: Sum of BAI factors numbness to sweating

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4811.420	1	4811.420	88.345	.000 ^b
	Residual	103041.149	1892	54.461		
	Total	107852.569	1893			
2	Regression	6544.970	2	3272.485	61.084	.000 ^c
	Residual	101307.599	1891	53.574		
	Total	107852.569	1893			
3	Regression	8186.695	3	2728.898	51.749	.000 ^d
	Residual	99665.874	1890	52.733		
	Total	107852.569	1893			
4	Regression	9811.490	4	2452.872	47.261	.000 ^e
	Residual	98041.079	1889	51.901		
	Total	107852.569	1893			
5	Regression	10400.065	5	2080.013	40.297	.000 ^f
	Residual	97452.504	1888	51.617		
	Total	107852.569	1893			
6	Regression	10740.824	6	1790.137	34.785	.000 ^g
	Residual	97111.745	1887	51.464		
	Total	107852.569	1893			
7	Regression	11054.591	7	1579.227	30.769	.000 ^h
	Residual	96797.977	1886	51.324		
	Total	107852.569	1893			
8	Regression	11410.949	8	1426.369	27.879	.000 ⁱ
	Residual	96441.620	1885	51.163		
	Total	107852.569	1893			

a. Dependent Variable: Sum of BAI factors numbness to sweating

b. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months

c. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?

d. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated

e. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?

f. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?

g. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?

h. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, education=College Graduate

i. Predictors: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, education=College Graduate, education=Some College

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.314	.213		24.976	.000	4.897	5.732					
	Diagnosed with any kind of physical disease within the last 12 months	3.311	.352	.211	9.399	.000	2.620	4.002	.211	.211	.211	1.000	1.000
2	(Constant)	4.944	.221		22.387	.000	4.511	5.377					
	Diagnosed with any kind of physical disease within the last 12 months	3.214	.350	.205	9.189	.000	2.528	3.900	.211	.207	.205	.998	1.002
	During the past year, have you had a reportable work-related injury?	2.667	.469	.127	5.688	.000	1.748	3.587	.137	.130	.127	.998	1.002
3	(Constant)	4.689	.224		20.951	.000	4.250	5.128					
	Diagnosed with any kind of physical disease within the last 12 months	3.270	.347	.209	9.419	.000	2.589	3.951	.211	.212	.208	.997	1.003
	During the past year, have you had a reportable work-related injury?	2.667	.465	.127	5.732	.000	1.754	3.579	.137	.131	.127	.998	1.002
	What is your marital status?-separated	3.932	.705	.123	5.580	.000	2.550	5.315	.117	.127	.123	.999	1.001
4	(Constant)	8.785	.765		11.484	.000	7.285	10.285					
	Diagnosed with any kind of physical disease within the last 12 months	3.810	.358	.243	10.651	.000	3.108	4.512	.211	.238	.234	.924	1.082
	During the past year, have you had a reportable work-related injury?	2.583	.462	.123	5.594	.000	1.678	3.489	.137	.128	.123	.997	1.003
	What is your marital status?-separated	4.039	.699	.127	5.774	.000	2.667	5.411	.117	.132	.127	.998	1.002
	What is your age as of your last birthday (in years)?	-.098	.018	-.128	-5.595	.000	-.132	-.064	-.062	-.128	-.123	.927	1.079
5	(Constant)	10.096	.856		11.794	.000	8.417	11.775					
	Diagnosed with any kind of physical disease within the last 12 months	3.748	.357	.239	10.493	.000	3.048	4.449	.211	.235	.230	.922	1.085
	During the past year, have you had a reportable work-related injury?	2.706	.462	.129	5.857	.000	1.800	3.612	.137	.134	.128	.990	1.010
	What is your marital status?-separated	4.054	.698	.127	5.812	.000	2.686	5.422	.117	.133	.127	.998	1.002
	What is your age as of your last birthday (in years)?	-.091	.018	-.119	-5.193	.000	-.126	-.057	-.062	-.119	-.114	.915	1.093
	What is your gender?	-1.800	.533	-.075	-3.377	.001	-2.845	-.754	-.080	-.077	-.074	.981	1.019

6	(Constant)	7.868	1.217		6.467	.000	5.482	10.255					
	Diagnosed with any kind of physical disease within the last 12 months	3.571	.363	.228	9.832	.000	2.859	4.283	.211	.221	.215	.889	1.125
	During the past year, have you had a reportable work-related injury?	2.706	.461	.129	5.866	.000	1.801	3.610	.137	.134	.128	.990	1.010
	What is your marital status?-separated	4.081	.697	.128	5.858	.000	2.715	5.447	.117	.134	.128	.998	1.002
	What is your age as of your last birthday (in years)?	-.095	.018	-.123	-5.371	.000	-.129	-.060	-.062	-.123	-.117	.910	1.099
	What is your gender?	-2.121	.547	-.088	-3.881	.000	-3.194	-1.049	-.080	-.089	-.085	.930	1.075
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.092	.036	.059	2.573	.010	.022	.162	.069	.059	.056	.899	1.112
7	(Constant)	7.348	1.233		5.959	.000	4.930	9.767					
	Diagnosed with any kind of physical disease within the last 12 months	3.574	.363	.228	9.852	.000	2.862	4.285	.211	.221	.215	.889	1.125
	During the past year, have you had a reportable work-related injury?	2.664	.461	.127	5.779	.000	1.760	3.568	.137	.132	.126	.989	1.011
	What is your marital status?-separated	4.100	.696	.129	5.894	.000	2.736	5.465	.117	.134	.129	.998	1.002
	What is your age as of your last birthday (in years)?	-.087	.018	-.113	-4.866	.000	-.122	-.052	-.062	-.111	-.106	.883	1.133
	What is your gender?	-2.266	.549	-.094	-4.127	.000	-3.343	-1.189	-.080	-.095	-.090	.919	1.088
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.088	.036	.057	2.476	.013	.018	.158	.069	.057	.054	.897	1.114
	education=College Graduate	.833	.337	.055	2.473	.014	.172	1.494	.061	.057	.054	.955	1.047
8	(Constant)	7.430	1.232		6.033	.000	5.014	9.845					
	Diagnosed with any kind of physical disease within the last 12 months	3.599	.362	.230	9.933	.000	2.888	4.309	.211	.223	.216	.888	1.126
	During the past year, have you had a reportable work-related injury?	2.669	.460	.127	5.799	.000	1.766	3.571	.137	.132	.126	.989	1.011
	What is your marital status?-separated	4.071	.695	.128	5.861	.000	2.709	5.434	.117	.134	.128	.998	1.002
	What is your age as of your last birthday (in years)?	-.090	.018	-.117	-5.023	.000	-.125	-.055	-.062	-.115	-.109	.879	1.137
	What is your gender?	-2.448	.553	-.101	-4.431	.000	-3.532	-1.364	-.080	-.102	-.096	.905	1.105
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.083	.036	.053	2.319	.021	.013	.153	.069	.053	.051	.894	1.118
	education=College Graduate	1.197	.364	.079	3.293	.001	.484	1.910	.061	.076	.072	.818	1.223
education=Some College	1.453	.551	.063	2.639	.008	.373	2.533	.016	.061	.057	.832	1.202	

a. Dependent Variable: Sum of BAI factors numbness to sweating

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	What is your gender?	-.076 ^b	-3.410	.001	-.078	1.000	1.000	1.000
	education=Less than High School	.015 ^b	.666	.505	.015	1.000	1.000	1.000
	education=Some High School	-.065 ^b	-2.908	.004	-.067	.997	1.003	.997
	education=High School Graduate	-.047 ^b	-2.082	.037	-.048	.999	1.001	.999
	education=Some College	.012 ^b	.549	.583	.013	1.000	1.000	1.000
	education=College Graduate	.070 ^b	3.132	.002	.072	.998	1.002	.998
	education=Some University	.004 ^b	.183	.855	.004	1.000	1.000	1.000
	education=Undergraduate Degree	-.016 ^b	-.706	.481	-.016	1.000	1.000	1.000
	education=Master's Degree	-.057 ^b	-2.532	.011	-.058	.998	1.002	.998
	education=Doctoral Degree	-.039 ^b	-1.756	.079	-.040	1.000	1.000	1.000
	income=Less than 50,000	-.024 ^b	-1.065	.287	-.024	1.000	1.000	1.000
	income=50,000-59,999	.013 ^b	.583	.560	.013	1.000	1.000	1.000
	income=60,000-69,999	.044 ^b	1.973	.049	.045	.999	1.001	.999
	income=70,000-79,000	.038 ^b	1.712	.087	.039	1.000	1.000	1.000
	income=80,000-89,999	.034 ^b	1.526	.127	.035	1.000	1.000	1.000
	income=90,000-99,999	-.024 ^b	-1.075	.283	-.025	1.000	1.000	1.000
	income=100,000-124,999	-.045 ^b	-2.025	.043	-.047	1.000	1.000	1.000
	income=125,000-149,999	-.066 ^b	-2.956	.003	-.068	1.000	1.000	1.000
	income=150,000 and above	-.019 ^b	-.864	.388	-.020	1.000	1.000	1.000
	What is your marital status?-never legally married (single)	.027 ^b	1.222	.222	.028	.997	1.003	.997
	What is your marital status?-legally married	-.110 ^b	-4.903	.000	-.112	.998	1.002	.998
	What is your marital status?-separated	.123 ^b	5.535	.000	.126	.999	1.001	.999
	What is your marital status?-common law	.041 ^b	1.839	.066	.042	.999	1.001	.999
	What is your marital status?-divorced	.024 ^b	1.051	.293	.024	.994	1.006	.994
	What is your marital status?-widowed	.001 ^b	.056	.955	.001	1.000	1.000	1.000
	What is your age as of your last birthday (in years)?	-.128 ^b	-5.533	.000	-.126	.928	1.077	.928
	Ethnicity_whitecaucasian	.026 ^b	1.137	.256	.026	.999	1.001	.999
Ethnicity_aboriginal_inuit_métis	.026 ^b	1.162	.245	.027	1.000	1.000	1.000	
ethnicity_other	.002 ^b	.073	.942	.002	.999	1.001	.999	
During the past year, have you had a reportable work-related injury?	.127 ^b	5.688	.000	.130	.998	1.002	.998	
What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.027 ^b	1.181	.238	.027	.958	1.044	.958	
2	What is your gender?	-.086 ^c	-3.878	.000	-.089	.994	1.006	.992
	education=Less than High School	.008 ^c	.336	.737	.008	.996	1.004	.994
	education=Some High School	-.061 ^c	-2.759	.006	-.063	.996	1.004	.995
	education=High School Graduate	-.051 ^c	-2.267	.023	-.052	.998	1.002	.997
	education=Some College	.014 ^c	.638	.523	.015	1.000	1.000	.997
	education=College Graduate	.064 ^c	2.875	.004	.066	.996	1.004	.995
	education=Some University	.001 ^c	.065	.948	.001	.999	1.001	.997
	education=Undergraduate Degree	-.008 ^c	-.351	.726	-.008	.996	1.004	.994
	education=Master's Degree	-.049 ^c	-2.189	.029	-.050	.994	1.006	.993

	education=Doctoral Degree	-.037 ^c	-1.656	.098	-.038	.999	1.001	.997
	income=Less than 50,000	-.021 ^c	-.948	.343	-.022	.999	1.001	.997
	income=50,000-59,999	.014 ^c	.626	.531	.014	1.000	1.000	.998
	income=60,000-69,999	.037 ^c	1.679	.093	.039	.996	1.004	.995
	income=70,000-79,000	.028 ^c	1.267	.205	.029	.993	1.007	.991
	income=80,000-89,999	.034 ^c	1.526	.127	.035	1.000	1.000	.998
	income=90,000-99,999	-.020 ^c	-.892	.373	-.021	.999	1.001	.996
	income=100,000-124,999	-.040 ^c	-1.789	.074	-.041	.998	1.002	.996
	income=125,000-149,999	-.060 ^c	-2.683	.007	-.062	.997	1.003	.995
	income=150,000 and above	-.013 ^c	-.579	.563	-.013	.997	1.003	.995
	What is your marital status?-never legally married (single)	.022 ^c	1.007	.314	.023	.995	1.005	.994
	What is your marital status?-legally married	-.104 ^c	-4.666	.000	-.107	.996	1.004	.995
	What is your marital status?-separated	.123 ^c	5.580	.000	.127	.999	1.001	.997
	What is your marital status?-common law	.039 ^c	1.732	.083	.040	.999	1.001	.997
	What is your marital status?-divorced	.017 ^c	.757	.449	.017	.991	1.009	.991
	What is your marital status?-widowed	.003 ^c	.122	.903	.003	.999	1.001	.997
	What is your age as of your last birthday (in years)?	-.124 ^c	-5.394	.000	-.123	.927	1.078	.925
	Ethnicity_whitecaucasian	.028 ^c	1.237	.216	.028	.999	1.001	.997
	Ethnicity_aboriginal_inuit_métis	.022 ^c	.966	.334	.022	.998	1.002	.996
	ethnicity_other	.002 ^c	.102	.919	.002	.999	1.001	.997
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.025 ^c	1.105	.269	.025	.957	1.044	.956
3	What is your gender?	-.088 ^d	-3.963	.000	-.091	.994	1.006	.992
	education=Less than High School	.010 ^d	.452	.651	.010	.996	1.004	.994
	education=Some High School	-.057 ^d	-2.591	.010	-.060	.995	1.005	.994
	education=High School Graduate	-.052 ^d	-2.372	.018	-.054	.998	1.002	.996
	education=Some College	.011 ^d	.519	.604	.012	.999	1.001	.997
	education=College Graduate	.066 ^d	2.984	.003	.068	.995	1.005	.995
	education=Some University	-.003 ^d	-.129	.897	-.003	.998	1.002	.997
	education=Undergraduate Degree	-.008 ^d	-.372	.710	-.009	.996	1.004	.994
	education=Master's Degree	-.044 ^d	-1.992	.046	-.046	.992	1.008	.992
	education=Doctoral Degree	-.036 ^d	-1.607	.108	-.037	.999	1.001	.997
	income=Less than 50,000	-.017 ^d	-.789	.430	-.018	.998	1.002	.996
	income=50,000-59,999	.017 ^d	.765	.444	.018	.999	1.001	.997
	income=60,000-69,999	.037 ^d	1.656	.098	.038	.996	1.004	.995
	income=70,000-79,000	.021 ^d	.964	.335	.022	.990	1.010	.990
	income=80,000-89,999	.033 ^d	1.505	.133	.035	1.000	1.000	.997
	income=90,000-99,999	-.019 ^d	-.851	.395	-.020	.999	1.001	.996
	income=100,000-124,999	-.037 ^d	-1.683	.093	-.039	.997	1.003	.996
	income=125,000-149,999	-.057 ^d	-2.563	.010	-.059	.996	1.004	.995
	income=150,000 and above	-.009 ^d	-.416	.677	-.010	.996	1.004	.995
	What is your marital status?-never legally married (single)	.033 ^d	1.472	.141	.034	.989	1.012	.989
	What is your marital status?-legally married	-.069 ^d	-2.919	.004	-.067	.874	1.144	.874
	What is your marital status?-common law	.041 ^d	1.853	.064	.043	.998	1.002	.996
	What is your marital status?-divorced	.023 ^d	1.031	.303	.024	.989	1.011	.989

	What is your marital status?-widowed	.001 ^d	.051	.960	.001	.999	1.001	.996
	What is your age as of your last birthday (in years)?	-.128 ^d	-5.595	.000	-.128	.927	1.079	.924
	Ethnicity_whitecaucasian	.023 ^d	1.056	.291	.024	.998	1.002	.996
	Ethnicity_aboriginal_inuit_métis	.019 ^d	.862	.389	.020	.998	1.002	.996
	ethnicity_other	.006 ^d	.286	.775	.007	.998	1.002	.996
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.026 ^d	1.171	.242	.027	.957	1.045	.955
4	What is your gender?	-.075 ^e	-3.377	.001	-.077	.981	1.019	.915
	education=Less than High School	.016 ^e	.749	.454	.017	.993	1.007	.924
	education=Some High School	-.038 ^e	-1.718	.086	-.040	.969	1.032	.902
	education=High School Graduate	-.037 ^e	-1.652	.099	-.038	.980	1.020	.910
	education=Some College	.029 ^e	1.292	.196	.030	.981	1.020	.910
	education=College Graduate	.048 ^e	2.144	.032	.049	.970	1.030	.903
	education=Some University	-.004 ^e	-.201	.841	-.005	.998	1.002	.924
	education=Undergraduate Degree	-.019 ^e	-.863	.388	-.020	.988	1.012	.920
	education=Master's Degree	-.044 ^e	-1.992	.046	-.046	.992	1.008	.922
	education=Doctoral Degree	-.038 ^e	-1.730	.084	-.040	.999	1.001	.924
	income=Less than 50,000	-.042 ^e	-1.881	.060	-.043	.963	1.038	.894
	income=50,000-59,999	.008 ^e	.381	.704	.009	.994	1.006	.922
	income=60,000-69,999	.031 ^e	1.432	.152	.033	.994	1.006	.923
	income=70,000-79,000	.015 ^e	.666	.505	.015	.987	1.013	.924
	income=80,000-89,999	.028 ^e	1.278	.201	.029	.998	1.002	.924
	income=90,000-99,999	-.014 ^e	-.655	.513	-.015	.997	1.003	.924
	income=100,000-124,999	-.023 ^e	-1.021	.308	-.023	.983	1.018	.913
	income=125,000-149,999	-.050 ^e	-2.253	.024	-.052	.993	1.007	.923
	income=150,000 and above	.002 ^e	.074	.941	.002	.989	1.012	.919
	What is your marital status?-never legally married (single)	-.002 ^e	-.102	.919	-.002	.910	1.099	.853
	What is your marital status?-legally married	-.042 ^e	-1.751	.080	-.040	.832	1.201	.832
	What is your marital status?-common law	.026 ^e	1.180	.238	.027	.983	1.017	.912
	What is your marital status?-divorced	.035 ^e	1.587	.113	.036	.980	1.021	.918
	What is your marital status?-widowed	.007 ^e	.326	.744	.008	.997	1.003	.924
	Ethnicity_whitecaucasian	.022 ^e	.985	.325	.023	.997	1.003	.924
	Ethnicity_aboriginal_inuit_métis	.011 ^e	.477	.633	.011	.993	1.007	.922
	ethnicity_other	.004 ^e	.203	.839	.005	.998	1.002	.923
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.039 ^e	1.725	.085	.040	.949	1.054	.896
5	education=Less than High School	.018 ^f	.813	.416	.019	.993	1.007	.912
	education=Some High School	-.036 ^f	-1.604	.109	-.037	.967	1.034	.892
	education=High School Graduate	-.030 ^f	-1.359	.174	-.031	.972	1.029	.901
	education=Some College	.035 ^f	1.598	.110	.037	.973	1.028	.900
	education=College Graduate	.057 ^f	2.570	.010	.059	.957	1.045	.888
	education=Some University	-.010 ^f	-.456	.648	-.010	.992	1.008	.915
	education=Undergraduate Degree	-.039 ^f	-1.729	.084	-.040	.931	1.074	.911
	education=Master's Degree	-.052 ^f	-2.349	.019	-.054	.982	1.018	.915
	education=Doctoral Degree	-.039 ^f	-1.792	.073	-.041	.999	1.001	.914
	income=Less than 50,000	-.044 ^f	-1.975	.048	-.045	.962	1.039	.884

	income=50,000-59,999	-.001 ^f	-.055	.956	-.001	.978	1.023	.912
	income=60,000-69,999	.027 ^f	1.223	.221	.028	.990	1.010	.914
	income=70,000-79,000	.016 ^f	.719	.472	.017	.987	1.013	.912
	income=80,000-89,999	.027 ^f	1.225	.221	.028	.998	1.002	.913
	income=90,000-99,999	-.010 ^f	-.460	.646	-.011	.994	1.006	.914
	income=100,000-124,999	-.019 ^f	-.857	.392	-.020	.980	1.020	.902
	income=125,000-149,999	-.048 ^f	-2.185	.029	-.050	.992	1.008	.912
	income=150,000 and above	-.001 ^f	-.044	.965	-.001	.987	1.013	.907
	What is your marital status?-never legally married (single)	-.005 ^f	-.197	.844	-.005	.909	1.100	.844
	What is your marital status?-legally married	-.040 ^f	-1.649	.099	-.038	.831	1.203	.831
	What is your marital status?-common law	.027 ^f	1.243	.214	.029	.983	1.018	.900
	What is your marital status?-divorced	.033 ^f	1.476	.140	.034	.979	1.022	.906
	What is your marital status?-widowed	.002 ^f	.081	.935	.002	.992	1.008	.912
	Ethnicity_whitecaucasian	.022 ^f	.984	.325	.023	.997	1.003	.915
	Ethnicity_aboriginal_inuit_métis	.013 ^f	.576	.565	.013	.992	1.008	.910
	ethnicity_other	.001 ^f	.040	.968	.001	.995	1.005	.915
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.059 ^f	2.573	.010	.059	.899	1.112	.889
6	education=Less than High School	.016 ^e	.744	.457	.017	.992	1.008	.888
	education=Some High School	-.036 ^e	-1.620	.105	-.037	.967	1.034	.887
	education=High School Graduate	-.029 ^e	-1.312	.190	-.030	.972	1.029	.889
	education=Some College	.033 ^e	1.498	.134	.034	.972	1.029	.888
	education=College Graduate	.055 ^e	2.473	.014	.057	.955	1.047	.883
	education=Some University	-.010 ^e	-.436	.663	-.010	.992	1.008	.889
	education=Undergraduate Degree	-.036 ^e	-1.569	.117	-.036	.927	1.078	.884
	education=Master's Degree	-.049 ^e	-2.244	.025	-.052	.980	1.020	.887
	education=Doctoral Degree	-.042 ^e	-1.902	.057	-.044	.997	1.003	.889
	income=Less than 50,000	-.042 ^e	-1.868	.062	-.043	.961	1.041	.880
	income=50,000-59,999	-.002 ^e	-.074	.941	-.002	.978	1.023	.889
	income=60,000-69,999	.028 ^e	1.281	.200	.029	.990	1.010	.888
	income=70,000-79,000	.015 ^e	.679	.497	.016	.987	1.013	.889
	income=80,000-89,999	.025 ^e	1.141	.254	.026	.997	1.003	.889
	income=90,000-99,999	-.009 ^e	-.412	.680	-.009	.994	1.007	.889
	income=100,000-124,999	-.019 ^e	-.869	.385	-.020	.980	1.020	.888
	income=125,000-149,999	-.047 ^e	-2.129	.033	-.049	.992	1.008	.889
	income=150,000 and above	-.001 ^e	-.038	.970	-.001	.987	1.013	.889
	What is your marital status?-never legally married (single)	-.004 ^e	-.179	.858	-.004	.909	1.100	.840
	What is your marital status?-legally married	-.042 ^e	-1.762	.078	-.041	.830	1.205	.830
	What is your marital status?-common law	.029 ^e	1.309	.191	.030	.982	1.018	.889
	What is your marital status?-divorced	.034 ^e	1.539	.124	.035	.978	1.022	.887
	What is your marital status?-widowed	.001 ^e	.036	.971	.001	.991	1.009	.889
	Ethnicity_whitecaucasian	.021 ^e	.977	.329	.022	.997	1.003	.888
	Ethnicity_aboriginal_inuit_métis	.010 ^e	.434	.665	.010	.989	1.011	.888
	ethnicity_other	.001 ^e	.053	.958	.001	.995	1.005	.888
7	education=Less than High School	.021 ^h	.949	.343	.022	.986	1.015	.882

	education=Some High School	-0.030 ^h	-1.328	.184	-.031	.953	1.049	.866
	education=High School Graduate	-.011 ^h	-.480	.631	-.011	.853	1.172	.839
	education=Some College	.063 ^h	2.639	.008	.061	.832	1.202	.818
	education=Some University	.005 ^h	.225	.822	.005	.923	1.083	.880
	education=Undergraduate Degree	-.015 ^h	-.616	.538	-.014	.773	1.294	.773
	education=Master's Degree	-.041 ^h	-1.812	.070	-.042	.945	1.058	.882
	education=Doctoral Degree	-.039 ^h	-1.785	.074	-.041	.995	1.005	.882
	income=Less than 50,000	-.041 ^h	-1.838	.066	-.042	.960	1.041	.854
	income=50,000-59,999	-.001 ^h	-.061	.951	-.001	.978	1.023	.880
	income=60,000-69,999	.022 ^h	1.011	.312	.023	.977	1.023	.882
	income=70,000-79,000	.007 ^h	.325	.745	.007	.966	1.035	.882
	income=80,000-89,999	.027 ^h	1.217	.224	.028	.996	1.004	.881
	income=90,000-99,999	-.006 ^h	-.276	.783	-.006	.990	1.010	.882
	income=100,000-124,999	-.014 ^h	-.651	.515	-.015	.972	1.028	.874
	income=125,000-149,999	-.043 ^h	-1.972	.049	-.045	.988	1.013	.881
	income=150,000 and above	.003 ^h	.128	.898	.003	.983	1.017	.877
	What is your marital status?-never legally married (single)	-.003 ^h	-.134	.893	-.003	.909	1.101	.815
	What is your marital status?-legally married	-.041 ^h	-1.714	.087	-.039	.830	1.205	.830
	What is your marital status?-common law	.027 ^h	1.224	.221	.028	.981	1.020	.871
	What is your marital status?-divorced	.033 ^h	1.493	.136	.034	.978	1.023	.873
	What is your marital status?-widowed	.000 ^h	-.005	.996	.000	.991	1.009	.880
	Ethnicity_whitecaucasian	.018 ^h	.815	.415	.019	.993	1.007	.883
	Ethnicity_aboriginal_inuit_métis	.009 ^h	.396	.692	.009	.989	1.011	.878
	ethnicity_other	.004 ^h	.181	.856	.004	.993	1.007	.882
8	education=Less than High School	.025 ⁱ	1.153	.249	.027	.980	1.020	.809
	education=Some High School	-.022 ⁱ	-.972	.331	-.022	.934	1.070	.795
	education=High School Graduate	.011 ⁱ	.430	.667	.010	.757	1.321	.653
	education=Some University	.019 ⁱ	.810	.418	.019	.881	1.136	.732
	education=Undergraduate Degree	.007 ⁱ	.261	.794	.006	.690	1.449	.618
	education=Master's Degree	-.033 ⁱ	-1.438	.151	-.033	.925	1.082	.774
	education=Doctoral Degree	-.037 ⁱ	-1.692	.091	-.039	.993	1.007	.815
	income=Less than 50,000	-.043 ⁱ	-1.914	.056	-.044	.960	1.042	.818
	income=50,000-59,999	-.004 ⁱ	-.199	.842	-.005	.975	1.026	.818
	income=60,000-69,999	.020 ⁱ	.901	.368	.021	.976	1.025	.806
	income=70,000-79,000	.006 ⁱ	.286	.775	.007	.966	1.035	.802
	income=80,000-89,999	.025 ⁱ	1.153	.249	.027	.995	1.005	.818
	income=90,000-99,999	-.006 ⁱ	-.253	.800	-.006	.990	1.010	.815
	income=100,000-124,999	-.012 ⁱ	-.555	.579	-.013	.971	1.030	.810
	income=125,000-149,999	-.040 ⁱ	-1.816	.070	-.042	.984	1.017	.812
	income=150,000 and above	.008 ⁱ	.360	.719	.008	.975	1.025	.810
	What is your marital status?-never legally married (single)	-.005 ⁱ	-.201	.841	-.005	.908	1.101	.812
	What is your marital status?-legally married	-.038 ⁱ	-1.575	.115	-.036	.827	1.209	.817
	What is your marital status?-common law	.024 ⁱ	1.102	.271	.025	.978	1.022	.816
	What is your marital status?-divorced	.033 ⁱ	1.508	.132	.035	.978	1.023	.818

What is your marital status?-widowed	-.002 ⁱ	-.069	.945	-.002	.990	1.010	.817
Ethnicity_whitecaucasian	.014 ⁱ	.646	.518	.015	.989	1.011	.812
Ethnicity_aboriginal_inuit_métis	.007 ⁱ	.311	.756	.007	.988	1.012	.817
ethnicity_other	.007 ⁱ	.326	.745	.007	.990	1.010	.814

a. Dependent Variable: Sum of BAI factors numbness to sweating

b. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months

c. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?

d. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated

e. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?

f. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?

g. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?

h. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, education=College Graduate

i. Predictors in the Model: (Constant), Diagnosed with any kind of physical disease within the last 12 months, During the past year, have you had a reportable work-related injury?, What is your marital status?-separated, What is your age as of your last birthday (in years)?, What is your gender?, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, education=College Graduate, education=Some College

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions							
					Diagnosed with any kind of physical disease within the last 12 months	During the past year, have you had a reportable work-related injury?	What is your marital status?-separated	What is your age as of your last birthday (in years)?	What is your gender?	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	education=College Graduate	education=Some College
1	1	1.604	1.000	.20	.20							
	2	.396	2.013	.80	.80							
2	1	1.860	1.000	.13	.12	.10						
	2	.760	1.564	.03	.19	.82						
	3	.380	2.212	.84	.69	.08						
3	1	1.941	1.000	.11	.11	.09	.04					
	2	.934	1.442	.00	.02	.07	.89					
	3	.757	1.602	.03	.22	.76	.02					
	4	.368	2.297	.86	.65	.07	.05					
4	1	2.783	1.000	.01	.04	.03	.01	.01				
	2	.936	1.725	.00	.02	.05	.92	.00				
	3	.787	1.880	.00	.07	.89	.03	.00				
	4	.470	2.433	.02	.82	.03	.04	.01				
	5	.023	10.938	.98	.04	.01	.00	.98				
5	1	3.635	1.000	.00	.02	.02	.01	.00	.01			
	2	.937	1.970	.00	.01	.04	.94	.00	.00			
	3	.796	2.137	.00	.04	.93	.03	.00	.00			
	4	.534	2.610	.00	.85	.01	.03	.00	.02			
	5	.076	6.937	.05	.05	.00	.00	.15	.90			
	6	.022	12.821	.94	.03	.00	.00	.84	.07			
6	1	4.579	1.000	.00	.01	.01	.00	.00	.00	.00		
	2	.938	2.209	.00	.01	.03	.95	.00	.00	.00		
	3	.807	2.382	.00	.02	.95	.02	.00	.00	.00		
	4	.553	2.878	.00	.86	.00	.03	.00	.01	.00		
	5	.079	7.629	.02	.04	.00	.00	.09	.94	.01		
	6	.033	11.865	.04	.01	.00	.00	.76	.05	.25		
	7	.012	19.800	.94	.05	.00	.00	.15	.00	.73		
7	1	5.116	1.000	.00	.01	.01	.00	.00	.00	.00	.01	
	2	.940	2.333	.00	.01	.02	.95	.00	.00	.00	.00	
	3	.809	2.515	.00	.01	.96	.02	.00	.00	.00	.00	
	4	.613	2.890	.00	.67	.00	.01	.00	.00	.00	.19	
	5	.402	3.568	.00	.21	.00	.01	.01	.01	.00	.74	
	6	.078	8.080	.02	.04	.00	.00	.08	.94	.01	.00	
	7	.031	12.793	.04	.01	.00	.00	.75	.03	.28	.04	
	8	.012	21.058	.94	.05	.00	.00	.17	.00	.70	.01	
8	1	5.239	1.000	.00	.01	.01	.00	.00	.00	.00	.01	.00
	2	1.012	2.276	.00	.00	.03	.06	.00	.00	.00	.08	.51
	3	.933	2.370	.00	.01	.01	.90	.00	.00	.00	.00	.05
	4	.807	2.549	.00	.01	.95	.01	.00	.00	.00	.01	.01
	5	.591	2.977	.00	.79	.00	.02	.00	.00	.00	.05	.04
	6	.299	4.188	.00	.09	.00	.00	.01	.01	.00	.80	.38
	7	.078	8.194	.02	.04	.00	.00	.08	.94	.01	.01	.01
	8	.031	12.946	.04	.01	.00	.00	.74	.03	.28	.03	.00
	9	.012	21.332	.94	.05	.00	.00	.17	.00	.70	.01	.00

a. Dependent Variable: Sum of BAI factors numbness to sweating

C3. Individual and Demographic Factors – Depression

Correlations

Pearson Correlation	BDI sum of factors sadness to appetite	What is your gender?	education=Less than High School	education=Some High School	education=High School Graduate	education=Some College	education=College Graduate	education=Some University	education=Undergraduate Degree	education=Master's Degree	education=Doctoral Degree	income=Less than 50,000	income=50,000-59,999	income=60,000-69,999	income=70,000-79,000	income=80,000-89,999	income=90,000-99,999	income=100,000-124,999	income=125,000-149,999	income=150,000 and above	What is your marital status? never legally married (single)	What is your marital status? legally married	What is your marital status? separated	What is your marital status? common law	What is your marital status? divorced	What is your marital status? widowed	What is your age as of your last birthday (in years)?	Ethnicity=white caucasian	Ethnicity=hispanic/latino	Ethnicity=other	Diagnosed with any kind of physical disease within the last 12 months	During the past year, have you had a reportable work-related injury?	What is your body mass index (weight, in kilograms, over height, in meters, squared)?		
BDI sum of factors sadness to appetite	1.000																																		
What is your gender?	-0.066	1.000																																	
education=Less than High School	0.028	0.028	1.000																																
education=Some High School	-0.041	0.049	-0.011	1.000																															
education=High School Graduate	-0.044	0.103	-0.028	-0.048	1.000																														
education=Some College	0.018	0.093	-0.030	-0.052	-0.128	1.000																													
education=College Graduate	0.027	0.100	-0.082	-0.143	-0.351	-0.380	1.000																												
education=Some University	0.048	-0.072	-0.021	-0.036	-0.089	-0.096	-0.285	1.000																											
education=Undergraduate Degree	-0.007	-0.248	-0.032	-0.056	-0.137	-0.148	-0.407	-0.103	1.000																										
education=Master's Degree	-0.053	-0.093	-0.015	-0.027	-0.065	-0.071	-0.193	-0.049	-0.076	1.000																									
education=Doctoral Degree	-0.039	-0.021	-0.004	-0.006	-0.016	-0.017	-0.047	-0.012	-0.018	-0.009	1.000																								
income=Less than 50,000	0.015	-0.067	-0.009	0.019	-0.024	0.016	-0.002	0.049	-0.018	-0.022	-0.005	1.000																							
income=50,000-59,999	0.010	-0.132	-0.012	0.005	-0.040	0.021	-0.010	-0.024	0.065	-0.029	-0.007	-0.017	1.000																						
income=60,000-69,999	0.062	-0.061	-0.004	-0.034	-0.033	-0.009	0.109	0.002	-0.071	-0.063	-0.015	-0.038	-0.050	1.000																					
income=70,000-79,000	0.017	0.013	-0.041	-0.033	0.001	-0.048	0.156	0.031	-0.130	-0.089	-0.024	-0.058	-0.077	-0.169	1.000																				
income=80,000-89,999	0.025	-0.016	0.038	0.019	-0.037	0.030	-0.025	0.026	0.027	-0.039	0.003	-0.061	-0.081	-0.177	-0.271	1.000																			
income=90,000-99,999	-0.009	0.054	-0.003	0.035	0.031	0.019	-0.059	0.009	0.001	0.032	0.009	-0.054	-0.071	-0.157	-0.240	-0.251	1.000																		
income=100,000-124,999	-0.048	0.060	0.009	-0.004	0.048	0.028	-0.084	-0.051	0.065	0.069	0.005	-0.058	-0.077	-0.170	-0.260	-0.272	-0.240	1.000																	
income=125,000-149,999	-0.060	0.021	0.021	-0.006	0.027	-0.045	-0.070	-0.026	0.082	0.105	-0.009	-0.022	-0.029	-0.064	-0.098	-0.103	-0.091	-0.098	1.000																
income=150,000 and above	-0.046	-0.017	-0.010	0.017	-0.026	-0.044	-0.085	-0.031	0.112	0.152	0.093	-0.014	-0.018	-0.039	-0.060	-0.063	-0.056	-0.060	-0.023	1.000															
What is your marital status? never legally married (single)	0.010	-0.062	-0.001	-0.030	-0.027	-0.005	0.028	-0.002	0.019	-0.028	-0.014	0.233	0.093	0.036	0.048	0.008	-0.058	-0.088	-0.060	-0.037	1.000														
What is your marital status? legally married	-0.066	0.038	0.000	0.032	-0.005	-0.012	-0.062	-0.023	0.053	0.071	0.033	-0.142	-0.031	-0.065	-0.090	0.007	0.050	0.084	0.074	0.054	-0.440	1.000													
What is your marital status? separated	0.100	0.016	-0.020	-0.035	0.001	0.023	-0.010	0.037	0.004	-0.035	-0.012	-0.029	-0.023	-0.001	0.055	0.012	-0.002	-0.028	-0.024	-0.030	-0.078	-0.349	1.000												
What is your marital status? common law	0.000	0.010	0.006	-0.012	0.000	0.008	0.065	-0.005	-0.069	-0.044	-0.019	0.008	-0.020	0.053	0.035	0.044	-0.015	-0.029	-0.022	-0.115	-0.562	-0.019	1.000												
What is your marital status? divorced	0.026	-0.025	0.004	0.007	0.049	-0.012	0.001	-0.002	-0.030	-0.006	-0.013	-0.013	0.041	0.011	-0.040	0.028	-0.011	-0.019	0.003	-0.085	-0.336	-0.043	0.050	1.000											
What is your marital status? widowed	0.024	-0.025	-0.006	-0.010	0.026	0.021	-0.009	-0.018	-0.005	-0.013	-0.003	-0.008	-0.011	0.003	-0.016	0.037	-0.013	-0.016	0.028	-0.008	-0.022	-0.082	0.015	0.038	0.011	1.000									
What is your age as of your last birthday (in years)?	-0.028	0.109	0.047	0.169	0.142	0.128	-0.164	-0.009	-0.079	-0.002	-0.015	-0.183	-0.082	-0.037	-0.047	-0.039	0.032	0.116	0.053	0.084	-0.293	0.198	0.022	-0.132	0.115	0.070	1.000								
Ethnicity=white caucasian	0.011	-0.009	-0.064	-0.014	0.000	0.026	0.061	0.010	-0.023	-0.136	-0.037	0.009	0.008	0.002	0.013	0.000	-0.020	0.007	-0.012	-0.008	-0.017	-0.064	0.026	0.058	0.034	0.018	-0.011	1.000							
Ethnicity=hispanic/latino	0.012	0.026	-0.020	0.050	-0.001	0.008	0.041	-0.016	-0.057	-0.021	-0.011	0.034	0.025	0.034	-0.005	0.014	-0.020	-0.016	-0.035	-0.009	-0.002	0.015	0.026	0.006	-0.048	-0.017	-0.071	-0.336	1.000						
Ethnicity=other	0.025	-0.050	-0.019	-0.017	-0.061	-0.026	-0.056	-0.005	0.086	0.145	0.090	0.035	0.011	-0.026	-0.020	0.000	0.007	0.003	0.041	-0.009	0.057	0.007	-0.032	-0.032	-0.012	-0.017	-0.014	-0.379	0.021	1.000					
Diagnosed with any kind of physical disease within the last 12 months	0.152	-0.019	-0.006	0.055	0.027	0.025	-0.046	0.013	0.009	-0.041	0.013	-0.018	-0.003	0.013	-0.007	0.000	-0.011	0.003	0.015	0.014	-0.067	0.051	-0.047	-0.024	0.074	0.027	0.277	-0.026	0.001	0.029	1.000				
During the past year, have you had a reportable work-related injury?	0.156	0.062	0.059	-0.038	0.024	-0.017	0.049	0.025	-0.056	-0.064	-0.020	-0.022	-0.014	0.057	0.078	0.000	-0.026	-0.047	-0.049	-0.050	0.027	-0.043	0.000	0.019	0.053	-0.008	-0.017	-0.024	0.031	0.001	0.045	1.000			
What is your body mass index (weight, in kilograms, over height, in meters, squared)?	0.116	0.221	0.034	0.039	0.027	0.067	0.034	-0.025	-0.114	-0.067	0.036	-0.078	-0.025	-0.029	0.015	0.022	-0.009	0.027	-0.011	0.001	-0.065	0.072	-0.005	-0.038	-0.002	0.026	0.147	-0.020	0.059	-0.005	0.200	0.028	1.000		

Sig (1-tailed)	BDI sum of factors sadness to appetite	.002	.110	.037	.028	.218	.120	.018	.374	.010	.045	.253	.333	.004	.225	.139	.355	.019	.005	.024	.333	.002	.000	.494	.126	.147	.109	.315	.305	.142	.000	.000	.000		
	What is your gender?	.002	.112	.017	.000	.000	.000	.001	.000	.000	.182	.002	.000	.004	.291	.246	.010	.005	.180	.229	.004	.050	.247	.340	.138	.137	.000	.343	.128	.015	.209	.004	.000		
	education=Less than High School	.110	.112	.314	.116	.098	.000	.184	.083	.255	.436	.346	.300	.425	.038	.051	.446	.354	.187	.340	.480	.454	.191	.403	.427	.405	.021	.003	.198	.200	.406	.005	.068		
	education=Some High School	.037	.017	.314	.019	.012	.000	.058	.008	.126	.390	.210	.413	.073	.078	.205	.066	.429	.398	.236	.100	.080	.083	.297	.375	.337	.000	.279	.015	.232	.009	.052	.044		
	education=High School Graduate	.028	.000	.116	.019	.000	.000	.000	.002	.246	.153	.041	.075	.482	.055	.087	.019	.118	.131	.125	.410	.478	.492	.017	.127	.000	.492	.475	.004	.123	.152	.118			
	education=Some College	.218	.000	.098	.012	.000	.000	.000	.001	.228	.246	.183	.241	.018	.100	.203	.113	.025	.028	.407	.300	.157	.369	.296	.177	.000	.133	.367	.130	.137	.236	.002			
	education=College Graduate	.120	.000	.000	.000	.000	.000	.000	.000	.020	.459	.327	.000	.000	.137	.006	.000	.001	.000	.117	.012	.337	.002	.490	.346	.000	.004	.038	.007	.024	.017	.068			
	education=Some University	.018	.001	.184	.058	.000	.000	.000	.000	.017	.302	.018	.146	.471	.090	.132	.352	.014	.128	.092	.457	.160	.056	.420	.464	.218	.343	.329	.246	.410	.293	.141	.143		
	education=Undergraduate Degree	.374	.000	.083	.008	.000	.000	.000	.001	.213	.221	.002	.001	.000	.125	.482	.002	.000	.000	.201	.011	.427	.001	.096	.410	.000	.161	.007	.000	.346	.007	.000			
	education=Master's Degree	.010	.000	.295	.128	.002	.001	.000	.017	.001	.352	.175	.107	.003	.000	.051	.088	.001	.000	.000	.115	.001	.062	.029	.394	.285	.459	.000	.188	.000	.037	.003	.002		
	education=Doctoral Degree	.045	.182	.436	.360	.246	.228	.020	.302	.213	.352	.410	.381	.253	.154	.445	.362	.415	.350	.000	.288	.080	.307	.208	.292	.445	.259	.055	.312	.000	.290	.198	.060		
	income=Less than \$0,000	.253	.002	.346	.210	.153	.248	.459	.018	.221	.175	.410	.228	.050	.006	.004	.010	.006	.171	.280	.000	.000	.107	.363	.293	.366	.000	.350	.072	.067	.222	.173	.000		
	income=\$0,000-\$9,999	.333	.000	.300	.413	.041	.183	.327	.146	.002	.107	.381	.228	.015	.000	.000	.001	.000	.104	.219	.000	.088	.160	.191	.284	.325	.000	.384	.136	.324	.450	.274	.137		
	income=\$0,000-\$9,999	.004	.004	.425	.073	.075	.341	.000	.471	.001	.003	.253	.050	.015	.000	.000	.000	.000	.003	.044	.082	.003	.478	.010	.036	.455	.054	.465	.070	.128	.289	.006	.105		
	income=\$10,000-\$19,999	.225	.291	.038	.078	.482	.018	.000	.090	.000	.154	.006	.000	.000	.000	.000	.000	.000	.000	.004	.019	.000	.008	.065	.325	.241	.021	.294	.420	.198	.387	.000	.252		
	income=\$0,000-\$9,999	.138	.246	.051	.205	.055	.100	.137	.132	.125	.051	.445	.004	.000	.000	.000	.000	.000	.000	.003	.369	.386	.302	.429	.041	.053	.047	.498	.271	.498	.497	.485	.165		
	income=\$0,000-\$9,999	.355	.010	.446	.066	.087	.203	.006	.352	.482	.086	.362	.010	.001	.000	.000	.000	.000	.000	.008	.006	.016	.463	.038	.112	.291	.082	.193	.198	.388	.312	.127	.356		
	income=\$100,000-\$124,999	.019	.005	.354	.429	.019	.113	.000	.014	.002	.001	.415	.006	.000	.000	.000	.000	.000	.000	.004	.000	.000	.109	.262	.324	.240	.000	.376	.239	.447	.443	.021	.124		
	income=\$125,000-\$149,999	.005	.180	.187	.398	.118	.025	.001	.128	.000	.000	.350	.171	.104	.003	.000	.000	.000	.000	.162	.005	.001	.147	.106	.206	.111	.011	.308	.067	.037	.204	.016	.319		
	income=\$150,000 and above	.024	.229	.340	.236	.131	.028	.000	.092	.000	.000	.000	.280	.219	.044	.004	.003	.008	.004	.162	.056	.009	.098	.170	.444	.361	.000	.360	.344	.352	.273	.015	.490		
	What is your marital status? never legally married (single)	.333	.004	.480	.100	.125	.407	.117	.457	.201	.115	.268	.000	.000	.062	.019	.369	.006	.000	.005	.056	.000	.000	.000	.000	.000	.176	.000	.234	.462	.007	.002	.124	.002	
	What is your marital status? legally married	.002	.050	.494	.080	.410	.300	.012	.160	.011	.001	.080	.000	.088	.003	.000	.386	.016	.000	.001	.009	.000	.000	.000	.000	.000	.000	.000	.000	.003	.255	.378	.014	.031	.001
	What is your marital status? separated	.000	.247	.191	.063	.478	.157	.337	.056	.427	.062	.307	.107	.160	.478	.008	.302	.463	.109	.147	.098	.000	.000	.210	.033	.257	.172	.130	.130	.086	.021	.487	.420		
	What is your marital status? common law	.494	.340	.403	.297	.492	.369	.002	.420	.001	.029	.208	.363	.191	.010	.065	.429	.038	.262	.106	.170	.000	.000	.210	.014	.050	.000	.006	.391	.085	.153	.200	.050		
	What is your marital status? divorced	.126	.138	.427	.375	.017	.296	.490	.464	.096	.384	.292	.293	.284	.036	.325	.041	.112	.324	.206	.444	.000	.000	.033	.014	.313	.000	.069	.017	.308	.001	.011	.470		
	What is your marital status? widowed	.147	.137	.405	.337	.127	.177	.346	.218	.410	.285	.445	.366	.325	.455	.241	.053	.291	.240	.111	.361	.176	.000	.257	.050	.313	.001	.223	.231	.233	.119	.366	.129		
	What is your age as of your last birthday (in years)?	.109	.000	.021	.000	.000	.000	.000	.343	.000	.459	.259	.000	.000	.054	.021	.047	.082	.000	.011	.000	.000	.172	.000	.000	.001	.312	.001	.271	.000	.230	.000			
	Ethnicity whites/caucasian	.315	.343	.003	.279	.492	.133	.004	.329	.181	.000	.055	.350	.364	.465	.294	.499	.193	.376	.308	.360	.234	.003	.130	.006	.069	.223	.312	.000	.000	.130	.151	.197		
	Ethnicity_black/af_american	.305	.128	.198	.015	.475	.367	.038	.246	.007	.180	.312	.072	.136	.070	.420	.271	.198	.239	.067	.344	.482	.255	.130	.391	.017	.231	.001	.000	.177	.487	.087	.005		
	ethnicity_other	.142	.015	.200	.232	.004	.130	.007	.410	.000	.000	.067	.324	.128	.198	.498	.388	.447	.037	.352	.007	.378	.086	.085	.308	.233	.271	.000	.177	.109	.478	.422			
	Diagnosed with any kind of physical disease within the last 12 months	.000	.209	.406	.009	.123	.137	.024	.293	.346	.037	.290	.222	.450	.289	.387	.487	.312	.443	.264	.273	.002	.014	.021	.153	.001	.119	.000	.130	.487	.109	.026	.000		
	During the past year, have you had a reportable work-related injury?	.000	.004	.005	.052	.152	.236	.017	.141	.007	.003	.198	.173	.274	.006	.000	.495	.127	.021	.016	.015	.124	.031	.487	.200	.011	.366	.239	.151	.087	.478	.026	.117		
	What is your body mass index (weight in kilograms, over height in meters, squared)?	.000	.000	.088	.044	.118	.002	.088	.143	.000	.002	.060	.000	.137	.105	.252	.165	.356	.124	.319	.490	.002	.001	.420	.050	.470	.129	.000	.197	.005	.422	.000	.117		

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	During the past year, have you had a reportable work-related injury?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Diagnosed with any kind of physical disease within the last 12 months		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	What is your marital status?-separated		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	What is your body mass index (weight, in kilograms, over height, in meters, squared)?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	What is your gender?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	What is your age as of your last birthday (in years)?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
7	income=60,000-69,999		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: BDI sum of factors sadness to appetite

Model Summary^h

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.156 ^a	.024	.024	8.914	
2	.213 ^b	.045	.044	8.820	
3	.238 ^c	.057	.055	8.770	
4	.252 ^d	.064	.062	8.739	
5	.270 ^e	.073	.070	8.698	
6	.280 ^f	.078	.075	8.676	
7	.283 ^g	.080	.077	8.668	1.921

- a. Predictors: (Constant), During the past year, have you had a reportable work-related injury?
- b. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months
- c. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated
- d. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?
- e. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?
- f. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, What is your age as of your last birthday (in years)?
- g. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, What is your age as of your last birthday (in years)?, income=60,000-69,999

h. Dependent Variable: BDI sum of factors sadness to appetite

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3714.492	1	3714.492	46.747	.000 ^b
	Residual	148827.455	1873	79.459		
	Total	152541.947	1874			
2	Regression	6911.074	2	3455.537	44.419	.000 ^c
	Residual	145630.872	1872	77.794		
	Total	152541.947	1874			
3	Regression	8653.731	3	2884.577	37.509	.000 ^d
	Residual	143888.216	1871	76.904		
	Total	152541.947	1874			
4	Regression	9721.895	4	2430.474	31.823	.000 ^e
	Residual	142820.052	1870	76.374		
	Total	152541.947	1874			
5	Regression	11131.933	5	2226.387	29.426	.000 ^f
	Residual	141410.014	1869	75.661		
	Total	152541.947	1874			
6	Regression	11917.636	6	1986.273	26.385	.000 ^g
	Residual	140624.310	1868	75.281		
	Total	152541.947	1874			
7	Regression	12253.836	7	1750.548	23.297	.000 ^h
	Residual	140288.110	1867	75.141		
	Total	152541.947	1874			

a. Dependent Variable: BDI sum of factors sadness to appetite

b. Predictors: (Constant), During the past year, have you had a reportable work-related injury?

c. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months

d. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated

e. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?

f. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?

g. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, What is your age as of your last birthday (in years)?

h. Predictors: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, What is your age as of your last birthday (in years)?, income=60,000-69,999

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	9.809	.224		43.880	.000	9.371	10.248					
	During the past year, have you had a reportable work-related injury?	3.920	.573	.156	6.837	.000	2.796	5.045	.156	.156	.156	1.000	1.000
2	(Constant)	8.840	.268		32.996	.000	8.315	9.366					
	During the past year, have you had a reportable work-related injury?	3.757	.568	.150	6.615	.000	2.643	4.871	.156	.151	.149	.998	1.002
	Diagnosed with any kind of physical disease within the last 12 months	2.713	.423	.145	6.410	.000	1.883	3.543	.152	.147	.145	.998	1.002
3	(Constant)	8.563	.273		31.407	.000	8.029	9.098					
	During the past year, have you had a reportable work-related injury?	3.752	.565	.149	6.644	.000	2.644	4.859	.156	.152	.149	.998	1.002
	Diagnosed with any kind of physical disease within the last 12 months	2.807	.421	.150	6.663	.000	1.981	3.633	.152	.152	.150	.996	1.004
	What is your marital status?-separated	4.072	.855	.107	4.760	.000	2.395	5.750	.100	.109	.107	.998	1.002
4	(Constant)	3.984	1.254		3.177	.002	1.525	6.444					
	During the past year, have you had a reportable work-related injury?	3.712	.563	.148	6.595	.000	2.608	4.815	.156	.151	.148	.998	1.002
	Diagnosed with any kind of physical disease within the last 12 months	2.487	.428	.133	5.806	.000	1.647	3.327	.152	.133	.130	.956	1.046
	What is your marital status?-separated	4.057	.853	.107	4.759	.000	2.385	5.729	.100	.109	.106	.998	1.002
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.159	.042	.085	3.740	.000	.076	.242	.116	.086	.084	.959	1.042

5	(Constant)	5.291	1.284		4.119	.000	2.772	7.810					
	During the past year, have you had a reportable work-related injury?	3.858	.561	.154	6.874	.000	2.757	4.958	.156	.157	.153	.994	1.006
	Diagnosed with any kind of physical disease within the last 12 months	2.362	.427	.126	5.528	.000	1.524	3.200	.152	.127	.123	.952	1.051
	What is your marital status?-separated	4.109	.849	.108	4.841	.000	2.444	5.773	.100	.111	.108	.998	1.002
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.202	.043	.108	4.645	.000	.117	.287	.116	.107	.103	.909	1.100
	What is your gender?	-2.867	.664	-.099	-4.317	.000	-4.170	-1.565	-.066	-.099	-.096	.943	1.060
6	(Constant)	7.693	1.481		5.193	.000	4.788	10.598					
	During the past year, have you had a reportable work-related injury?	3.787	.560	.151	6.760	.000	2.688	4.886	.156	.155	.150	.992	1.008
	Diagnosed with any kind of physical disease within the last 12 months	2.740	.442	.146	6.199	.000	1.873	3.607	.152	.142	.138	.885	1.130
	What is your marital status?-separated	4.204	.847	.110	4.963	.000	2.543	5.865	.100	.114	.110	.996	1.004
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.212	.043	.114	4.878	.000	.127	.297	.116	.112	.108	.905	1.106
	What is your gender?	-2.648	.666	-.091	-3.977	.000	-3.954	-1.342	-.066	-.092	-.088	.934	1.071
	What is your age as of your last birthday (in years)?	-.069	.021	-.076	-3.231	.001	-.112	-.027	-.028	-.075	-.072	.903	1.107
7	(Constant)	7.392	1.487		4.972	.000	4.476	10.308					
	During the past year, have you had a reportable work-related injury?	3.716	.561	.148	6.627	.000	2.616	4.816	.156	.152	.147	.989	1.011
	Diagnosed with any kind of physical disease within the last 12 months	2.721	.442	.145	6.160	.000	1.855	3.587	.152	.141	.137	.885	1.130
	What is your marital status?-separated	4.202	.846	.110	4.965	.000	2.542	5.861	.100	.114	.110	.996	1.004
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.213	.043	.115	4.918	.000	.128	.298	.116	.113	.109	.904	1.106
	What is your gender?	-2.571	.666	-.089	-3.858	.000	-3.878	-1.264	-.066	-.089	-.086	.931	1.074
	What is your age as of your last birthday (in years)?	-.068	.021	-.074	-3.165	.002	-.110	-.026	-.028	-.073	-.070	.902	1.108
	income=60,000-69,999	1.420	.671	.047	2.115	.035	.103	2.736	.062	.049	.047	.991	1.009

a. Dependent Variable: BDI sum of factors sadness to appetite

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	What is your gender?	-.076 ^b	-3.338	.001	-.077	.996	1.004	.996
	education=Less than High School	.019 ^b	.836	.403	.019	.996	1.004	.996
	education=Some High School	-.035 ^b	-1.549	.121	-.036	.999	1.001	.999
	education=High School Graduate	-.048 ^b	-2.106	.035	-.049	.999	1.001	.999
	education=Some College	.021 ^b	.903	.367	.021	1.000	1.000	1.000
	education=College Graduate	.019 ^b	.852	.394	.020	.998	1.002	.998
	education=Some University	.044 ^b	1.946	.052	.045	.999	1.001	.999
	education=Undergraduate Degree	.001 ^b	.061	.952	.001	.997	1.003	.997
	education=Master's Degree	-.044 ^b	-1.909	.056	-.044	.996	1.004	.996
	education=Doctoral Degree	-.036 ^b	-1.587	.113	-.037	1.000	1.000	1.000
	income=Less than 50,000	.019 ^b	.824	.410	.019	1.000	1.000	1.000
	income=50,000-59,999	.012 ^b	.532	.595	.012	1.000	1.000	1.000
	income=60,000-69,999	.053 ^b	2.340	.019	.054	.997	1.003	.997
	income=70,000-79,000	.005 ^b	.231	.817	.005	.994	1.006	.994
	income=80,000-89,999	.025 ^b	1.099	.272	.025	1.000	1.000	1.000
	income=90,000-99,999	-.005 ^b	-.198	.843	-.005	.999	1.001	.999
	income=100,000-124,999	-.041 ^b	-1.786	.074	-.041	.998	1.002	.998
	income=125,000-149,999	-.053 ^b	-2.307	.021	-.053	.998	1.002	.998
	income=150,000 and above	-.038 ^b	-1.666	.096	-.038	.997	1.003	.997
	What is your marital status?-never legally married (single)	.006 ^b	.254	.800	.006	.999	1.001	.999
	What is your marital status?-legally married	-.060 ^b	-2.610	.009	-.060	.998	1.002	.998
	What is your marital status?-separated	.100 ^b	4.402	.000	.101	1.000	1.000	1.000
	What is your marital status?-common law	-.003 ^b	-.117	.907	-.003	1.000	1.000	1.000
	What is your marital status?-divorced	.018 ^b	.797	.426	.018	.997	1.003	.997
	What is your marital status?-widowed	.025 ^b	1.117	.264	.026	1.000	1.000	1.000
	What is your age as of your last birthday (in years)?	-.026 ^b	-1.128	.259	-.026	1.000	1.000	1.000
	Ethnicity_whitecaucasian	.015 ^b	.651	.515	.015	.999	1.001	.999
	Ethnicity_aboriginal_inuit_métis	.007 ^b	.302	.763	.007	.999	1.001	.999
	ethnicity_other	.025 ^b	1.076	.282	.025	1.000	1.000	1.000
	Diagnosed with any kind of physical disease within the last 12 months	.145 ^b	6.410	.000	.147	.998	1.002	.998
What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.111 ^b	4.910	.000	.113	.999	1.001	.999	
2	What is your gender?	-.073 ^c	-3.235	.001	-.075	.996	1.004	.994
	education=Less than High School	.020 ^c	.897	.370	.021	.996	1.004	.994

	education=Some High School	-.044 ^c	-1.933	.053	-.045	.995	1.005	.995
	education=High School Graduate	-.052 ^c	-2.295	.022	-.053	.999	1.001	.997
	education=Some College	.017 ^c	.746	.456	.017	.999	1.001	.997
	education=College Graduate	.026 ^c	1.171	.242	.027	.995	1.005	.995
	education=Some University	.043 ^c	1.893	.058	.044	.999	1.001	.997
	education=Undergraduate Degree	.000 ^c	-.014	.989	.000	.997	1.003	.995
	education=Master's Degree	-.038 ^c	-1.684	.092	-.039	.994	1.006	.994
	education=Doctoral Degree	-.038 ^c	-1.692	.091	-.039	.999	1.001	.998
	income=Less than 50,000	.021 ^c	.940	.348	.022	.999	1.001	.998
	income=50,000-59,999	.012 ^c	.553	.581	.013	1.000	1.000	.998
	income=60,000-69,999	.052 ^c	2.298	.022	.053	.997	1.003	.995
	income=70,000-79,000	.007 ^c	.299	.765	.007	.994	1.006	.992
	income=80,000-89,999	.025 ^c	1.112	.266	.026	1.000	1.000	.998
	income=90,000-99,999	-.003 ^c	-.135	.893	-.003	.999	1.001	.997
	income=100,000-124,999	-.042 ^c	-1.840	.066	-.043	.998	1.002	.996
	income=125,000-149,999	-.055 ^c	-2.441	.015	-.056	.997	1.003	.995
	income=150,000 and above	-.040 ^c	-1.788	.074	-.041	.997	1.003	.995
	What is your marital status?-never legally married (single)	.016 ^c	.695	.487	.016	.995	1.005	.993
	What is your marital status?-legally married	-.067 ^c	-2.982	.003	-.069	.995	1.005	.995
	What is your marital status?-separated	.107 ^c	4.760	.000	.109	.998	1.002	.996
	What is your marital status?-common law	.001 ^c	.040	.968	.001	.999	1.001	.997
	What is your marital status?-divorced	.008 ^c	.347	.729	.008	.992	1.008	.992
	What is your marital status?-widowed	.022 ^c	.952	.341	.022	.999	1.001	.997
	What is your age as of your last birthday (in years)?	-.072 ^c	-3.048	.002	-.070	.923	1.084	.921
	Ethnicity_whitecaucasian	.018 ^c	.818	.413	.019	.999	1.001	.997
	Ethnicity_aboriginal_inuit_métis	.007 ^c	.309	.757	.007	.999	1.001	.997
	ethnicity_other	.020 ^c	.906	.365	.021	.999	1.001	.997
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.086 ^c	3.741	.000	.086	.959	1.042	.958
3	What is your gender?	-.075 ^d	-3.325	.001	-.077	.995	1.005	.994
	education=Less than High School	.023 ^d	1.001	.317	.023	.996	1.004	.994
	education=Some High School	-.040 ^d	-1.789	.074	-.041	.994	1.006	.993
	education=High School Graduate	-.052 ^d	-2.320	.020	-.054	.999	1.001	.995
	education=Some College	.014 ^d	.634	.526	.015	.998	1.002	.995
	education=College Graduate	.028 ^d	1.235	.217	.029	.995	1.005	.993
	education=Some University	.039 ^d	1.728	.084	.040	.998	1.002	.996
	education=Undergraduate Degree	-.001 ^d	-.036	.971	-.001	.997	1.003	.995

	education=Master's Degree	-.034 ^d	-1.516	.130	-.035	.993	1.007	.993
	education=Doctoral Degree	-.037 ^d	-1.649	.099	-.038	.999	1.001	.996
	income=Less than 50,000	.024 ^d	1.086	.278	.025	.998	1.002	.995
	income=50,000-59,999	.015 ^d	.666	.506	.015	.999	1.001	.996
	income=60,000-69,999	.052 ^d	2.315	.021	.053	.997	1.003	.995
	income=70,000-79,000	.001 ^d	.038	.969	.001	.991	1.009	.991
	income=80,000-89,999	.024 ^d	1.061	.289	.025	1.000	1.000	.996
	income=90,000-99,999	-.003 ^d	-.123	.902	-.003	.999	1.001	.996
	income=100,000-124,999	-.039 ^d	-1.717	.086	-.040	.997	1.003	.996
	income=125,000-149,999	-.053 ^d	-2.343	.019	-.054	.997	1.003	.995
	income=150,000 and above	-.037 ^d	-1.660	.097	-.038	.996	1.004	.995
	What is your marital status?-never legally married (single)	.025 ^d	1.091	.275	.025	.988	1.012	.988
	What is your marital status?-legally married	-.034 ^d	-1.428	.153	-.033	.875	1.142	.875
	What is your marital status?-common law	.003 ^d	.134	.893	.003	.999	1.001	.995
	What is your marital status?-divorced	.012 ^d	.537	.591	.012	.991	1.010	.991
	What is your marital status?-widowed	.020 ^d	.879	.379	.020	.999	1.001	.995
	What is your age as of your last birthday (in years)?	-.076 ^d	-3.242	.001	-.075	.921	1.085	.918
	Ethnicity_whitecaucasian	.016 ^d	.705	.481	.016	.998	1.002	.995
	Ethnicity_aboriginal_inuit_métis	.004 ^d	.187	.852	.004	.998	1.002	.996
	ethnicity_other	.024 ^d	1.056	.291	.024	.998	1.002	.995
	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	.085 ^d	3.740	.000	.086	.959	1.042	.956
4	What is your gender?	-.099 ^e	-4.317	.000	-.099	.943	1.060	.909
	education=Less than High School	.020 ^e	.873	.383	.020	.995	1.005	.956
	education=Some High School	-.043 ^e	-1.909	.056	-.044	.993	1.007	.954
	education=High School Graduate	-.054 ^e	-2.411	.016	-.056	.998	1.002	.956
	education=Some College	.009 ^e	.398	.691	.009	.994	1.006	.956
	education=College Graduate	.024 ^e	1.077	.282	.025	.993	1.007	.953
	education=Some University	.041 ^e	1.841	.066	.043	.997	1.003	.956
	education=Undergraduate Degree	.009 ^e	.405	.686	.009	.983	1.017	.946
	education=Master's Degree	-.029 ^e	-1.303	.193	-.030	.990	1.011	.955
	education=Doctoral Degree	-.040 ^e	-1.785	.074	-.041	.998	1.002	.956
	income=Less than 50,000	.031 ^e	1.375	.169	.032	.993	1.007	.954
	income=50,000-59,999	.017 ^e	.761	.447	.018	.999	1.001	.956
	income=60,000-69,999	.055 ^e	2.450	.014	.057	.995	1.005	.956
	income=70,000-79,000	.000 ^e	-.019	.985	.000	.991	1.010	.956
	income=80,000-89,999	.022 ^e	.979	.328	.023	.999	1.001	.956

	income=90,000-99,999	-.002 ^e	-.101	.919	-.002	.999	1.001	.956
	income=100,000-124,999	-.041 ^e	-1.827	.068	-.042	.996	1.004	.956
	income=125,000-149,999	-.052 ^e	-2.302	.021	-.053	.997	1.003	.956
	income=150,000 and above	-.037 ^e	-1.661	.097	-.038	.996	1.004	.956
	What is your marital status?-never legally married (single)	.029 ^e	1.295	.195	.030	.985	1.015	.953
	What is your marital status?-legally married	-.041 ^e	-1.702	.089	-.039	.871	1.148	.871
	What is your marital status?-common law	.006 ^e	.263	.793	.006	.997	1.003	.956
	What is your marital status?-divorced	.014 ^e	.605	.545	.014	.990	1.010	.951
	What is your marital status?-widowed	.018 ^e	.804	.422	.019	.998	1.002	.956
	What is your age as of your last birthday (in years)?	-.085 ^e	-3.640	.000	-.084	.913	1.096	.893
	Ethnicity_whitecaucasian	.017 ^e	.762	.446	.018	.998	1.002	.956
	Ethnicity_aboriginal_inuit_métis	-.001 ^e	-.034	.973	-.001	.995	1.005	.956
	ethnicity_other	.025 ^e	1.098	.272	.025	.998	1.002	.955
5	education=Less than High School	.021 ^f	.951	.342	.022	.994	1.006	.908
	education=Some High School	-.038 ^f	-1.714	.087	-.040	.991	1.009	.909
	education=High School Graduate	-.045 ^f	-1.998	.046	-.046	.988	1.012	.909
	education=Some College	.017 ^f	.758	.448	.018	.988	1.013	.908
	education=College Graduate	.033 ^f	1.471	.141	.034	.985	1.015	.909
	education=Some University	.035 ^f	1.555	.120	.036	.992	1.008	.909
	education=Undergraduate Degree	-.014 ^f	-.589	.556	-.014	.932	1.073	.895
	education=Master's Degree	-.037 ^f	-1.653	.098	-.038	.983	1.017	.908
	education=Doctoral Degree	-.043 ^f	-1.915	.056	-.044	.997	1.003	.908
	income=Less than 50,000	.026 ^f	1.167	.243	.027	.990	1.010	.906
	income=50,000-59,999	.005 ^f	.209	.835	.005	.982	1.018	.909
	income=60,000-69,999	.049 ^f	2.212	.027	.051	.992	1.008	.909
	income=70,000-79,000	.000 ^f	-.005	.996	.000	.990	1.010	.909
	income=80,000-89,999	.020 ^f	.889	.374	.021	.999	1.001	.909
	income=90,000-99,999	.003 ^f	.150	.881	.003	.996	1.004	.909
	income=100,000-124,999	-.035 ^f	-1.585	.113	-.037	.993	1.007	.909
	income=125,000-149,999	-.049 ^f	-2.190	.029	-.051	.996	1.004	.909
	income=150,000 and above	-.039 ^f	-1.727	.084	-.040	.996	1.004	.909
	What is your marital status?-never legally married (single)	.024 ^f	1.072	.284	.025	.982	1.018	.908
	What is your marital status?-legally married	-.037 ^f	-1.558	.119	-.036	.870	1.150	.870
	What is your marital status?-common law	.007 ^f	.335	.738	.008	.997	1.003	.908
	What is your marital status?-divorced	.011 ^f	.509	.611	.012	.990	1.010	.909
	What is your marital status?-widowed	.015 ^f	.677	.498	.016	.998	1.002	.909

	What is your age as of your last birthday (in years)?	-.076 ^f	-3.231	.001	-.075	.903	1.107	.885
	Ethnicity_whitecaucasian	.017 ^f	.741	.459	.017	.998	1.002	.909
	Ethnicity_aboriginal_inuit_métis	.000 ^f	.012	.991	.000	.995	1.005	.907
	ethnicity_other	.020 ^f	.896	.370	.021	.996	1.004	.909
6	education=Less than High School	.025 ^g	1.111	.267	.026	.992	1.008	.884
	education=Some High School	-.028 ^g	-1.234	.217	-.029	.968	1.033	.882
	education=High School Graduate	-.036 ^g	-1.593	.111	-.037	.971	1.030	.885
	education=Some College	.025 ^g	1.130	.259	.026	.975	1.025	.885
	education=College Graduate	.021 ^g	.935	.350	.022	.956	1.045	.877
	education=Some University	.034 ^g	1.545	.123	.036	.992	1.008	.885
	education=Undergraduate Degree	-.018 ^g	-.771	.441	-.018	.929	1.076	.884
	education=Master's Degree	-.035 ^g	-1.584	.113	-.037	.983	1.017	.884
	education=Doctoral Degree	-.044 ^g	-1.986	.047	-.046	.997	1.003	.885
	income=Less than 50,000	.014 ^g	.614	.540	.014	.960	1.042	.875
	income=50,000-59,999	.000 ^g	-.016	.987	.000	.977	1.023	.885
	income=60,000-69,999	.047 ^g	2.115	.035	.049	.991	1.009	.885
	income=70,000-79,000	-.004 ^g	-.164	.869	-.004	.988	1.012	.885
	income=80,000-89,999	.017 ^g	.759	.448	.018	.997	1.003	.885
	income=90,000-99,999	.006 ^g	.251	.802	.006	.995	1.005	.885
	income=100,000-124,999	-.028 ^g	-1.235	.217	-.029	.980	1.020	.884
	income=125,000-149,999	-.045 ^g	-2.037	.042	-.047	.993	1.007	.885
	income=150,000 and above	-.033 ^g	-1.459	.145	-.034	.989	1.011	.885
	What is your marital status?-never legally married (single)	.004 ^g	.187	.851	.004	.907	1.102	.834
	What is your marital status?-legally married	-.022 ^g	-.907	.364	-.021	.832	1.202	.832
	What is your marital status?-common law	-.002 ^g	-.084	.933	-.002	.980	1.020	.885
	What is your marital status?-divorced	.019 ^g	.862	.389	.020	.978	1.022	.884
	What is your marital status?-widowed	.020 ^g	.894	.372	.021	.993	1.007	.885
	Ethnicity_whitecaucasian	.016 ^g	.730	.465	.017	.998	1.002	.885
	Ethnicity_aboriginal_inuit_métis	-.006 ^g	-.255	.799	-.006	.988	1.012	.885
	ethnicity_other	.019 ^g	.847	.397	.020	.996	1.004	.884
7	education=Less than High School	.025 ^h	1.121	.263	.026	.992	1.008	.884
	education=Some High School	-.027 ^h	-1.185	.236	-.027	.967	1.034	.881
	education=High School Graduate	-.035 ^h	-1.543	.123	-.036	.971	1.030	.885
	education=Some College	.025 ^h	1.127	.260	.026	.975	1.025	.885
	education=College Graduate	.016 ^h	.706	.480	.016	.945	1.058	.876
	education=Some University	.035 ^h	1.557	.120	.036	.992	1.008	.885

education=Undergraduate Degree	-.014 ^h	-.585	.559	-.014	.922	1.085	.883
education=Master's Degree	-.033 ^h	-1.449	.147	-.034	.979	1.022	.884
education=Doctoral Degree	-.043 ^h	-1.955	.051	-.045	.997	1.003	.885
income=Less than 50,000	.016 ^h	.718	.473	.017	.958	1.044	.874
income=50,000-59,999	.003 ^h	.114	.910	.003	.974	1.027	.885
income=70,000-79,000	.005 ^h	.212	.832	.005	.957	1.045	.885
income=80,000-89,999	.026 ^h	1.161	.246	.027	.965	1.037	.885
income=90,000-99,999	.013 ^h	.580	.562	.013	.972	1.029	.885
income=100,000-124,999	-.021 ^h	-.906	.365	-.021	.955	1.047	.884
income=125,000-149,999	-.043 ^h	-1.917	.055	-.044	.990	1.010	.885
income=150,000 and above	-.031 ^h	-1.387	.166	-.032	.988	1.013	.885
What is your marital status?-never legally married (single)	.003 ^h	.141	.888	.003	.907	1.103	.833
What is your marital status?-legally married	-.019 ^h	-.787	.431	-.018	.829	1.206	.829
What is your marital status?-common law	-.004 ^h	-.187	.851	-.004	.978	1.022	.884
What is your marital status?-divorced	.017 ^h	.779	.436	.018	.977	1.024	.883
What is your marital status?-widowed	.020 ^h	.886	.376	.021	.993	1.007	.885
Ethnicity_whitecaucasian	.016 ^h	.725	.468	.017	.998	1.002	.884
Ethnicity_aboriginal_inuit_métis	-.007 ^h	-.325	.746	-.008	.987	1.013	.885
ethnicity_other	.020 ^h	.912	.362	.021	.995	1.005	.884

a. Dependent Variable: BDI sum of factors sadness to appetite

b. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?

c. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months

d. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated

e. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?

f. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?

g. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, What is your age as of your last birthday (in years)?

h. Predictors in the Model: (Constant), During the past year, have you had a reportable work-related injury?, Diagnosed with any kind of physical disease within the last 12 months, What is your marital status?-separated, What is your body mass index (weight, in kilograms, over height, in meters, squared)?, What is your gender?, What is your age as of your last birthday (in years)?, income=60,000-69,999

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions							
					During the past year, have you had a reportable work-related injury?	Diagnosed with any kind of physical disease within the last 12 months	What is your marital status?-separated	What is your body mass index (weight, in kilograms, over height, in meters, squared)?	What is your gender?	What is your age as of your last birthday (in years)?	income=60,000-69,999	
1	1	1.390	1.000	.31	.31							
	2	.610	1.509	.69	.69							
2	1	1.859	1.000	.13	.10	.12						
	2	.762	1.562	.03	.82	.19						
	3	.378	2.217	.84	.08	.69						
3	1	1.937	1.000	.11	.09	.11	.04					
	2	.938	1.437	.00	.06	.03	.89					
	3	.761	1.596	.03	.78	.21	.01					
	4	.364	2.307	.86	.07	.65	.06					
4	1	2.785	1.000	.00	.03	.04	.01	.00				
	2	.940	1.721	.00	.03	.02	.92	.00				
	3	.786	1.883	.00	.90	.08	.01	.00				
	4	.476	2.420	.01	.03	.83	.05	.01				
	5	.013	14.701	.99	.00	.02	.00	.99				
5	1	3.646	1.000	.00	.02	.02	.01	.00	.01			
	2	.941	1.968	.00	.03	.02	.93	.00	.00			
	3	.796	2.140	.00	.94	.04	.02	.00	.00			
	4	.536	2.608	.00	.01	.87	.05	.00	.02			
	5	.069	7.286	.06	.00	.03	.00	.06	.97			
	6	.013	16.818	.93	.00	.02	.00	.94	.00			
6	1	4.580	1.000	.00	.01	.01	.00	.00	.00	.00		
	2	.942	2.205	.00	.02	.02	.94	.00	.00	.00		
	3	.809	2.379	.00	.96	.02	.01	.00	.00	.00		
	4	.547	2.893	.00	.00	.85	.04	.00	.01	.00		
	5	.078	7.673	.02	.00	.04	.00	.01	.94	.08		
	6	.033	11.869	.04	.00	.01	.00	.25	.04	.77		
	7	.012	19.835	.94	.00	.05	.00	.73	.00	.15		
7	1	4.698	1.000	.00	.01	.01	.00	.00	.00	.00	.01	
	2	.946	2.229	.00	.03	.01	.88	.00	.00	.00	.06	
	3	.886	2.302	.00	.04	.02	.07	.00	.00	.00	.82	
	4	.802	2.421	.00	.92	.01	.01	.00	.00	.00	.09	
	5	.546	2.932	.00	.00	.84	.04	.00	.01	.00	.00	
	6	.077	7.793	.02	.00	.04	.00	.01	.94	.09	.01	
	7	.032	12.034	.04	.00	.01	.00	.25	.04	.76	.00	
	8	.012	20.139	.94	.00	.05	.00	.73	.00	.15	.00	

a. Dependent Variable: BDI sum of factors sadness to appetite

C4.Psychosocial and Health-Related Factors – Stress

Correlations

	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	Relationship Assessment Scale (average of 7 items)	Average score from support 1a2a3a4d	Average score from support 1b2b3b4e	Average score from support 1c2c3c4f	Have you lost a family member or close friend in the last year?	Personal burnout score (Average burnout_tired to burnout_illness)	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	Are you taking any medication for a physical health related issues?	Smoking habits	How much time do you usually spend sitting or reclining on a typical day?	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	DAST 20 score for drug use	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol
Pearson Correlation	1.000	-.383	-.211	-.279	-.278	.090	.633	.558	.382	.014	.022	-.030	-.007	.154	.109
Perceived stress score (Upset_Unexpected to Difficulties_Piling)															
Relationship Assessment Scale (average of 7 items)	-.383	1.000	.101	.086	.483	-.040	-.302	-.173	-.128	.005	-.085	-.014	.032	-.169	-.074
Average score from support 1a2a3a4d	-.211	.101	1.000	.382	.169	-.052	-.202	-.362	-.280	-.039	-.010	.080	-.027	-.071	-.067
Average score from support 1b2b3b4e	-.279	.086	.382	1.000	.314	-.039	-.255	-.305	-.413	-.004	.030	.056	.018	-.058	-.028
Average score from support 1c2c3c4f	-.278	.483	.169	.314	1.000	-.007	-.230	-.193	-.159	-.008	-.046	-.003	.018	-.121	-.098
Have you lost a family member or close friend in the last year?	.090	-.040	-.052	-.039	-.007	1.000	.062	.069	.042	.035	.043	-.048	.046	.096	.019
Personal burnout score (Average burnout_tired to burnout_illness)	.633	-.302	-.202	-.255	-.230	.062	1.000	.720	.425	.089	-.030	.049	-.061	.126	.041
Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.558	-.173	-.362	-.305	-.193	.069	.720	1.000	.518	.048	.005	-.030	-.010	.095	.090
Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.382	-.128	-.280	-.413	-.159	.042	.425	.518	1.000	.017	-.053	-.027	.028	.055	.072
Are you taking any medication for a physical health related issues?	.014	.005	-.039	-.004	-.008	.035	.089	.048	.017	1.000	-.003	.043	-.049	.001	-.014
Smoking habits	.022	-.085	-.010	.030	-.046	.043	-.030	.005	-.053	-.003	1.000	-.110	.062	.158	.144
How much time do you usually spend sitting or reclining on a typical day?	-.030	-.014	.080	.056	-.003	-.048	.049	-.030	-.027	.043	-.110	1.000	-.219	-.066	-.065
How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.007	.032	-.027	.018	.018	.046	-.061	-.010	.028	-.049	.062	-.219	1.000	.083	.056
DAST 20 score for drug use	.154	-.169	-.071	-.058	-.121	.096	.126	.095	.055	.001	.158	-.066	.083	1.000	.234
Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.109	-.074	-.067	-.028	-.098	.019	.041	.090	.072	-.014	.144	-.065	.056	.234	1.000

Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428
Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428
Are you taking any medication for a physical health related issues?	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428
Smoking habits	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428
How much time do you usually spend sitting or reclining on a typical day?	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428
How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428
DAST 20 score for drug use	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428
Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428	1428

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Personal burnout score (Average burnout_tired to burnout_illness)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Relationship Assessment Scale (average of 7 items)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

4	Average score from support 1b2b3b4e		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
7	Have you lost a family member or close friend in the last year?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

Model Summary^h

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.633 ^a	.401	.401	5.944	
2	.665 ^b	.442	.441	5.741	
3	.684 ^c	.467	.466	5.610	
4	.690 ^d	.476	.474	5.567	
5	.692 ^e	.479	.477	5.552	
6	.694 ^f	.481	.479	5.542	
7	.695 ^g	.483	.480	5.536	1.986

- a. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)
- b. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items)
- c. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored
- d. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e
- e. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol
- f. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)
- g. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Have you lost a family member or close friend in the last year?
- h. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33740.153	1	33740.153	955.104	.000 ^b
	Residual	50375.096	1426	35.326		
	Total	84115.249	1427			
2	Regression	37145.424	2	18572.712	563.471	.000 ^c
	Residual	46969.825	1425	32.961		
	Total	84115.249	1427			
3	Regression	39306.519	3	13102.173	416.381	.000 ^d
	Residual	44808.731	1424	31.467		
	Total	84115.249	1427			
4	Regression	40020.187	4	10005.047	322.875	.000 ^e
	Residual	44095.062	1423	30.987		
	Total	84115.249	1427			
5	Regression	40284.519	5	8056.904	261.390	.000 ^f
	Residual	43830.730	1422	30.823		
	Total	84115.249	1427			
6	Regression	40475.531	6	6745.922	219.661	.000 ^g
	Residual	43639.718	1421	30.711		
	Total	84115.249	1427			
7	Regression	40599.170	7	5799.881	189.260	.000 ^h
	Residual	43516.080	1420	30.645		
	Total	84115.249	1427			

- a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)
- b. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)
- c. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items)
- d. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored
- e. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e
- f. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol
- g. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)
- h. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Have you lost a family member or close friend in the last year?

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	14.593	.318		45.903	.000	13.970	15.217					
	Personal burnout score (Average burnout_tired to burnout_illness)	.235	.008	.633	30.905	.000	.220	.250	.633	.633	.633	1.000	1.000
2	(Constant)	23.096	.891		25.917	.000	21.348	24.845					
	Personal burnout score (Average burnout_tired to burnout_illness)	.212	.008	.570	27.423	.000	.196	.227	.633	.588	.543	.909	1.101
	Relationship Assessment Scale (average of 7 items)	-1.900	.187	-.211	-10.164	.000	-2.267	-1.534	-.383	-.260	-.201	.909	1.101
3	(Constant)	22.401	.875		25.607	.000	20.685	24.117					
	Personal burnout score (Average burnout_tired to burnout_illness)	.148	.011	.399	13.815	.000	.127	.169	.633	.344	.267	.448	2.231
	Relationship Assessment Scale (average of 7 items)	-2.004	.183	-.223	-10.945	.000	-2.363	-1.645	-.383	-.279	-.212	.904	1.106
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.084	.010	.232	8.287	.000	.064	.104	.558	.215	.160	.479	2.089
4	(Constant)	26.895	1.277		21.061	.000	24.390	29.400					
	Personal burnout score (Average burnout_tired to burnout_illness)	.146	.011	.393	13.690	.000	.125	.167	.633	.341	.263	.447	2.235
	Relationship Assessment Scale (average of 7 items)	-1.985	.182	-.220	-10.920	.000	-2.341	-1.628	-.383	-.278	-.210	.904	1.106
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.075	.010	.207	7.336	.000	.055	.095	.558	.191	.141	.463	2.161
	Average score from support 1b2b3b4e	-1.071	.223	-.097	-4.799	.000	-1.509	-.633	-.279	-.126	-.092	.904	1.106

5	(Constant)	26.316	1.289		20.418	.000	23.788	28.845					
	Personal burnout score (Average burnout_tired to burnout_illness)	.148	.011	.397	13.862	.000	.127	.169	.633	.345	.265	.446	2.242
	Relationship Assessment Scale (average of 7 items)	-1.947	.182	-.216	-10.713	.000	-2.303	-1.590	-.383	-.273	-.205	.899	1.112
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.072	.010	.199	7.057	.000	.052	.092	.558	.184	.135	.459	2.179
	Average score from support 1b2b3b4e	-1.070	.223	-.097	-4.808	.000	-1.507	-.634	-.279	-.126	-.092	.904	1.106
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.089	.031	.056	2.928	.003	.030	.149	.109	.077	.056	.986	1.015
6	(Constant)	25.486	1.329		19.179	.000	22.879	28.093					
	Personal burnout score (Average burnout_tired to burnout_illness)	.146	.011	.392	13.683	.000	.125	.167	.633	.341	.261	.444	2.252
	Relationship Assessment Scale (average of 7 items)	-1.940	.181	-.215	-10.692	.000	-2.296	-1.584	-.383	-.273	-.204	.899	1.112
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.064	.011	.178	6.024	.000	.043	.085	.558	.158	.115	.419	2.386
	Average score from support 1b2b3b4e	-.890	.234	-.080	-3.808	.000	-1.348	-.431	-.279	-.100	-.073	.817	1.224
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.087	.031	.055	2.850	.004	.027	.147	.109	.075	.054	.984	1.016
	Colleague burnout score (Average burnout_work_colleagu es to burnout_wonder_colleag ues)	.018	.007	.059	2.494	.013	.004	.033	.382	.066	.048	.656	1.525

7	(Constant)	25.249	1.333		18.946	.000	22.635	27.864					
	Personal burnout score (Average burnout_tired to burnout_illness)	.146	.011	.392	13.675	.000	.125	.166	.633	.341	.261	.444	2.253
	Relationship Assessment Scale (average of 7 items)	-1.931	.181	-.215	-10.654	.000	-2.287	-1.576	-.383	-.272	-.203	.899	1.113
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.064	.011	.176	5.967	.000	.043	.085	.558	.156	.114	.419	2.388
	Average score from support 1b2b3b4e	-.882	.233	-.080	-3.777	.000	-1.340	-.424	-.279	-.100	-.072	.817	1.224
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.086	.030	.054	2.830	.005	.026	.146	.109	.075	.054	.984	1.016
	Colleague burnout score (Average burnout_work_colleague s to burnout_wonder_colleag ues)	.018	.007	.059	2.498	.013	.004	.033	.382	.066	.048	.656	1.525
	Have you lost a family member or close friend in the last year?	.624	.311	.038	2.009	.045	.015	1.234	.090	.053	.038	.994	1.006

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Relationship Assessment Scale (average of 7 items)	-.211 ^b	-10.164	.000	-.260	.909	1.101	.909
	Average score from support 1a2a3a4d	-.087 ^b	-4.189	.000	-.110	.959	1.042	.959
	Average score from support 1b2b3b4e	-.126 ^b	-6.010	.000	-.157	.935	1.069	.935
	Average score from support 1c2c3c4f	-.140 ^b	-6.740	.000	-.176	.947	1.056	.947
	Have you lost a family member or close friend in the last year?	.051 ^b	2.483	.013	.066	.996	1.004	.996
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.211 ^b	7.261	.000	.189	.481	2.079	.481
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.138 ^b	6.188	.000	.162	.820	1.220	.820
	Are you taking any medication for a physical health related issues?	-.042 ^b	-2.040	.042	-.054	.992	1.008	.992
	Smoking habits	.041 ^b	1.999	.046	.053	.999	1.001	.999
	How much time do you usually spend sitting or reclining on a typical day?	-.061 ^b	-2.993	.003	-.079	.998	1.002	.998
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.031 ^b	1.519	.129	.040	.996	1.004	.996
	DAST 20 score for drug use	.075 ^b	3.631	.000	.096	.984	1.016	.984
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.084 ^b	4.108	.000	.108	.998	1.002	.998
	2	Average score from support 1a2a3a4d	-.079 ^c	-3.900	.000	-.103	.958	1.044
Average score from support 1b2b3b4e		-.124 ^c	-6.129	.000	-.160	.935	1.069	.856
Average score from support 1c2c3c4f		-.060 ^c	-2.625	.009	-.069	.759	1.317	.728
Have you lost a family member or close friend in the last year?		.046 ^c	2.346	.019	.062	.996	1.004	.906
Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored		.232 ^c	8.287	.000	.215	.479	2.089	.448
Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)		.138 ^c	6.418	.000	.168	.820	1.220	.757
Are you taking any medication for a physical health related issues?		-.035 ^c	-1.772	.077	-.047	.991	1.009	.900
Smoking habits		.021 ^c	1.069	.285	.028	.989	1.011	.900
How much time do you usually spend sitting or reclining on a typical day?		-.061 ^c	-3.090	.002	-.082	.998	1.002	.907
How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?		.034 ^c	1.724	.085	.046	.996	1.004	.906
DAST 20 score for drug use		.048 ^c	2.362	.018	.062	.965	1.036	.891

	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.071 ^c	3.593	.000	.095	.994	1.006	.905
3	Average score from support 1a2a3a4d	-.029 ^d	-1.372	.170	-.036	.858	1.166	.429
	Average score from support 1b2b3b4e	-.097 ^d	-4.799	.000	-.126	.904	1.106	.447
	Average score from support 1c2c3c4f	-.045 ^d	-2.035	.042	-.054	.754	1.325	.448
	Have you lost a family member or close friend in the last year?	.041 ^d	2.099	.036	.056	.994	1.006	.448
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.089 ^d	3.926	.000	.104	.726	1.377	.424
	Are you taking any medication for a physical health related issues?	-.031 ^d	-1.600	.110	-.042	.990	1.010	.445
	Smoking habits	.014 ^d	.725	.469	.019	.987	1.013	.446
	How much time do you usually spend sitting or reclining on a typical day?	-.046 ^d	-2.393	.017	-.063	.989	1.011	.444
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.027 ^d	1.369	.171	.036	.994	1.006	.446
	DAST 20 score for drug use	.045 ^d	2.286	.022	.060	.965	1.036	.447
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.057 ^d	2.912	.004	.077	.986	1.015	.447
4	Average score from support 1a2a3a4d	.003 ^e	.123	.902	.003	.774	1.292	.426
	Average score from support 1c2c3c4f	-.016 ^e	-6.689	.491	-.018	.691	1.446	.447
	Have you lost a family member or close friend in the last year?	.039 ^e	2.031	.042	.054	.994	1.006	.447
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.061 ^e	2.583	.010	.068	.657	1.523	.422
	Are you taking any medication for a physical health related issues?	-.030 ^e	-1.544	.123	-.041	.990	1.010	.444
	Smoking habits	.017 ^e	.890	.373	.024	.986	1.014	.445
	How much time do you usually spend sitting or reclining on a typical day?	-.042 ^e	-2.152	.032	-.057	.986	1.014	.443
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.028 ^e	1.433	.152	.038	.994	1.006	.445
	DAST 20 score for drug use	.043 ^e	2.193	.029	.058	.964	1.037	.446
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.056 ^e	2.928	.003	.077	.986	1.015	.446
	5	Average score from support 1a2a3a4d	.005 ^f	.213	.831	.006	.773	1.293
Average score from support 1c2c3c4f		-.012 ^f	-.501	.617	-.013	.688	1.453	.446
Have you lost a family member or close friend in the last year?		.038 ^f	2.003	.045	.053	.994	1.006	.446
Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)		.059 ^f	2.494	.013	.066	.656	1.525	.419
Are you taking any medication for a physical health related issues?		-.029 ^f	-1.509	.131	-.040	.990	1.010	.443
Smoking habits		.010 ^f	.497	.619	.013	.968	1.033	.444
How much time do you usually spend sitting or reclining on a typical day?		-.038 ^f	-1.987	.047	-.053	.983	1.018	.442
How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?		.025 ^f	1.275	.202	.034	.991	1.009	.444

	DAST 20 score for drug use	.032 ^f	1.580	.114	.042	.916	1.092	.445
6	Average score from support 1a2a3a4d	.006 ^g	.287	.774	.008	.773	1.294	.391
	Average score from support 1c2c3c4f	-.014 ^g	-.603	.546	-.016	.687	1.455	.419
	Have you lost a family member or close friend in the last year?	.038 ^g	2.009	.045	.053	.994	1.006	.419
	Are you taking any medication for a physical health related issues?	-.029 ^g	-1.486	.137	-.039	.990	1.010	.419
	Smoking habits	.013 ^g	.650	.516	.017	.964	1.037	.418
	How much time do you usually spend sitting or reclining on a typical day?	-.038 ^g	-1.982	.048	-.053	.983	1.018	.417
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.022 ^g	1.153	.249	.031	.988	1.012	.419
	DAST 20 score for drug use	.033 ^g	1.632	.103	.043	.915	1.092	.419
7	Average score from support 1a2a3a4d	.007 ^h	.338	.736	.009	.772	1.295	.391
	Average score from support 1c2c3c4f	-.015 ^h	-.665	.506	-.018	.687	1.456	.418
	Are you taking any medication for a physical health related issues?	-.030 ^h	-1.553	.121	-.041	.989	1.011	.419
	Smoking habits	.011 ^h	.569	.570	.015	.963	1.039	.418
	How much time do you usually spend sitting or reclining on a typical day?	-.036 ^h	-1.893	.059	-.050	.980	1.020	.417
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.020 ^h	1.057	.291	.028	.986	1.015	.418
	DAST 20 score for drug use	.029 ^h	1.467	.143	.039	.909	1.100	.419

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

b. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)

c. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items)

d. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored

e. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e

f. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol

g. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)

h. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Relationship Assessment Scale (average of 7 items), Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored, Average score from support 1b2b3b4e, Alcohol_Sum_Score2 from alcohol on a typical day to

Collinearity Diagnostics^a

friend concerned alcohol, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Have you lost a family member or close friend in the last year?

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Average burnout_tired to burnout_illness	Relationship Assessment Scale (average of 7 items)	Variance Proportions		Average score from support 1b2b3b4e	alcohol on a typical day to friend concerned alcohol	_colleagues to burnout_wonder_colleagues	Have you lost a family member or close friend in the last year?
							Work burnout score	Colleague				
1	1	1.869	1.000	.07	.07							
	2	.131	3.778	.93	.93							
2	1	2.779	1.000	.00	.02	.00						
	2	.204	3.693	.01	.73	.05						
	3	.017	12.831	.99	.24	.95						
3	1	3.670	1.000	.00	.01	.00	.01					
	2	.250	3.834	.02	.14	.05	.07					
	3	.063	7.618	.01	.72	.00	.92					
	4	.017	14.745	.97	.13	.94	.00					
4	1	4.590	1.000	.00	.00	.00	.00	.00				
	2	.303	3.893	.00	.13	.02	.08	.01				
	3	.066	8.360	.00	.69	.02	.78	.02				
	4	.032	11.948	.00	.12	.63	.10	.35				
	5	.009	21.997	.99	.06	.33	.03	.61				
5	1	5.181	1.000	.00	.00	.00	.00	.00	.01			
	2	.417	3.525	.00	.03	.00	.02	.00	.88			
	3	.295	4.188	.00	.11	.03	.07	.02	.08			
	4	.066	8.893	.00	.68	.02	.78	.02	.00			
	5	.032	12.741	.00	.12	.62	.11	.37	.01			
	6	.009	23.542	.99	.06	.34	.03	.60	.01			
6	1	5.832	1.000	.00	.00	.00	.00	.00	.01	.01		
	2	.488	3.457	.00	.02	.00	.01	.00	.31	.22		
	3	.378	3.927	.00	.00	.01	.00	.01	.65	.11		
	4	.200	5.399	.00	.21	.01	.07	.00	.01	.50		
	5	.062	9.677	.00	.60	.01	.86	.01	.00	.06		
	6	.031	13.680	.01	.12	.66	.05	.33	.01	.03		
	7	.009	25.882	.99	.05	.30	.00	.64	.01	.07		
7	1	6.205	1.000	.00	.00	.00	.00	.00	.01	.01	.01	
	2	.634	3.128	.00	.00	.00	.00	.00	.01	.02	.94	
	3	.486	3.573	.00	.02	.00	.01	.00	.35	.21	.01	
	4	.373	4.079	.00	.00	.01	.00	.01	.60	.11	.03	
	5	.200	5.570	.00	.21	.01	.07	.00	.01	.50	.00	
	6	.062	9.982	.00	.60	.01	.86	.01	.00	.06	.00	
	7	.031	14.115	.01	.12	.65	.05	.33	.01	.03	.00	
	8	.009	26.764	.99	.05	.30	.00	.64	.01	.07	.01	

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

C5.Psychosocial and Health-Related Factors – Anxiety

Correlations

	Sum of BAI factors numbness to sweating	Relationship Assessment Scale (average of 7 items)	Average score from support 1a2a3a4d	Average score from support 1b2b3b4e	Average score from support 1c2c3c4f	Have you lost a family member or close friend in the last year?	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	Personal burnout score (Average burnout_tired to burnout_illness)	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	Are you taking any medication for a physical health related issues?	Smoking habits	How much time do you usually spend sitting or reclining on a typical day?	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	DAST 20 score for drug use	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol
Pearson Correlation	1.000	-.241	-.197	-.211	-.170	.132	.570	.609	.494	.327	.126	.022	.000	-.014	.208	.084
	-.241	1.000	.094	.080	.481	-.039	-.383	-.305	-.178	-.125	.004	-.084	-.009	.031	-.169	-.074
	-.197	.094	1.000	.380	.162	-.055	-.215	-.207	-.370	-.283	-.036	-.008	.083	-.024	-.073	-.069
	-.211	.080	.380	1.000	.311	-.045	-.276	-.255	-.309	-.408	-.004	.032	.058	.024	-.059	-.026
	-.170	.481	.162	.311	1.000	-.010	-.281	-.234	-.197	-.160	-.010	-.040	-.003	.021	-.121	-.092
	.132	-.039	-.055	-.045	-.010	1.000	.091	.063	.068	.042	.026	.054	-.058	.053	.099	.027
	.570	-.383	-.215	-.276	-.281	.091	1.000	.635	.559	.380	.010	.020	-.031	-.006	.154	.109
	.609	-.305	-.207	-.255	-.234	.063	.635	1.000	.721	.423	.088	-.032	.052	-.061	.127	.041
	.494	-.178	-.370	-.309	-.197	.068	.559	.721	1.000	.517	.046	.005	-.026	-.016	.098	.095
	.327	-.125	-.283	-.408	-.160	.042	.380	.423	.517	1.000	.018	-.049	-.028	.023	.056	.076
	.126	.004	-.036	-.004	-.010	.026	.010	.088	.046	.018	1.000	.001	.038	-.045	.005	-.015
	.022	-.084	-.008	.032	-.040	.054	.020	-.032	.005	-.049	.001	1.000	-.106	.058	.158	.140
	.000	-.009	.083	.058	-.003	-.058	-.031	.052	-.026	-.028	.038	-.106	1.000	-.217	-.066	-.062
	-.014	.031	-.024	.024	.021	.053	-.006	-.061	-.016	.023	-.045	.058	-.217	1.000	.083	.057

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Personal burnout score (Average burnout_tired to burnout_illness)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Perceived stress score (Upset_Unexpected to Difficulties_Piling)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	DAST 20 score for drug use		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	Are you taking any medication for a physical health related issues?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	Have you lost a family member or close friend in the last year?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Sum of BAI factors numbness to sweating

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.609 ^a	.371	.371	5.851	
2	.654 ^b	.428	.427	5.585	
3	.663 ^c	.440	.438	5.528	
4	.669 ^d	.447	.446	5.493	
5	.672 ^e	.452	.450	5.473	
6	.673 ^f	.453	.451	5.466	1.955

- a. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)
- b. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling)
- c. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use
- d. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?
- e. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?
- f. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)
- g. Dependent Variable: Sum of BAI factors numbness to sweating

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28266.972	1	28266.972	825.670	.000 ^b
	Residual	47826.583	1397	34.235		
	Total	76093.555	1398			
2	Regression	32542.164	2	16271.082	521.555	.000 ^c
	Residual	43551.391	1396	31.197		
	Total	76093.555	1398			
3	Regression	33457.665	3	11152.555	364.899	.000 ^d
	Residual	42635.891	1395	30.563		
	Total	76093.555	1398			
4	Regression	34030.473	4	8507.618	281.948	.000 ^e
	Residual	42063.082	1394	30.174		
	Total	76093.555	1398			
5	Regression	34372.765	5	6874.553	229.532	.000 ^f
	Residual	41720.790	1393	29.950		
	Total	76093.555	1398			
6	Regression	34498.531	6	5749.755	192.419	.000 ^g
	Residual	41595.024	1392	29.881		
	Total	76093.555	1398			

a. Dependent Variable: Sum of BAI factors numbness to sweating

b. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)

c. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling)

d. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use

e. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?

f. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?

g. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-1.325	.314		-4.214	.000	-1.942	-.708					
	Personal burnout score (Average burnout_tired to burnout_illness)	.217	.008	.609	28.734	.000	.202	.232	.609	.609	.609	1.000	1.000
2	(Constant)	-5.634	.475		-11.862	.000	-6.566	-4.702					
	Personal burnout score (Average burnout_tired to burnout_illness)	.148	.009	.415	15.819	.000	.129	.166	.609	.390	.320	.597	1.676
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.295	.025	.307	11.706	.000	.246	.345	.570	.299	.237	.597	1.676
3	(Constant)	-5.846	.472		-12.394	.000	-6.771	-4.921					
	Personal burnout score (Average burnout_tired to burnout_illness)	.146	.009	.409	15.761	.000	.128	.164	.609	.389	.316	.596	1.678
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.282	.025	.293	11.249	.000	.233	.331	.570	.288	.225	.591	1.691
	DAST 20 score for drug use	.492	.090	.111	5.473	.000	.316	.668	.208	.145	.110	.975	1.026
4	(Constant)	-6.199	.476		-13.034	.000	-7.132	-5.266					
	Personal burnout score (Average burnout_tired to burnout_illness)	.141	.009	.397	15.316	.000	.123	.160	.609	.380	.305	.589	1.697
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.288	.025	.300	11.558	.000	.239	.337	.570	.296	.230	.589	1.697
	DAST 20 score for drug use	.492	.089	.111	5.509	.000	.317	.667	.208	.146	.110	.975	1.026
	Are you taking any medication for a physical health related issues?	1.514	.348	.087	4.357	.000	.832	2.196	.126	.116	.087	.989	1.011
5	(Constant)	-6.401	.478		-13.402	.000	-7.338	-5.464					
	Personal burnout score (Average burnout_tired to burnout_illness)	.141	.009	.397	15.370	.000	.123	.159	.609	.381	.305	.589	1.697
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.283	.025	.295	11.379	.000	.235	.332	.570	.292	.226	.587	1.703
	DAST 20 score for drug use	.466	.089	.105	5.220	.000	.291	.641	.208	.139	.104	.968	1.033
	Are you taking any medication for a physical health related issues?	1.485	.346	.086	4.288	.000	.806	2.164	.126	.114	.085	.988	1.012
	Have you lost a family member or close friend in the last year?	1.055	.312	.068	3.381	.001	.443	1.667	.132	.090	.067	.984	1.017
6	(Constant)	-6.409	.477		-13.435	.000	-7.345	-5.474					
	Personal burnout score (Average burnout_tired to burnout_illness)	.136	.010	.383	14.364	.000	.118	.155	.609	.359	.285	.551	1.814
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.275	.025	.286	10.924	.000	.226	.325	.570	.281	.216	.572	1.747
	DAST 20 score for drug use	.469	.089	.106	5.252	.000	.294	.644	.208	.139	.104	.968	1.034
	Are you taking any medication for a physical health related issues?	1.493	.346	.086	4.317	.000	.815	2.172	.126	.115	.086	.988	1.012
	Have you lost a family member or close friend in the last year?	1.050	.312	.067	3.369	.001	.439	1.661	.132	.090	.067	.984	1.017
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.014	.007	.045	2.052	.040	.001	.027	.327	.055	.041	.800	1.250

a. Dependent Variable: Sum of BAI factors numbness to sweating

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Relationship Assessment Scale (average of 7 items)	-.061 ^b	-2.743	.006	-.073	.907	1.103	.907
	Average score from support 1a2a3a4d	-.074 ^b	-3.424	.001	-.091	.957	1.045	.957
	Average score from support 1b2b3b4e	-.059 ^b	-2.706	.007	-.072	.935	1.070	.935
	Average score from support 1c2c3c4f	-.029 ^b	-1.337	.182	-.036	.945	1.058	.945
	Have you lost a family member or close friend in the last year?	.094 ^b	4.457	.000	.118	.996	1.004	.996
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.307 ^b	11.706	.000	.299	.597	1.676	.597
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.115 ^b	3.764	.000	.100	.481	2.081	.481
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.084 ^b	3.602	.000	.096	.821	1.217	.821
	Are you taking any medication for a physical health related issues?	.073 ^b	3.434	.001	.092	.992	1.008	.992
	Smoking habits	.041 ^b	1.949	.052	.052	.999	1.001	.999
	How much time do you usually spend sitting or reclining on a typical day?	-.032 ^b	-1.494	.135	-.040	.997	1.003	.997
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.024 ^b	1.118	.264	.030	.996	1.004	.996
	DAST 20 score for drug use	.133 ^b	6.303	.000	.166	.984	1.016	.984
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.059 ^b	2.779	.006	.074	.998	1.002	.998
	2	Relationship Assessment Scale (average of 7 items)	.003 ^c	.151	.880	.004	.847	1.181
Average score from support 1a2a3a4d		-.048 ^c	-2.296	.022	-.061	.946	1.058	.589
Average score from support 1b2b3b4e		-.022 ^c	-1.054	.292	-.028	.913	1.095	.583
Average score from support 1c2c3c4f		.014 ^c	.673	.501	.018	.916	1.092	.578
Have you lost a family member or close friend in the last year?		.079 ^c	3.889	.000	.104	.992	1.008	.594
Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored		.052 ^c	1.736	.083	.046	.463	2.158	.402
Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)		.043 ^c	1.916	.056	.051	.801	1.249	.558
Are you taking any medication for a physical health related issues?		.087 ^c	4.311	.000	.115	.989	1.011	.590
Smoking habits		.029 ^c	1.437	.151	.038	.996	1.004	.595
How much time do you usually spend sitting or reclining on a typical day?		-.012 ^c	-.601	.548	-.016	.991	1.010	.592

	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.014 ^c	.669	.504	.018	.994	1.006	.593
	DAST 20 score for drug use	.111 ^c	5.473	.000	.145	.975	1.026	.591
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.034 ^c	1.656	.098	.044	.987	1.013	.590
3	Relationship Assessment Scale (average of 7 items)	.018 ^d	.800	.424	.021	.835	1.198	.555
	Average score from support 1a2a3a4d	-.043 ^d	-2.110	.035	-.056	.944	1.059	.585
	Average score from support 1b2b3b4e	-.021 ^d	-.990	.322	-.027	.913	1.095	.578
	Average score from support 1c2c3c4f	.024 ^d	1.121	.263	.030	.910	1.099	.574
	Have you lost a family member or close friend in the last year?	.070 ^d	3.466	.001	.092	.984	1.016	.589
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.053 ^d	1.801	.072	.048	.463	2.159	.402
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.045 ^d	2.005	.045	.054	.800	1.249	.557
	Are you taking any medication for a physical health related issues?	.087 ^d	4.357	.000	.116	.989	1.011	.589
	Smoking habits	.012 ^d	.588	.557	.016	.971	1.030	.590
	How much time do you usually spend sitting or reclining on a typical day?	-.005 ^d	-.246	.806	-.007	.986	1.014	.588
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.004 ^d	.195	.846	.005	.987	1.013	.591
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.009 ^d	.456	.648	.012	.937	1.067	.587
4	Relationship Assessment Scale (average of 7 items)	.016 ^e	.727	.467	.019	.835	1.198	.553
	Average score from support 1a2a3a4d	-.041 ^e	-2.016	.044	-.054	.944	1.060	.582
	Average score from support 1b2b3b4e	-.022 ^e	-1.043	.297	-.028	.913	1.096	.576
	Average score from support 1c2c3c4f	.024 ^e	1.128	.259	.030	.910	1.099	.573
	Have you lost a family member or close friend in the last year?	.068 ^e	3.381	.001	.090	.984	1.017	.587
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.055 ^e	1.874	.061	.050	.463	2.159	.398
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.046 ^e	2.069	.039	.055	.800	1.250	.551
	Smoking habits	.011 ^e	.563	.574	.015	.971	1.030	.587
	How much time do you usually spend sitting or reclining on a typical day?	-.007 ^e	-.372	.710	-.010	.985	1.015	.584
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.007 ^e	.362	.718	.010	.985	1.015	.586
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.011 ^e	.514	.607	.014	.937	1.067	.585
5	Relationship Assessment Scale (average of 7 items)	.015 ^f	.708	.479	.019	.835	1.198	.552
	Average score from support 1a2a3a4d	-.039 ^f	-1.914	.056	-.051	.943	1.061	.581
	Average score from support 1b2b3b4e	-.020 ^f	-.983	.326	-.026	.912	1.096	.574

	Average score from support 1c2c3c4f	.022 ^f	1.052	.293	.028	.910	1.099	.570
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.053 ^f	1.811	.070	.048	.463	2.160	.398
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.045 ^f	2.052	.040	.055	.800	1.250	.551
	Smoking habits	.009 ^f	.432	.666	.012	.970	1.031	.586
	How much time do you usually spend sitting or reclining on a typical day?	-.004 ^f	-.198	.843	-.005	.983	1.018	.584
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.004 ^f	.200	.842	.005	.983	1.017	.586
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.011 ^f	.522	.602	.014	.937	1.067	.583
6	Relationship Assessment Scale (average of 7 items)	.013 ^g	.614	.539	.016	.833	1.201	.537
	Average score from support 1a2a3a4d	-.032 ^g	-1.521	.128	-.041	.902	1.109	.551
	Average score from support 1b2b3b4e	-.007 ^g	-.334	.739	-.009	.815	1.226	.551
	Average score from support 1c2c3c4f	.024 ^g	1.144	.253	.031	.908	1.101	.549
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.038 ^g	1.225	.221	.033	.417	2.400	.398
	Smoking habits	.011 ^g	.530	.596	.014	.967	1.034	.550
	How much time do you usually spend sitting or reclining on a typical day?	-.002 ^g	-.111	.911	-.003	.981	1.019	.546
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	.002 ^g	.100	.920	.003	.981	1.020	.547
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.008 ^g	.414	.679	.011	.934	1.070	.550

a. Dependent Variable: Sum of BAI factors numbness to sweating

b. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)

c. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling)

d. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use

e. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?

f. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?

g. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), DAST 20 score for drug use, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions					
					Personal burnout score (Average burnout_tired to burnout_illness)	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	DAST 20 score for drug use	Are you taking any medication for a physical health related issues?	Have you lost a family member or close friend in the last year?	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)
1	1	1.867	1.000	.07	.07					
	2	.133	3.753	.93	.93					
2	1	2.827	1.000	.01	.02	.01				
	2	.135	4.577	.29	.64	.01				
	3	.038	8.571	.70	.34	.99				
3	1	3.266	1.000	.01	.01	.01	.03			
	2	.561	2.412	.01	.02	.01	.96			
	3	.134	4.928	.30	.63	.01	.00			
	4	.038	9.218	.69	.34	.98	.00			
4	1	3.556	1.000	.01	.01	.00	.03	.02		
	2	.733	2.202	.00	.00	.00	.17	.82		
	3	.538	2.570	.01	.02	.01	.80	.15		
	4	.134	5.148	.29	.62	.01	.00	.00		
	5	.038	9.680	.69	.34	.98	.00	.01		
5	1	3.961	1.000	.01	.01	.00	.02	.02	.02	
	2	.744	2.307	.00	.00	.00	.11	.82	.05	
	3	.599	2.570	.00	.00	.00	.34	.00	.73	
	4	.525	2.745	.01	.04	.01	.53	.15	.18	
	5	.132	5.472	.30	.61	.01	.00	.00	.02	
	6	.038	10.216	.68	.34	.97	.00	.01	.00	
6	1	4.606	1.000	.00	.01	.00	.01	.01	.01	.01
	2	.747	2.483	.00	.00	.00	.08	.86	.03	.00
	3	.616	2.735	.00	.01	.00	.02	.03	.78	.08
	4	.589	2.796	.00	.00	.00	.84	.04	.12	.04
	5	.277	4.079	.06	.02	.02	.05	.03	.04	.80
	6	.128	6.008	.25	.66	.01	.00	.00	.01	.06
	7	.038	11.040	.68	.30	.97	.00	.01	.00	.00

a. Dependent Variable: Sum of BAI factors numbness to sweating

C6.Psychosocial and Health-Related Factors – Depression

Correlations

		BDI sum of factors sadness to appetite	Relationship Assessment Scale (average of 7 items)	Average score from support 1a2a3a4d	Average score from support 1b2b3b4e	Average score from support 1c2c3c4f	Have you lost a family member or close friend in the last year?	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	Personal burnout score (Average burnout_tired to burnout_illness)	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	Are you taking any medication for a physical health related issues?	Smoking habits	How much time do you usually spend sitting or reclining on a typical day?	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	DAST 20 score for drug use	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol
Pearson Correlation	BDI sum of factors sadness to appetite	1.000	-.359	-.241	-.303	-.264	.113	.677	.720	.581	.429	.098	-.022	.045	-.061	.149	.064
	Relationship Assessment Scale (average of 7 items)	-.359	1.000	.102	.092	.487	-.043	-.385	-.303	-.170	-.132	.003	-.081	-.013	.030	-.178	-.071
	Average score from support 1a2a3a4d	-.241	.102	1.000	.378	.167	-.047	-.206	-.192	-.354	-.279	-.031	-.010	.076	-.013	-.068	-.056
	Average score from support 1b2b3b4e	-.303	.092	.378	1.000	.313	-.041	-.284	-.259	-.307	-.415	.002	.025	.057	.023	-.058	-.017
	Average score from support 1c2c3c4f	-.264	.487	.167	.313	1.000	-.012	-.281	-.237	-.192	-.161	-.004	-.044	-.002	.016	-.125	-.096
	Have you lost a family member or close friend in the last year?	.113	-.043	-.047	-.041	-.012	1.000	.085	.058	.059	.039	.037	.041	-.046	.041	.103	.024
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.677	-.385	-.206	-.284	-.281	.085	1.000	.631	.552	.387	.015	.007	-.026	-.023	.157	.106
	Personal burnout score (Average burnout_tired to burnout_illness)	.720	-.303	-.192	-.259	-.237	.058	.631	1.000	.716	.435	.086	-.045	.053	-.080	.123	.036
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.581	-.170	-.354	-.307	-.192	.059	.552	.716	1.000	.525	.045	-.005	-.026	-.028	.094	.090
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.429	-.132	-.279	-.415	-.161	.039	.387	.435	.525	1.000	.017	-.053	-.028	.031	.053	.060
	Are you taking any medication for a physical health related issues?	.098	.003	-.031	.002	-.004	.037	.015	.086	.045	.017	1.000	.002	.040	-.051	.002	-.016
	Smoking habits	-.022	-.081	-.010	.025	-.044	.041	.007	-.045	-.005	-.053	.002	1.000	-.102	.056	.153	.141
	How much time do you usually spend sitting or reclining on a typical day?	.045	-.013	.076	.057	-.002	-.046	-.026	.053	-.026	-.028	.040	-.102	1.000	-.213	-.054	-.063
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.061	.030	-.013	.023	.016	.041	-.023	-.080	-.028	.031	-.051	.056	-.213	1.000	.076	.049

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Personal burnout score (Average burnout_tired to burnout_illness)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Perceived stress score (Upset_Unexpected to Difficulties_Piling)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	Relationship Assessment Scale (average of 7 items)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	Average score from support 1a2a3a4d		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

6	Are you taking any medication for a physical health related issues?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
7	Have you lost a family member or close friend in the last year?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
8	Average score from support 1b2b3b4e		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
9	How much time do you usually spend sitting or reclining on a typical day?		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: BDI sum of factors sadness to appetite

Model Summary^j

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.720 ^a	.519	.518	6.131	
2	.775 ^b	.601	.600	5.583	
3	.780 ^c	.608	.607	5.536	
4	.784 ^d	.614	.613	5.494	
5	.786 ^e	.617	.616	5.474	
6	.787 ^f	.620	.618	5.456	
7	.789 ^g	.622	.621	5.441	
8	.790 ^h	.624	.622	5.433	
9	.791 ⁱ	.625	.623	5.425	1.966

a. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)

b. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling)

c. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)

d. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items)

e. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d

f. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?

g. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?

h. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Average score from support 1b2b3b4e

i. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Average score from support 1b2b3b4e, How much time do you usually spend sitting or reclining on a typical day?

j. Dependent Variable: BDI sum of factors sadness to appetite

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56160.265	1	56160.265	1494.225	.000 ^b
	Residual	52130.229	1387	37.585		
	Total	108290.494	1388			
2	Regression	65088.994	2	32544.497	1044.100	.000 ^c
	Residual	43201.500	1386	31.170		
	Total	108290.494	1388			
3	Regression	65843.826	3	21947.942	716.143	.000 ^d
	Residual	42446.668	1385	30.647		
	Total	108290.494	1388			
4	Regression	66518.863	4	16629.716	550.985	.000 ^e
	Residual	41771.631	1384	30.182		
	Total	108290.494	1388			
5	Regression	66850.860	5	13370.172	446.214	.000 ^f
	Residual	41439.634	1383	29.964		
	Total	108290.494	1388			
6	Regression	67145.002	6	11190.834	375.879	.000 ^g
	Residual	41145.492	1382	29.772		
	Total	108290.494	1388			
7	Regression	67408.140	7	9629.734	325.291	.000 ^h
	Residual	40882.354	1381	29.603		
	Total	108290.494	1388			
8	Regression	67560.341	8	8445.043	286.131	.000 ⁱ
	Residual	40730.153	1380	29.515		
	Total	108290.494	1388			
9	Regression	67711.329	9	7523.481	255.670	.000 ^j
	Residual	40579.165	1379	29.427		
	Total	108290.494	1388			

a. Dependent Variable: BDI sum of factors sadness to appetite

b. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)

c. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling)

d. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)

e. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items)

f. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d

g. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?

h. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?

i. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Average score from support 1b2b3b4e

j. Predictors: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Average score from support 1b2b3b4e, How much time do you usually spend sitting or reclining on a typical day?

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-.921	.333		-2.761	.006	-1.575	-.267					
	Personal burnout score (Average burnout_tired to burnout_illness)	.310	.008	.720	38.655	.000	.295	.326	.720	.720	.720	1.000	1.000
2	(Constant)	-7.102	.475		-14.953	.000	-8.034	-6.170					
	Personal burnout score (Average burnout_tired to burnout_illness)	.210	.009	.487	22.263	.000	.191	.228	.720	.513	.378	.602	1.661
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.426	.025	.370	16.925	.000	.376	.475	.677	.414	.287	.602	1.661
3	(Constant)	-7.100	.471		-15.076	.000	-8.024	-6.177					
	Personal burnout score (Average burnout_tired to burnout_illness)	.197	.010	.457	20.306	.000	.178	.216	.720	.479	.342	.559	1.789
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.405	.025	.353	16.052	.000	.356	.455	.677	.396	.270	.587	1.705
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.034	.007	.094	4.963	.000	.020	.047	.429	.132	.083	.790	1.266
4	(Constant)	-2.632	1.054		-2.496	.013	-4.700	-.564					
	Personal burnout score (Average burnout_tired to burnout_illness)	.193	.010	.447	19.931	.000	.174	.212	.720	.472	.333	.554	1.804
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.373	.026	.324	14.344	.000	.322	.424	.677	.360	.239	.545	1.833
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.035	.007	.098	5.205	.000	.022	.048	.429	.139	.087	.788	1.269

	Relationship Assessment Scale (average of 7 items)	-.893	.189	-.086	-4.729	.000	-1.264	-.523	-.359	-.126	-.079	.844	1.184
5	(Constant)	-.221	1.276		-.173	.863	-2.724	2.282					
	Personal burnout score (Average burnout_tired to burnout_illness)	.192	.010	.445	19.930	.000	.173	.211	.720	.472	.332	.554	1.805
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.367	.026	.319	14.130	.000	.316	.418	.677	.355	.235	.543	1.842
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.030	.007	.085	4.418	.000	.017	.044	.429	.118	.073	.754	1.326
	Relationship Assessment Scale (average of 7 items)	-.876	.188	-.084	-4.651	.000	-1.245	-.506	-.359	-.124	-.077	.844	1.185
	Average score from support 1a2a3a4d	-.581	.174	-.058	-3.329	.001	-.923	-.239	-.241	-.089	-.055	.910	1.099
6	(Constant)	-.469	1.274		-.368	.713	-2.969	2.031					
	Personal burnout score (Average burnout_tired to burnout_illness)	.189	.010	.438	19.582	.000	.170	.208	.720	.466	.325	.548	1.823
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.370	.026	.322	14.296	.000	.320	.421	.677	.359	.237	.542	1.845
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.031	.007	.086	4.497	.000	.017	.044	.429	.120	.075	.754	1.327
	Relationship Assessment Scale (average of 7 items)	-.887	.188	-.085	-4.726	.000	-1.255	-.519	-.359	-.126	-.078	.843	1.186
	Average score from support 1a2a3a4d	-.567	.174	-.057	-3.259	.001	-.908	-.226	-.241	-.087	-.054	.909	1.100
	Are you taking any medication for a physical health related issues?	1.086	.346	.052	3.143	.002	.408	1.764	.098	.084	.052	.989	1.011
7	(Constant)	-.755	1.274		-.593	.554	-3.255	1.745					
	Personal burnout score (Average burnout_tired to burnout_illness)	.189	.010	.439	19.642	.000	.170	.208	.720	.467	.325	.548	1.823

	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.366	.026	.318	14.151	.000	.315	.417	.677	.356	.234	.540	1.851
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.031	.007	.086	4.509	.000	.017	.044	.429	.120	.075	.754	1.327
	Relationship Assessment Scale (average of 7 items)	-.881	.187	-.085	-4.708	.000	-1.248	-.514	-.359	-.126	-.078	.843	1.186
	Average score from support 1a2a3a4d	-.552	.174	-.055	-3.181	.002	-.893	-.212	-.241	-.085	-.053	.908	1.101
	Are you taking any medication for a physical health related issues?	1.050	.345	.051	3.044	.002	.373	1.726	.098	.082	.050	.988	1.012
	Have you lost a family member or close friend in the last year?	.925	.310	.050	2.981	.003	.316	1.534	.113	.080	.049	.991	1.010
8	(Constant)	1.228	1.543		.796	.426	-1.799	4.256					
	Personal burnout score (Average burnout_tired to burnout_illness)	.189	.010	.438	19.635	.000	.170	.208	.720	.467	.324	.548	1.824
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.360	.026	.313	13.890	.000	.310	.411	.677	.350	.229	.535	1.868
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.026	.007	.073	3.696	.000	.012	.040	.429	.099	.061	.694	1.441
	Relationship Assessment Scale (average of 7 items)	-.892	.187	-.086	-4.769	.000	-1.258	-.525	-.359	-.127	-.079	.843	1.187
	Average score from support 1a2a3a4d	-.433	.181	-.043	-2.393	.017	-.788	-.078	-.241	-.064	-.040	.833	1.201
	Are you taking any medication for a physical health related issues?	1.067	.344	.051	3.098	.002	.391	1.742	.098	.083	.051	.987	1.013
	Have you lost a family member or close friend in the last year?	.918	.310	.049	2.964	.003	.311	1.526	.113	.080	.049	.990	1.010
	Average score from support 1b2b3b4e	-.552	.243	-.044	-2.271	.023	-1.028	-.075	-.303	-.061	-.037	.742	1.348
9	(Constant)	.762	1.555		.490	.624	-2.287	3.812					

Personal burnout score (Average burnout_tired to burnout_illness)	.187	.010	.433	19.360	.000	.168	.206	.720	.462	.319	.543	1.840
Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.364	.026	.316	14.019	.000	.313	.415	.677	.353	.231	.533	1.874
Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.027	.007	.074	3.742	.000	.013	.041	.429	.100	.062	.694	1.441
Relationship Assessment Scale (average of 7 items)	-.884	.187	-.085	-4.736	.000	-1.250	-.518	-.359	-.126	-.078	.842	1.187
Average score from support 1a2a3a4d	-.459	.181	-.046	-2.532	.011	-.814	-.103	-.241	-.068	-.042	.829	1.206
Are you taking any medication for a physical health related issues?	1.040	.344	.050	3.023	.003	.365	1.715	.098	.081	.050	.986	1.014
Have you lost a family member or close friend in the last year?	.949	.310	.051	3.064	.002	.342	1.557	.113	.082	.051	.989	1.012
Average score from support 1b2b3b4e	-.567	.243	-.045	-2.338	.020	-1.043	-.091	-.303	-.063	-.039	.741	1.350
How much time do you usually spend sitting or reclining on a typical day?	.097	.043	.038	2.265	.024	.013	.180	.045	.061	.037	.980	1.020

a. Dependent Variable: BDI sum of factors sadness to appetite

Excluded Variables^a

Model	Beta In	t	Sig.	Partial Correlation	Tolerance	Collinearity Statistics		
						VIF	Minimum Tolerance	
1	Relationship Assessment Scale (average of 7 items)	-.155 ^b	-8.108	.000	-.213	.908	1.101	.908
	Average score from support 1a2a3a4d	-.107 ^b	-5.717	.000	-.152	.963	1.038	.963
	Average score from support 1b2b3b4e	-.124 ^b	-6.534	.000	-.173	.933	1.072	.933
	Average score from support 1c2c3c4f	-.099 ^b	-5.192	.000	-.138	.944	1.059	.944
	Have you lost a family member or close friend in the last year?	.072 ^b	3.875	.000	.104	.997	1.003	.997
	Perceived stress score (Upset_Unexpected to Difficulties_Piling)	.370 ^b	16.925	.000	.414	.602	1.661	.602
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.133 ^b	5.044	.000	.134	.488	2.051	.488
	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.143 ^b	7.014	.000	.185	.810	1.234	.810
	Are you taking any medication for a physical health related issues?	.036 ^b	1.946	.052	.052	.993	1.007	.993
	Smoking habits	.010 ^b	.518	.605	.014	.998	1.002	.998
	How much time do you usually spend sitting or reclining on a typical day?	.007 ^b	.371	.711	.010	.997	1.003	.997
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.004 ^b	-.192	.848	-.005	.994	1.006	.994
	DAST 20 score for drug use	.061 ^b	3.264	.001	.087	.985	1.015	.985
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.039 ^b	2.068	.039	.055	.999	1.001	.999
	2	Relationship Assessment Scale (average of 7 items)	-.082 ^c	-4.462	.000	-.119	.846	1.182
Average score from support 1a2a3a4d		-.075 ^c	-4.365	.000	-.116	.951	1.051	.595
Average score from support 1b2b3b4e		-.078 ^c	-4.439	.000	-.118	.909	1.100	.587
Average score from support 1c2c3c4f		-.049 ^c	-2.753	.006	-.074	.915	1.093	.584
Have you lost a family member or close friend in the last year?		.054 ^c	3.194	.001	.086	.993	1.007	.600
Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored		.059 ^c	2.409	.016	.065	.471	2.123	.408

	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	.094 ^c	4.963	.000	.132	.790	1.266	.559
	Are you taking any medication for a physical health related issues?	.051 ^c	3.000	.003	.080	.990	1.010	.596
	Smoking habits	-.003 ^c	-.202	.840	-.005	.996	1.004	.600
	How much time do you usually spend sitting or reclining on a typical day?	.029 ^c	1.711	.087	.046	.991	1.009	.597
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.014 ^c	-.820	.413	-.022	.992	1.008	.598
	DAST 20 score for drug use	.032 ^c	1.836	.067	.049	.974	1.026	.596
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.008 ^c	.454	.650	.012	.987	1.013	.595
3	Relationship Assessment Scale (average of 7 items)	-.086 ^d	-4.729	.000	-.126	.844	1.184	.545
	Average score from support 1a2a3a4d	-.060 ^d	-3.435	.001	-.092	.911	1.098	.559
	Average score from support 1b2b3b4e	-.056 ^d	-2.985	.003	-.080	.810	1.235	.559
	Average score from support 1c2c3c4f	-.045 ^d	-2.583	.010	-.069	.914	1.094	.557
	Have you lost a family member or close friend in the last year?	.054 ^d	3.196	.001	.086	.993	1.007	.559
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.023 ^d	.887	.375	.024	.423	2.364	.407
	Are you taking any medication for a physical health related issues?	.052 ^d	3.102	.002	.083	.990	1.010	.554
	Smoking habits	.000 ^d	.023	.982	.001	.994	1.006	.558
	How much time do you usually spend sitting or reclining on a typical day?	.033 ^d	1.951	.051	.052	.989	1.011	.554
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.020 ^d	-1.171	.242	-.031	.988	1.013	.553
	DAST 20 score for drug use	.033 ^d	1.941	.053	.052	.974	1.027	.558
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.005 ^d	.294	.769	.008	.986	1.014	.558
4	Average score from support 1a2a3a4d	-.058 ^e	-3.329	.001	-.089	.910	1.099	.543
	Average score from support 1b2b3b4e	-.057 ^e	-3.079	.002	-.083	.810	1.235	.539
	Average score from support 1c2c3c4f	-.012 ^e	-.640	.522	-.017	.747	1.338	.544
	Have you lost a family member or close friend in the last year?	.053 ^e	3.169	.002	.085	.993	1.007	.544
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.038 ^e	1.463	.144	.039	.417	2.398	.399

	Are you taking any medication for a physical health related issues?	.054 ^e	3.215	.001	.086	.990	1.011	.545
	Smoking habits	-.007 ^e	-.398	.691	-.011	.986	1.014	.545
	How much time do you usually spend sitting or reclining on a typical day?	.032 ^e	1.895	.058	.051	.989	1.011	.543
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.019 ^e	-1.117	.264	-.030	.987	1.013	.545
	DAST 20 score for drug use	.023 ^e	1.369	.171	.037	.959	1.043	.543
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.002 ^e	.114	.909	.003	.985	1.016	.541
5	Average score from support 1b2b3b4e	-.043 ^f	-2.217	.027	-.060	.742	1.348	.538
	Average score from support 1c2c3c4f	-.006 ^f	-.304	.761	-.008	.740	1.352	.542
	Have you lost a family member or close friend in the last year?	.051 ^f	3.082	.002	.083	.992	1.008	.541
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.017 ^f	.624	.533	.017	.389	2.571	.389
	Are you taking any medication for a physical health related issues?	.052 ^f	3.143	.002	.084	.989	1.011	.542
	Smoking habits	-.008 ^f	-.472	.637	-.013	.986	1.015	.543
	How much time do you usually spend sitting or reclining on a typical day?	.036 ^f	2.153	.031	.058	.984	1.016	.541
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.019 ^f	-1.159	.247	-.031	.987	1.013	.542
	DAST 20 score for drug use	.021 ^f	1.255	.210	.034	.957	1.045	.541
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.000 ^f	.010	.992	.000	.984	1.017	.539
6	Average score from support 1b2b3b4e	-.044 ^g	-2.293	.022	-.062	.742	1.348	.537
	Average score from support 1c2c3c4f	-.006 ^g	-.313	.755	-.008	.740	1.352	.541
	Have you lost a family member or close friend in the last year?	.050 ^g	2.981	.003	.080	.991	1.010	.540
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.018 ^g	.686	.493	.018	.389	2.572	.389
	Smoking habits	-.008 ^g	-.502	.616	-.014	.986	1.015	.542
	How much time do you usually spend sitting or reclining on a typical day?	.034 ^g	2.056	.040	.055	.983	1.018	.540
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.017 ^g	-1.030	.303	-.028	.986	1.015	.542
	DAST 20 score for drug use	.021 ^g	1.265	.206	.034	.957	1.045	.540

	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.001 ^e	.051	.959	.001	.984	1.017	.538
7	Average score from support 1b2b3b4e	-.044 ^h	-2.271	.023	-.061	.742	1.348	.535
	Average score from support 1c2c3c4f	-.007 ^h	-.380	.704	-.010	.739	1.353	.539
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.018 ^h	.664	.507	.018	.389	2.572	.389
	Smoking habits	-.010 ^h	-.622	.534	-.017	.984	1.016	.540
	How much time do you usually spend sitting or reclining on a typical day?	.037 ^h	2.195	.028	.059	.981	1.020	.538
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.019 ^h	-1.169	.243	-.031	.984	1.017	.540
	DAST 20 score for drug use	.017 ^h	1.006	.314	.027	.950	1.053	.538
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.000 ^h	.009	.992	.000	.983	1.017	.536
8	Average score from support 1c2c3c4f	.005 ⁱ	.228	.820	.006	.688	1.454	.535
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.019 ⁱ	.717	.473	.019	.389	2.574	.389
	Smoking habits	-.010 ⁱ	-.595	.552	-.016	.984	1.016	.535
	How much time do you usually spend sitting or reclining on a typical day?	.038 ⁱ	2.265	.024	.061	.980	1.020	.533
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.018 ⁱ	-1.081	.280	-.029	.982	1.018	.535
	DAST 20 score for drug use	.017 ⁱ	.987	.324	.027	.950	1.053	.533
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.001 ⁱ	.080	.936	.002	.982	1.018	.531
9	Average score from support 1c2c3c4f	.005 ^j	.257	.797	.007	.687	1.455	.533
	Work burnout score (Average burnout_end_day to burnout_work) - RIGHT ONE - properly scored	.022 ^j	.831	.406	.022	.388	2.580	.384
	Smoking habits	-.006 ^j	-.374	.709	-.010	.974	1.027	.533
	How much time do you spend doing moderate or vigorous intensity leisure physical activity in a typical week?	-.011 ^j	-.635	.526	-.017	.941	1.062	.533
	DAST 20 score for drug use	.019 ^j	1.104	.270	.030	.947	1.056	.532
	Alcohol_Sum_Score2 from alcohol on a typical day to friend concerned alcohol	.003 ^j	.203	.839	.005	.980	1.021	.530

a. Dependent Variable: BDI sum of factors sadness to appetite

b. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness)

- c. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling)
- d. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)
- e. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items)
- f. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d
- g. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?
- h. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?
- i. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Average score from support 1b2b3b4e
- j. Predictors in the Model: (Constant), Personal burnout score (Average burnout_tired to burnout_illness), Perceived stress score (Upset_Unexpected to Difficulties_Piling), Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues), Relationship Assessment Scale (average of 7 items), Average score from support 1a2a3a4d, Are you taking any medication for a physical health related issues?, Have you lost a family member or close friend in the last year?, Average score from support 1b2b3b4e, How much time do you usually spend sitting or reclining on a typical day?

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions														
					Personal burnout score (Average burnout_lired to burnout_illness)	Perceived stress score (Upset_Unexpected to Difficulties_Pi ling)	Colleague burnout score (Average burnout_work_colleagues to burnout_wonder_colleagues)	Relationship Assessment Scale (average of 7 items)	Average score from support 1a2a3a4d	Are you taking any medication for a physical health related issues?	Have you lost a family member or close friend in the last year?	Average score from support 1b2b3b4e	How much time do you usually spend sitting or reclining on a typical day?						
1	1	1.870	1.000	.07	.07														
	2	.130	3.790	.93	.93														
2	1	2.829	1.000	.01	.02	.01													
	2	.132	4.622	.30	.65	.01													
	3	.039	8.512	.69	.33	.99													
3	1	3.539	1.000	.01	.01	.00	.02												
	2	.297	3.453	.05	.01	.01	.89												
	3	.126	5.304	.25	.70	.00	.09												
	4	.039	9.543	.69	.28	.98	.01												
4	1	4.401	1.000	.00	.01	.00	.01	.00											
	2	.358	3.507	.01	.01	.00	.66	.02											
	3	.175	5.016	.00	.43	.02	.32	.04											
	4	.054	9.057	.00	.56	.65	.00	.09											
	5	.012	18.799	.99	.00	.33	.00	.85											
5	1	5.291	1.000	.00	.00	.00	.01	.00	.00										
	2	.423	3.535	.00	.02	.00	.50	.01	.02										
	3	.182	5.397	.00	.41	.03	.43	.02	.01										
	4	.054	9.917	.00	.57	.67	.00	.06	.01										
	5	.041	11.411	.00	.00	.03	.06	.33	.69										
	6	.010	23.244	.99	.00	.28	.00	.58	.28										
6	1	5.566	1.000	.00	.00	.00	.01	.00	.00	.01									
	2	.728	2.764	.00	.00	.00	.01	.00	.00	.96									
	3	.420	3.639	.00	.02	.00	.48	.01	.02	.02									
	4	.181	5.541	.00	.40	.03	.43	.02	.01	.00									
	5	.054	10.194	.00	.57	.67	.00	.06	.01	.00									
	6	.041	11.712	.00	.00	.02	.06	.33	.69	.00									
	7	.010	23.869	.99	.00	.28	.00	.58	.28	.00									
7	1	5.944	1.000	.00	.00	.00	.01	.00	.00	.01	.01								
	2	.730	2.853	.00	.00	.00	.01	.00	.00	.96	.01								
	3	.625	3.084	.00	.00	.00	.03	.00	.00	.00	.94								
	4	.416	3.779	.00	.02	.00	.46	.01	.02	.01	.03								
	5	.181	5.727	.00	.40	.03	.43	.02	.01	.00	.00								
	6	.053	10.554	.00	.57	.67	.00	.06	.01	.01	.00								
	7	.041	12.110	.00	.00	.03	.06	.33	.69	.00	.00								
	8	.010	24.705	.99	.00	.27	.00	.57	.28	.00	.00								
8	1	6.862	1.000	.00	.00	.00	.00	.00	.00	.00	.01	.00							
	2	.732	3.062	.00	.00	.00	.01	.00	.00	.97	.01	.00							
	3	.628	3.306	.00	.00	.00	.02	.00	.00	.00	.97	.00							
	4	.470	3.823	.00	.02	.00	.38	.01	.01	.01	.01	.01							
	5	.183	6.119	.00	.40	.03	.44	.01	.00	.00	.00	.00							
	6	.053	11.337	.00	.57	.67	.00	.06	.00	.01	.00	.00							
	7	.041	12.933	.00	.00	.03	.07	.39	.51	.00	.00	.01							
	8	.024	16.762	.01	.00	.04	.03	.16	.43	.00	.00	.59							
	9	.007	31.349	.99	.00	.22	.05	.37	.04	.00	.00	.39							
9	1	7.618	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
	2	.733	3.224	.00	.00	.00	.01	.00	.00	.98	.00	.00							.00
	3	.637	3.459	.00	.00	.00	.00	.00	.00	.00	.97	.00							.01
	4	.493	3.932	.00	.03	.00	.38	.00	.01	.01	.00	.00							.03
	5	.211	6.002	.00	.00	.01	.02	.01	.01	.00	.02	.00							.93
	6	.183	6.448	.00	.39	.03	.43	.01	.00	.00	.00	.00							.00
	7	.053	11.974	.00	.57	.66	.00	.06	.01	.00	.00	.00							.01
	8	.041	13.637	.00	.00	.03	.07	.38	.52	.00	.00	.00							.01
	9	.024	17.677	.01	.00	.04	.03	.16	.42	.00	.00	.59							.00
	10	.007	33.208	.99	.00	.22	.05	.37	.04	.00	.00	.38							.01

a. Dependent Variable: BDI sum of factors sadness to appetite

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	PF11 Guarding minds at work score 11		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Job Insecurity Average Score		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	PF7 Guarding minds at work score 7		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	Job Satisfaction Score Q1, 2,4,5 Job Satisfaction		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	SHIFT (8 hour steady days)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	ERI interpretation recoded		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

7	Physical Environment Average Score		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
8	discrimination victim (question 66, page 43)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
9	PF12 Guarding minds at work score 12		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
10	PF6 Guarding minds at work score 6		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
11	PF10 Guarding minds at work score 10		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
12	PF4 Guarding minds at work score 4		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

Model Summary^m

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.441 ^a	.195	.194	6.966	
2	.480 ^b	.230	.229	6.813	
3	.496 ^c	.246	.245	6.744	
4	.504 ^d	.254	.252	6.710	
5	.509 ^e	.259	.256	6.692	
6	.512 ^f	.262	.260	6.678	
7	.515 ^g	.265	.262	6.666	
8	.518 ^h	.268	.265	6.655	
9	.521 ⁱ	.272	.268	6.640	
10	.523 ^j	.274	.270	6.632	
11	.526 ^k	.277	.272	6.620	
12	.528 ^l	.279	.274	6.612	1.882

a. Predictors: (Constant), PF11 Guarding minds at work score 11

b. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score

c. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7

d. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction

e. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days)

f. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded

g. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score

h. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43)

i. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12

j. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6

k. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6, PF10 Guarding minds at work score 10

l. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6, PF10 Guarding minds at work score 10, PF4 Guarding minds at work score 4

m. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19833.582	1	19833.582	408.711	.000 ^b
	Residual	82010.886	1690	48.527		
	Total	101844.468	1691			
2	Regression	23435.905	2	11717.952	252.417	.000 ^c
	Residual	78408.563	1689	46.423		
	Total	101844.468	1691			
3	Regression	25065.287	3	8355.096	183.688	.000 ^d
	Residual	76779.181	1688	45.485		
	Total	101844.468	1691			
4	Regression	25883.744	4	6470.936	143.712	.000 ^e
	Residual	75960.724	1687	45.027		
	Total	101844.468	1691			
5	Regression	26346.725	5	5269.345	117.674	.000 ^f
	Residual	75497.743	1686	44.779		
	Total	101844.468	1691			
6	Regression	26699.935	6	4449.989	99.784	.000 ^g
	Residual	75144.533	1685	44.596		
	Total	101844.468	1691			
7	Regression	27015.481	7	3859.354	86.853	.000 ^h
	Residual	74828.987	1684	44.435		
	Total	101844.468	1691			
8	Regression	27301.580	8	3412.698	77.051	.000 ⁱ
	Residual	74542.888	1683	44.292		
	Total	101844.468	1691			
9	Regression	27680.880	9	3075.653	69.755	.000 ^j
	Residual	74163.588	1682	44.093		
	Total	101844.468	1691			
10	Regression	27906.116	10	2790.612	63.445	.000 ^k
	Residual	73938.352	1681	43.985		
	Total	101844.468	1691			
11	Regression	28218.330	11	2565.303	58.535	.000 ^l
	Residual	73626.138	1680	43.825		
	Total	101844.468	1691			
12	Regression	28432.776	12	2369.398	54.191	.000 ^m
	Residual	73411.692	1679	43.723		
	Total	101844.468	1691			

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

b. Predictors: (Constant), PF11 Guarding minds at work score 11

c. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score

d. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7

e. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1, 2,4,5 Job Satisfaction

f. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days)

g. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1, 2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded

h. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1, 2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score

i. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43)

j. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12

k. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1, 2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6

l. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6, PF10 Guarding minds at work score 10

m. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1, 2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6, PF10 Guarding minds at work score 10, PF4 Guarding minds at work score 4

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	37.313	.719		51.888	.000	35.903	38.724					
	PF11 Guarding minds at work score 11	-1.030	.051	-.441	-20.217	.000	-1.130	-.930	-.441	-.441	-.441	1.000	1.000
2	(Constant)	26.473	1.417		18.676	.000	23.693	29.253					
	PF11 Guarding minds at work score 11	-.690	.063	-.296	-10.948	.000	-.814	-.566	-.441	-.257	-.234	.625	1.600
	Job Insecurity Average Score	1.615	.183	.238	8.809	.000	1.255	1.974	.419	.210	.188	.625	1.600
3	(Constant)	21.889	1.598		13.693	.000	18.754	25.024					
	PF11 Guarding minds at work score 11	-.935	.075	-.400	-12.532	.000	-1.081	-.788	-.441	-.292	-.265	.437	2.286
	Job Insecurity Average Score	2.107	.199	.310	10.576	.000	1.716	2.498	.419	.249	.224	.519	1.928
	PF7 Guarding minds at work score 7	.466	.078	.204	5.985	.000	.313	.619	-.297	.144	.126	.385	2.596
4	(Constant)	25.098	1.760		14.264	.000	21.647	28.549					
	PF11 Guarding minds at work score 11	-.860	.076	-.369	-11.288	.000	-1.010	-.711	-.441	-.265	-.237	.415	2.412
	Job Insecurity Average Score	1.943	.202	.286	9.622	.000	1.547	2.339	.419	.228	.202	.500	2.001
	PF7 Guarding minds at work score 7	.528	.079	.231	6.694	.000	.373	.682	-.297	.161	.141	.372	2.686
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.766	.414	-.116	-4.263	.000	-2.579	-.954	-.347	-.103	-.090	.599	1.670
5	(Constant)	25.182	1.755		14.349	.000	21.740	28.624					
	PF11 Guarding minds at work score 11	-.870	.076	-.373	-11.439	.000	-1.019	-.721	-.441	-.268	-.240	.414	2.416
	Job Insecurity Average Score	1.936	.201	.285	9.615	.000	1.541	2.331	.419	.228	.202	.500	2.001

	PF7 Guarding minds at work score 7	.509	.079	.223	6.457	.000	.354	.664	-.297	.155	.135	.370	2.701
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.833	.414	-.120	-4.431	.000	-2.645	-1.022	-.347	-.107	-.093	.597	1.675
	SHIFT (8 hour steady days)	1.074	.334	.069	3.215	.001	.419	1.728	-.012	.078	.067	.959	1.043
6	(Constant)	24.351	1.776		13.711	.000	20.867	27.834					
	PF11 Guarding minds at work score 11	-.828	.077	-.355	-10.702	.000	-.980	-.676	-.441	-.252	-.224	.398	2.510
	Job Insecurity Average Score	1.770	.209	.261	8.447	.000	1.359	2.180	.419	.202	.177	.460	2.174
	PF7 Guarding minds at work score 7	.522	.079	.228	6.621	.000	.367	.676	-.297	.159	.139	.369	2.710
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.740	.414	-.114	-4.201	.000	-2.552	-.928	-.347	-.102	-.088	.593	1.685
	SHIFT (8 hour steady days)	1.072	.333	.069	3.218	.001	.419	1.726	-.012	.078	.067	.959	1.043
	ERI interpretation recoded	1.183	.420	.075	2.814	.005	.359	2.008	.339	.068	.059	.613	1.631
7	(Constant)	21.289	2.113		10.076	.000	17.145	25.432					
	PF11 Guarding minds at work score 11	-.820	.077	-.351	-10.612	.000	-.972	-.669	-.441	-.250	-.222	.398	2.514
	Job Insecurity Average Score	1.701	.211	.251	8.074	.000	1.288	2.114	.419	.193	.169	.453	2.207
	PF7 Guarding minds at work score 7	.550	.079	.240	6.929	.000	.394	.706	-.297	.166	.145	.362	2.759
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.699	.414	-.111	-4.107	.000	-2.510	-.888	-.347	-.100	-.086	.593	1.688
	SHIFT (8 hour steady days)	1.499	.369	.096	4.060	.000	.775	2.222	-.012	.098	.085	.778	1.285
	ERI interpretation recoded	1.205	.420	.077	2.871	.004	.382	2.028	.339	.070	.060	.613	1.632
	Physical Environment Average Score	1.726	.648	.068	2.665	.008	.456	2.996	.194	.065	.056	.662	1.510
8	(Constant)	20.914	2.114		9.891	.000	16.766	25.061					

	PF11 Guarding minds at work score 11	-.811	.077	-.348	-10.503	.000	-.963	-.660	-.441	-.248	-.219	.397	2.519
	Job Insecurity Average Score	1.654	.211	.244	7.833	.000	1.240	2.068	.419	.188	.163	.450	2.224
	PF7 Guarding minds at work score 7	.559	.079	.244	7.046	.000	.403	.714	-.297	.169	.147	.362	2.765
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.612	.414	-.106	-3.890	.000	-2.425	-.799	-.347	-.094	-.081	.588	1.699
	SHIFT (8 hour steady days)	1.431	.369	.092	3.872	.000	.706	2.155	-.012	.094	.081	.774	1.292
	ERI interpretation recoded	1.164	.419	.074	2.774	.006	.341	1.986	.339	.067	.058	.612	1.634
	Physical Environment Average Score	1.679	.647	.067	2.596	.010	.410	2.947	.194	.063	.054	.662	1.511
	discrimination victim (question 66, page 43)	1.095	.431	.056	2.542	.011	.250	1.940	.208	.062	.053	.884	1.131
9	(Constant)	19.359	2.175		8.899	.000	15.092	23.625					
	PF11 Guarding minds at work score 11	-.917	.085	-.393	-10.776	.000	-1.084	-.750	-.441	-.254	-.224	.325	3.072
	Job Insecurity Average Score	1.741	.213	.256	8.182	.000	1.323	2.158	.419	.196	.170	.441	2.268
	PF7 Guarding minds at work score 7	.461	.086	.202	5.369	.000	.293	.630	-.297	.130	.112	.307	3.255
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.609	.414	-.106	-3.891	.000	-2.420	-.798	-.347	-.094	-.081	.588	1.699
	SHIFT (8 hour steady days)	1.439	.369	.092	3.902	.000	.716	2.162	-.012	.095	.081	.774	1.292
	ERI interpretation recoded	1.155	.418	.073	2.760	.006	.334	1.976	.339	.067	.057	.612	1.634
	Physical Environment Average Score	1.878	.649	.074	2.895	.004	.606	3.151	.194	.070	.060	.654	1.528
	discrimination victim (question 66, page 43)	1.387	.441	.071	3.144	.002	.522	2.253	.208	.076	.065	.839	1.192
	PF12 Guarding minds at work score 12	.260	.089	.117	2.933	.003	.086	.434	-.331	.071	.061	.271	3.684
10	(Constant)	19.029	2.177		8.739	.000	14.758	23.300					

	PF11 Guarding minds at work score 11	-.932	.085	-.399	-10.930	.000	-1.099	-.765	-.441	-.258	-.227	.324	3.090
	Job Insecurity Average Score	1.786	.213	.263	8.368	.000	1.367	2.204	.419	.200	.174	.437	2.288
	PF7 Guarding minds at work score 7	.347	.099	.152	3.496	.000	.152	.542	-.297	.085	.073	.229	4.371
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.682	.414	-.110	-4.059	.000	-2.494	-.869	-.347	-.099	-.084	.585	1.710
	SHIFT (8 hour steady days)	1.384	.369	.089	3.751	.000	.660	2.108	-.012	.091	.078	.771	1.297
	ERI interpretation recoded	1.135	.418	.072	2.715	.007	.315	1.955	.339	.066	.056	.612	1.635
	Physical Environment Average Score	1.831	.648	.073	2.823	.005	.559	3.103	.194	.069	.059	.654	1.530
	discrimination victim (question 66, page 43)	1.448	.442	.075	3.279	.001	.582	2.313	.208	.080	.068	.836	1.196
	PF12 Guarding minds at work score 12	.217	.091	.098	2.394	.017	.039	.395	-.331	.058	.050	.259	3.855
	PF6 Guarding minds at work score 6	.207	.091	.092	2.263	.024	.028	.385	-.284	.055	.047	.261	3.830
11	(Constant)	20.074	2.208		9.089	.000	15.742	24.405					
	PF11 Guarding minds at work score 11	-.903	.086	-.387	-10.518	.000	-1.071	-.734	-.441	-.249	-.218	.318	3.142
	Job Insecurity Average Score	1.814	.213	.267	8.505	.000	1.396	2.232	.419	.203	.176	.436	2.294
	PF7 Guarding minds at work score 7	.360	.099	.157	3.623	.000	.165	.555	-.297	.088	.075	.228	4.381
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.296	.438	-.085	-2.957	.003	-2.155	-.436	-.347	-.072	-.061	.521	1.919
	SHIFT (8 hour steady days)	1.415	.368	.091	3.839	.000	.692	2.137	-.012	.093	.080	.770	1.298
	ERI interpretation recoded	1.269	.420	.081	3.019	.003	.444	2.093	.339	.073	.063	.603	1.659
	Physical Environment Average Score	1.668	.650	.066	2.565	.010	.392	2.943	.194	.062	.053	.648	1.543
	discrimination victim (question 66, page 43)	1.567	.443	.081	3.538	.000	.698	2.436	.208	.086	.073	.828	1.208

	PF12 Guarding minds at work score 12	.226	.090	.102	2.497	.013	.049	.404	-.331	.061	.052	.259	3.860
	PF6 Guarding minds at work score 6	.258	.093	.115	2.769	.006	.075	.440	-.284	.067	.057	.250	4.000
	PF10 Guarding minds at work score 10	-.208	.078	-.078	-2.669	.008	-.361	-.055	-.285	-.065	-.055	.505	1.981
12	(Constant)	20.878	2.236		9.339	.000	16.493	25.263					
	PF11 Guarding minds at work score 11	-.914	.086	-.392	-10.644	.000	-1.083	-.746	-.441	-.251	-.221	.317	3.153
	Job Insecurity Average Score	1.781	.214	.262	8.340	.000	1.362	2.200	.419	.199	.173	.434	2.305
	PF7 Guarding minds at work score 7	.363	.099	.159	3.657	.000	.168	.557	-.297	.089	.076	.228	4.381
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.300	.438	-.085	-2.972	.003	-2.159	-.442	-.347	-.072	-.062	.521	1.919
	SHIFT (8 hour steady days)	1.379	.368	.088	3.742	.000	.656	2.101	-.012	.091	.078	.769	1.301
	ERI interpretation recoded	1.316	.420	.084	3.132	.002	.492	2.141	.339	.076	.065	.601	1.663
	Physical Environment Average Score	1.626	.650	.064	2.503	.012	.352	2.900	.194	.061	.052	.647	1.545
	discrimination victim (question 66, page 43)	1.487	.444	.077	3.348	.001	.616	2.357	.208	.081	.069	.822	1.217
	PF12 Guarding minds at work score 12	.341	.104	.153	3.271	.001	.136	.545	-.331	.080	.068	.195	5.128
	PF6 Guarding minds at work score 6	.303	.095	.135	3.182	.001	.116	.490	-.284	.077	.066	.239	4.192
	PF10 Guarding minds at work score 10	-.209	.078	-.078	-2.679	.007	-.362	-.056	-.285	-.065	-.056	.505	1.981
	PF4 Guarding minds at work score 4	-.199	.090	-.083	-2.215	.027	-.376	-.023	-.303	-.054	-.046	.306	3.264

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Mental demandes average score	-.017 ^b	-.768	.443	-.019	.982	1.018	.982
	UGwork_3REVISEDcategories=No UG work	.036 ^b	1.655	.098	.040	.987	1.013	.987
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.014 ^b	-.659	.510	-.016	.999	1.001	.999
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.027 ^b	-1.212	.226	-.029	.980	1.021	.980
	Physical Environment Average Score	.044 ^b	1.873	.061	.046	.875	1.143	.875
	employment_status=Full-time, permanent	-.021 ^b	-.971	.332	-.024	.996	1.004	.996
	employment_status=Full-time, contract	.019 ^b	.856	.392	.021	.998	1.002	.998
	employment_status=Casual	-.025 ^b	-1.152	.249	-.028	1.000	1.000	1.000
	employment_status=other	.033 ^b	1.506	.132	.037	.995	1.005	.995
	Are you currently off work for physical health reasons?	.010 ^b	.461	.645	.011	.999	1.001	.999
	SHIFT (8 hour steady days)	.067 ^b	3.040	.002	.074	.969	1.032	.969
	SHIFT (10.5 hour steady days)	-.004 ^b	-.175	.861	-.004	1.000	1.000	1.000
	SHIFT (10.5 rotating)	-.035 ^b	-1.568	.117	-.038	.979	1.021	.979
	SHIFT (12 hour rotating)	-.039 ^b	-1.762	.078	-.043	.996	1.004	.996
	SHIFT all other combined (insufficient data to keep separate)	.018 ^b	.802	.423	.020	.995	1.005	.995
	ERI interpretation recoded	.142 ^b	5.515	.000	.133	.709	1.411	.709
	Job Insecurity Average Score	.238 ^b	8.809	.000	.210	.625	1.600	.625
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.069 ^b	2.932	.003	.071	.864	1.157	.864
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.140 ^b	-5.319	.000	-.128	.672	1.487	.672
	Work Hazard Average Score	.054 ^b	2.303	.021	.056	.858	1.166	.858
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually discrimination victim (question 66, page 43)	.076 ^b	3.381	.001	.082	.944	1.059	.944
		.094 ^b	4.160	.000	.101	.925	1.082	.925
	PF1 Guarding minds at work score 1	.009 ^b	.256	.798	.006	.420	2.382	.420
	PF2 Guarding minds at work score 2	-.020 ^b	-.676	.499	-.016	.557	1.795	.557
	PF3 Guarding minds at work score 3	-.021 ^b	-.688	.492	-.017	.506	1.976	.506
	PF4 Guarding minds at work score 4	-.038 ^b	-1.359	.174	-.033	.597	1.676	.597
	PF5 Guarding minds at work score 5	-.010 ^b	-.323	.747	-.008	.520	1.923	.520
PF6 Guarding minds at work score 6	.052 ^b	1.700	.089	.041	.506	1.975	.506	
PF7 Guarding minds at work score 7	.055 ^b	1.724	.085	.042	.464	2.154	.464	
PF8 Guarding minds at work score 8	.000 ^b	.015	.988	.000	.465	2.149	.465	
PF9 Guarding minds at work score 9	-.055 ^b	-1.670	.095	-.041	.435	2.300	.435	
PF10 Guarding minds at work score 10	-.052 ^b	-1.982	.048	-.048	.680	1.470	.680	
PF12 Guarding minds at work score 12	.029 ^b	.838	.402	.020	.397	2.518	.397	
PF13 Guarding minds at work score 13	.009 ^b	.309	.757	.008	.621	1.611	.621	
2	Mental demandes average score	-.026 ^c	-1.209	.227	-.029	.980	1.020	.621

	UGwork_3REVISEDcategories=No UG work	.024 ^c	1.125	.261	.027	.983	1.017	.615
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.004 ^c	-.201	.841	-.005	.996	1.004	.623
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.022 ^c	-1.026	.305	-.025	.979	1.021	.615
	Physical Environment Average Score	.004 ^c	.173	.862	.004	.841	1.189	.601
	employment_status=Full-time, permanent	-.017 ^c	-.805	.421	-.020	.995	1.005	.623
	employment_status=Full-time, contract	.013 ^c	.589	.556	.014	.996	1.004	.623
	employment_status=Casual	-.026 ^c	-1.231	.219	-.030	1.000	1.000	.625
	employment_status=other	.036 ^c	1.664	.096	.040	.995	1.005	.624
	Are you currently off work for physical health reasons?	.004 ^c	.192	.848	.005	.998	1.002	.624
	SHIFT (8 hour steady days)	.074 ^c	3.443	.001	.084	.968	1.033	.617
	SHIFT (10.5 hour steady days)	-.006 ^c	-.285	.776	-.007	1.000	1.000	.625
	SHIFT (10.5 rotating)	-.026 ^c	-1.227	.220	-.030	.977	1.023	.613
	SHIFT (12 hour rotating)	-.047 ^c	-2.194	.028	-.053	.994	1.006	.624
	SHIFT all other combined (insufficient data to keep separate)	.007 ^c	.305	.760	.007	.992	1.008	.623
	ERI interpretation recoded	.072 ^c	2.654	.008	.064	.620	1.612	.547
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.050 ^c	2.170	.030	.053	.857	1.167	.586
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.083 ^c	-3.051	.002	-.074	.619	1.614	.540
	Work Hazard Average Score	.005 ^c	.225	.822	.005	.807	1.238	.588
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.050 ^c	2.261	.024	.055	.926	1.080	.613
	discrimination victim (question 66, page 43)	.064 ^c	2.839	.005	.069	.900	1.111	.608
	PF1 Guarding minds at work score 1	.096 ^c	2.808	.005	.068	.388	2.578	.384
	PF2 Guarding minds at work score 2	.072 ^c	2.368	.018	.058	.496	2.017	.487
	PF3 Guarding minds at work score 3	.099 ^c	3.038	.002	.074	.427	2.343	.427
	PF4 Guarding minds at work score 4	.045 ^c	1.553	.121	.038	.534	1.873	.509
	PF5 Guarding minds at work score 5	.084 ^c	2.685	.007	.065	.465	2.150	.463
	PF6 Guarding minds at work score 6	.175 ^c	5.468	.000	.132	.436	2.295	.436
	PF7 Guarding minds at work score 7	.204 ^c	5.985	.000	.144	.385	2.596	.385
	PF8 Guarding minds at work score 8	.133 ^c	3.919	.000	.095	.390	2.567	.390
	PF9 Guarding minds at work score 9	.043 ^c	1.248	.212	.030	.388	2.577	.388
	PF10 Guarding minds at work score 10	-.022 ^c	-.825	.409	-.020	.667	1.498	.515
	PF12 Guarding minds at work score 12	.151 ^c	4.209	.000	.102	.349	2.866	.349
	PF13 Guarding minds at work score 13	.088 ^c	3.107	.002	.075	.565	1.770	.518
3	Mental demandes average score	-.028 ^d	-1.306	.192	-.032	.980	1.021	.385
	UGwork_3REVISEDcategories=No UG work	.017 ^d	.817	.414	.020	.981	1.020	.384
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.010 ^d	-.486	.627	-.012	.994	1.006	.384
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.010 ^d	-.467	.641	-.011	.970	1.031	.382
	Physical Environment Average Score	.027 ^d	1.168	.243	.028	.818	1.222	.375
	employment_status=Full-time, permanent	-.003 ^d	-.160	.873	-.004	.984	1.017	.381
	employment_status=Full-time, contract	.001 ^d	.055	.956	.001	.988	1.012	.382

	employment_status=Casual	-.033 ^d	-1.568	.117	-.038	.997	1.003	.384
	employment_status=other	.031 ^d	1.479	.139	.036	.994	1.006	.385
	Are you currently off work for physical health reasons?	.009 ^d	.433	.665	.011	.997	1.003	.385
	SHIFT (8 hour steady days)	.064 ^d	2.980	.003	.072	.961	1.041	.382
	SHIFT (10.5 hour steady days)	.006 ^d	.275	.783	.007	.991	1.009	.382
	SHIFT (10.5 rotating)	-.021 ^d	-.991	.322	-.024	.975	1.025	.384
	SHIFT (12 hour rotating)	-.051 ^d	-2.390	.017	-.058	.993	1.007	.385
	SHIFT all other combined (insufficient data to keep separate)	.014 ^d	.680	.497	.017	.988	1.012	.384
	ERI interpretation recoded	.084 ^d	3.130	.002	.076	.617	1.621	.383
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.045 ^d	1.952	.051	.047	.855	1.169	.385
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.116 ^d	-4.263	.000	-.103	.599	1.670	.372
	Work Hazard Average Score	.016 ^d	.696	.486	.017	.803	1.246	.383
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually discrimination victim (question 66, page 43)	.060 ^d	2.727	.006	.066	.921	1.085	.383
	PF1 Guarding minds at work score 1	.072 ^d	3.246	.001	.079	.897	1.115	.384
	PF2 Guarding minds at work score 2	.026 ^d	.719	.472	.018	.337	2.964	.335
	PF3 Guarding minds at work score 3	.000 ^d	-.014	.989	.000	.416	2.404	.323
	PF4 Guarding minds at work score 4	.010 ^d	.259	.796	.006	.331	3.020	.299
	PF5 Guarding minds at work score 5	-.018 ^d	-.579	.562	-.014	.468	2.139	.337
	PF6 Guarding minds at work score 6	.002 ^d	.054	.957	.001	.373	2.679	.309
	PF8 Guarding minds at work score 8	.095 ^d	2.369	.018	.058	.280	3.577	.247
	PF9 Guarding minds at work score 9	.023 ^d	.539	.590	.013	.256	3.907	.253
	PF10 Guarding minds at work score 10	-.046 ^d	-1.232	.218	-.030	.326	3.065	.324
	PF12 Guarding minds at work score 12	-.069 ^d	-2.562	.010	-.062	.618	1.618	.357
	PF13 Guarding minds at work score 13	.076 ^d	1.941	.052	.047	.290	3.450	.290
		.033 ^d	1.110	.267	.027	.496	2.016	.338
4	Mental demandes average score	-.021 ^e	-.987	.324	-.024	.974	1.027	.372
	UGwork_3REVISEDcategories=No UG work	.025 ^e	1.172	.241	.029	.974	1.027	.372
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.010 ^e	-.467	.640	-.011	.994	1.006	.371
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.018 ^e	-.859	.390	-.021	.962	1.039	.370
	Physical Environment Average Score	.022 ^e	.945	.345	.023	.816	1.226	.364
	employment_status=Full-time, permanent	-.007 ^e	-.342	.733	-.008	.982	1.019	.369
	employment_status=Full-time, contract	.003 ^e	.159	.874	.004	.988	1.012	.370
	employment_status=Casual	-.035 ^e	-1.683	.093	-.041	.996	1.004	.371
	employment_status=other	.037 ^e	1.775	.076	.043	.990	1.010	.372
	Are you currently off work for physical health reasons?	.010 ^e	.458	.647	.011	.997	1.003	.372
	SHIFT (8 hour steady days)	.069 ^e	3.215	.001	.078	.959	1.043	.370
	SHIFT (10.5 hour steady days)	.003 ^e	.129	.897	.003	.990	1.010	.369
	SHIFT (10.5 rotating)	-.027 ^e	-1.253	.210	-.031	.972	1.029	.372
	SHIFT (12 hour rotating)	-.046 ^e	-2.160	.031	-.053	.990	1.010	.372

	SHIFT all other combined (insufficient data to keep separate)	.010 ^e	.461	.645	.011	.985	1.015	.371
	ERI interpretation recoded	.075 ^e	2.811	.005	.068	.613	1.631	.371
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.045 ^e	1.994	.046	.048	.855	1.169	.372
	Work Hazard Average Score	.011 ^e	.451	.652	.011	.800	1.250	.371
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.052 ^e	2.363	.018	.057	.914	1.094	.371
	discrimination victim (question 66, page 43)	.065 ^e	2.915	.004	.071	.890	1.123	.371
	PF1 Guarding minds at work score 1	.025 ^e	.680	.497	.017	.337	2.965	.325
	PF2 Guarding minds at work score 2	.008 ^e	.252	.801	.006	.414	2.413	.316
	PF3 Guarding minds at work score 3	.010 ^e	.262	.793	.006	.331	3.020	.291
	PF4 Guarding minds at work score 4	-.015 ^e	-.484	.629	-.012	.467	2.140	.328
	PF5 Guarding minds at work score 5	.017 ^e	.494	.622	.012	.369	2.708	.305
	PF6 Guarding minds at work score 6	.110 ^e	2.758	.006	.067	.278	3.604	.245
	PF8 Guarding minds at work score 8	.024 ^e	.579	.562	.014	.256	3.907	.248
	PF9 Guarding minds at work score 9	-.041 ^e	-1.111	.267	-.027	.326	3.068	.316
	PF10 Guarding minds at work score 10	-.035 ^e	-1.243	.214	-.030	.552	1.813	.353
	PF12 Guarding minds at work score 12	.080 ^e	2.042	.041	.050	.290	3.452	.290
	PF13 Guarding minds at work score 13	.034 ^e	1.143	.253	.028	.496	2.016	.328
5	Mental demands average score	-.024 ^f	-1.111	.267	-.027	.973	1.028	.370
	UGwork_3REVISEDcategories=No UG work	.005 ^f	.244	.808	.006	.890	1.123	.370
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.028 ^f	-1.277	.202	-.031	.937	1.067	.370
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.023 ^f	.908	.364	.022	.711	1.406	.369
	Physical Environment Average Score	.067 ^f	2.604	.009	.063	.663	1.509	.364
	employment_status=Full-time, permanent	-.005 ^f	-.259	.796	-.006	.981	1.019	.367
	employment_status=Full-time, contract	.000 ^f	.000	1.000	.000	.985	1.015	.368
	employment_status=Casual	-.033 ^f	-1.562	.118	-.038	.994	1.006	.369
	employment_status=other	.037 ^f	1.769	.077	.043	.990	1.010	.370
	Are you currently off work for physical health reasons?	.011 ^f	.507	.612	.012	.996	1.004	.370
	SHIFT (10.5 hour steady days)	.022 ^f	1.017	.309	.025	.920	1.087	.368
	SHIFT (10.5 rotating)	.004 ^f	.172	.863	.004	.785	1.274	.370
	SHIFT (12 hour rotating)	-.023 ^f	-1.021	.307	-.025	.848	1.180	.369
	SHIFT all other combined (insufficient data to keep separate)	.020 ^f	.939	.348	.023	.964	1.037	.370
	ERI interpretation recoded	.075 ^f	2.814	.005	.068	.613	1.631	.369
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.034 ^f	1.493	.136	.036	.832	1.201	.370
	Work Hazard Average Score	.016 ^f	.685	.493	.017	.796	1.257	.369
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.049 ^f	2.225	.026	.054	.912	1.097	.369
	discrimination victim (question 66, page 43)	.060 ^f	2.713	.007	.066	.886	1.128	.369
	PF1 Guarding minds at work score 1	.027 ^f	.756	.450	.018	.337	2.966	.323
	PF2 Guarding minds at work score 2	.011 ^f	.324	.746	.008	.414	2.414	.315
	PF3 Guarding minds at work score 3	.019 ^f	.530	.596	.013	.329	3.041	.288

	PF4 Guarding minds at work score 4	-.014 ^f	-.454	.650	-.011	.467	2.140	.326
	PF5 Guarding minds at work score 5	.012 ^f	.337	.736	.008	.368	2.714	.304
	PF6 Guarding minds at work score 6	.103 ^f	2.585	.010	.063	.277	3.615	.245
	PF8 Guarding minds at work score 8	.015 ^f	.365	.715	.009	.255	3.925	.248
	PF9 Guarding minds at work score 9	-.037 ^f	-1.014	.311	-.025	.326	3.071	.314
	PF10 Guarding minds at work score 10	-.044 ^f	-1.564	.118	-.038	.547	1.830	.353
	PF12 Guarding minds at work score 12	.076 ^f	1.964	.050	.048	.289	3.454	.289
	PF13 Guarding minds at work score 13	.013 ^f	.441	.659	.011	.471	2.121	.328
6	Mental demands average score	-.035 ^g	-1.624	.105	-.040	.944	1.060	.369
	UGwork_3REVISEDcategories=No UG work	.008 ^g	.369	.712	.009	.889	1.125	.369
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.031 ^g	-1.438	.151	-.035	.934	1.071	.369
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.023 ^g	.909	.363	.022	.711	1.406	.368
	Physical Environment Average Score	.068 ^g	2.665	.008	.065	.662	1.510	.362
	employment_status=Full-time, permanent	-.006 ^g	-.297	.767	-.007	.981	1.019	.366
	employment_status=Full-time, contract	.000 ^g	.022	.982	.001	.985	1.015	.367
	employment_status=Casual	-.032 ^g	-1.513	.130	-.037	.994	1.006	.368
	employment_status=other	.037 ^g	1.769	.077	.043	.990	1.010	.369
	Are you currently off work for physical health reasons?	.010 ^g	.463	.644	.011	.996	1.004	.368
	SHIFT (10.5 hour steady days)	.022 ^g	1.011	.312	.025	.920	1.087	.367
	SHIFT (10.5 rotating)	.002 ^g	.090	.929	.002	.784	1.275	.369
	SHIFT (12 hour rotating)	-.022 ^g	-.958	.338	-.023	.847	1.180	.368
	SHIFT all other combined (insufficient data to keep separate)	.018 ^g	.866	.387	.021	.964	1.038	.368
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.015 ^g	.630	.529	.015	.747	1.338	.368
	Work Hazard Average Score	.007 ^g	.274	.784	.007	.778	1.285	.368
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually discrimination victim (question 66, page 43)	.045 ^g	2.063	.039	.050	.909	1.101	.368
	PF1 Guarding minds at work score 1	.020 ^g	.550	.583	.013	.335	2.983	.320
	PF2 Guarding minds at work score 2	.006 ^g	.192	.848	.005	.413	2.420	.313
	PF3 Guarding minds at work score 3	.010 ^g	.285	.775	.007	.326	3.065	.285
	PF4 Guarding minds at work score 4	-.018 ^g	-.576	.565	-.014	.466	2.144	.325
	PF5 Guarding minds at work score 5	.003 ^g	.078	.938	.002	.365	2.738	.301
	PF6 Guarding minds at work score 6	.101 ^g	2.541	.011	.062	.277	3.616	.244
	PF8 Guarding minds at work score 8	.008 ^g	.194	.846	.005	.254	3.940	.246
	PF9 Guarding minds at work score 9	-.022 ^g	-.595	.552	-.014	.318	3.144	.314
	PF10 Guarding minds at work score 10	-.055 ^g	-1.936	.053	-.047	.538	1.859	.350
	PF12 Guarding minds at work score 12	.076 ^g	1.968	.049	.048	.289	3.454	.289
	PF13 Guarding minds at work score 13	.005 ^g	.172	.864	.004	.467	2.141	.326
7	Mental demands average score	-.034 ^h	-1.580	.114	-.038	.943	1.060	.362
	UGwork_3REVISEDcategories=No UG work	.017 ^h	.760	.447	.019	.870	1.149	.362

	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.023 ^h	-1.034	.301	-.025	.911	1.098	.362
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.002 ^h	.069	.945	.002	.640	1.563	.362
	employment_status=Full-time, permanent	-.006 ^h	-.266	.790	-.006	.981	1.020	.359
	employment_status=Full-time, contract	-.002 ^h	-.082	.934	-.002	.984	1.017	.360
	employment_status=Casual	-.029 ^h	-1.398	.162	-.034	.992	1.008	.361
	employment_status=other	.037 ^h	1.785	.074	.043	.990	1.010	.362
	Are you currently off work for physical health reasons?	.009 ^h	.431	.666	.011	.996	1.004	.362
	SHIFT (10.5 hour steady days)	.023 ^h	1.075	.282	.026	.920	1.087	.361
	SHIFT (10.5 rotating)	-.008 ^h	-.346	.729	-.008	.763	1.310	.362
	SHIFT (12 hour rotating)	-.017 ^h	-.745	.457	-.018	.842	1.188	.362
	SHIFT all other combined (insufficient data to keep separate)	.021 ^h	.987	.324	.024	.962	1.040	.362
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility Work Hazard Average Score	.013 ^h	.551	.582	.013	.747	1.339	.361
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually discrimination victim (question 66, page 43)	.044 ^h	1.990	.047	.048	.908	1.102	.361
	PF1 Guarding minds at work score 1	.026 ^h	.728	.466	.018	.334	2.996	.317
	PF2 Guarding minds at work score 2	.005 ^h	.169	.866	.004	.413	2.420	.308
	PF3 Guarding minds at work score 3	.014 ^h	.384	.701	.009	.326	3.069	.283
	PF4 Guarding minds at work score 4	-.011 ^h	-.372	.710	-.009	.464	2.157	.322
	PF5 Guarding minds at work score 5	.013 ^h	.363	.717	.009	.361	2.769	.300
	PF6 Guarding minds at work score 6	.100 ^h	2.528	.012	.061	.277	3.617	.241
	PF8 Guarding minds at work score 8	.014 ^h	.346	.729	.008	.253	3.953	.245
	PF9 Guarding minds at work score 9	-.013 ^h	-.343	.732	-.008	.315	3.173	.311
	PF10 Guarding minds at work score 10	-.049 ^h	-1.700	.089	-.041	.533	1.875	.346
	PF12 Guarding minds at work score 12	.089 ^h	2.275	.023	.055	.286	3.495	.286
	PF13 Guarding minds at work score 13	.036 ^h	1.107	.269	.027	.417	2.399	.326
8	Mental demandes average score	-.034 ⁱ	-1.601	.110	-.039	.943	1.060	.362
	UGwork_3REVISEDcategories=No UG work	.015 ⁱ	.671	.502	.016	.869	1.151	.362
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.023 ⁱ	-1.051	.293	-.026	.911	1.098	.362
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.005 ⁱ	.198	.843	.005	.638	1.567	.362
	employment_status=Full-time, permanent	-.008 ⁱ	-.384	.701	-.009	.979	1.022	.358
	employment_status=Full-time, contract	.001 ⁱ	.028	.978	.001	.982	1.018	.359
	employment_status=Casual	-.028 ⁱ	-1.345	.179	-.033	.992	1.008	.361
	employment_status=other	.038 ⁱ	1.804	.071	.044	.990	1.010	.362
	Are you currently off work for physical health reasons?	.009 ⁱ	.444	.657	.011	.996	1.004	.361
	SHIFT (10.5 hour steady days)	.019 ⁱ	.849	.396	.021	.912	1.096	.360
	SHIFT (10.5 rotating)	-.004 ⁱ	-.159	.873	-.004	.759	1.317	.362
	SHIFT (12 hour rotating)	-.019 ⁱ	-.820	.412	-.020	.841	1.189	.361
	SHIFT all other combined (insufficient data to keep separate)	.021 ⁱ	.989	.323	.024	.962	1.040	.361

	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.014 ⁱ	.581	.562	.014	.747	1.339	.361
	Work Hazard Average Score	-.006 ⁱ	-.250	.803	-.006	.763	1.311	.361
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.028 ^h	1.186	.236	.029	.799	1.251	.361
	PF1 Guarding minds at work score 1	.040 ⁱ	1.084	.278	.026	.328	3.052	.317
	PF2 Guarding minds at work score 2	.017 ⁱ	.529	.597	.013	.405	2.468	.308
	PF3 Guarding minds at work score 3	.022 ⁱ	.608	.543	.015	.323	3.092	.283
	PF4 Guarding minds at work score 4	.004 ⁱ	.140	.889	.003	.445	2.247	.322
	PF5 Guarding minds at work score 5	.023 ⁱ	.662	.508	.016	.356	2.806	.300
	PF6 Guarding minds at work score 6	.113 ⁱ	2.827	.005	.069	.273	3.660	.241
	PF8 Guarding minds at work score 8	.027 ⁱ	.656	.512	.016	.249	4.010	.244
	PF9 Guarding minds at work score 9	-.011 ⁱ	-.287	.774	-.007	.315	3.174	.311
	PF10 Guarding minds at work score 10	-.054 ⁱ	-1.886	.059	-.046	.531	1.884	.345
	PF12 Guarding minds at work score 12	.117 ⁱ	2.933	.003	.071	.271	3.684	.271
	PF13 Guarding minds at work score 13	.044 ⁱ	1.343	.179	.033	.413	2.419	.326
9	Mental demands average score	-.037 ⁱ	-1.708	.088	-.042	.942	1.061	.271
	UGwork_3REVISEDcategories=No UG work	.017 ⁱ	.740	.459	.018	.869	1.151	.271
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.023 ⁱ	-1.061	.289	-.026	.911	1.098	.271
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.003 ⁱ	.122	.903	.003	.638	1.568	.271
	employment_status=Full-time, permanent	-.005 ⁱ	-.253	.800	-.006	.977	1.024	.271
	employment_status=Full-time, contract	-.003 ⁱ	-.142	.887	-.003	.979	1.022	.271
	employment_status=Casual	-.029 ⁱ	-1.377	.169	-.034	.992	1.008	.271
	employment_status=other	.038 ^h	1.837	.066	.045	.990	1.011	.271
	Are you currently off work for physical health reasons?	.008 ^h	.363	.716	.009	.995	1.005	.271
	SHIFT (10.5 hour steady days)	.018 ^h	.847	.397	.021	.912	1.096	.271
	SHIFT (10.5 rotating)	-.007 ⁱ	-.300	.764	-.007	.758	1.320	.271
	SHIFT (12 hour rotating)	-.019 ⁱ	-.843	.399	-.021	.841	1.189	.271
	SHIFT all other combined (insufficient data to keep separate)	.024 ⁱ	1.112	.266	.027	.960	1.041	.271
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.012 ⁱ	.501	.616	.012	.746	1.340	.271
	Work Hazard Average Score	.001 ⁱ	.060	.952	.001	.754	1.326	.268
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.040 ⁱ	1.707	.088	.042	.776	1.288	.264
	PF1 Guarding minds at work score 1	-.014 ⁱ	-.335	.738	-.008	.255	3.923	.211
	PF2 Guarding minds at work score 2	-.031 ⁱ	-.855	.393	-.021	.326	3.069	.218
	PF3 Guarding minds at work score 3	-.012 ⁱ	-.305	.760	-.007	.293	3.414	.246
	PF4 Guarding minds at work score 4	-.061 ⁱ	-1.653	.099	-.040	.322	3.109	.196
	PF5 Guarding minds at work score 5	-.011 ⁱ	-.304	.761	-.007	.319	3.136	.243
	PF6 Guarding minds at work score 6	.092 ⁱ	2.263	.024	.055	.261	3.830	.229
	PF8 Guarding minds at work score 8	-.010 ⁱ	-.222	.824	-.005	.227	4.396	.227
	PF9 Guarding minds at work score 9	-.031 ⁱ	-.827	.409	-.020	.305	3.279	.263
	PF10 Guarding minds at work score 10	-.061 ⁱ	-2.139	.033	-.052	.527	1.897	.270

	PF13 Guarding minds at work score 13	.009 ^l	.243	.808	.006	.353	2.832	.232
10	Mental demandes average score	-.044 ^k	-2.057	.040	-.050	.923	1.084	.227
	UGwork_3REVISEDcategories=No UG work	.020 ^k	.876	.381	.021	.866	1.155	.229
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.025 ^k	-1.148	.251	-.028	.910	1.099	.229
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.001 ^k	.041	.967	.001	.637	1.570	.229
	employment_status=Full-time, permanent	-.006 ^k	-.267	.789	-.007	.977	1.024	.228
	employment_status=Full-time, contract	-.003 ^k	-.130	.897	-.003	.979	1.022	.228
	employment_status=Casual	-.028 ^k	-1.351	.177	-.033	.991	1.009	.228
	employment_status=other	.038 ^k	1.824	.068	.044	.990	1.011	.229
	Are you currently off work for physical health reasons?	.009 ^k	.449	.653	.011	.994	1.006	.229
	SHIFT (10.5 hour steady days)	.015 ^k	.676	.499	.016	.907	1.103	.227
	SHIFT (10.5 rotating)	-.008 ^k	-.326	.744	-.008	.757	1.320	.229
	SHIFT (12 hour rotating)	-.015 ^k	-.657	.511	-.016	.835	1.198	.228
	SHIFT all other combined (insufficient data to keep separate)	.022 ^k	1.014	.311	.025	.958	1.044	.228
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.002 ^k	.078	.938	.002	.720	1.389	.228
	Work Hazard Average Score	-.004 ^k	-.168	.867	-.004	.747	1.340	.228
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.039 ^k	1.658	.098	.040	.776	1.289	.229
	PF1 Guarding minds at work score 1	-.033 ^k	-.789	.430	-.019	.245	4.076	.209
	PF2 Guarding minds at work score 2	-.048 ^k	-1.302	.193	-.032	.315	3.179	.216
	PF3 Guarding minds at work score 3	-.043 ^k	-1.073	.283	-.026	.264	3.790	.221
	PF4 Guarding minds at work score 4	-.083 ^k	-2.202	.028	-.054	.306	3.264	.195
	PF5 Guarding minds at work score 5	-.055 ^k	-1.352	.177	-.033	.265	3.771	.217
	PF8 Guarding minds at work score 8	-.042 ^k	-.920	.358	-.022	.208	4.802	.205
	PF9 Guarding minds at work score 9	-.037 ^k	-.986	.324	-.024	.303	3.295	.217
	PF10 Guarding minds at work score 10	-.078 ^k	-2.669	.008	-.065	.505	1.981	.228
	PF13 Guarding minds at work score 13	.004 ^k	.114	.909	.003	.352	2.841	.225
11	Mental demandes average score	-.033 ^l	-1.510	.131	-.037	.878	1.139	.226
	UGwork_3REVISEDcategories=No UG work	.017 ^l	.765	.445	.019	.864	1.157	.228
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.023 ^l	-1.059	.290	-.026	.908	1.101	.228
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.002 ^l	.090	.928	.002	.637	1.571	.228
	employment_status=Full-time, permanent	-.006 ^l	-.307	.759	-.007	.976	1.024	.227
	employment_status=Full-time, contract	-.003 ^l	-.124	.901	-.003	.979	1.022	.228
	employment_status=Casual	-.025 ^l	-1.211	.226	-.030	.989	1.012	.228
	employment_status=other	.037 ^l	1.784	.075	.043	.989	1.011	.228
	Are you currently off work for physical health reasons?	.008 ^l	.365	.715	.009	.993	1.007	.228
	SHIFT (10.5 hour steady days)	.016 ^l	.718	.473	.018	.907	1.103	.226
	SHIFT (10.5 rotating)	-.007 ^l	-.279	.780	-.007	.757	1.321	.228
	SHIFT (12 hour rotating)	-.019 ^l	-.851	.395	-.021	.831	1.204	.227
	SHIFT all other combined (insufficient data to keep separate)	.023 ^l	1.108	.268	.027	.957	1.045	.228

	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.017 ⁱ	.674	.501	.016	.686	1.458	.227
	Work Hazard Average Score	.005 ⁱ	.211	.833	.005	.732	1.367	.228
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.041 ⁱ	1.726	.084	.042	.776	1.289	.228
	PF1 Guarding minds at work score 1	-.026 ⁱ	-.630	.529	-.015	.244	4.091	.209
	PF2 Guarding minds at work score 2	-.046 ⁱ	-1.240	.215	-.030	.314	3.181	.215
	PF3 Guarding minds at work score 3	-.039 ⁱ	-.966	.334	-.024	.263	3.797	.221
	PF4 Guarding minds at work score 4	-.083 ⁱ	-2.215	.027	-.054	.306	3.264	.195
	PF5 Guarding minds at work score 5	-.039 ⁱ	-.954	.340	-.023	.259	3.862	.214
	PF8 Guarding minds at work score 8	-.036 ⁱ	-.789	.430	-.019	.208	4.814	.205
	PF9 Guarding minds at work score 9	-.034 ⁱ	-.898	.369	-.022	.303	3.299	.217
	PF13 Guarding minds at work score 13	.017 ⁱ	.468	.640	.011	.346	2.891	.225
12	Mental demandes average score	-.034 ^m	-1.555	.120	-.038	.878	1.139	.195
	UGwork_3REVISEDcategories=No UG work	.015 ^m	.691	.489	.017	.863	1.159	.195
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.024 ^m	-1.119	.263	-.027	.908	1.102	.195
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.006 ^m	.241	.810	.006	.634	1.578	.195
	employment_status=Full-time, permanent	-.010 ^m	-.473	.636	-.012	.971	1.030	.195
	employment_status=Full-time, contract	.001 ^m	.032	.974	.001	.974	1.027	.195
	employment_status=Casual	-.025 ^m	-1.209	.227	-.029	.989	1.012	.195
	employment_status=other	.039 ^m	1.866	.062	.046	.988	1.012	.195
	Are you currently off work for physical health reasons?	.007 ^m	.330	.741	.008	.993	1.007	.195
	SHIFT (10.5 hour steady days)	.016 ^m	.719	.472	.018	.907	1.103	.195
	SHIFT (10.5 rotating)	-.003 ^m	-.129	.897	-.003	.754	1.327	.195
	SHIFT (12 hour rotating)	-.022 ^m	-.954	.340	-.023	.829	1.206	.195
	SHIFT all other combined (insufficient data to keep separate)	.023 ^m	1.086	.278	.027	.957	1.045	.195
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.018 ^m	.729	.466	.018	.685	1.459	.195
	Work Hazard Average Score	.000 ^m	-.004	.997	.000	.725	1.380	.194
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.036 ^m	1.543	.123	.038	.770	1.299	.193
	PF1 Guarding minds at work score 1	-.016 ^m	-.386	.700	-.009	.241	4.143	.171
	PF2 Guarding minds at work score 2	-.007 ^m	-.168	.867	-.004	.237	4.211	.190
	PF3 Guarding minds at work score 3	-.016 ^m	-.390	.697	-.010	.245	4.089	.193
	PF5 Guarding minds at work score 5	-.013 ^m	-.296	.767	-.007	.235	4.255	.194
	PF8 Guarding minds at work score 8	-.027 ^m	-.591	.555	-.014	.206	4.854	.189
	PF9 Guarding minds at work score 9	-.031 ^m	-.820	.412	-.020	.303	3.303	.192
	PF13 Guarding minds at work score 13	.025 ^m	.712	.476	.017	.342	2.925	.180

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

b. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11

c. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score

- d. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7
- e. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction
- f. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days)
- g. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded
- h. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score
- i. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43)
- j. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12
- k. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6
- l. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6, PF10 Guarding minds at work score 10
- m. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, Job Satisfaction Score Q1,2,4,5 Job Satisfaction, SHIFT (8 hour steady days), ERI interpretation recoded, Physical Environment Average Score, discrimination victim (question 66, page 43), PF12 Guarding minds at work score 12, PF6 Guarding minds at work score 6, PF10 Guarding minds at work score 10, PF4 Guarding minds at work score 4

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions													
					PF11 Guarding minds at work score 11	Job Insecurity Average Score	PF7 Guarding minds at work score 7	Job Satisfaction Score Q1, 2,4,5 Job Satisfaction	SHIFT (8 hour steady days)	ERI interpretation recoded	Physical Environment Average Score	discrimination victim (question 66, page 43)	PF12 Guarding minds at work score 12	PF6 Guarding minds at work score 6	PF10 Guarding minds at work score 10	PF4 Guarding minds at work score 4		
1	1	1.972	1.000	.01	.01													
	2	.028	8.373	.99	.99													
2	1	2.880	1.000	.00	.00	.01												
	2	.111	5.102	.00	.14	.25												
	3	.009	17.978	1.00	.85	.74												
3	1	3.826	1.000	.00	.00	.00	.00											
	2	.150	5.042	.00	.03	.17	.04											
	3	.016	15.565	.00	.84	.00	.70											
	4	.008	22.327	1.00	.13	.82	.26											
4	1	4.799	1.000	.00	.00	.00	.00	.00										
	2	.157	5.526	.00	.02	.17	.02	.01										
	3	.021	15.031	.00	.12	.04	.19	.79										
	4	.016	17.435	.00	.82	.00	.65	.00										
	5	.007	26.927	1.00	.04	.79	.14	.20										
5	1	5.317	1.000	.00	.00	.00	.00	.00	.01									
	2	.486	3.307	.00	.00	.00	.00	.00	.95									
	3	.153	5.888	.00	.02	.17	.03	.01	.04									
	4	.021	15.821	.00	.12	.04	.19	.79	.00									
	5	.016	18.353	.00	.82	.00	.65	.00	.00									
	6	.007	28.353	1.00	.04	.79	.14	.20	.00									
6	1	5.728	1.000	.00	.00	.00	.00	.00	.01	.00								
	2	.704	2.852	.00	.00	.00	.00	.00	.15	.34								
	3	.444	3.593	.00	.00	.00	.00	.00	.83	.10								
	4	.081	8.400	.00	.02	.30	.04	.01	.01	.53								
	5	.021	16.421	.00	.11	.04	.18	.79	.00	.00								
	6	.016	19.167	.00	.81	.01	.64	.00	.00	.01								
	7	.007	29.635	.99	.06	.65	.14	.20	.00	.01								
7	1	6.661	1.000	.00	.00	.00	.00	.00	.00	.00	.00							
	2	.713	3.056	.00	.00	.00	.00	.00	.15	.31	.00							
	3	.466	3.781	.00	.00	.00	.00	.00	.60	.14	.00							
	4	.091	8.540	.00	.02	.18	.04	.01	.04	.51	.04							
	5	.027	15.762	.00	.02	.47	.02	.00	.15	.01	.62							
	6	.021	17.795	.00	.09	.00	.16	.83	.01	.00	.03							
	7	.016	20.671	.00	.81	.01	.63	.00	.00	.01	.00							
	8	.005	36.987	1.00	.05	.35	.15	.15	.05	.02	.31							

8	1	6.890	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	2	.919	2.738	.00	.00	.00	.00	.00	.03	.09	.00	.44				
	3	.589	3.420	.00	.00	.00	.00	.00	.26	.17	.00	.38				
	4	.448	3.924	.00	.00	.00	.00	.00	.46	.25	.00	.11				
	5	.086	8.936	.00	.02	.19	.05	.01	.05	.45	.04	.06				
	6	.027	16.030	.00	.02	.46	.02	.00	.15	.01	.62	.00				
	7	.021	18.114	.00	.09	.00	.16	.83	.01	.00	.03	.00				
	8	.016	21.025	.00	.80	.01	.63	.00	.00	.01	.00	.00				
	9	.005	37.686	1.00	.05	.34	.15	.15	.05	.02	.30	.00				
9	1	7.817	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
	2	.961	2.853	.00	.00	.00	.00	.00	.02	.09	.00	.39	.00			
	3	.589	3.643	.00	.00	.00	.00	.00	.26	.17	.00	.35	.00			
	4	.457	4.136	.00	.00	.00	.00	.00	.48	.23	.00	.13	.00			
	5	.095	9.077	.00	.01	.16	.02	.00	.05	.46	.04	.07	.01			
	6	.028	16.859	.00	.01	.47	.01	.03	.12	.02	.52	.00	.03			
	7	.023	18.547	.00	.02	.01	.02	.78	.03	.00	.12	.00	.07			
	8	.016	22.324	.00	.52	.01	.66	.00	.00	.01	.00	.00	.01			
	9	.012	26.007	.00	.44	.00	.23	.03	.00	.01	.00	.03	.80			
	10	.005	41.111	1.00	.00	.35	.05	.16	.05	.01	.32	.01	.08			
10	1	8.756	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	2	.992	2.971	.00	.00	.00	.00	.00	.01	.10	.00	.37	.00	.00		
	3	.589	3.855	.00	.00	.00	.00	.00	.25	.17	.00	.36	.00	.00		
	4	.464	4.346	.00	.00	.00	.00	.00	.49	.21	.00	.14	.00	.00		
	5	.103	9.239	.00	.00	.14	.01	.00	.05	.46	.05	.08	.01	.01		
	6	.028	17.821	.00	.01	.48	.01	.05	.11	.02	.49	.00	.02	.00		
	7	.024	19.265	.00	.00	.00	.02	.72	.03	.00	.14	.00	.01	.06		
	8	.019	21.372	.00	.40	.02	.09	.05	.00	.02	.01	.00	.12	.22		
	9	.012	27.343	.00	.57	.00	.01	.02	.00	.01	.00	.02	.74	.07		
	10	.010	29.003	.00	.00	.00	.83	.01	.00	.00	.00	.01	.02	.63		
	11	.005	43.512	.99	.00	.34	.04	.16	.05	.01	.31	.01	.07	.00		

11	1	9.731	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.998	3.123	.00	.00	.00	.00	.00	.01	.10	.00	.36	.00	.00	.00	.00
	3	.589	4.064	.00	.00	.00	.00	.00	.26	.16	.00	.35	.00	.00	.00	.00
	4	.466	4.571	.00	.00	.00	.00	.00	.49	.20	.00	.15	.00	.00	.00	.00
	5	.103	9.708	.00	.00	.15	.01	.00	.05	.45	.05	.07	.01	.01	.01	.00
	6	.028	18.754	.00	.01	.47	.00	.01	.13	.03	.55	.00	.01	.00	.00	.01
	7	.026	19.381	.00	.00	.01	.03	.46	.02	.00	.05	.00	.05	.05	.05	.10
	8	.019	22.356	.00	.40	.01	.08	.00	.00	.02	.00	.00	.11	.23	.02	.02
	9	.013	26.908	.00	.03	.03	.12	.37	.00	.01	.02	.01	.01	.01	.01	.71
	10	.012	28.915	.00	.54	.01	.05	.00	.00	.02	.00	.02	.73	.03	.03	.03
	11	.010	30.970	.00	.01	.01	.68	.06	.00	.00	.00	.02	.01	.67	.09	.09
	12	.005	46.374	.99	.00	.32	.04	.09	.04	.01	.33	.01	.07	.00	.03	.03
12	1	10.687	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	1.017	3.242	.00	.00	.00	.00	.00	.01	.10	.00	.35	.00	.00	.00	.00
	3	.590	4.258	.00	.00	.00	.00	.00	.26	.16	.00	.34	.00	.00	.00	.00
	4	.469	4.773	.00	.00	.00	.00	.00	.49	.20	.00	.16	.00	.00	.00	.00
	5	.107	10.004	.00	.00	.14	.01	.00	.04	.44	.05	.08	.00	.01	.00	.01
	6	.029	19.074	.00	.00	.15	.00	.30	.00	.02	.03	.01	.04	.00	.06	.12
	7	.027	19.727	.00	.00	.32	.00	.04	.15	.01	.57	.00	.00	.00	.05	.01
	8	.020	23.112	.00	.10	.03	.17	.06	.00	.01	.00	.01	.06	.28	.01	.10
	9	.018	24.277	.00	.55	.00	.02	.11	.00	.03	.00	.01	.00	.00	.01	.27
	10	.013	28.248	.00	.00	.03	.16	.34	.00	.02	.02	.01	.00	.00	.73	.00
	11	.010	32.205	.00	.14	.01	.49	.05	.00	.00	.00	.01	.07	.60	.10	.01
	12	.008	36.008	.00	.19	.00	.12	.02	.00	.00	.00	.01	.81	.09	.00	.45
	13	.004	49.078	.99	.01	.32	.04	.08	.05	.01	.32	.01	.01	.01	.03	.03

a. Dependent Variable: Perceived stress score (Upset_Unexpected to Difficulties_Piling)

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Job Insecurity Average Score		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	PF11 Guarding minds at work score 11		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	discrimination victim (question 66, page 43)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	PF7 Guarding minds at work score 7		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

5	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	SHIFT (8 hour steady days)		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
7	Physical Environment Average Score		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
8	Work Hazard Average Score		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Sum of BAI factors numbness to sweating

Model Summaryⁱ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.359 ^a	.129	.129	6.978	
2	.391 ^b	.153	.152	6.883	
3	.412 ^c	.170	.169	6.816	
4	.430 ^d	.185	.183	6.756	
5	.437 ^e	.191	.189	6.732	
6	.442 ^f	.195	.193	6.717	
7	.446 ^g	.199	.196	6.704	
8	.449 ^h	.202	.198	6.696	1.949

a. Predictors: (Constant), Job Insecurity Average Score

b. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11

c. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43)

d. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7

e. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility

f. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days)

g. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days), Physical Environment Average Score

h. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days), Physical Environment Average Score, Work Hazard Average Score

i. Dependent Variable: Sum of BAI factors numbness to sweating

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12100.541	1	12100.541	248.516	.000 ^b
	Residual	81606.456	1676	48.691		
	Total	93706.997	1677			
2	Regression	14349.276	2	7174.638	151.435	.000 ^c
	Residual	79357.721	1675	47.378		
	Total	93706.997	1677			
3	Regression	15935.408	3	5311.803	114.334	.000 ^d
	Residual	77771.589	1674	46.459		
	Total	93706.997	1677			
4	Regression	17344.832	4	4336.208	95.001	.000 ^e
	Residual	76362.165	1673	45.644		
	Total	93706.997	1677			
5	Regression	17934.587	5	3586.917	79.149	.000 ^f
	Residual	75772.410	1672	45.318		
	Total	93706.997	1677			
6	Regression	18315.339	6	3052.557	67.658	.000 ^g
	Residual	75391.658	1671	45.118		
	Total	93706.997	1677			
7	Regression	18649.029	7	2664.147	59.276	.000 ^h
	Residual	75057.968	1670	44.945		
	Total	93706.997	1677			
8	Regression	18885.165	8	2360.646	52.657	.000 ⁱ
	Residual	74821.832	1669	44.830		
	Total	93706.997	1677			

a. Dependent Variable: Sum of BAI factors numbness to sweating

b. Predictors: (Constant), Job Insecurity Average Score

c. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11

d. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43)

e. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7

f. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility

g. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days)

h. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days), Physical Environment Average Score

i. Predictors: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days), Physical Environment Average Score, Work Hazard Average Score

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-2.534	.592		-4.278	.000	-3.695	-1.372					
	Job Insecurity Average Score	2.340	.148	.359	15.764	.000	2.048	2.631	.359	.359	.359	1.000	1.000
2	(Constant)	6.506	1.436		4.530	.000	3.689	9.323					
	Job Insecurity Average Score	1.558	.185	.239	8.414	.000	1.195	1.921	.359	.201	.189	.625	1.600
	PF11 Guarding minds at work score 11	-.441	.064	-.196	-6.889	.000	-.566	-.315	-.343	-.166	-.155	.625	1.600
3	(Constant)	6.049	1.424		4.247	.000	3.256	8.843					
	Job Insecurity Average Score	1.379	.186	.212	7.416	.000	1.014	1.744	.359	.178	.165	.608	1.645
	PF11 Guarding minds at work score 11	-.395	.064	-.175	-6.182	.000	-.520	-.269	-.343	-.149	-.138	.615	1.625
	discrimination victim (question 66, page 43)	2.572	.440	.137	5.843	.000	1.708	3.435	.247	.141	.130	.901	1.110
4	(Constant)	1.732	1.611		1.075	.283	-1.428	4.893					
	Job Insecurity Average Score	1.829	.201	.281	9.086	.000	1.434	2.224	.359	.217	.201	.509	1.963
	PF11 Guarding minds at work score 11	-.621	.075	-.276	-8.252	.000	-.768	-.473	-.343	-.198	-.182	.435	2.297
	discrimination victim (question 66, page 43)	2.739	.437	.146	6.264	.000	1.881	3.597	.247	.151	.138	.896	1.116
	PF7 Guarding minds at work score 7	.436	.078	.198	5.557	.000	.282	.590	-.234	.135	.123	.382	2.618
5	(Constant)	-2.152	1.933		-1.113	.266	-5.944	1.640					
	Job Insecurity Average Score	1.753	.202	.269	8.693	.000	1.358	2.149	.359	.208	.191	.504	1.984
	PF11 Guarding minds at work score 11	-.557	.077	-.248	-7.235	.000	-.708	-.406	-.343	-.174	-.159	.412	2.424
	discrimination victim (question 66, page 43)	2.721	.436	.145	6.244	.000	1.866	3.575	.247	.151	.137	.896	1.116
	PF7 Guarding minds at work score 7	.424	.078	.193	5.411	.000	.270	.577	-.234	.131	.119	.381	2.623
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	1.017	.282	.086	3.607	.000	.464	1.570	.222	.088	.079	.855	1.169
6	(Constant)	-1.653	1.937		-.853	.394	-5.452	2.146					
	Job Insecurity Average Score	1.770	.201	.272	8.794	.000	1.376	2.165	.359	.210	.193	.503	1.986
	PF11 Guarding minds at work score 11	-.578	.077	-.257	-7.492	.000	-.729	-.427	-.343	-.180	-.164	.409	2.446

	discrimination victim (question 66, page 43)	2.647	.436	.141	6.079	.000	1.793	3.502	.247	.147	.133	.893	1.120
	PF7 Guarding minds at work score 7	.405	.078	.184	5.172	.000	.252	.559	-.234	.126	.113	.379	2.640
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.878	.285	.074	3.076	.002	.318	1.437	.222	.075	.068	.831	1.203
	SHIFT (8 hour steady days)	.992	.341	.066	2.905	.004	.322	1.662	.023	.071	.064	.930	1.075
7	(Constant)	-4.645	2.223		-2.089	.037	-9.006	-.285					
	Job Insecurity Average Score	1.702	.202	.261	8.407	.000	1.305	2.100	.359	.202	.184	.496	2.017
	PF11 Guarding minds at work score 11	-.570	.077	-.254	-7.403	.000	-.722	-.419	-.343	-.178	-.162	.408	2.449
	discrimination victim (question 66, page 43)	2.612	.435	.139	6.007	.000	1.759	3.465	.247	.145	.132	.892	1.121
	PF7 Guarding minds at work score 7	.435	.079	.198	5.508	.000	.280	.590	-.234	.134	.121	.372	2.691
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.862	.285	.073	3.025	.003	.303	1.420	.222	.074	.066	.831	1.204
	SHIFT (8 hour steady days)	1.437	.378	.096	3.802	.000	.696	2.179	.023	.093	.083	.756	1.322
	Physical Environment Average Score	1.780	.653	.073	2.725	.007	.499	3.061	.160	.067	.060	.663	1.508
8	(Constant)	-5.063	2.228		-2.273	.023	-9.433	-.694					
	Job Insecurity Average Score	1.634	.204	.251	7.991	.000	1.233	2.035	.359	.192	.175	.485	2.061
	PF11 Guarding minds at work score 11	-.565	.077	-.251	-7.333	.000	-.716	-.414	-.343	-.177	-.160	.408	2.452
	discrimination victim (question 66, page 43)	2.498	.437	.133	5.715	.000	1.641	3.356	.247	.139	.125	.881	1.135
	PF7 Guarding minds at work score 7	.447	.079	.203	5.651	.000	.292	.602	-.234	.137	.124	.370	2.702
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.703	.293	.059	2.400	.017	.128	1.277	.222	.059	.052	.784	1.275
	SHIFT (8 hour steady days)	1.498	.378	.100	3.960	.000	.756	2.241	.023	.096	.087	.753	1.329
	Physical Environment Average Score	1.642	.655	.068	2.506	.012	.357	2.927	.160	.061	.055	.658	1.520
	Work Hazard Average Score	.631	.275	.059	2.295	.022	.092	1.169	.234	.056	.050	.735	1.361

a. Dependent Variable: Sum of BAI factors numbness to sweating

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Mental demandes average score	.032 ^b	1.414	.157	.035	.987	1.014	.987
	UGwork_3REVISEDcategories=No UG work	.029 ^b	1.276	.202	.031	1.000	1.000	1.000
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.017 ^b	-.730	.465	-.018	.996	1.004	.996
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.017 ^b	-.755	.450	-.018	.996	1.004	.996
	Physical Environment Average Score	.033 ^b	1.352	.177	.033	.867	1.153	.867
	employment_status=Full-time, permanent	.004 ^b	.171	.864	.004	1.000	1.000	1.000
	employment_status=Full-time, contract	.006 ^b	.243	.808	.006	1.000	1.000	1.000
	employment_status=Casual	-.016 ^b	-.697	.486	-.017	1.000	1.000	1.000
	employment_status=other	-.004 ^b	-.182	.856	-.004	.998	1.002	.998
	Are you currently off work for physical health reasons?	.002 ^b	.097	.923	.002	1.000	1.000	1.000
	SHIFT (8 hour steady days)	.076 ^b	3.290	.001	.080	.980	1.020	.980
	SHIFT (10.5 hour steady days)	-.033 ^b	-1.450	.147	-.035	1.000	1.000	1.000
	SHIFT (10.5 rotating)	.003 ^b	.126	.900	.003	.997	1.003	.997
	SHIFT (12 hour rotating)	-.029 ^b	-1.247	.213	-.030	.993	1.007	.993
	SHIFT all other combined (insufficient data to keep separate)	-.014 ^b	-.594	.553	-.015	.992	1.008	.992
	ERI interpretation recoded	.123 ^b	4.464	.000	.108	.680	1.470	.680
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.127 ^b	5.365	.000	.130	.912	1.096	.912
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.090 ^b	-3.385	.001	-.082	.726	1.378	.726
	Work Hazard Average Score	.104 ^b	4.189	.000	.102	.831	1.203	.831
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually discrimination victim (question 66, page 43)	.155 ^b	6.585	.000	.159	.915	1.093	.915
	PF1 Guarding minds at work score 1	-.128 ^b	-4.481	.000	-.109	.631	1.584	.631
	PF2 Guarding minds at work score 2	-.064 ^b	-2.260	.024	-.055	.645	1.551	.645
	PF3 Guarding minds at work score 3	-.090 ^b	-3.002	.003	-.073	.578	1.731	.578
	PF4 Guarding minds at work score 4	-.072 ^b	-2.567	.010	-.063	.659	1.518	.659
	PF5 Guarding minds at work score 5	-.042 ^b	-1.455	.146	-.036	.629	1.590	.629
	PF6 Guarding minds at work score 6	-.013 ^b	-.434	.664	-.011	.591	1.691	.591
	PF7 Guarding minds at work score 7	.013 ^b	.437	.662	.011	.549	1.823	.549
	PF8 Guarding minds at work score 8	-.040 ^b	-1.322	.186	-.032	.556	1.799	.556
	PF9 Guarding minds at work score 9	-.095 ^b	-3.223	.001	-.079	.598	1.671	.598
	PF10 Guarding minds at work score 10	.001 ^b	.036	.971	.001	.812	1.232	.812
	PF11 Guarding minds at work score 11	-.196 ^b	-6.889	.000	-.166	.625	1.600	.625
	PF12 Guarding minds at work score 12	-.084 ^b	-2.812	.005	-.069	.581	1.721	.581
	PF13 Guarding minds at work score 13	-.043 ^b	-1.538	.124	-.038	.677	1.477	.677
2	Mental demandes average score	.021 ^c	.932	.352	.023	.981	1.019	.622

	UGwork_3REVISEDcategories=No UG work	.050 ^c	2.200	.028	.054	.983	1.017	.615
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.019 ^c	-.848	.396	-.021	.996	1.005	.623
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.037 ^c	-1.630	.103	-.040	.981	1.020	.615
	Physical Environment Average Score	.004 ^c	.154	.878	.004	.840	1.191	.600
	employment_status=Full-time, permanent	-.006 ^c	-.268	.789	-.007	.996	1.004	.622
	employment_status=Full-time, contract	.015 ^c	.664	.507	.016	.996	1.004	.623
	employment_status=Casual	-.018 ^c	-.801	.423	-.020	.999	1.001	.625
	employment_status=other	.003 ^c	.121	.904	.003	.996	1.004	.624
	Are you currently off work for physical health reasons?	.007 ^c	.332	.740	.008	.999	1.001	.624
	SHIFT (8 hour steady days)	.095 ^c	4.168	.000	.101	.967	1.034	.617
	SHIFT (10.5 hour steady days)	-.030 ^c	-1.328	.184	-.032	1.000	1.000	.625
	SHIFT (10.5 rotating)	-.020 ^c	-.867	.386	-.021	.977	1.024	.612
	SHIFT (12 hour rotating)	-.032 ^c	-1.411	.158	-.034	.993	1.008	.623
	SHIFT all other combined (insufficient data to keep separate)	-.017 ^c	-.751	.453	-.018	.991	1.009	.623
	ERI interpretation recoded	.074 ^c	2.589	.010	.063	.621	1.610	.547
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.093 ^c	3.832	.000	.093	.857	1.167	.587
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.026 ^c	-.928	.354	-.023	.625	1.599	.539
	Work Hazard Average Score	.077 ^c	3.063	.002	.075	.805	1.242	.588
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.070 ^c	3.006	.003	.073	.925	1.081	.614
	discrimination victim (question 66, page 43)	.137 ^c	5.843	.000	.141	.901	1.110	.608
	PF1 Guarding minds at work score 1	-.011 ^c	-.315	.753	-.008	.389	2.573	.385
	PF2 Guarding minds at work score 2	.036 ^c	1.136	.256	.028	.498	2.008	.483
	PF3 Guarding minds at work score 3	.018 ^c	.525	.600	.013	.429	2.328	.429
	PF4 Guarding minds at work score 4	.012 ^c	.401	.689	.010	.537	1.861	.510
	PF5 Guarding minds at work score 5	.079 ^c	2.396	.017	.058	.464	2.155	.461
	PF6 Guarding minds at work score 6	.122 ^c	3.609	.000	.088	.436	2.292	.436
	PF7 Guarding minds at work score 7	.183 ^c	5.080	.000	.123	.384	2.606	.384
	PF8 Guarding minds at work score 8	.105 ^c	2.908	.004	.071	.390	2.566	.390
	PF9 Guarding minds at work score 9	.037 ^c	1.017	.309	.025	.389	2.572	.389
	PF10 Guarding minds at work score 10	.090 ^c	3.263	.001	.080	.667	1.500	.513
	PF12 Guarding minds at work score 12	.074 ^c	1.937	.053	.047	.350	2.858	.350
	PF13 Guarding minds at work score 13	.043 ^c	1.417	.157	.035	.561	1.781	.518
3	Mental demandes average score	.021 ^d	.935	.350	.023	.981	1.019	.607
	UGwork_3REVISEDcategories=No UG work	.045 ^d	2.001	.046	.049	.982	1.018	.605
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.021 ^d	-.945	.345	-.023	.995	1.005	.605
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.030 ^d	-1.340	.181	-.033	.978	1.022	.605
	Physical Environment Average Score	.002 ^d	.084	.933	.002	.840	1.191	.585
	employment_status=Full-time, permanent	-.013 ^d	-.574	.566	-.014	.993	1.007	.607
	employment_status=Full-time, contract	.021 ^d	.924	.356	.023	.994	1.006	.607

	employment_status=Casual	-.014 ^d	-.649	.516	-.016	.999	1.001	.608
	employment_status=other	.004 ^d	.201	.841	.005	.996	1.004	.608
	Are you currently off work for physical health reasons?	.007 ^d	.297	.766	.007	.999	1.001	.608
	SHIFT (8 hour steady days)	.088 ^d	3.901	.000	.095	.964	1.037	.606
	SHIFT (10.5 hour steady days)	-.041 ^d	-1.824	.068	-.045	.993	1.007	.608
	SHIFT (10.5 rotating)	-.009 ^d	-.390	.696	-.010	.970	1.031	.601
	SHIFT (12 hour rotating)	-.032 ^d	-1.426	.154	-.035	.993	1.008	.606
	SHIFT all other combined (insufficient data to keep separate)	-.017 ^d	-.747	.455	-.018	.991	1.009	.606
	ERI interpretation recoded	.065 ^d	2.285	.022	.056	.619	1.615	.537
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.091 ^d	3.819	.000	.093	.857	1.167	.579
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.012 ^d	-.419	.675	-.010	.620	1.612	.535
	Work Hazard Average Score	.061 ^d	2.442	.015	.060	.795	1.258	.577
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.025 ^d	.993	.321	.024	.805	1.242	.604
	PF1 Guarding minds at work score 1	.021 ^d	.587	.557	.014	.379	2.635	.379
	PF2 Guarding minds at work score 2	.068 ^d	2.118	.034	.052	.485	2.062	.482
	PF3 Guarding minds at work score 3	.040 ^d	1.184	.237	.029	.424	2.357	.424
	PF4 Guarding minds at work score 4	.053 ^d	1.713	.087	.042	.512	1.953	.509
	PF5 Guarding minds at work score 5	.107 ^d	3.257	.001	.079	.455	2.196	.455
	PF6 Guarding minds at work score 6	.149 ^d	4.423	.000	.107	.429	2.329	.429
	PF7 Guarding minds at work score 7	.198 ^d	5.557	.000	.135	.382	2.618	.382
	PF8 Guarding minds at work score 8	.134 ^d	3.752	.000	.091	.383	2.612	.383
	PF9 Guarding minds at work score 9	.048 ^d	1.344	.179	.033	.388	2.580	.388
	PF10 Guarding minds at work score 10	.086 ^d	3.154	.002	.077	.666	1.501	.506
	PF12 Guarding minds at work score 12	.134 ^d	3.464	.001	.084	.330	3.032	.330
	PF13 Guarding minds at work score 13	.059 ^d	1.988	.047	.049	.556	1.797	.515
4	Mental demandes average score	.019 ^e	.852	.394	.021	.981	1.019	.382
	UGwork_3REVISEDcategories=No UG work	.038 ^e	1.710	.087	.042	.979	1.022	.381
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.027 ^e	-1.220	.223	-.030	.993	1.007	.381
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.018 ^e	-.808	.419	-.020	.969	1.032	.378
	Physical Environment Average Score	.024 ^e	.992	.321	.024	.818	1.222	.372
	employment_status=Full-time, permanent	.000 ^e	-.002	.999	.000	.982	1.018	.378
	employment_status=Full-time, contract	.011 ^e	.473	.636	.012	.988	1.013	.379
	employment_status=Casual	-.021 ^e	-.949	.343	-.023	.996	1.004	.381
	employment_status=other	.000 ^e	.006	.996	.000	.995	1.005	.381
	Are you currently off work for physical health reasons?	.011 ^e	.517	.605	.013	.997	1.003	.381
	SHIFT (8 hour steady days)	.078 ^e	3.462	.001	.084	.957	1.045	.379
	SHIFT (10.5 hour steady days)	-.030 ^e	-1.369	.171	-.033	.986	1.015	.379
	SHIFT (10.5 rotating)	-.003 ^e	-.125	.900	-.003	.968	1.033	.381
	SHIFT (12 hour rotating)	-.036 ^e	-1.617	.106	-.040	.992	1.009	.382

	SHIFT all other combined (insufficient data to keep separate)	-.009 ^e	-.385	.700	-.009	.987	1.013	.380
	ERI interpretation recoded	.076 ^e	2.693	.007	.066	.616	1.623	.380
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.086 ^e	3.607	.000	.088	.855	1.169	.381
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.041 ^e	-1.427	.154	-.035	.601	1.664	.370
	Work Hazard Average Score	.072 ^e	2.890	.004	.070	.790	1.266	.380
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.032 ^e	1.308	.191	.032	.803	1.246	.381
	PF1 Guarding minds at work score 1	-.058 ^e	-1.510	.131	-.037	.330	3.028	.330
	PF2 Guarding minds at work score 2	-.002 ^e	-.062	.951	-.002	.410	2.441	.323
	PF3 Guarding minds at work score 3	-.062 ^e	-1.611	.107	-.039	.330	3.027	.297
	PF4 Guarding minds at work score 4	-.007 ^e	-.199	.843	-.005	.451	2.216	.337
	PF5 Guarding minds at work score 5	.034 ^e	.921	.357	.023	.367	2.726	.308
	PF6 Guarding minds at work score 6	.058 ^e	1.383	.167	.034	.275	3.634	.245
	PF8 Guarding minds at work score 8	.029 ^e	.649	.516	.016	.252	3.962	.252
	PF9 Guarding minds at work score 9	-.034 ^e	-.883	.377	-.022	.329	3.043	.324
	PF10 Guarding minds at work score 10	.048 ^e	1.711	.087	.042	.616	1.624	.353
	PF12 Guarding minds at work score 12	.055 ^e	1.307	.192	.032	.274	3.655	.274
	PF13 Guarding minds at work score 13	.003 ^e	.086	.932	.002	.490	2.042	.336
5	Mental demands average score	-.024 ^f	-.942	.347	-.023	.766	1.305	.381
	UGwork_3REVISEDcategories=No UG work	.046 ^f	2.048	.041	.050	.971	1.030	.380
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.032 ^f	-1.467	.143	-.036	.989	1.011	.380
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.021 ^f	-.956	.339	-.023	.967	1.034	.377
	Physical Environment Average Score	.029 ^f	1.194	.233	.029	.816	1.226	.372
	employment_status=Full-time, permanent	-.003 ^f	-.119	.905	-.003	.981	1.019	.377
	employment_status=Full-time, contract	.011 ^f	.486	.627	.012	.988	1.013	.379
	employment_status=Casual	-.017 ^f	-.777	.438	-.019	.994	1.006	.380
	employment_status=other	.002 ^f	.084	.933	.002	.994	1.006	.381
	Are you currently off work for physical health reasons?	.015 ^f	.675	.499	.017	.995	1.005	.381
	SHIFT (8 hour steady days)	.066 ^f	2.905	.004	.071	.930	1.075	.379
	SHIFT (10.5 hour steady days)	-.032 ^f	-1.457	.145	-.036	.985	1.015	.378
	SHIFT (10.5 rotating)	-.007 ^f	-.329	.742	-.008	.965	1.037	.380
	SHIFT (12 hour rotating)	-.016 ^f	-.720	.472	-.018	.926	1.080	.380
	SHIFT all other combined (insufficient data to keep separate)	-.008 ^f	-.342	.732	-.008	.987	1.013	.380
	ERI interpretation recoded	.049 ^f	1.652	.099	.040	.556	1.799	.378
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.042 ^f	-1.487	.137	-.036	.601	1.664	.369
	Work Hazard Average Score	.055 ^f	2.155	.031	.053	.752	1.330	.378
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.035 ^f	1.414	.158	.035	.802	1.247	.380
	PF1 Guarding minds at work score 1	-.066 ^f	-1.714	.087	-.042	.329	3.037	.329
	PF2 Guarding minds at work score 2	-.010 ^f	-.291	.771	-.007	.408	2.451	.323
	PF3 Guarding minds at work score 3	-.073 ^f	-1.904	.057	-.047	.328	3.046	.297

	PF4 Guarding minds at work score 4	-.016 ^f	-.487	.626	-.012	.448	2.230	.337
	PF5 Guarding minds at work score 5	.010 ^f	.259	.796	.006	.354	2.823	.307
	PF6 Guarding minds at work score 6	.031 ^f	.719	.472	.018	.265	3.768	.243
	PF8 Guarding minds at work score 8	.014 ^f	.323	.747	.008	.250	3.995	.250
	PF9 Guarding minds at work score 9	.012 ^f	.304	.761	.007	.294	3.404	.294
	PF10 Guarding minds at work score 10	.023 ^f	.792	.429	.019	.573	1.745	.353
	PF12 Guarding minds at work score 12	.050 ^f	1.198	.231	.029	.273	3.659	.273
	PF13 Guarding minds at work score 13	-.009 ^f	-.292	.770	-.007	.484	2.064	.336
6	Mental demands average score	-.021 ^g	-.819	.413	-.020	.765	1.307	.379
	UGwork_3REVISEDcategories=No UG work	.028 ^g	1.195	.232	.029	.874	1.144	.378
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.050 ^g	-2.209	.027	-.054	.935	1.069	.378
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	.018 ^g	.677	.498	.017	.698	1.433	.377
	Physical Environment Average Score	.073 ^g	2.725	.007	.067	.663	1.508	.372
	employment_status=Full-time, permanent	.000 ^g	-.020	.984	.000	.980	1.020	.375
	employment_status=Full-time, contract	.007 ^g	.327	.744	.008	.985	1.016	.376
	employment_status=Casual	-.015 ^g	-.687	.492	-.017	.993	1.007	.378
	employment_status=other	.002 ^g	.069	.945	.002	.994	1.006	.378
	Are you currently off work for physical health reasons?	.015 ^g	.679	.497	.017	.995	1.005	.378
	SHIFT (10.5 hour steady days)	-.015 ^g	-.673	.501	-.016	.908	1.101	.377
	SHIFT (10.5 rotating)	.028 ^g	1.113	.266	.027	.765	1.307	.379
	SHIFT (12 hour rotating)	.007 ^g	.303	.762	.007	.815	1.227	.377
	SHIFT all other combined (insufficient data to keep separate)	.002 ^g	.094	.925	.002	.965	1.037	.378
	ERI interpretation recoded	.055 ^g	1.861	.063	.045	.553	1.808	.376
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.047 ^g	-1.660	.097	-.041	.599	1.669	.368
	Work Hazard Average Score	.064 ^g	2.532	.011	.062	.741	1.350	.377
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.033 ^g	1.367	.172	.033	.802	1.247	.378
	PF1 Guarding minds at work score 1	-.063 ^g	-1.658	.097	-.041	.329	3.038	.329
	PF2 Guarding minds at work score 2	-.008 ^g	-.235	.814	-.006	.408	2.452	.320
	PF3 Guarding minds at work score 3	-.063 ^g	-1.646	.100	-.040	.325	3.072	.294
	PF4 Guarding minds at work score 4	-.015 ^g	-.460	.645	-.011	.448	2.230	.334
	PF5 Guarding minds at work score 5	.006 ^g	.155	.877	.004	.354	2.827	.306
	PF6 Guarding minds at work score 6	.026 ^g	.603	.547	.015	.265	3.775	.243
	PF8 Guarding minds at work score 8	.006 ^g	.140	.888	.003	.249	4.011	.249
	PF9 Guarding minds at work score 9	.009 ^g	.212	.832	.005	.293	3.408	.293
	PF10 Guarding minds at work score 10	.018 ^g	.606	.545	.015	.571	1.753	.351
	PF12 Guarding minds at work score 12	.046 ^g	1.084	.279	.027	.273	3.665	.273
	PF13 Guarding minds at work score 13	-.030 ^g	-.942	.346	-.023	.462	2.165	.336
7	Mental demands average score	-.018 ^h	-.725	.469	-.018	.764	1.309	.372
	UGwork_3REVISEDcategories=No UG work	.038 ^h	1.602	.109	.039	.857	1.167	.371

	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.041 ^h	-1.801	.072	-.044	.911	1.097	.372
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.006 ^h	-.205	.838	-.005	.626	1.597	.371
	employment_status=Full-time, permanent	.000 ^h	-.012	.990	.000	.980	1.020	.368
	employment_status=Full-time, contract	.005 ^h	.237	.813	.006	.984	1.017	.369
	employment_status=Casual	-.013 ^h	-.574	.566	-.014	.991	1.009	.371
	employment_status=other	.002 ^h	.107	.915	.003	.994	1.006	.371
	Are you currently off work for physical health reasons?	.014 ^h	.654	.513	.016	.995	1.005	.371
	SHIFT (10.5 hour steady days)	-.014 ^h	-.597	.550	-.015	.907	1.102	.370
	SHIFT (10.5 rotating)	.017 ^h	.654	.513	.016	.742	1.347	.372
	SHIFT (12 hour rotating)	.013 ^h	.539	.590	.013	.809	1.236	.370
	SHIFT all other combined (insufficient data to keep separate)	.005 ^h	.233	.816	.006	.962	1.039	.370
	ERI interpretation recoded	.057 ^h	1.934	.053	.047	.553	1.809	.369
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.044 ^h	-1.560	.119	-.038	.598	1.672	.362
	Work Hazard Average Score	.059 ^h	2.295	.022	.056	.735	1.361	.370
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.032 ^h	1.312	.190	.032	.801	1.248	.371
	PF1 Guarding minds at work score 1	-.057 ^h	-1.482	.139	-.036	.328	3.052	.326
	PF2 Guarding minds at work score 2	-.008 ^h	-.247	.805	-.006	.408	2.452	.315
	PF3 Guarding minds at work score 3	-.059 ^h	-1.537	.124	-.038	.325	3.078	.290
	PF4 Guarding minds at work score 4	-.008 ^h	-.239	.811	-.006	.445	2.245	.331
	PF5 Guarding minds at work score 5	.018 ^h	.474	.636	.012	.349	2.866	.304
	PF6 Guarding minds at work score 6	.026 ^h	.602	.548	.015	.265	3.775	.240
	PF8 Guarding minds at work score 8	.014 ^h	.309	.758	.008	.248	4.026	.248
	PF9 Guarding minds at work score 9	.018 ^h	.448	.655	.011	.291	3.433	.291
	PF10 Guarding minds at work score 10	.027 ^h	.918	.359	.022	.563	1.775	.348
	PF12 Guarding minds at work score 12	.058 ^h	1.374	.170	.034	.270	3.704	.270
	PF13 Guarding minds at work score 13	-.002 ^h	-.069	.945	-.002	.414	2.417	.336
8	Mental demandes average score	-.024 ⁱ	-.956	.339	-.023	.757	1.322	.370
	UGwork_3REVISEDcategories=No UG work	.044 ⁱ	1.852	.064	.045	.847	1.180	.370
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.045 ⁱ	-1.947	.052	-.048	.908	1.101	.370
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.010 ⁱ	-.362	.718	-.009	.623	1.604	.370
	employment_status=Full-time, permanent	-.003 ⁱ	-.146	.884	-.004	.977	1.024	.366
	employment_status=Full-time, contract	.008 ⁱ	.383	.702	.009	.980	1.021	.368
	employment_status=Casual	-.013 ⁱ	-.587	.557	-.014	.991	1.009	.369
	employment_status=other	.003 ⁱ	.155	.877	.004	.993	1.007	.370
	Are you currently off work for physical health reasons?	.014 ⁱ	.630	.529	.015	.995	1.005	.370
	SHIFT (10.5 hour steady days)	-.015 ⁱ	-.644	.520	-.016	.907	1.103	.368
	SHIFT (10.5 rotating)	.016 ⁱ	.630	.529	.015	.742	1.347	.370
	SHIFT (12 hour rotating)	.015 ⁱ	.623	.534	.015	.808	1.237	.369
	SHIFT all other combined (insufficient data to keep separate)	.001 ⁱ	.025	.980	.001	.954	1.048	.369

ERI interpretation recoded	.052 ⁱ	1.753	.080	.043	.549	1.821	.368
Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.041 ⁱ	-1.466	.143	-.036	.597	1.675	.360
Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.028 ^j	1.138	.255	.028	.797	1.255	.369
PF1 Guarding minds at work score 1	-.052 ⁱ	-1.371	.171	-.034	.327	3.059	.326
PF2 Guarding minds at work score 2	.002 ⁱ	.065	.948	.002	.400	2.498	.315
PF3 Guarding minds at work score 3	-.054 ⁱ	-1.403	.161	-.034	.324	3.089	.290
PF4 Guarding minds at work score 4	.002 ⁱ	.074	.941	.002	.437	2.288	.331
PF5 Guarding minds at work score 5	.018 ^j	.491	.623	.012	.349	2.866	.304
PF6 Guarding minds at work score 6	.023 ^j	.530	.596	.013	.265	3.779	.239
PF8 Guarding minds at work score 8	.011 ⁱ	.244	.807	.006	.248	4.029	.248
PF9 Guarding minds at work score 9	.021 ⁱ	.519	.604	.013	.291	3.436	.291
PF10 Guarding minds at work score 10	.021 ⁱ	.713	.476	.017	.559	1.790	.345
PF12 Guarding minds at work score 12	.070 ^j	1.660	.097	.041	.266	3.757	.266
PF13 Guarding minds at work score 13	.003 ^j	.074	.941	.002	.412	2.426	.335

a. Dependent Variable: Sum of BAI factors numbness to sweating

b. Predictors in the Model: (Constant), Job Insecurity Average Score

c. Predictors in the Model: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11

d. Predictors in the Model: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43)

e. Predictors in the Model: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7

f. Predictors in the Model: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility

g. Predictors in the Model: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days)

h. Predictors in the Model: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days), Physical Environment Average Score

i. Predictors in the Model: (Constant), Job Insecurity Average Score, PF11 Guarding minds at work score 11, discrimination victim (question 66, page 43), PF7 Guarding minds at work score 7, NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility, SHIFT (8 hour steady days), Physical Environment Average Score, Work Hazard Average Score

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions								
					Job Insecurity Average Score	PF11 Guarding minds at work score 11	discrimination victim (question 66, page 43)	PF7 Guarding minds at work score 7	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	SHIFT (8 hour steady days)	Physical Environment Average Score	Work Hazard Average Score	
1	1	1.958	1.000	.02	.02								
	2	.042	6.806	.98	.98								
2	1	2.880	1.000	.00	.01	.00							
	2	.111	5.089	.00	.25	.14							
	3	.009	17.960	1.00	.74	.86							
3	1	3.151	1.000	.00	.00	.00	.03						
	2	.741	2.062	.00	.00	.00	.85						
	3	.099	5.635	.00	.29	.14	.12						
	4	.009	18.801	1.00	.71	.85	.00						
4	1	4.057	1.000	.00	.00	.00	.01	.00					
	2	.788	2.268	.00	.00	.00	.82	.00					
	3	.131	5.573	.00	.20	.02	.16	.04					
	4	.016	16.044	.00	.00	.84	.00	.69					
	5	.008	23.003	1.00	.79	.13	.00	.27					
5	1	5.017	1.000	.00	.00	.00	.01	.00	.00				
	2	.792	2.516	.00	.00	.00	.83	.00	.00				
	3	.140	5.987	.00	.14	.03	.16	.04	.01				
	4	.030	12.907	.00	.34	.09	.00	.00	.60				
	5	.015	18.331	.00	.08	.65	.00	.84	.06				
	6	.006	29.644	1.00	.43	.24	.00	.12	.32				
6	1	5.528	1.000	.00	.00	.00	.01	.00	.00	.01			
	2	.805	2.620	.00	.00	.00	.80	.00	.00	.02			
	3	.481	3.388	.00	.00	.00	.03	.00	.00	.90			
	4	.135	6.391	.00	.14	.03	.16	.04	.01	.04			
	5	.030	13.646	.00	.35	.08	.00	.00	.59	.02			
	6	.015	19.247	.00	.08	.64	.00	.83	.06	.00			
	7	.006	31.291	1.00	.42	.24	.00	.12	.33	.01			
7	1	6.459	1.000	.00	.00	.00	.00	.00	.00	.01	.00		
	2	.805	2.832	.00	.00	.00	.80	.00	.00	.02	.00		
	3	.520	3.525	.00	.00	.00	.04	.00	.00	.67	.00		
	4	.140	6.793	.00	.11	.04	.15	.05	.01	.07	.01		
	5	.030	14.749	.00	.32	.08	.00	.00	.61	.02	.00		
	6	.027	15.464	.00	.28	.00	.00	.04	.05	.19	.72		
	7	.015	20.943	.00	.04	.69	.00	.77	.09	.01	.02		
	8	.004	37.906	1.00	.25	.18	.00	.15	.24	.02	.25		
8	1	7.351	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	2	.808	3.017	.00	.00	.00	.78	.00	.00	.02	.00	.00	
	3	.537	3.701	.00	.00	.00	.05	.00	.00	.64	.00	.01	
	4	.164	6.693	.00	.04	.03	.16	.04	.00	.09	.00	.11	
	5	.066	10.543	.00	.16	.00	.00	.01	.00	.00	.03	.81	
	6	.029	16.052	.00	.27	.09	.00	.00	.60	.01	.00	.07	
	7	.027	16.502	.00	.25	.00	.00	.04	.08	.20	.71	.00	
	8	.015	22.368	.00	.04	.68	.00	.76	.10	.01	.02	.00	
	9	.004	40.474	1.00	.24	.19	.00	.15	.21	.02	.24	.00	

a. Dependent Variable: Sum of BAI factors numbness to sweating

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	PF11 Guarding minds at work score 11		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
2	Job Insecurity Average Score		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
3	PF7 Guarding minds at work score 7		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
4	discriminatio n victim (question 66, page 43)		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
5	SHIFT (8 hour steady days)		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
6	Job Satisfaction Score Q1, 2,4,5 Job Satisfaction		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).

7	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
8	PF12 Guarding minds at work score 12		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
9	ERI interpretation recorded		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
10	PF2 Guarding minds at work score 2		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
11	employment_ status=Casu al		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).
12	employment_ status=Full- time, permanent		Stepwise (Criteria: Probability-of- F-to-enter <= . 050, Probability-of- F-to-remove >= .100).

a. Dependent Variable: BDI sum of factors sadness
to appetite

Model Summary^m

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.434 ^a	.188	.188	8.087	
2	.470 ^b	.221	.220	7.923	
3	.490 ^c	.240	.239	7.830	
4	.510 ^d	.260	.258	7.730	
5	.520 ^e	.270	.268	7.678	
6	.529 ^f	.279	.277	7.630	
7	.533 ^g	.284	.281	7.607	
8	.538 ^h	.289	.286	7.582	
9	.540 ⁱ	.292	.288	7.572	
10	.543 ^j	.294	.290	7.560	
11	.544 ^k	.296	.291	7.553	
12	.546 ^l	.298	.293	7.546	1.945

- a. Predictors: (Constant), PF11 Guarding minds at work score 11
- b. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score
- c. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7
- d. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43)
- e. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days)
- f. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction
- g. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually

- h. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12
- i. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded
- j. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2
- k. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2, employment_status=Casual
- l. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2, employment_status=Casual, employment_status=Full-time, permanent
- m. Dependent Variable: BDI sum of factors sadness to appetite

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25223.734	1	25223.734	385.653	.000 ^b
	Residual	108834.223	1664	65.405		
	Total	134057.957	1665			
2	Regression	29676.168	2	14838.084	236.399	.000 ^c
	Residual	104381.789	1663	62.767		
	Total	134057.957	1665			
3	Regression	32161.836	3	10720.612	174.861	.000 ^d
	Residual	101896.121	1662	61.309		
	Total	134057.957	1665			
4	Regression	34815.081	4	8703.770	145.673	.000 ^e
	Residual	99242.876	1661	59.749		
	Total	134057.957	1665			
5	Regression	36201.359	5	7240.272	122.821	.000 ^f
	Residual	97856.597	1660	58.950		
	Total	134057.957	1665			
6	Regression	37464.602	6	6244.100	107.243	.000 ^g
	Residual	96593.354	1659	58.224		
	Total	134057.957	1665			
7	Regression	38126.932	7	5446.705	94.137	.000 ^h
	Residual	95931.025	1658	57.859		
	Total	134057.957	1665			
8	Regression	38795.955	8	4849.494	84.353	.000 ⁱ
	Residual	95262.002	1657	57.491		
	Total	134057.957	1665			
9	Regression	39115.687	9	4346.187	75.807	.000 ^j
	Residual	94942.270	1656	57.332		
	Total	134057.957	1665			
10	Regression	39468.885	10	3946.888	69.058	.000 ^k
	Residual	94589.072	1655	57.154		
	Total	134057.957	1665			
11	Regression	39702.662	11	3609.333	63.270	.000 ^l
	Residual	94355.294	1654	57.047		
	Total	134057.957	1665			
12	Regression	39931.250	12	3327.604	58.438	.000 ^m
	Residual	94126.707	1653	56.943		
	Total	134057.957	1665			

a. Dependent Variable: BDI sum of factors sadness to appetite

b. Predictors: (Constant), PF11 Guarding minds at work score 11

c. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score

d. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7

e. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43)

f. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days)

g. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction

h. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually

i. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12

j. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded

k. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2

l. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2, employment_status=Casual

m. Predictors: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2, employment_status=Casual, employment_status=Full-time, permanent

		Coefficients ^a											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	26.533	.846		31.377	.000	24.874	28.191					
	PF11 Guarding minds at work score 11	-1.175	.060	-.434	-19.638	.000	-1.292	-1.057	-.434	-.434	-.434	1.000	1.000
2	(Constant)	14.502	1.651		8.782	.000	11.263	17.740					
	PF11 Guarding minds at work score 11	-.798	.074	-.295	-10.822	.000	-.942	-.653	-.434	-.257	-.234	.632	1.583
	Job Insecurity Average Score	1.796	.213	.229	8.422	.000	1.378	2.215	.408	.202	.182	.632	1.583
3	(Constant)	8.802	1.861		4.729	.000	5.152	12.453					
	PF11 Guarding minds at work score 11	-1.104	.087	-.408	-12.647	.000	-1.275	-.932	-.434	-.296	-.270	.440	2.271
	Job Insecurity Average Score	2.400	.231	.306	10.384	.000	1.947	2.853	.408	.247	.222	.525	1.903
	PF7 Guarding minds at work score 7	.583	.092	.219	6.367	.000	.403	.763	-.283	.154	.136	.388	2.577
4	(Constant)	7.877	1.843		4.275	.000	4.263	11.492					
	PF11 Guarding minds at work score 11	-1.061	.086	-.392	-12.285	.000	-1.231	-.892	-.434	-.289	-.259	.438	2.283
	Job Insecurity Average Score	2.204	.230	.281	9.582	.000	1.753	2.656	.408	.229	.202	.517	1.935
	PF7 Guarding minds at work score 7	.616	.091	.231	6.806	.000	.439	.794	-.283	.165	.144	.387	2.585
	discrimination victim (question 66, page 43)	3.349	.503	.148	6.664	.000	2.363	4.334	.272	.161	.141	.900	1.111
5	(Constant)	7.901	1.830		4.317	.000	4.311	11.492					
	PF11 Guarding minds at work score 11	-1.084	.086	-.400	-12.618	.000	-1.253	-.916	-.434	-.296	-.265	.437	2.290
	Job Insecurity Average Score	2.205	.229	.281	9.649	.000	1.757	2.653	.408	.230	.202	.517	1.935
	PF7 Guarding minds at work score 7	.575	.090	.216	6.367	.000	.398	.752	-.283	.154	.134	.383	2.608
	discrimination victim (question 66, page 43)	3.186	.500	.141	6.368	.000	2.204	4.167	.272	.154	.134	.896	1.116
	SHIFT (8 hour steady days)	1.871	.386	.104	4.849	.000	1.114	2.628	.041	.118	.102	.957	1.045
6	(Constant)	11.961	2.017		5.930	.000	8.005	15.917					
	PF11 Guarding minds at work score 11	-.990	.088	-.365	-11.275	.000	-1.162	-.817	-.434	-.267	-.235	.413	2.419

	Job Insecurity Average Score	2.016	.231	.257	8.737	.000	1.563	2.468	.408	.210	.182	.501	1.997
	PF7 Guarding minds at work score 7	.642	.091	.241	7.062	.000	.464	.820	-.283	.171	.147	.374	2.675
	discrimination victim (question 66, page 43)	3.005	.499	.133	6.026	.000	2.027	3.984	.272	.146	.126	.891	1.123
	SHIFT (8 hour steady days)	1.971	.384	.109	5.131	.000	1.218	2.724	.041	.125	.107	.954	1.048
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-2.212	.475	-.125	-4.658	.000	-3.143	-1.281	-.348	-.114	-.097	.605	1.654
7	(Constant)	11.470	2.016		5.690	.000	7.516	15.424					
	PF11 Guarding minds at work score 11	-.983	.088	-.363	-11.236	.000	-1.155	-.812	-.434	-.266	-.233	.413	2.420
	Job Insecurity Average Score	1.981	.230	.253	8.605	.000	1.529	2.432	.408	.207	.179	.500	2.000
	PF7 Guarding minds at work score 7	.658	.091	.247	7.254	.000	.480	.836	-.283	.175	.151	.373	2.682
	discrimination victim (question 66, page 43)	2.398	.529	.106	4.536	.000	1.361	3.434	.272	.111	.094	.788	1.269
	SHIFT (8 hour steady days)	1.940	.383	.108	5.066	.000	1.189	2.691	.041	.123	.105	.954	1.048
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-2.132	.474	-.120	-4.498	.000	-3.062	-1.202	-.348	-.110	-.093	.603	1.658
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	2.175	.643	.078	3.383	.001	.914	3.436	.236	.083	.070	.806	1.240
8	(Constant)	9.788	2.069		4.730	.000	5.729	13.846					
	PF11 Guarding minds at work score 11	-1.123	.096	-.415	-11.653	.000	-1.312	-.934	-.434	-.275	-.241	.339	2.954
	Job Insecurity Average Score	2.100	.232	.268	9.046	.000	1.644	2.555	.408	.217	.187	.489	2.047
	PF7 Guarding minds at work score 7	.521	.099	.195	5.266	.000	.327	.715	-.283	.128	.109	.311	3.212
	discrimination victim (question 66, page 43)	2.685	.534	.119	5.031	.000	1.638	3.731	.272	.123	.104	.768	1.302
	SHIFT (8 hour steady days)	1.876	.382	.104	4.908	.000	1.126	2.626	.041	.120	.102	.951	1.051
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-2.116	.473	-.119	-4.478	.000	-3.043	-1.189	-.348	-.109	-.093	.603	1.658
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	2.526	.649	.091	3.892	.000	1.253	3.799	.236	.095	.081	.786	1.272
	PF12 Guarding minds at work score 12	.350	.103	.136	3.411	.001	.149	.551	-.325	.084	.071	.271	3.696
9	(Constant)	9.048	2.090		4.329	.000	4.949	13.147					
	PF11 Guarding minds at work score 11	-1.082	.098	-.400	-11.070	.000	-1.274	-.891	-.434	-.262	-.229	.328	3.049
	Job Insecurity Average Score	1.944	.241	.248	8.065	.000	1.471	2.416	.408	.194	.167	.452	2.213

	PF7 Guarding minds at work score 7	.533	.099	.200	5.386	.000	.339	.727	-.283	.131	.111	.311	3.220
	discrimination victim (question 66, page 43)	2.658	.533	.118	4.986	.000	1.612	3.703	.272	.122	.103	.768	1.302
	SHIFT (8 hour steady days)	1.885	.382	.105	4.939	.000	1.137	2.634	.041	.120	.102	.951	1.051
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-2.040	.473	-.115	-4.314	.000	-2.968	-1.113	-.348	-.105	-.089	.600	1.666
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	2.448	.649	.088	3.773	.000	1.175	3.721	.236	.092	.078	.784	1.276
	PF12 Guarding minds at work score 12	.348	.102	.135	3.396	.001	.147	.548	-.325	.083	.070	.271	3.696
	ERI interpretation recoded	1.131	.479	.062	2.362	.018	.192	2.071	.329	.058	.049	.617	1.621
10	(Constant)	9.472	2.094		4.524	.000	5.365	13.578					
	PF11 Guarding minds at work score 11	-1.078	.098	-.398	-11.036	.000	-1.269	-.886	-.434	-.262	-.228	.328	3.050
	Job Insecurity Average Score	1.896	.241	.242	7.857	.000	1.423	2.370	.408	.190	.162	.449	2.227
	PF7 Guarding minds at work score 7	.590	.101	.221	5.818	.000	.391	.789	-.283	.142	.120	.294	3.396
	discrimination victim (question 66, page 43)	2.605	.533	.115	4.891	.000	1.560	3.649	.272	.119	.101	.767	1.304
	SHIFT (8 hour steady days)	1.852	.381	.103	4.857	.000	1.104	2.600	.041	.119	.100	.950	1.052
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.960	.473	-.111	-4.141	.000	-2.888	-1.032	-.348	-.101	-.085	.598	1.673
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	2.409	.648	.087	3.717	.000	1.138	3.680	.236	.091	.077	.783	1.277
	PF12 Guarding minds at work score 12	.470	.114	.183	4.144	.000	.248	.693	-.325	.101	.086	.219	4.559
	ERI interpretation recoded	1.197	.479	.066	2.499	.013	.258	2.137	.329	.061	.052	.615	1.625
	PF2 Guarding minds at work score 2	-.240	.097	-.090	-2.486	.013	-.430	-.051	-.322	-.061	-.051	.328	3.046
11	(Constant)	9.463	2.092		4.524	.000	5.360	13.565					
	PF11 Guarding minds at work score 11	-1.085	.098	-.401	-11.118	.000	-1.277	-.894	-.434	-.264	-.229	.327	3.055
	Job Insecurity Average Score	1.913	.241	.244	7.927	.000	1.439	2.386	.408	.191	.164	.449	2.229
	PF7 Guarding minds at work score 7	.599	.101	.225	5.903	.000	.400	.798	-.283	.144	.122	.294	3.402
	discrimination victim (question 66, page 43)	2.585	.532	.114	4.857	.000	1.541	3.629	.272	.119	.100	.766	1.305
	SHIFT (8 hour steady days)	1.822	.381	.101	4.779	.000	1.074	2.570	.041	.117	.099	.949	1.054

	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-1.985	.473	-.112	-4.196	.000	-2.913	-1.057	-.348	-.103	-.087	.597	1.675
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	2.415	.647	.087	3.730	.000	1.145	3.685	.236	.091	.077	.783	1.277
	PF12 Guarding minds at work score 12	.472	.113	.183	4.160	.000	.249	.694	-.325	.102	.086	.219	4.559
	ERI interpretation recoded	1.179	.479	.065	2.462	.014	.240	2.118	.329	.060	.051	.615	1.626
	PF2 Guarding minds at work score 2	-.237	.097	-.088	-2.452	.014	-.426	-.047	-.322	-.060	-.051	.328	3.047
	employment_status=Casual	-4.867	2.404	-.042	-2.024	.043	-9.582	-.151	-.029	-.050	-.042	.993	1.007
12	(Constant)	11.939	2.428		4.917	.000	7.177	16.701					
	PF11 Guarding minds at work score 11	-1.079	.098	-.399	-11.057	.000	-1.270	-.888	-.434	-.262	-.228	.327	3.058
	Job Insecurity Average Score	1.876	.242	.240	7.762	.000	1.402	2.351	.408	.188	.160	.446	2.241
	PF7 Guarding minds at work score 7	.593	.101	.222	5.848	.000	.394	.792	-.283	.142	.121	.294	3.405
	discrimination victim (question 66, page 43)	2.626	.532	.116	4.935	.000	1.582	3.669	.272	.120	.102	.765	1.307
	SHIFT (8 hour steady days)	1.775	.382	.099	4.651	.000	1.026	2.524	.041	.114	.096	.945	1.058
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-2.023	.473	-.114	-4.278	.000	-2.951	-1.096	-.348	-.105	-.088	.596	1.677
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	2.385	.647	.086	3.685	.000	1.115	3.654	.236	.090	.076	.783	1.277
	PF12 Guarding minds at work score 12	.471	.113	.183	4.156	.000	.249	.693	-.325	.102	.086	.219	4.559
	ERI interpretation recoded	1.195	.478	.066	2.498	.013	.257	2.134	.329	.061	.051	.615	1.627
	PF2 Guarding minds at work score 2	-.253	.097	-.094	-2.612	.009	-.443	-.063	-.322	-.064	-.054	.326	3.068
	employment_status=Casual	-6.888	2.605	-.059	-2.644	.008	-11.998	-1.778	-.029	-.065	-.054	.844	1.185
	employment_status=Full-time, permanent	-2.106	1.051	-.045	-2.004	.045	-4.167	-.044	-.006	-.049	-.041	.825	1.212

a. Dependent Variable: BDI sum of factors sadness to appetite

		Excluded Variables ^a				Collinearity Statistics		
Model		Beta In	t	Sig.	Partial Correlation	Tolerance	VIF	Minimum Tolerance
1	Mental demandes average score	-.009 ^b	-.404	.687	-.010	.984	1.016	.984
	UGwork_3REVISEDcategories=No UG work	.076 ^b	3.441	.001	.084	.990	1.010	.990
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	.000 ^b	-.018	.986	.000	.999	1.001	.999
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.081 ^b	-3.646	.000	-.089	.984	1.017	.984
	Physical Environment Average Score	-.019 ^b	-.822	.411	-.020	.880	1.136	.880
	employment_status=Full-time, permanent	-.031 ^b	-1.414	.157	-.035	.997	1.003	.997
	employment_status=Full-time, contract	.044 ^b	1.996	.046	.049	.998	1.002	.998
	employment_status=Casual	-.039 ^b	-1.766	.078	-.043	1.000	1.000	1.000
	employment_status=other	.025 ^b	1.110	.267	.027	.996	1.004	.996
	Are you currently off work for physical health reasons?	.024 ^b	1.105	.269	.027	.999	1.001	.999
	SHIFT (8 hour steady days)	.119 ^b	5.335	.000	.130	.970	1.030	.970
	SHIFT (10.5 hour steady days)	-.023 ^b	-1.054	.292	-.026	1.000	1.000	1.000
	SHIFT (10.5 rotating)	-.071 ^b	-3.172	.002	-.078	.982	1.019	.982
	SHIFT (12 hour rotating)	-.041 ^b	-1.864	.062	-.046	.995	1.005	.995
	SHIFT all other combined (insufficient data to keep separate)	.010 ^b	.430	.667	.011	.996	1.004	.996
	ERI interpretation recoded	.136 ^b	5.259	.000	.128	.714	1.401	.714
	Job Insecurity Average Score	.229 ^b	8.422	.000	.202	.632	1.583	.632
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.047 ^b	1.992	.047	.049	.867	1.154	.867
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.150 ^b	-5.641	.000	-.137	.677	1.478	.677
	Work Hazard Average Score	.094 ^b	3.968	.000	.097	.865	1.156	.865
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.139 ^b	6.151	.000	.149	.941	1.063	.941
	discrimination victim (question 66, page 43)	.167 ^b	7.405	.000	.179	.928	1.078	.928
	PF1 Guarding minds at work score 1	-.002 ^b	-.070	.944	-.002	.425	2.350	.425
	PF2 Guarding minds at work score 2	-.063 ^b	-2.128	.033	-.052	.562	1.780	.562
	PF3 Guarding minds at work score 3	-.034 ^b	-1.091	.275	-.027	.514	1.946	.514
	PF4 Guarding minds at work score 4	-.052 ^b	-1.839	.066	-.045	.607	1.647	.607
	PF5 Guarding minds at work score 5	-.049 ^b	-1.596	.111	-.039	.524	1.908	.524

	PF6 Guarding minds at work score 6	.019 ^b	.599	.550	.015	.508	1.969	.508
	PF7 Guarding minds at work score 7	.072 ^b	2.241	.025	.055	.466	2.144	.466
	PF8 Guarding minds at work score 8	.034 ^b	1.069	.285	.026	.471	2.125	.471
	PF9 Guarding minds at work score 9	.015 ^b	.451	.652	.011	.438	2.281	.438
	PF10 Guarding minds at work score 10	.003 ^b	.130	.896	.003	.680	1.470	.680
	PF12 Guarding minds at work score 12	.026 ^b	.741	.459	.018	.403	2.482	.403
	PF13 Guarding minds at work score 13	.049 ^b	1.772	.077	.043	.631	1.586	.631
2	Mental demandes average score	-.018 ^c	-.841	.400	-.021	.981	1.019	.629
	UGwork_3REVISEDcategories=No UG work	.063 ^c	2.910	.004	.071	.985	1.015	.622
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	.011 ^c	.502	.616	.012	.995	1.005	.629
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.076 ^c	-3.507	.000	-.086	.983	1.017	.623
	Physical Environment Average Score	-.060 ^c	-2.555	.011	-.063	.846	1.182	.607
	employment_status=Full-time, permanent	-.029 ^c	-1.321	.187	-.032	.996	1.004	.630
	employment_status=Full-time, contract	.039 ^c	1.823	.068	.045	.997	1.003	.630
	employment_status=Casual	-.040 ^c	-1.858	.063	-.046	.999	1.001	.632
	employment_status=other	.028 ^c	1.274	.203	.031	.996	1.004	.631
	Are you currently off work for physical health reasons?	.022 ^c	.995	.320	.024	.999	1.001	.631
	SHIFT (8 hour steady days)	.125 ^c	5.725	.000	.139	.969	1.031	.623
	SHIFT (10.5 hour steady days)	-.024 ^c	-1.096	.273	-.027	1.000	1.000	.632
	SHIFT (10.5 rotating)	-.062 ^c	-2.861	.004	-.070	.980	1.021	.620
	SHIFT (12 hour rotating)	-.049 ^c	-2.268	.023	-.056	.993	1.007	.631
	SHIFT all other combined (insufficient data to keep separate)	-.001 ^c	-.068	.946	-.002	.992	1.008	.629
	ERI interpretation recoded	.069 ^c	2.539	.011	.062	.626	1.597	.554
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.028 ^c	1.179	.239	.029	.858	1.166	.594
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.097 ^c	-3.581	.000	-.088	.627	1.594	.544
	Work Hazard Average Score	.048 ^c	2.007	.045	.049	.812	1.232	.593
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.115 ^c	5.142	.000	.125	.923	1.083	.620
	discrimination victim (question 66, page 43)	.140 ^c	6.216	.000	.151	.903	1.108	.615
	PF1 Guarding minds at work score 1	.083 ^c	2.398	.017	.059	.392	2.552	.391
	PF2 Guarding minds at work score 2	.018 ^c	.599	.549	.015	.502	1.990	.492

	PF3 Guarding minds at work score 3	.078 ^c	2.371	.018	.058	.435	2.297	.435
	PF4 Guarding minds at work score 4	.026 ^c	.877	.380	.022	.545	1.836	.518
	PF5 Guarding minds at work score 5	.036 ^c	1.150	.250	.028	.470	2.129	.467
	PF6 Guarding minds at work score 6	.131 ^c	4.027	.000	.098	.438	2.281	.438
	PF7 Guarding minds at work score 7	.219 ^c	6.367	.000	.154	.388	2.577	.388
	PF8 Guarding minds at work score 8	.168 ^c	4.911	.000	.120	.395	2.532	.395
	PF9 Guarding minds at work score 9	.121 ^c	3.497	.000	.085	.389	2.570	.389
	PF10 Guarding minds at work score 10	.033 ^c	1.254	.210	.031	.668	1.496	.518
	PF12 Guarding minds at work score 12	.143 ^c	3.957	.000	.097	.354	2.826	.354
	PF13 Guarding minds at work score 13	.132 ^c	4.630	.000	.113	.572	1.749	.528
3	Mental demands average score	-.021 ^d	-.981	.327	-.024	.981	1.020	.388
	UGwork_3REVISEDcategories=No UG work	.056 ^d	2.596	.010	.064	.982	1.018	.387
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	.004 ^d	.171	.864	.004	.993	1.007	.387
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.063 ^d	-2.908	.004	-.071	.973	1.028	.384
	Physical Environment Average Score	-.036 ^d	-1.533	.126	-.038	.822	1.216	.377
	employment_status=Full-time, permanent	-.015 ^d	-.682	.496	-.017	.986	1.014	.384
	employment_status=Full-time, contract	.028 ^d	1.301	.193	.032	.990	1.010	.385
	employment_status=Casual	-.048 ^d	-2.225	.026	-.055	.997	1.003	.387
	employment_status=other	.024 ^d	1.107	.268	.027	.995	1.005	.388
	Are you currently off work for physical health reasons?	.027 ^d	1.264	.206	.031	.997	1.003	.387
	SHIFT (8 hour steady days)	.113 ^d	5.228	.000	.127	.962	1.040	.385
	SHIFT (10.5 hour steady days)	-.011 ^d	-.521	.602	-.013	.991	1.009	.385
	SHIFT (10.5 rotating)	-.056 ^d	-2.592	.010	-.063	.977	1.023	.387
	SHIFT (12 hour rotating)	-.053 ^d	-2.454	.014	-.060	.992	1.008	.388
	SHIFT all other combined (insufficient data to keep separate)	.007 ^d	.327	.743	.008	.988	1.012	.387
	ERI interpretation recoded	.082 ^d	3.025	.003	.074	.623	1.605	.386
	NIOSH Quantitative Workload Score Q1-4	.021 ^d	.918	.359	.023	.856	1.168	.387
	Job Requirements, Q1-7 Workload and Responsibility							
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.130 ^d	-4.773	.000	-.116	.610	1.640	.377
	Work Hazard Average Score	.061 ^d	2.552	.011	.062	.807	1.240	.386
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.126 ^d	5.712	.000	.139	.918	1.089	.386

	discrimination victim (question 66, page 43)	.148 ^d	6.664	.000	.161	.900	1.111	.387
	PF1 Guarding minds at work score 1	.004 ^d	.108	.914	.003	.340	2.944	.336
	PF2 Guarding minds at work score 2	-.071 ^d	-2.162	.031	-.053	.420	2.382	.324
	PF3 Guarding minds at work score 3	-.024 ^d	-.661	.509	-.016	.340	2.941	.303
	PF4 Guarding minds at work score 4	-.046 ^d	-1.471	.142	-.036	.476	2.102	.339
	PF5 Guarding minds at work score 5	-.065 ^d	-1.878	.061	-.046	.376	2.659	.311
	PF6 Guarding minds at work score 6	.012 ^d	.294	.769	.007	.281	3.564	.248
	PF8 Guarding minds at work score 8	.063 ^d	1.505	.132	.037	.261	3.836	.256
	PF9 Guarding minds at work score 9	.041 ^d	1.106	.269	.027	.329	3.043	.328
	PF10 Guarding minds at work score 10	-.012 ^d	-.425	.671	-.010	.622	1.608	.361
	PF12 Guarding minds at work score 12	.058 ^d	1.457	.145	.036	.292	3.425	.292
	PF13 Guarding minds at work score 13	.078 ^d	2.575	.010	.063	.500	2.000	.339
4	Mental demands average score	-.023 ^e	-1.066	.287	-.026	.981	1.020	.387
	UGwork_3REVISEDcategories=No UG work	.048 ^e	2.241	.025	.055	.979	1.022	.386
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	.002 ^e	.116	.908	.003	.993	1.008	.386
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.053 ^e	-2.485	.013	-.061	.968	1.033	.383
	Physical Environment Average Score	-.035 ^e	-1.524	.128	-.037	.822	1.216	.376
	employment_status=Full-time, permanent	-.022 ^e	-1.042	.297	-.026	.983	1.017	.383
	employment_status=Full-time, contract	.035 ^e	1.635	.102	.040	.988	1.013	.384
	employment_status=Casual	-.044 ^e	-2.092	.037	-.051	.996	1.004	.386
	employment_status=other	.025 ^e	1.196	.232	.029	.995	1.005	.387
	Are you currently off work for physical health reasons?	.026 ^e	1.251	.211	.031	.997	1.003	.386
	SHIFT (8 hour steady days)	.104 ^e	4.849	.000	.118	.957	1.045	.383
	SHIFT (10.5 hour steady days)	-.022 ^e	-1.054	.292	-.026	.985	1.015	.384
	SHIFT (10.5 rotating)	-.042 ^e	-1.980	.048	-.049	.968	1.033	.386
	SHIFT (12 hour rotating)	-.052 ^e	-2.451	.014	-.060	.992	1.008	.387
	SHIFT all other combined (insufficient data to keep separate)	.007 ^e	.322	.748	.008	.988	1.012	.385
	ERI interpretation recorded	.074 ^e	2.767	.006	.068	.622	1.608	.385
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.020 ^e	.865	.387	.021	.856	1.168	.386
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.117 ^e	-4.346	.000	-.106	.607	1.649	.377
	Work Hazard Average Score	.044 ^e	1.883	.060	.046	.798	1.254	.385

	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.086 ^e	3.669	.000	.090	.809	1.237	.385
	PF1 Guarding minds at work score 1	.035 ^e	.968	.333	.024	.334	2.993	.334
	PF2 Guarding minds at work score 2	-.040 ^e	-1.221	.222	-.030	.411	2.434	.324
	PF3 Guarding minds at work score 3	-.003 ^e	-.092	.927	-.002	.337	2.964	.303
	PF4 Guarding minds at work score 4	-.005 ^e	-.156	.876	-.004	.457	2.190	.339
	PF5 Guarding minds at work score 5	-.040 ^e	-1.162	.245	-.029	.371	2.693	.311
	PF6 Guarding minds at work score 6	.042 ^e	1.057	.291	.026	.277	3.610	.248
	PF8 Guarding minds at work score 8	.093 ^e	2.244	.025	.055	.258	3.880	.256
	PF9 Guarding minds at work score 9	.048 ^e	1.309	.191	.032	.328	3.046	.327
	PF10 Guarding minds at work score 10	-.020 ^e	-.743	.458	-.018	.621	1.611	.360
	PF12 Guarding minds at work score 12	.120 ^e	3.004	.003	.074	.278	3.595	.278
	PF13 Guarding minds at work score 13	.092 ^e	3.066	.002	.075	.498	2.009	.339
5	Mental demandes average score	-.026 ^f	-1.223	.221	-.030	.980	1.021	.383
	UGwork_3REVISEDcategories=No UG work	.019 ^f	.866	.387	.021	.894	1.118	.383
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.023 ^f	-1.059	.290	-.026	.937	1.067	.383
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.001 ^f	-.031	.975	-.001	.716	1.396	.382
	Physical Environment Average Score	.015 ^f	.599	.549	.015	.672	1.489	.376
	employment_status=Full-time, permanent	-.018 ^f	-.839	.401	-.021	.981	1.019	.380
	employment_status=Full-time, contract	.028 ^f	1.327	.185	.033	.983	1.017	.381
	employment_status=Casual	-.040 ^f	-1.912	.056	-.047	.994	1.006	.382
	employment_status=other	.024 ^f	1.133	.257	.028	.995	1.005	.383
	Are you currently off work for physical health reasons?	.027 ^f	1.299	.194	.032	.997	1.003	.383
	SHIFT (10.5 hour steady days)	.006 ^f	.274	.784	.007	.912	1.097	.382
	SHIFT (10.5 rotating)	.003 ^f	.128	.898	.003	.785	1.274	.383
	SHIFT (12 hour rotating)	-.015 ^f	-.680	.496	-.017	.850	1.176	.382
	SHIFT all other combined (insufficient data to keep separate)	.022 ^f	1.054	.292	.026	.967	1.035	.383
	ERI interpretation recoded	.076 ^f	2.847	.004	.070	.622	1.608	.382
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.002 ^f	.083	.934	.002	.833	1.200	.383
	Job Satisfaction Score Q1,2,4,5 Job Satisfaction	-.125 ^f	-4.658	.000	-.114	.605	1.654	.374
	Work Hazard Average Score	.055 ^f	2.319	.021	.057	.792	1.263	.382

	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.083 ^f	3.592	.000	.088	.808	1.237	.382
	PF1 Guarding minds at work score 1	.037 ^f	1.026	.305	.025	.334	2.993	.334
	PF2 Guarding minds at work score 2	-.039 ^f	-1.185	.236	-.029	.411	2.435	.322
	PF3 Guarding minds at work score 3	.010 ^f	.273	.785	.007	.336	2.981	.299
	PF4 Guarding minds at work score 4	-.006 ^f	-.190	.849	-.005	.457	2.190	.336
	PF5 Guarding minds at work score 5	-.050 ^f	-1.456	.146	-.036	.370	2.702	.310
	PF6 Guarding minds at work score 6	.029 ^f	.727	.468	.018	.276	3.628	.248
	PF8 Guarding minds at work score 8	.078 ^f	1.878	.061	.046	.256	3.904	.256
	PF9 Guarding minds at work score 9	.052 ^f	1.411	.158	.035	.328	3.047	.324
	PF10 Guarding minds at work score 10	-.033 ^f	-1.240	.215	-.030	.614	1.628	.358
	PF12 Guarding minds at work score 12	.112 ^f	2.809	.005	.069	.278	3.603	.278
	PF13 Guarding minds at work score 13	.061 ^f	2.011	.045	.049	.471	2.123	.339
6	Mental demands average score	-.019 ^e	-.893	.372	-.022	.975	1.026	.374
	UGwork_3REVISEDcategories=No UG work	.027 ^e	1.226	.220	.030	.889	1.125	.374
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.024 ^e	-1.101	.271	-.027	.937	1.067	.373
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.010 ^e	-.414	.679	-.010	.712	1.405	.373
	Physical Environment Average Score	.011 ^e	.424	.672	.010	.671	1.491	.367
	employment_status=Full-time, permanent	-.021 ^e	-.999	.318	-.025	.980	1.020	.371
	employment_status=Full-time, contract	.030 ^e	1.406	.160	.035	.983	1.017	.372
	employment_status=Casual	-.043 ^e	-2.037	.042	-.050	.994	1.006	.373
	employment_status=other	.030 ^e	1.434	.152	.035	.991	1.009	.374
	Are you currently off work for physical health reasons?	.026 ^e	1.262	.207	.031	.997	1.003	.373
	SHIFT (10.5 hour steady days)	.004 ^e	.202	.840	.005	.911	1.097	.372
	SHIFT (10.5 rotating)	-.003 ^e	-.126	.900	-.003	.783	1.277	.374
	SHIFT (12 hour rotating)	-.006 ^e	-.266	.790	-.007	.843	1.186	.373
	SHIFT all other combined (insufficient data to keep separate)	.019 ^e	.873	.383	.021	.965	1.036	.373
	ERI interpretation recoded	.067 ^e	2.542	.011	.062	.619	1.616	.373
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.002 ^e	.072	.943	.002	.833	1.200	.374
	Work Hazard Average Score	.050 ^e	2.133	.033	.052	.790	1.265	.373
	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	.078 ^e	3.383	.001	.083	.806	1.240	.373

	PF1 Guarding minds at work score 1	.034 ^e	.956	.339	.023	.334	2.994	.326
	PF2 Guarding minds at work score 2	-.030 ^e	-.922	.357	-.023	.409	2.443	.317
	PF3 Guarding minds at work score 3	.011 ^e	.301	.763	.007	.335	2.981	.293
	PF4 Guarding minds at work score 4	-.005 ^e	-.171	.864	-.004	.457	2.190	.329
	PF5 Guarding minds at work score 5	-.034 ^e	-1.001	.317	-.025	.366	2.729	.307
	PF6 Guarding minds at work score 6	.044 ^e	1.109	.268	.027	.274	3.651	.246
	PF8 Guarding minds at work score 8	.076 ^e	1.837	.066	.045	.256	3.905	.251
	PF9 Guarding minds at work score 9	.056 ^e	1.532	.126	.038	.328	3.049	.318
	PF10 Guarding minds at work score 10	.007 ^e	.256	.798	.006	.551	1.813	.356
	PF12 Guarding minds at work score 12	.111 ^e	2.818	.005	.069	.278	3.603	.278
	PF13 Guarding minds at work score 13	.059 ^e	1.931	.054	.047	.471	2.124	.331
7	Mental demands average score	-.020 ^h	-.963	.336	-.024	.974	1.026	.373
	UGwork_3REVISEDcategories=No UG work	.022 ^h	1.007	.314	.025	.885	1.130	.373
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.020 ^h	-.923	.356	-.023	.934	1.070	.372
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.008 ^h	-.322	.747	-.008	.711	1.406	.372
	Physical Environment Average Score	.009 ^h	.362	.718	.009	.670	1.492	.366
	employment_status=Full-time, permanent	-.020 ^h	-.957	.339	-.023	.980	1.021	.370
	employment_status=Full-time, contract	.030 ^h	1.425	.154	.035	.983	1.017	.371
	employment_status=Casual	-.043 ^h	-2.047	.041	-.050	.994	1.006	.372
	employment_status=other	.028 ^h	1.327	.185	.033	.990	1.010	.373
	Are you currently off work for physical health reasons?	.025 ^h	1.211	.226	.030	.997	1.003	.372
	SHIFT (10.5 hour steady days)	.002 ^h	.079	.937	.002	.910	1.099	.371
	SHIFT (10.5 rotating)	.000 ^h	.021	.983	.001	.781	1.280	.373
	SHIFT (12 hour rotating)	-.007 ^h	-.325	.746	-.008	.843	1.186	.372
	SHIFT all other combined (insufficient data to keep separate)	.017 ^h	.805	.421	.020	.965	1.037	.372
	ERI interpretation recoded	.063 ^h	2.383	.017	.058	.617	1.620	.372
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.004 ^h	.159	.874	.004	.833	1.201	.373
	Work Hazard Average Score	.046 ^h	1.949	.051	.048	.788	1.270	.372
	PF1 Guarding minds at work score 1	.046 ^h	1.266	.206	.031	.331	3.018	.326
	PF2 Guarding minds at work score 2	-.020 ^h	-.626	.532	-.015	.406	2.463	.317
	PF3 Guarding minds at work score 3	.008 ^h	.224	.823	.005	.335	2.982	.292
	PF4 Guarding minds at work score 4	.011 ^h	.348	.728	.009	.446	2.242	.329
	PF5 Guarding minds at work score 5	-.029 ^h	-.857	.391	-.021	.366	2.735	.306

	PF6 Guarding minds at work score 6	.046 ^h	1.151	.250	.028	.274	3.652	.246
	PF8 Guarding minds at work score 8	.081 ^h	1.972	.049	.048	.256	3.910	.251
	PF9 Guarding minds at work score 9	.059 ^h	1.628	.104	.040	.328	3.051	.318
	PF10 Guarding minds at work score 10	.005 ^h	.180	.857	.004	.551	1.814	.355
	PF12 Guarding minds at work score 12	.136 ^h	3.411	.001	.084	.271	3.696	.271
	PF13 Guarding minds at work score 13	.060 ^h	1.998	.046	.049	.471	2.124	.330
8	Mental demands average score	-.023 ⁱ	-1.104	.270	-.027	.973	1.028	.270
	UGwork_3REVISEDcategories=No UG work	.022 ⁱ	1.001	.317	.025	.885	1.130	.271
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.021 ⁱ	-.961	.337	-.024	.934	1.070	.271
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.007 ⁱ	-.279	.780	-.007	.711	1.406	.271
	Physical Environment Average Score	.018 ⁱ	.714	.476	.018	.664	1.507	.268
	employment_status=Full-time, permanent	-.017 ⁱ	-.804	.422	-.020	.978	1.023	.270
	employment_status=Full-time, contract	.026 ⁱ	1.249	.212	.031	.980	1.020	.270
	employment_status=Casual	-.044 ⁱ	-2.105	.035	-.052	.994	1.006	.271
	employment_status=other	.028 ⁱ	1.346	.178	.033	.990	1.010	.271
	Are you currently off work for physical health reasons?	.025 ⁱ	1.187	.235	.029	.997	1.003	.271
	SHIFT (10.5 hour steady days)	.001 ⁱ	.049	.961	.001	.910	1.099	.271
	SHIFT (10.5 rotating)	-.002 ⁱ	-.088	.930	-.002	.781	1.281	.270
	SHIFT (12 hour rotating)	-.009 ⁱ	-.382	.702	-.009	.843	1.186	.271
	SHIFT all other combined (insufficient data to keep separate)	.020 ⁱ	.928	.354	.023	.963	1.038	.270
	ERI interpretation recoded	.062 ⁱ	2.362	.018	.058	.617	1.621	.271
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	.002 ⁱ	.074	.941	.002	.832	1.201	.270
	Work Hazard Average Score	.054 ⁱ	2.312	.021	.057	.780	1.283	.268
	PF1 Guarding minds at work score 1	-.016 ⁱ	-.386	.699	-.009	.258	3.883	.210
	PF2 Guarding minds at work score 2	-.085 ⁱ	-2.348	.019	-.058	.329	3.037	.219
	PF3 Guarding minds at work score 3	-.035 ⁱ	-.921	.357	-.023	.301	3.326	.243
	PF4 Guarding minds at work score 4	-.062 ⁱ	-1.703	.089	-.042	.322	3.102	.196
	PF5 Guarding minds at work score 5	-.076 ⁱ	-2.104	.036	-.052	.326	3.068	.241
	PF6 Guarding minds at work score 6	.016 ⁱ	.406	.685	.010	.260	3.842	.233
	PF8 Guarding minds at work score 8	.041 ⁱ	.958	.338	.024	.231	4.334	.231
	PF9 Guarding minds at work score 9	.039 ⁱ	1.050	.294	.026	.318	3.148	.262
	PF10 Guarding minds at work score 10	-.005 ⁱ	-.165	.869	-.004	.546	1.833	.268
	PF13 Guarding minds at work score 13	.024 ⁱ	.725	.469	.018	.399	2.509	.229

9	Mental demandes average score	-.033 ^l	-1.548	.122	-.038	.942	1.061	.270
	UGwork_3REVISEDcategories=No UG work	.025 ^l	1.123	.262	.028	.883	1.133	.271
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.023 ^l	-1.076	.282	-.026	.932	1.073	.271
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.008 ^l	-.314	.753	-.008	.711	1.407	.271
	Physical Environment Average Score	.019 ^l	.760	.447	.019	.663	1.508	.268
	employment_status=Full-time, permanent	-.018 ^l	-.849	.396	-.021	.977	1.023	.270
	employment_status=Full-time, contract	.027 ^l	1.285	.199	.032	.980	1.020	.270
	employment_status=Casual	-.043 ^l	-2.065	.039	-.051	.993	1.007	.271
	employment_status=other	.028 ^l	1.348	.178	.033	.990	1.010	.271
	Are you currently off work for physical health reasons?	.024 ^l	1.170	.242	.029	.997	1.003	.271
	SHIFT (10.5 hour steady days)	.001 ^l	.055	.956	.001	.910	1.099	.271
	SHIFT (10.5 rotating)	-.004 ^l	-.189	.850	-.005	.779	1.283	.270
	SHIFT (12 hour rotating)	-.007 ^l	-.307	.759	-.008	.842	1.188	.270
	SHIFT all other combined (insufficient data to keep separate)	.018 ^l	.856	.392	.021	.962	1.039	.270
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	-.017 ^l	-.728	.467	-.018	.746	1.341	.270
	Work Hazard Average Score	.047 ^l	1.977	.048	.049	.762	1.313	.268
	PF1 Guarding minds at work score 1	-.024 ^l	-.595	.552	-.015	.256	3.913	.210
	PF2 Guarding minds at work score 2	-.090 ^l	-2.486	.013	-.061	.328	3.046	.219
	PF3 Guarding minds at work score 3	-.043 ^l	-1.138	.255	-.028	.298	3.353	.243
	PF4 Guarding minds at work score 4	-.068 ^l	-1.851	.064	-.045	.321	3.114	.195
PF5 Guarding minds at work score 5	-.086 ^l	-2.369	.018	-.058	.322	3.102	.241	
PF6 Guarding minds at work score 6	.014 ^l	.339	.735	.008	.260	3.845	.232	
PF8 Guarding minds at work score 8	.035 ^l	.813	.416	.020	.230	4.351	.230	
PF9 Guarding minds at work score 9	.053 ^l	1.437	.151	.035	.310	3.226	.262	
PF10 Guarding minds at work score 10	-.013 ^l	-.457	.648	-.011	.537	1.861	.268	
PF13 Guarding minds at work score 13	.016 ^l	.496	.620	.012	.395	2.533	.229	
10	Mental demandes average score	-.032 ^k	-1.509	.131	-.037	.942	1.062	.219
	UGwork_3REVISEDcategories=No UG work	.022 ^k	1.018	.309	.025	.881	1.135	.219
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.025 ^k	-1.165	.244	-.029	.931	1.074	.219
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.003 ^k	-.106	.916	-.003	.706	1.417	.219
Physical Environment Average Score	.024 ^k	.936	.350	.023	.660	1.515	.216	

	employment_status=Full-time, permanent	-.022 ^k	-1.061	.289	-.026	.971	1.030	.219
	employment_status=Full-time, contract	.030 ^k	1.442	.149	.035	.976	1.024	.219
	employment_status=Casual	-.042 ^k	-2.024	.043	-.050	.993	1.007	.219
	employment_status=other	.031 ^k	1.492	.136	.037	.987	1.013	.219
	Are you currently off work for physical health reasons?	.026 ^k	1.255	.210	.031	.996	1.005	.219
	SHIFT (10.5 hour steady days)	.003 ^k	.147	.883	.004	.909	1.100	.219
	SHIFT (10.5 rotating)	-.002 ^k	-.086	.931	-.002	.778	1.286	.219
	SHIFT (12 hour rotating)	-.010 ^k	-.424	.671	-.010	.840	1.190	.219
	SHIFT all other combined (insufficient data to keep separate)	.015 ^k	.732	.464	.018	.960	1.042	.219
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	-.015 ^k	-.624	.532	-.015	.744	1.344	.219
	Work Hazard Average Score	.043 ^k	1.808	.071	.044	.758	1.320	.219
	PF1 Guarding minds at work score 1	-.010 ^k	-.248	.804	-.006	.251	3.992	.186
	PF3 Guarding minds at work score 3	-.011 ^k	-.271	.787	-.007	.260	3.841	.214
	PF4 Guarding minds at work score 4	-.029 ^k	-.684	.494	-.017	.238	4.200	.190
	PF5 Guarding minds at work score 5	-.065 ^k	-1.701	.089	-.042	.293	3.411	.211
	PF6 Guarding minds at work score 6	.035 ^k	.856	.392	.021	.250	4.006	.216
	PF8 Guarding minds at work score 8	.051 ^k	1.174	.240	.029	.225	4.438	.208
	PF9 Guarding minds at work score 9	.054 ^k	1.468	.142	.036	.310	3.226	.214
	PF10 Guarding minds at work score 10	-.008 ^k	-.298	.766	-.007	.535	1.868	.218
	PF13 Guarding minds at work score 13	.018 ^k	.546	.585	.013	.395	2.534	.192
11	Mental demands average score	-.032 ^l	-1.511	.131	-.037	.942	1.062	.219
	UGwork_3REVISEDcategories=No UG work	.022 ^l	.986	.324	.024	.881	1.135	.219
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.020 ^l	-.935	.350	-.023	.918	1.089	.219
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.007 ^l	-.293	.770	-.007	.700	1.429	.219
	Physical Environment Average Score	.022 ^l	.847	.397	.021	.659	1.518	.216
	employment_status=Full-time, permanent	-.045 ^l	-2.004	.045	-.049	.825	1.212	.219
	employment_status=Full-time, contract	.029 ^l	1.411	.158	.035	.976	1.025	.219
	employment_status=other	.031 ^l	1.480	.139	.036	.987	1.014	.219
	Are you currently off work for physical health reasons?	.026 ^l	1.251	.211	.031	.995	1.005	.219
	SHIFT (10.5 hour steady days)	.003 ^l	.136	.892	.003	.909	1.100	.219
	SHIFT (10.5 rotating)	-.005 ^l	-.225	.822	-.006	.774	1.292	.219
	SHIFT (12 hour rotating)	-.006 ^l	-.269	.788	-.007	.835	1.197	.219

	SHIFT all other combined (insufficient data to keep separate)	.017 ⁱ	.811	.418	.020	.958	1.043	.219
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	-.017 ⁱ	-.708	.479	-.017	.743	1.346	.219
	Work Hazard Average Score	.043 ⁱ	1.799	.072	.044	.758	1.320	.218
	PF1 Guarding minds at work score 1	-.009 ^j	-.225	.822	-.006	.250	3.992	.186
	PF3 Guarding minds at work score 3	-.009 ^j	-.226	.821	-.006	.260	3.843	.214
	PF4 Guarding minds at work score 4	-.030 ^j	-.707	.480	-.017	.238	4.200	.190
	PF5 Guarding minds at work score 5	-.061 ⁱ	-1.612	.107	-.040	.293	3.418	.211
	PF6 Guarding minds at work score 6	.034 ⁱ	.820	.412	.020	.250	4.008	.216
	PF8 Guarding minds at work score 8	.051 ⁱ	1.168	.243	.029	.225	4.438	.208
	PF9 Guarding minds at work score 9	.056 ⁱ	1.524	.128	.037	.310	3.229	.214
	PF10 Guarding minds at work score 10	-.005 ⁱ	-.192	.848	-.005	.534	1.874	.218
	PF13 Guarding minds at work score 13	.019 ^j	.583	.560	.014	.394	2.535	.192
12	Mental demands average score	-.030 ^m	-1.427	.154	-.035	.940	1.064	.219
	UGwork_3REVISEDcategories=No UG work	.020 ^m	.888	.375	.022	.879	1.138	.219
	UGwork_3REVISEDcategories=Some UG work (1-60% of time)	-.017 ^m	-.795	.427	-.020	.914	1.095	.219
	UGwork_3REVISEDcategories=Nearly always UG (61-100% of time)	-.008 ^m	-.309	.758	-.008	.700	1.429	.219
	Physical Environment Average Score	.020 ^m	.792	.428	.019	.658	1.519	.216
	employment_status=Full-time, contract	-.021 ^m	-.531	.595	-.013	.278	3.603	.219
	employment_status=other	.013 ^m	.531	.595	.013	.729	1.372	.219
	Are you currently off work for physical health reasons?	.026 ^m	1.275	.203	.031	.995	1.005	.219
	SHIFT (10.5 hour steady days)	.000 ^m	-.001	.999	.000	.905	1.105	.219
	SHIFT (10.5 rotating)	-.003 ^m	-.134	.893	-.003	.773	1.294	.219
	SHIFT (12 hour rotating)	-.004 ^m	-.198	.843	-.005	.834	1.199	.219
	SHIFT all other combined (insufficient data to keep separate)	.016 ^m	.753	.451	.019	.958	1.044	.219
	NIOSH Quantitative Workload Score Q1-4 Job Requirements, Q1-7 Workload and Responsibility	-.016 ^m	-.648	.517	-.016	.742	1.347	.219
	Work Hazard Average Score	.045 ^m	1.912	.056	.047	.756	1.324	.218
	PF1 Guarding minds at work score 1	-.004 ^m	-.087	.930	-.002	.249	4.012	.185
	PF3 Guarding minds at work score 3	-.007 ^m	-.177	.859	-.004	.260	3.845	.214
	PF4 Guarding minds at work score 4	-.033 ^m	-.777	.437	-.019	.238	4.205	.190
	PF5 Guarding minds at work score 5	-.060 ^m	-1.577	.115	-.039	.292	3.420	.211
	PF6 Guarding minds at work score 6	.036 ^m	.866	.386	.021	.249	4.010	.216

PF8 Guarding minds at work score 8	.051 ^m	1.164	.245	.029	.225	4.438	.208
PF9 Guarding minds at work score 9	.056 ^m	1.501	.133	.037	.310	3.229	.214
PF10 Guarding minds at work score 10	-.004 ^m	-.159	.874	-.004	.534	1.874	.218
PF13 Guarding minds at work score 13	.019 ^m	.584	.559	.014	.394	2.535	.192

a. Dependent Variable: BDI sum of factors sadness to appetite

b. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11

c. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score

d. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7

e. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43)

f. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days)

g. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction

h. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually

i. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12

j. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded

k. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2

l. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2, employment_status=Casual

m. Predictors in the Model: (Constant), PF11 Guarding minds at work score 11, Job Insecurity Average Score, PF7 Guarding minds at work score 7, discrimination victim (question 66, page 43), SHIFT (8 hour steady days), Job Satisfaction Score Q1,2,4,5 Job Satisfaction, Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually, PF12 Guarding minds at work score 12, ERI interpretation recoded, PF2 Guarding minds at work score 2, employment_status=Casual, employment_status=Full-time, permanent

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions												
					PF11 Guarding minds at work score 11	Job Insecurity Average Score	PF7 Guarding minds at work score 7	discrimination victim (question 66, page 43)	SHIFT (8 hour steady days)	Job Satisfaction Score Q1, 2,4,5 Job Satisfaction	Bullying: in my workplace, I am being bullied or harassed, either verbally, physically or sexually	PF12 Guarding minds at work score 12	ERI interpretation recoded	PF2 Guarding minds at work score 2	employment_status=Casual	employment_status=Full-time, permanent	
1	1	1.972	1.000	.01	.01												
	2	.028	8.417	.99	.99												
2	1	2.881	1.000	.00	.00	.01											
	2	.110	5.108	.00	.14	.26											
	3	.009	17.878	1.00	.86	.74											
3	1	3.827	1.000	.00	.00	.00	.00										
	2	.149	5.060	.00	.03	.18	.03										
	3	.016	15.637	.00	.85	.00	.69										
	4	.008	22.217	1.00	.13	.82	.27										
4	1	4.058	1.000	.00	.00	.00	.00	.01									
	2	.788	2.269	.00	.00	.00	.00	.83									
	3	.130	5.592	.00	.03	.21	.04	.16									
	4	.016	16.107	.00	.84	.00	.69	.00									
	5	.008	22.909	1.00	.13	.79	.27	.00									
5	1	4.583	1.000	.00	.00	.00	.00	.01	.01								
	2	.801	2.392	.00	.00	.00	.00	.81	.02								
	3	.467	3.134	.00	.00	.01	.00	.02	.92								
	4	.126	6.033	.00	.03	.20	.04	.16	.04								
	5	.016	17.119	.00	.84	.00	.69	.00	.00								
	6	.008	24.352	1.00	.13	.79	.27	.00	.00								
6	1	5.533	1.000	.00	.00	.00	.00	.01	.01	.00							
	2	.815	2.606	.00	.00	.00	.00	.81	.01	.00							
	3	.478	3.402	.00	.00	.00	.00	.01	.94	.00							
	4	.131	6.511	.00	.02	.21	.03	.17	.03	.01							
	5	.021	16.091	.00	.10	.04	.20	.00	.00	.78							
	6	.016	18.820	.00	.84	.00	.62	.00	.00	.00							
	7	.007	28.872	.99	.04	.75	.15	.01	.00	.20							

7	1	5.681	1.000	.00	.00	.00	.00	.01	.01	.00	.00				
	2	1.171	2.203	.00	.00	.00	.00	.21	.01	.00	.31				
	3	.500	3.370	.00	.00	.00	.00	.69	.00	.00	.64				
	4	.478	3.448	.00	.00	.00	.00	.00	.95	.00	.00				
	5	.126	6.707	.00	.02	.22	.03	.09	.03	.01	.04				
	6	.021	16.307	.00	.10	.04	.20	.00	.00	.78	.00				
	7	.016	19.072	.00	.84	.00	.62	.00	.00	.00	.00				
	8	.007	29.313	.99	.04	.74	.15	.00	.00	.21	.00				
8	1	6.613	1.000	.00	.00	.00	.00	.00	.01	.00	.00	.00			
	2	1.208	2.340	.00	.00	.00	.00	.20	.00	.00	.29	.00			
	3	.501	3.633	.00	.00	.00	.00	.66	.01	.00	.61	.00			
	4	.484	3.696	.00	.00	.00	.00	.01	.95	.00	.02	.00			
	5	.136	6.961	.00	.01	.20	.01	.10	.03	.00	.05	.01			
	6	.024	16.698	.00	.02	.05	.04	.00	.00	.75	.00	.10			
	7	.016	20.547	.00	.59	.00	.61	.00	.00	.00	.00	.01			
	8	.011	23.985	.01	.37	.02	.29	.01	.00	.02	.01	.80			
	9	.006	32.266	.99	.00	.73	.05	.01	.00	.22	.01	.08			
9	1	7.032	1.000	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00		
	2	1.285	2.340	.00	.00	.00	.00	.16	.01	.00	.23	.00	.03		
	3	.603	3.415	.00	.00	.00	.00	.03	.21	.00	.14	.00	.32		
	4	.501	3.747	.00	.00	.00	.00	.66	.03	.00	.59	.00	.00		
	5	.440	3.996	.00	.00	.00	.00	.08	.74	.00	.00	.00	.16		
	6	.082	9.276	.00	.01	.31	.02	.04	.01	.00	.01	.01	.45		
	7	.024	17.231	.00	.02	.05	.04	.00	.00	.75	.00	.09	.00		
	8	.015	21.303	.00	.56	.00	.63	.00	.00	.00	.00	.01	.01		
	9	.011	24.842	.00	.40	.01	.27	.01	.00	.02	.02	.81	.01		
	10	.006	33.426	.99	.00	.62	.05	.01	.00	.22	.01	.08	.01		

10	1	7.957	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
	2	1.324	2.452	.00	.00	.00	.00	.16	.00	.00	.22	.00	.03	.00			
	3	.603	3.631	.00	.00	.00	.00	.04	.20	.00	.15	.00	.33	.00			
	4	.502	3.980	.00	.00	.00	.00	.62	.06	.00	.59	.00	.00	.00			
	5	.450	4.204	.00	.00	.00	.00	.12	.73	.00	.00	.00	.14	.00			
	6	.087	9.556	.00	.00	.28	.01	.05	.00	.00	.02	.01	.44	.02			
	7	.026	17.353	.00	.01	.08	.00	.00	.00	.56	.00	.03	.02	.20			
	8	.019	20.608	.00	.39	.00	.04	.00	.00	.20	.00	.02	.02	.44			
	9	.015	22.960	.00	.25	.00	.85	.00	.00	.25	.01	.00	.02	.00	.07		
	10	.010	28.275	.01	.34	.01	.05	.01	.00	.01	.01	.86	.00	.26			
	11	.006	35.556	.98	.00	.62	.05	.01	.00	.22	.01	.06	.01	.00			
11	1	7.963	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
	2	1.324	2.452	.00	.00	.00	.00	.16	.00	.00	.22	.00	.03	.00	.00		
	3	.996	2.827	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.98		
	4	.602	3.636	.00	.00	.00	.00	.03	.19	.00	.15	.00	.33	.00	.00		
	5	.502	3.984	.00	.00	.00	.00	.63	.05	.00	.59	.00	.00	.00	.00		
	6	.449	4.210	.00	.00	.00	.00	.11	.74	.00	.00	.00	.14	.00	.00		
	7	.087	9.561	.00	.00	.28	.01	.05	.00	.00	.02	.01	.44	.02	.00		
	8	.026	17.379	.00	.01	.08	.00	.00	.00	.56	.00	.03	.02	.20	.00		
	9	.019	20.619	.00	.39	.00	.04	.00	.00	.20	.00	.02	.02	.45	.00		
	10	.015	22.995	.00	.26	.00	.85	.00	.00	.25	.01	.00	.02	.00	.07	.00	
	11	.010	28.286	.01	.34	.01	.05	.01	.00	.01	.01	.86	.00	.26	.00		
	12	.006	35.570	.98	.00	.62	.05	.01	.00	.22	.01	.06	.01	.00	.00		
12	1	8.908	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	2	1.325	2.593	.00	.00	.00	.00	.16	.00	.00	.22	.00	.03	.00	.00	.00	
	3	1.002	2.982	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.83	.00	
	4	.606	3.833	.00	.00	.00	.00	.03	.21	.00	.14	.00	.31	.00	.00	.00	
	5	.502	4.213	.00	.00	.00	.00	.61	.06	.00	.59	.00	.00	.00	.00	.00	
	6	.453	4.434	.00	.00	.00	.00	.12	.70	.00	.00	.00	.16	.00	.00	.00	
	7	.094	9.727	.00	.00	.20	.01	.05	.01	.00	.02	.01	.43	.02	.00	.03	
	8	.035	15.852	.00	.00	.27	.00	.00	.00	.00	.00	.00	.02	.04	.11	.60	
	9	.025	18.728	.00	.01	.01	.00	.00	.00	.64	.00	.03	.02	.14	.01	.09	
	10	.019	21.867	.00	.42	.00	.04	.00	.00	.15	.00	.02	.02	.45	.00	.01	
	11	.015	24.335	.00	.24	.01	.87	.00	.00	.01	.00	.02	.00	.07	.00	.00	
	12	.010	30.010	.00	.32	.00	.04	.01	.00	.02	.01	.89	.00	.27	.00	.00	
	13	.005	42.813	.99	.00	.50	.04	.00	.00	.17	.01	.03	.01	.01	.04	.27	

a. Dependent Variable: BDI sum of factors sadness to appetite

Appendix D - Ethics Approval



APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / New X /	Modifications to project / Time extension
Name of Principal Investigator and school/department	Michel Larivière, Behdin Nowrouzi-Kia, Zsuzsanna Kerekes, Caroline Dignard, Lisa Schutt, School of Human Kinetics and Centre for Research in Occupational Safety & Health (CROSH)
Title of Project	The Mental Health and Well-Being of the Vale workforce in Ontario: Toward a better understanding of the predictors of wellness and a successful return to work
REB file number	2016-04-12
Date of original approval of project	May 24, 2016
Date of approval of project modifications or extension	
Final/Interim report due on: (You may request an extension)	June 01, 2017
Conditions placed on project	The LUREB Approval does not extend to focus groups

During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate LU REB form. In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office.

Congratulations and best wishes in conducting your research.

Rosanna Langer, PHD, Chair, Laurentian University Research Ethics Board

Appendix E - Letter of Information and Consent



Letter of Information and Consent (Questionnaire)

Study title: The Mental Health and Well-Being of the Vale workforce in Ontario: Toward a better understanding of the predictors of wellness and a successful return to work

Investigator: Dr. Michel Larivière, PhD, C. Psych

Introduction:

You are being invited to take part in a research study. Please read the information about the study presented in this document prior to choosing whether or not to participate. The information presented will inform you of all risks and benefits of participating in this study. Please take all the time you need to make an informed decision. Should you have any questions, please ask the investigators to explain anything that you do not understand or any concerns that you may have in order to obtain all information necessary in making your decision. Please be aware that your participation in this study is entirely voluntary and that you may withdraw at any time without penalty.

Background/Purpose:

You are being asked to participate in this study because you are an employee at Vale. The purpose of this study is to better understand the state of mental health and well-being of the Vale workforce in Ontario. Moreover, it will help us understand the facilitators and barriers to mental health in the workplace. There is little research on the mental health and well-being of workers employed by the mining industry. However, there is considerable evidence that mental health is a strong driver of worker absenteeism, productivity and costs. Furthermore, the study will explore the facilitators and barriers to a return to work following a disability due to mental health issues. The study will take approximately 40-50 minutes to complete and will occur during work time on surface. The study is funded by the Vale/USW Joint Occupational Health Committee and CROSH will administer, collect and analyze the data.

Risks:

There are some risks of participating in this study. Some of these risks we know about and they may include psychological risks, such as anxiety, sadness or distress caused when completing the questionnaire. You may choose to skip any questions that you are uncomfortable answering.

All information you provide will remain confidential. We will not disclose any personal information and no identifiers are required on the questionnaire (e.g., your name). Only overall findings will be presented. As such, there is minimal risk of participants being identified or associated to their answers on the questionnaire.

Benefits:

You may or may not benefit from participating in this study. However, the information gained from this study will allow the researchers to understand the current state of mental health at Vale. Moreover, the information may help improve mental health and well-being at Vale.

Tasks:

Should you choose to participate in this study, you will be asked to complete a confidential questionnaire regarding your mental health and wellbeing.

Confidentiality:

The information that we collect will be kept secure. The data will be summarized along with information obtained from other participants. If the results of the study are published or presented at a scientific meeting, you will not be identified. All individual information will be kept confidential and will not be made available to the public or to Vale. The paper copies of the questionnaires will be stored in a locked cabinet in a locked office space at Laurentian University. Only members of the research team will have access to the data. All measures of privacy, confidentiality and security will be respected. No identifying information will be provided to the employer and neither Vale nor the unions will have access to your answers. Participants may choose to withdraw consent during completion of the questionnaire but once submitted, it will no longer be possible to retrieve it since there are no names on it. Furthermore, individual results will not be discussed with a participant (i.e., they are strictly for research and not for diagnostic purposes).

Ethics

This study has been reviewed and approved by the Laurentian University Research Ethics Board. If you have concerns or questions about your rights as a participant or about the way the study is conducted, you may contact:

Laurentian University Research Ethics Officer

E-mail: ethics@laurentian.ca

Telephone: 1-705-675-1151 ext. 3213, 2436 or toll free at 1-800-461-4030

Questions

For any questions about your role in this study, please contact Dr. Michel Larivière at mlariviere@laurentian.ca or by phone at (705) 675-1151 Ext.1202 or 1-800-461-4030 Ext. 1202

Additional Resources

Here is a list of mental health resources should you want to speak to someone after the study:

Vale Employee Assistance Program

Local Union EFAP Reps (USW Local 6500) 1-705-675-3381 ext. 240

USAW Local 2020 (USW Local 2020) 705-675-2461 ext. 227

Canadian Mental Health Association (CMHA) Sudbury: 705-675-7252

Mental Health Helpline (Ontario): 1-866-531-2600

Informed Consent

I have had the opportunity to ask questions about my involvement in this study, and to receive any additional details I wanted to know about the study. I understand that I can refuse to answer any questions that I do not like and can withdraw from the study at any time. Taking part in the study is my decision and no one is forcing me to be involved. Should I choose to take part in any part of this study, all information discussed shall remain confidential. I have been given a copy of this form.

I know that I may leave the study at any time. I agree to the use of my information as described in this form. I agree to take part in this study.

Study Participant's Name

Study Participant's Signature

Date

For further information, please contact:

Dr. Michel Larivière, PhD, C. Psych.

School of Human Kinetics, Northern Ontario School of Medicine, and Centre for Research in Occupational Safety and Health

Laurentian University

E-mail: mlariviere@laurentian.ca

Tel: (705) 675-1151 Ext.1202 or 1-800-461-4030 Ext. 1202

Informed Consent

I have had the opportunity to ask questions about my involvement in this study, and to receive any additional details I wanted to know about the study. I understand that I can refuse to answer any questions that I do not like and can withdraw from the study at any time. Taking part in the study is my decision and no one is forcing me to be involved. Should I choose to take part in any part of this study, all information discussed shall remain confidential. I have been given a copy of this form.

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