

**Mining Workers' Perceptions of the Barriers to and Facilitators of
Return to Work Subsequent to Illness or Injury**

by

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Abstract

The goal of this thesis is to identify barriers to and facilitators of a successful return to work (RTW) following an occupational or non-occupational injury or illness within the mining industry. This study used qualitative research methods to better understand the recovery and RTW process from the perspectives of mining workers. Research participants engaged in semi-structured interviews to explore mining workers' experiences with the RTW process following an injury or illness. Data analysis was guided by interpretive description (Thorne, 2016) and the following key themes emerged: holistic pillars of well-being supporting the RTW process, holistic supports, navigating the maze, and organizational championship. In conclusion, the results of this study illustrated the importance of various supports in facilitating recovery and RTW. Supports can manifest in organizational policy, RTW navigation guidance, and stakeholder appreciation for and understanding of the mind–body connection.

Keywords: qualitative, interpretive description, mining, mining workers, mental health, return to work, occupational health, Sudbury

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Chapter 1: Introduction to the Research Study

The overall goal of the broader study titled Mining Mental Health was to identify barriers to and facilitators of a successful return to work (RTW) following an occupational or non-occupational injury or illness within the mining industry with a view to planning interventions, including effective RTW programs.

There were two phases to the Mining Mental Health Study. Phase 1 was the quantitative component, which entailed a questionnaire, and Phase 2 was the qualitative component, which consisted of individual interviews and is reported on in this paper. For a brief description of Phase 1, see Appendix A.

Thesis Statement

Using a semi-structured interview technique and analyzing the data using interpretive description, a non-categorical approach to data analysis. I outline Northern Ontario mining workers' subjective perceptions of (a) barriers to and (b) facilitators of their RTW subsequent to an injury or illness.

Operational Definitions

For the purposes of this study, **mining worker** includes all workers employed in all areas of the mining industry, including but not limited to miners, engineers, mechanics, geologists, administrators, occupational health staff, and manager/executives.

Return to work refers to the procedural steps involved in re-integrating an injured worker into his or her pre-injury job, applying strategies such as job modifications or accommodations as required (Krause et al., 2001).

Within the context of this research study, **the RTW process** has been operationalized to include general aspects that are not exclusive to any one industry, such as (but not limited to)

correspondence with supervisors, paperwork (e.g., functional abilities forms), RTW meetings, flexible scheduling, and modified duties.

When defining **successful RTW**, there are many factors to consider, including what constitutes a “successful” RTW, such as the perspective from which it is being described (Hees et al., 2012). For the purposes of this study, we defined a successful RTW as one where the worker believes they have returned to the workplace following an injury or illness promptly and safely and remain in the workplace in a dignified manner.

An individual’s **perceptions** are how “the person interprets the stimuli into something meaningful to him or her based on prior experiences” (Pickens, 2005, p. 52).

Defining **barriers** to the RTW process was an iterative and collaborative process between myself and my committee. What constitutes a barrier is subjective. Therefore, in the context of this study, we operationalized barriers to mean anything that is perceived by an individual as preventing them from successfully returning to the workplace following an injury or illness, including but not limited to an event, a person, a physical or mental disability, or processes and procedures.

Defining **facilitators** of the RTW process was also an iterative and collaborative process between my committee and myself. What constitutes a facilitator is also subjective. Therefore, in the context of this study, we operationalized facilitators to mean anything that is perceived by an individual as aiding in the process of a successful return to the workplace following an injury or illness, including but not limited to an event, a person, or physical or mental disability or processes and procedures.

Aims and Purpose

Despite existing research on RTW in other industries (Haslam et al., 2005; Jetha et al., 2016; Lork & Holmgren, 2018; St-Arnaud et al., 2007), findings may not apply specifically to

the uniqueness of the mining industry. The Mining Mental Health Study sought to better understand the state of mental health and well-being of mining workers in Ontario. The study intended to reinforce the concept that there is a psychological component of all injuries or illnesses and should therefore be considered when planning RTW, which is why mental illness or injury was not an exclusive recruitment requirement (see recruitment below). Furthermore, the study intended to better understand the perceived barriers to and facilitators of a successful RTW through qualitative research methods aimed at providing anecdotal support to the quantitative data collected in Phase 1.

Rationale

Using a semi-structured interview technique and analyzing the data using interpretive description (Thorne, 2016), I outline Northern Ontario mining workers' (employees') subjective perceptions of (a) barriers to and (b) facilitators of their RTW subsequent to an injury or illness. Research regarding mental health and RTW remains insufficient (Martin et al., 2015), and more research is likely needed to mitigate the risks associated with inadequate RTW strategies, particularly those that do not consider the mental elements of injury or illness. Furthermore, despite the known connection between injury or illness and poor mental health, there has been little research regarding mental health or RTW in the mining industry (Carlisle & Parker, 2014; Mclean, 2012). Mental health claims are on the rise in the Australian mining industry (Smith et al. 2014) and across all Canadian industries (Chapman et al., 2019), which further justifies the need for a better understanding of RTW practices.

The rationale for exploring the barriers to RTW in the mining industry has two main components. First, the mining industry is characterized by 24/7 operations, shift work, low job autonomy, and high demands (Carlisle & Parker, 2014). The nature of this work likely impacts mental and physical health (Carlisle & Parker, 2014). Second, work can provide a sense of

purpose and contribute to a person's identity. When workers are off the job for a prolonged period of time, the result can be feelings of fatalism (O'Toole, 1973) and a loss of confidence and sense of self-efficacy (Blank et al., 2015). Therefore, exclusion from the workforce due to disability is known to contribute to poor mental health (Carlisle & Parker, 2014) and likely hinders RTW processes.

An expected challenge to exploring the topic of mental health and RTW in the mining industry was the workplace culture that exists within blue-collar, male-dominated industries that can be characterized as a "culture of stoicism" (Carlisle & Parker, 2014, p. 204). This type of stoic, "manly-man" disposition prevents people from seeking help (Carlisle & Parker, 2014) and may prevent disclosure of concerns and/or reporting of injuries and accidents (McLean, 2012).

In high-demand industries such as mining, it is crucial to shed light on the interconnectedness between physical factors (i.e., physical injury) and psychological factors (i.e., poor mental health) to better inform workplace policy on improving worker well-being and productivity. Additionally, research in this field is becoming urgent as the incidence of musculoskeletal and psychological disorders continue to rise (Carlisle & Parker, 2014). Smith et al. (2014) concluded that there is a need for more insight into the predictors of a successful RTW for individuals with mental health injuries across all industries.

Learned Helplessness: Utilizing theory to understand the barriers and facilitators to RTW

The Learned Helplessness Theory will be utilized to better understand some barriers related to RTW for individuals managing mental health challenges. The theory of Learned Helplessness developed by Martin Seligman posits that individuals who have experienced a life trauma or even simply a seemingly continuous series of unfortunate events may develop intense feelings of helplessness. These individuals believe they have no control over the outcome of their lives and this experience of extreme powerlessness leads them to in a sense 'give up' on life. In

1992 a group of researchers explored this theory through an occupational lens and emphasised the importance of injured workers remaining in control of their lives and for the organization to accommodate their need for productive work as “productive, meaningful work is more therapeutic than the receipt of disability benefits” (Heffner & Walker, 2007. P. 4). In fact, Walker, J. in his article *Injured Worker Helplessness: Critical Relationships and Systems Level Approaches for Intervention* (1992) believed that benefits being received out of fraudulent statements concerning one’s health status can lead to what he referred to as “*learned laziness*”. (as cited in Heffner & Walker, 2007). To reiterate, the Theory of Learned Helplessness illuminates the importance of a prompt return to work as extended periods away from work are documented as being a main barrier to the RTW process. Boyd et al. (2012) supports that a safe and prompt return to the workplace that concentrates on involving the worker in the process through goal setting, assessments, and monitoring will be conducive to a full and lasting recovering.

The Theory of Learned Helplessness is quite suitable in the realm of RTW because it focuses on the intrapersonal aspects which are crucial, if you consider that with all things being equal if the individual is not invested in the process it will ultimately fail. Certain individuals may be pre-disposed to learned helplessness for various reasons and it is important to remember that “Work organizations and workplace relationships can create situations that set the stage for an employee to learn helplessness” (Heffner & Walker, 2007. P. 4). Perceived social support can significantly impact the motivation of the returning worker, therefore it is critical to be mindful of interventions that help improve the self-efficacy of the worker. In a paper by Roger Bjornstad titled *Learned Helplessness, Discouraged Workers, and Multiple Unemployment* the Theory of Learned Helplessness was explored in conjunction with the discouraged worker effect to help explain worker motivation. In further exploration of the affect external factors such as the labour

market (or in the context of RTW, the workplace environment or organizational policy) might have on an individual's propensity to develop learned helplessness the author uses the theory of Learned Helplessness to better understand the motivational tendencies of the unemployed. Bjornstad states that "unemployed workers own perceptions of their individual chance of getting a job decreases as the prospect of reemployment diminishes" (Bjornstad, R. 2006, pp. 459). To reiterate, Bjornstad posits that when the labour market is saturated leading to low levels of unemployment individual motivation actually increases due in part to probable outcomes; however when the labour market experiences a 'lull' leading to high levels of unemployment contrary to what one would expect, the motivation to find employment diminishes (Bjornstad, R. 2006).

This concept is supported in the work by Stewart, Polak, Young, and Shultz who used the biopsychosocial approach to better understand RTW for individuals suffering from back pain. They posit that emotional responses such as anxiety, misery, and misperceptions which can be caused by feelings of having little control over the outcome of their RTW, health, or overall life and have coined this concept *perceived uncertainty* (Knauf & Shultz, 2016). Acknowledging the significance of this is essential in understanding the barriers that are associated with RTW. Based on this research one would conclude that once an individual loses confidence in the likelihood of a successful RTW process the chances of a failed RTW are substantially increased.

Considering Learned Helplessness Theory from a mental health perspective can lead to added challenges due to the sensitivities that these people are often dealing with. Behan and Hirschfeld suggest that "Particular employees, under certain stressful conditions, could manifest disability without disease" (as cited in Heffner & Walker, 2007). In other words, there may not be an identifiable accident/injury that the disability symptoms can be attributed to, but that should not mean that the person is ill-intentioned in their personal accounts of their health.

Unresolved mental health issues such as depression or anger issues which have been associated with “workplace dysfunction” can lead to a proneness to accident or injury (Heffner & Walker, 2007. Pp. 3). Could it be argued then that an individual managing mental health challenges may have a proneness to learned helplessness and thereby compromising the RTW process before it even begins?

A study done in Copenhagen that explored RTW following an absence due to mental health issues found that a leave due to self-reported stress/burnout yielded positive RTW results in terms of the promptness of the return (Nielson, Madesn, Bultmann, Christensen, Diderichsen, Rugulies. 2010). However, RTW following self-reported depression yielded quite negative RTW results, taking employees significantly longer to return to their workplace; and as mentioned previously it is critical to maintain engagement with the workplace if at all possible.

A limitation discovered by Tayfur, Karapinar, Camgoz (2013) in their article that examines the relationship between learned helplessness and organizational justice and turnover was simply utilizing learned helplessness as a one-dimensional construct. It is important to consider that learned helplessness can develop on the personal level or on the universal level. An individual experiencing personal learned helplessness in RTW may decide to simply change workplaces; whereas an individual experiencing universal learned helplessness may have no positive expectations for their RTW regardless of the establishment. Additionally, Learned Helplessness Theory focuses primarily on the individual, therefore weaknesses begin to surface in that the theory has little utility in addressing the interpersonal aspects that may impact the RTW.

Chapter 2: Literature Review

I conducted a literature review using electronic databases such as Sociological Abstracts, psycInfo, and PubMed. I also used Google Scholar and Google to search relevant gray literature, which are information sources not published through academic avenues such as academic journals (e.g., reports, white papers, and government documents). Key search words included, but were not limited to, qualitative, return to work, mental health, mining, mining workers, and occupational health.

Brief Historical Overview

Occupational health and safety in industrial sectors has evolved over many years. The following research on mental health and psychosocial hazards provides a summary of some historical aspects of health and safety in the mining industry and demonstrates its evolution.

Worker's occupational health and safety in 20th century America was often characterized by dreadful conditions. In the early 1800s, mining was undertaken in relatively shallow pits. By the 1850s and 1860s, mines were rapidly becoming deeper and larger. Regrettably, safety measures failed to keep pace, resulting in an increase in unsafe conditions, such as inadequate ventilation. Many workers died of asphyxiation or from roof collapses (Corn, 1987).

Improving health and safety legislation was hindered by a collective social attitude reflecting a belief that miners were responsible for their own well-being and that risks associated with mining—such as explosions, fires, and asphyxiation—could be delayed but not prevented (Corn, 1987).

The later part of the 19th century was characterized by a notable increase in industrial development (i.e., mechanization, overcrowded workplaces, and faster production) that had a negative impact on occupational health and safety (Tucker, 1988). The *Ontario Factory Act* was declared in 1886; however, strategies for implementing and enforcing the act were

underdeveloped (Tucker, 1988). The act outlined regulations for employing children and women, for all factory work, and for administration and enforcement (Tucker, 1988). The act sparked contention between labour and manufacturers, particularly regarding who would become inspectors and what power the inspectors had to enforce the act (Tucker, 1988). Enforcement was tenuous because resources were sparse from the beginning. As time went on and the inspectors' workloads grew, the repository of inspectors did not. Tucker (1988) stated that the Ontario government was unable to effectively counter the pressures of a market economy for fear of losing private investors. It was no secret that mine operators of the day had an interest in resisting labour legislation (Tucker, 1988). The lack of enforcement resources compromised the overall integrity of the *Ontario Factory Act* (Tucker, 1988).

There was and continues to this day to be a world of social and political economy issues as it relates to the world of labour. Barneston (2010) explicitly states that despite occupational health and safety legislation well over half a million workers are injured significantly on the job per year, and over one thousand workers will succumb to a work-related injury or illness (Barneston, 2010). Turning our minds to legislation prompts us to examine the internal and external safety systems and their effectiveness. Not all injuries or illnesses are obvious (e.g. breaking a leg as a result of a slip and fall in the workplace), repetitive strain injuries (RSI) have a latency period and there are factors to be considered before proving work relatedness. According to Barneston (2010) "While governments and employers often cite the complex causation of such diseases as a reason for delay or refusals, there is evidence that concerns about financial liability drive these decisions" (p. 50).

The social contexts in which injury and illness exist impacts how they are perceived by workers, employers, and government, meaning "factors other than "science" contribute to what we consider legitimate work-related injuries" (p.51). Depending on how injury or illness is

defined, may benefit or disadvantage certain stakeholders. That said, the way our society responds to injury or illness is guided by the position taken by the government as Barenston (2010) explains “those who are more powerful are better situated to have their versions of reality become the dominant ones. And in our society, capital is very much more powerful and better organized than workers are” (pp. 51-52). This power imbalance likely undermines the internal safety system as workers don’t feel empowered to speak up for safety concerns for fear of reprisal.

This compels us to delve deeper into the social and political contexts as they relate to health & safety however, it is outside the scope of my research question and is better examined as a separate topic.

In the late 1800s in Ontario, labour unionization was strong, particularly the Coopers International Union, Typographical Union, and the Iron Molders International Union (Kealey, 1976). This was a time when the union, backed by a membership of skilled craftsmen, determined wages, hours, and personnel decisions made on the shop floor (Kealey, 1976). However, this capability was fleeting because union membership declined and mechanization increased, altering the skilled trades. Manufacturers insisted on introducing “bucks” or unskilled labourers, thus undermining the expertise and professionalism of several trades (Kealey, 1976). A weakening labour voice in a market economy likely jeopardized the ability of workers to effectively advocate for their health and safety while at work. According to Kealey (1976), in the late 1800s in Ontario, government and manufacturers made a concerted effort to overcome the unions and gain full control of the “means of production” (Marx, 1935) to undermine workers’ efforts to maintain some control over their trade and the value of their labour. By the 1890s, manufacturers had fully realized the imperative of close production supervision in order to

undermine the “autonomous workmen” (Kealey, 1976, p. 46), or in other words, de-skill the workforce (Kealey, 1976).

Despite the *Ontario Factory Act*, factory workers still endured unsafe working conditions, as highlighted in Elizabeth Burt’s article chronicling the Triangle Shirt-Waist Factory fire of 1911 in New York City (Burt, 2005). Labour groups fought relentlessly for better working conditions during years prior to the factory fire, but to not avail. However, as Burt describes, this tragedy was “a pivotal event in the early twentieth century that is frequently mentioned in histories of the period...” (Burt, 2005, p. 190). This event was unique in that there was no way to conceal the tragic occurrences from the public. Bystanders watched as young women flung themselves from the high rise building in desperation. This highly publicized story, which exposed criminally negligent employers, was likely the impetus for several new safety codes for factories (Burt, 2005).

During the 1930s, health and safety circumstances had not improved (Storey, 1987). For example, The Steel Company of Canada (Steloc) and The Dominion Foundries and Steel (Dofasco) were two Hamilton, Ontario, companies described by workers as having poor working conditions. Specifically, Dofasco was known as the “slaughterhouse of accidents” (Storey, 1987, p. 369). During this time, as per workplace culture, it was acceptable to conceal an injury or illness to maintain employment. At this time, labour activists were continuing to advocate for improved workplace conditions (Storey, 1987).

The great depression had a massive impact on the mining industry resulting in significant layoffs. According to the United States Bureau of Mines (USBM), budget cuts were pervasive and the funding for research associated with underground mining (e.g. roof collapse, explosives, mechanical equipment) were dismissed (Breslin, 2010). Although the fatality rate had been reduced by nearly fifty percent from the first world war and the second world war, the death rate per 1 million tons of coal was 2.04. Between 1942 and 1945, 5314 lives were expended in the

mines. By 1948, the USBM pushed for mine workers to be trained in first aid and mine rescue, with over 30, 848 being trained that year (Breslin, 2010).

During the 1960s workers continued to manage injury or illness privately (Storey, 2004). However, workers in the mining industry began to express their discontent with voices louder than most. International Nickel Company (Inco) mines in Sudbury, Ontario, were criticized for exposing miners to mercury, toxic gases, and dust, resulting in increased conflict between executives and union officials (Storey, 2004).

During the mid-1970s, widespread media attention emerged following the discovery that miners were dying from cancers linked to radiation and asbestos exposure in Ontario mines such as Elliot Lake (Storey, 2004). By 1979, Ontario workers were granted the right to know what materials they were working with and the associated risks thanks as a result of Bill C70: *An Act Respecting the Occupational Health and Safety of Ontario Workers* (Storey, 2004). Bill C70 created momentum for the health and safety movement leading to an influx of publicly funded health and safety organizations in the 1980s, such as the Workers Health and Safety Centre (WHSC) and Occupational Health Centers for Ontario Workers (OHCOW). By the early 1990s, health and safety education and training were provided to thousands of workers through labour unions and various health and safety organizations. By this time, the health and safety movement seemed to have peaked (Storey, 2004). In the 1990s and 2000s, health and safety activism slowed. Factors such as the influx of technology, globalization, privatization, outsourcing, and changes to legislation significantly undermined the labour movement (Storey, 2004). Despite some resistance to health and safety legislation, research has continued to shed light on the physical and psychological outcomes of injury and illness in the context of mining.

The term “occupational health psychology,” as described in James Campbell Quick’s article *Occupational Health Psychology: Historical Roots and Future Directions* (1999), focuses

on healthy workplaces. Healthy workplaces are defined as ones in which “people may produce, serve, grow, and be valued” (Quick, 1999, p. 82). Quick (1999) discussed how the concept of mentally healthy workplaces dates to the 1880s. The article discussed three cases where companies endeavoured to apply occupational health psychology to the workplace, including Johnson & Johnson Co., which in 1978 developed a health promotion program named “Live for Life” (Quick, 1999). Live for Life included employee services such as smoking cessation, stress management, exercise education, and ergonomics. Johnson & Johnson Co. concluded that the program contributed to improved overall physical fitness and employee attitudes.

Despite the increase in mental health literacy (Jorm, 2000), anecdotal evidence supports a major gap in the practical application and overall acceptance of mental health concepts in the mining industry (Martin et al., 2015). There are, however, some studies that have explored mental health in the mining industry.

Mental Health Research

Mental health is an inherent part of overall well-being and is defined as “a state in which the individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his own community” (Mental Health Commission of Canada [MHCC], 2013, p. 3).

Interest in mental health concepts and strategies have grown in Canada, especially between 2007 and 2017 (Samra, 2017) including achievements in legal, business, media, and research. The role of the workplace in worker mental health was brought to light with the 2001 release of *Mental Health Works*, a national social enterprise of the Canadian Mental Health Association. In 2005, disabilities related to mental health were included in the new legislation *Accessibility for Ontarians with Disabilities Act*. The term psychological health and safety was coined in 2009 with the launch of *Guarding Minds @ Work*, a program designed to assess

workplaces for psychological health and safety. In 2011, mental health gained widespread media attention through *Bell Let's Talk* events. The *National Standard of Canada for Psychological Health and Safety in the Workplace* (Canadian Mental Health Association, 2013) which is the first in the world, was released in 2013. In 2016, the *Sexual Violence and Harassment Action Plan Act* and the *Supporting Ontario's First Responders Act* were enacted (Samra, 2017).

According to the MHCC, one in five Canadians will experience a mental health problem or illness in their lifetime (Mental Health Commission of Canada, 2013). Further, an estimated nearly 5 million people will be challenged by a mood or anxiety disorder by 2041 (Mental Health Commission of Canada, 2013). The stigmatizing nature of mental illness leads Canadians to attempt to manage their own mental health issues without the help of a professional (Butler et al., 2015). In fact, only about 33% of individuals who suffer from mental health issues seek mental health care (Gulliver et al., 2010). St-Arnaud et al. (2007) argued that mental health problems are not inconsequential, "they can have debilitating effects that can lead to long periods of disability, are persistent, and involve a high risk of relapse" (p. 692). Mental illness is associated with income loss, delays in career advancement, and relationship stress, and if left untreated can lead to long-term exclusion from social institutions such as work and education (MHCC, 2013).

Cost of Mental Illness

Mental illness is associated with increased presenteeism and absenteeism resulting in decreased productivity and an increase in disability claims. Disability claims relating to mental health have been on the rise since 2004 and, in 2013, over 30% of all disability claims were for mental health reasons (Butler, 2015).

According to the MHCC (2013), mental illness costs \$50 billion per year, or 2.8% of Canada's GDP. The cost to the Canadian economy is billions of dollars each year (Dewa et al.,

2004; Boyd et al., 2012). The MHCC (2013) estimated that, over the next 30 years, treatment, care, and support services for those with mental illness will cost over \$2 trillion.

Mental Health and Return to Work

Research on RTW for individuals with mental health challenges does not appear to be robust (Martin et al., 2015). Lacking also is literature on the association between the physiological and psychological elements of RTW in the mining industry (Carlisle & Parker, 2014). Shultz et al. (2011) reported that employers often struggle with workplace accommodations, which is a significant component of the RTW process. Too often rehabilitation focuses on the individual (e.g., stress and fatigue) as opposed to their environment (e.g., lighting or noise and distraction levels) (St-Arnaud et al., 2007; Schultz et al., 2011). Therefore, RTW coordinators might improve outcomes if they modify a worker's environment and explore changes that might enhance productivity (Boyd et al., 2012). Unfortunately, Shultz et al. (2011) suggested that between 53% and 74% of Canadian employers have little to no experience with accommodations through environmental modification (e.g., space enclosures, natural light, music, and the use of white noise). According to Boyd et al. (2011), those planning workplace accommodations need to consider the individual worker's physical, psychological, and social needs.

To prevent injuries or illnesses from worsening, it is critical to provide services that help those with a physical injury to also cope with the psychological effects of their suffering (Boyd et al., 2012). It is important to recognize the different types of challenges that may be associated with the RTW process. In particular, people often experience stress while attempting to adjust to a RTW program, which can lead to other injuries if not carefully addressed. Research suggests that accommodations for mental injury or illness are accompanied with unique challenges relative to physical injuries (Smith et al., 2014). As such, psychosocial factors should be

considered by employers when creating a RTW plan (Considine et al., 2017). “Overall, research suggest hat the factors that comprise physical health also comprise mental health” (Taylor et al., 1997, p. 436). RTW programs are highly complex and should be treated “as high risk projects” requiring careful implementation (Fassier, 2013, p. 443).

Review of Related Studies

Sandmark (2011) studied RTW among women who were on a leave due to mental health issues such as burnout, depression, or stress. Women were recruited while on a medically certified leave that was at least 90 days in duration. Questionnaires were sent to participants to gather information about their leave and their RTW. This study included self-rated health, sleep quality, and job-related issues (in an RTW context). The author of the study found that those who successfully returned to their workplace reported fewer negative effects of the leave, better sleep quality, and more feelings of control over their lives (including the RTW process and plan). Additionally, the findings supported that changes made to the work environment (as opposed to solely focusing on “fixing” the worker) helped facilitate a successful RTW. Due to its cross-sectional design, the research did not infer causality (Sandmark, 2011). Moreover, RTW is not a singular event but an evolving process that may be better understood through a longitudinal study. Furthermore, the authors concluded there was an important relationship between personal, social, and work factors that influenced the mental health of workers, which supports the belief that RTW is a “social phenomenon” (Soklaridis et al., 2010, p. 1565). Psychosocial factors need to be considered, and when planning recovery and RTW (Soklaridis et al., 2010). The authors also indicated that the state of the global financial climate and the fluctuations in commodity prices might have influenced the well-being of employees.

A scoping review explored the existing research on psychosocial work environment and disability management, with a focus on employer strategies for preventing work disability in

common mental disorders. This paper reviewed 24 quantitative studies, 15 qualitative studies, and five mixed methods. Study designs included randomized controlled trials (5) and quasi-experimental methods (12), which included three cross-sectional samples. The results of the qualitative studies spoke to the importance of external coordination during RTW, acknowledgement of environmental and psychosocial barriers as work-related obstacles to RTW, workplace social support, self-efficacy, and organizational learning (i.e., policy development) (Gensby et al., 2019).

A 2017 qualitative study examined the relationship between injured workers and the insurers and employers. This study focused on the New South Wales, Australian Workers Compensation system. The authors sought to validate the difficult interactions between representatives of the system and injured workers by conducting interviews (N=20). Manual thematic analysis was conducted by several researchers who utilized reflection, discussion and colour coding was used. The primary findings included not enough contact or engagement while off work, a lack of management support in the RTW process, and a lack of access to adequate workplace accommodations (Thornthwaite & Markey, 2017).

A 2016 study employed a sociotechnical systems approach to explore the intricacies of the RTW process. Some system dynamics modelling included attitudinal characteristics, health factors, and organizational components. The participants (N=30) consisted of (but were not limited to) human resources professionals, compensation coordinators, and health and safety coordinators. The results of this study showed that psychosocial factors such as workplace social support, supervisor and co-worker pressure, and supervisor-frontline worker communication impact RTW (Jetha et al., 2016).

A 2017 qualitative study explored the experiences of RTW self-efficacy among workers on sick leave. The study took place in Sweden and the design employed a semi-structured

interview (N=9). The results highlighted that when an employee is on sick leave, being assessed and susceptible to the opinions of various stakeholders can conjure feelings of frustration and confusion, leading to extended leave (Lork & Holmgren, 2018).

A 2005 study conducted in the United Kingdom looked at depression and anxiety in the workplace using a focus group methodology to gain insight into the experiences of those challenged by anxiety and depression. Nine of the 12 groups focused on personal experiences, and three groups focused on staff (e.g., human resources and occupational health and safety coordinators) to examine organizational policy. Based on the results of the study, the authors made several recommendations, including integrating mental health into health and safety training, conducting mental health risk assessments within organizations, increasing communication between health care professionals and employers, and ensuring employees are actively involved in rehabilitation (Haslam et al., 2005).

In Australia, two quantitative studies explored psychological distress among coal mining workers. In 2014, a survey found that 80.5% of participants (N=231) reported experiencing physical pain and 28.4% indicated mild to moderate psychological distress. The authors concluded that there is a link between physical pain and psychological distress (Carlisle & Parker, 2014). A 2016 survey was distributed across eight mine sites (N=1,456). The authors demonstrated that the mining industry lost an estimated \$153.8 million (\$AU2015) due to psychological distress, and that perpetual presenteeism was thought to result in a 30% reduction in productivity (Ling et al., 2016). Interestingly, managers were found to have the highest degree of monetary loss compared to trades workers and operators (Ling et al., 2016).

A 2012 descriptive qualitative study that used a semi-structured interview examined the mental health and well-being in resident mine workers in Australia. The main themes that

emerged included the importance of relationships, the impact of lifestyle, work characteristics, and mental health attitudes (McClean, 2012).

In a systematic literature review conducted by Blank et al. (2008), the authors examined 15 articles published between 1985 and 2005 to better understand the predictors of RTW for people suffering episodes of poor mental health. The results unveiled the primary risk factors that prevent a successful RTW as work factors (e.g., high job stressors, risk of job loss, occupational injury, and no insurance), health risk behaviours, social status, demographics, and medical factors. This review provided anecdotal evidence of the relationship between psychological factors and prolonged sick leave.

St-Arnaud et al. (2007) conducted a quantitative, cross-sectional study to look at the determinants of RTW among employees absent due to mental health challenges. The participants, who were recruited from the public sector, were on a leave due to a mental health problem (N=1,850). The authors concluded that the resolution of a mental health issue is not always the solution to a successful RTW; however, it is often associated with a positive RTW experience (St-Arnaud et al., 2007).

A cross-sectional study in Australia sought to identify the workplace factors that were associated with mental health in the mining industry (Considine et al., 2017). A survey was conducted at eight mining sites (N=1,457). The survey showed that those employed in the mining industry reported higher levels of psychological distress. Factors that led to increased psychological distress were fewer social networks; a history of depression, anxiety, or drug/alcohol problems; work role; job insecurity; and the belief that there is no help for individuals with mental health challenges (Considine et al., 2017).

A Danish study examined three municipalities to uncover the barriers to and facilitators of RTW following a mental health-related absence. The study used a mixed methods design and

the data was collected between August 2008 and January 2011. Data included national registries, observations, and interviews (individual and group). The results of this study identified stakeholder involvement in RTW processes as imperative (Martin et al., 2015).

A 2010 qualitative study explored the concept that psychosocial factors are more pertinent than the physical elements of injury or illness and RTW (Soklaridis et al., 2010). This study used data from nine focus groups consisting of injured workers to explore the psychosocial factors that hinder RTW for individuals with low back pain. The common theme that emerged was that the interplay between various organizational and social systems seemed to perpetuate the problematic psychosocial factors associated with RTW, making them challenging to address (Soklaridis et al., 2010). Essentially, participants reported a decline in their mental health after navigating the various stakeholder systems (e.g., health care, compensation, union, and workplace) (Soklaridis et al., 2010).

In summary, research demonstrates similarities in where the barriers to and facilitators of a successful RTW lie. Based on the literature outlined above, the most prominent factor in a successful RTW was social support. Five of the above-mentioned studies acknowledge social support as a facilitator of the RTW process (Gensby et al., 2019; Thornthwaite & Markey, 2017; Jetha et al., 2016; Blank et al., 2008; Mclean, 2012).

Furthermore, studies recognized the relationship between psychological distress and pain (Carlisle & Parker, 2014), the economy (Ling et al., 2016), and mental illness recovery (St-Arnaud et al., 2007).

In addition to the factors above, three of the studies considered communication between stakeholders to be a key factor in a successful RTW (Jetha et al., 2016; Haslam et al., 2005; Martin et al., 2015).

Lastly, according to two studies discussed above, work factors such as high job stressors/demands/control, risk of job loss, occupational injury, no insurance, and supervisor support were deemed to be important predictors of a successful RTW (Mclean, 2012; Blank et al., 2008).

A few limitations were noted in the studies, including small sample size (Mclean, 2012) and a lack of non-participant information (Martin et al., 2015). However, the primary limitation among the studies listed above was a lack of generalizability (Mclean, 2012; Blank et al., 2008; Lork & Holmgren, 2018). Self-reporting was deemed to be a limitation in two studies (Ling et al., 2016; St-Arnaud et al., 2007). Lastly the most prominent limitations noted were cross-sectional methodologies (St-Arnaud et al., 2007; Carlisle & Parker, 2014; Ling et al., 2016) and issues that surfaced due to differing measures within the study (Blank et al., 2008; Carlisle & Parker, 2014).

Gaps in the Literature

Based on the research identifying the high prevalence of mental health issues, we can assume there are many Canadians who will attempt a workplace re-integration while managing mental health challenges. Likewise, those who are managing a physical injury may also experience mental health symptoms, which may impact their recovery and RTW. This review suggests that literature on RTW and mental health is growing, however, the acknowledgement of the psychological element of RTW is often lacking (Martin et al., 2015). The gap between evidence and practice suggests that individuals who are managing mental health challenges may be at a significant disadvantage when returning to the workplace because it remains unclear how to address mental health in an RTW context (Martin et al., 2015). Despite findings that support the effectiveness of tailored RTW programs in helping someone who has experienced a mental

illness not only get back to work but remain in the workplace, anecdotal evidence suggests injured or ill workers continue to struggle with RTW (Boyd et al., 2012).

In the context of the mining industry, the gap only widens between evidence regarding RTW and what happens in practice as there is very little research on the confluence of RTW, mental health, and mining.

Chapter 3: Methodology

Background

This study is a component of a larger study (Lariviere, Kerekes, and Hanson. 2016) using a mixed methods sequential explanatory design. Phase 1 was the quantitative questionnaire and Phase 2, the focus of this paper, was the qualitative interviews. The goal of Phase 2 was to contribute to a fulsome description of what mining workers perceive as barriers and facilitators of a RTW by providing qualitative information to the quantitative questionnaire from Phase 1. Indeed to answer a real-world question, it is necessary to explore human behaviour through empirical evidence (Thorne, 2016).

Purpose

The primary purpose of this research was to better understand the barriers to and facilitators of the RTW process following injury and illness and to explore the interconnectedness of physical and mental health. The relationship between physical and mental features of injury and illness is not a new concept. For example, Taylor et al. (1997) noted that, “overall research suggests that the factors that comprise physical health also comprise mental health” (p. 436). My thesis study employed qualitative research methods guided by interpretive description (Thorne, 2016) to elucidate this relationship and to better understand the barriers to and facilitators of the RTW process.

While reviewing the literature, I sought studies that addressed all three pillars of my study, mining, mental health, and RTW. Little was found. My intention was for the results of this study to contribute to this body of research and substantiate the need for improved organizational policies and procedures, evidence-informed workplace practices, and RTW strategies for workers who are returning to work following an injury or illness.

Ethical Considerations

The principal investigator of the overarching research study and supervisor for my research, Dr. Michel Lariviere, Clinical Psychologist, permitted me to conduct and analyze interviews with mining workers. In addition, an ethics application was approved by the Laurentian University Research Ethics Board (Appendix B) in accordance with the Canadian Tri-Council Recommendations for Research with Human Participants. The mining company relied on the approval of the study by Laurentian University Research Ethics Board.

Study Design

Using a semi-structured interview technique and analyzing the data using interpretive description (Thorne, 2016), I outline Northern Ontario mining workers' (employees') subjective perceptions of (a) barriers to and (b) facilitators of their RTW subsequent to an injury or illness. Qualitative research methods have been deemed appropriate when attempting to explore the complexities of the RTW process, which involves both social and behaviour factors (Rauscher & Greenfield, 2009).

Semi-structured interviews provided a flexible and open atmosphere, allowing participants to be guided through their exploratory account of specific phenomena (Thorne, 2016; Pietkiewicz & Smith, 2014). Further, Thorne (2016) believed that "talking is one of our better, more accessible mechanisms for gaining access to material we call subjective knowledge" (p. 38). Talking is a common medium through which we share our experiences with one another, and this study seeks to explore the barriers to and facilitators of the RTW process by talking with those who have experiences relevant to RTW. Thorne (2016) noted that people in the health research field are essentially representing multiple disciplines. Fittingly, the RTW process requires input from a variety of professionals, further supporting interpretive description as a method for data analysis for this study. Interpretive description guides researchers in exploring a

practical question while taking into account the broader social context from which the question arose (Thorne, 2016). Finally, interviews facilitate a deep interaction between the researcher and their lived experience, allowing the researcher to challenge existing knowledge on the topic. This methodology resonates with me because the concepts of RTW, injury or illness, and mental health are far from modern discoveries and have been around long enough to have acquired deep seated conceptions and definitions that have seldom been consciously challenged.

Moreover, the goals of this research study coincide with many foundational underpinnings of interpretive description, such as the requirement to “capitalize on human commonalities as well as individual expressions of variance within a shared focus of interest” (Thorne, 2016, p. 82). Superimposing that concept onto my research sample shows that participants agreed to join the study for a common reason, they wanted to help improve the RTW system despite their varying backgrounds. It becomes the job of the researcher to navigate the narrative and uncover commonality despite differences between the sources (Thorne, 2016). To that end, interpretive description (Thorne, 2016) was instrumental in guiding my exploration of the individual experiences of mining workers who had faced or were facing an injury or illness and their interaction with the transitional process of RTW.

Sample

The sample for this study was 21 mining workers employed by a local mining operation in Sudbury, Ontario. To respect confidentiality and anonymity, questions relating to their specific occupations were not asked, although general information was obtained through discussion. The participants primarily worked underground (e.g., miner, mechanic, driller, and truck driver), though some worked above ground in an office setting. Of note, though demographic information was not collected, the sample was predominately male, an issue that is discussed in the limitations section.

Data Collection

Sampling Approach

It was necessary to employ purposive sampling (Thorne, 2016) to ensure we had a sample that reflected our criteria (see below). Thorne (2016) described purposive sampling as identifying an ideal sample that would yield the most truthful, honest results. The goal was recruit employees who, as a collective, could speak to the RTW process as a whole. Further, It appeared that word of mouth facilitated snowball sampling (Creswell, 2013), because we learned that workers who had participated in our interview process then recommended us to a co-worker(s) who they felt could contribute to the study.

Participant Inclusion and Exclusion Criteria

Potential participants were invited to take part in this study based on whether they had a current or past health-related illness or injury (physical or mental) that may have resulted in an absence. A physical illness or injury (without an apparent mental health component) met this criterion.

Permitting the inclusion of participants who varied in both work (differing jobs) and circumstance (varying injuries or illnesses) allowed me to explore various stages of the RTW process (e.g., incidence of injury/illness, being off work, RTW, and modified duties). Based on the discretion of a doctor, some employees were deemed too ill (e.g., terminal cancer) to participate in the study and their names were withdrawn from the contact list.

Recruitment

First contact with potential participants was made by phone by their employer's Occupational Health Department due to privacy laws prohibiting the release of employee information. When this restriction came to light, an amendment was sent to the Laurentian Ethics Board for approval, which was granted. The employer contacted all the employees who had

submitted an injury or illness claim as of January 1, 2017. Approximately 40 people gave consent to be contacted by the researcher for more information on the study. I personally contacted each of the consenting employees to answer any questions relating to the study and to offer the opportunity to schedule them for an interview session. Participants were able to request information by mail, email, or phone. Information packages were sent to all potential participants who requested additional information. The information packages included: a Mining Mental Health Phase 2 Poster (Appendix C), Research Participant Information Sheet (Appendix D), Mining Mental Health Phase 2 Frequently Asked Questions sheet (Appendix E). Additionally, there was a briefing session prior to each interview where participants could carefully read the informed consent form and have any questions related to the study clarified.

Semi-structured Interviews

The face-to-face interviews were conducted primarily during the week of February 21 to February 24, 2017. There were a few interviews conducted outside this timeframe as I tried to accommodate the availability of all participants. Preceding each interview, participants were provided an opportunity to ask any questions and they were requested to sign an informed consent form (Appendix F). I was the primary interviewer (10), however, to accommodate the high volume of interviews within such a brief time frame, I had the support of three colleagues from the research team. The same questions were used by all interviewers. The interviews were transcribed verbatim by a transcription company and each participant was assigned a code (not gender specific) to protect anonymity.

Thorne (2016) recommended “finding ways to bring subjectively derived knowledge into the armament of useful disciplinary knowledge,” (p. 86) which I interpreted as support for using interviewing as a main research tool. Thorne (2016) stated that studies guided by interpretive description operate in a manner that respects the comfort of those being interviewed. That said,

interviews took place on the Laurentian University campus as per the ethics application. As a researcher, I had to provide a neutral location that was not associated with the union or the company to ensure participants were comfortable.

Due to time limitations, each participant was only interviewed once. Certain methodology requires more than one round of interviewing to increase rigour (Braun & Clarke, 2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. The interviews consisted of approximately 20 open-ended questions and the duration ranged from 20 minutes to 2.5 hours. The in-depth and semi-structured nature of the interviews allowed for impromptu exploration of unanticipated themes and topics (Thorne, 2016; Pietkiewicz & Smith, 2014).

Interview Questions

The interview questions were compiled through a collaborative and iterative process involving the research team, the employer, and the union. The questions were designed to extract meaningful insight from each participant regarding their experience with the RTW process by supporting them in a neutral yet empathetic manner as they re-counted their experiences. The questions covered all areas of the RTW process, such as leading up to going off, being off, returning to work, and remaining at work with modified job duties. The following are a few examples of the questions:

- What factors do you feel may have led to your most recent illness/injury-related absence from work?
- Please describe the steps or tasks that were required of you in submitting your disability claim.
- What would have been most helpful to you while you were off work in terms of your health, well-being, and recovery?

- Who is (was) involved with monitoring your RTW and in what manner is (was) this monitoring performed?

To review the full list of interview questions, please see Appendix G.

Data Entry and Management

Transcripts were imported into NVIVO 11, a research software that aided in managing the qualitative data (e.g., searching data set). Using NVIVO 11, I was able to do word search queries, which was helpful once key words began to surface because I could then cross reference those key words or concepts against the data set to locate similar ideas.

Data Transcription and Storage

The interviews were digitally recorded then transcribed using a raw data convention, (i.e. every “um” and “ah” was recorded in the transcription). I manually reviewed the transcripts against the original recordings to eliminate any identifiers and to seek clarification on unclear phrases and words. No participant identifiers (e.g., names) were retained. In keeping with Laurentian University’s Policy on Managing Confidential Digital Information (Laurentian University, 2015), all digital data is stored on university-approved servers that are only accessible to members of the research team. The audio recorders and transcriptions are currently stored on Laurentian University campus in a locked cabinet in the office of the lead investigator, which is only accessed by members of the research team.

Data Analysis

Interpretive description (Thorne, 2016) engages the researcher in an iterative process of breaking down the data, in this case interview transcripts, and piecing it back together so that the underlying narrative comes to the surface. Several iterations are necessary because the researcher was constantly urged to question their inclinations; however, ultimately the findings will be the result of a process in which the researcher has rigour. For example, Ravenscroft (2005) used

interpretive description to explore individuals' experiences with kidney failure and stated that, despite some limitations, the study successfully illuminated the experiences of the research participants.

Interpretive description allowed me to explore participants' experiences and facilitated my ability to explain the findings. I analyzed all 21 transcripts by immersing myself in the data. I read and re-read each transcript multiple times, with a slightly different focus each time, initially looking simply for salient words or phrases that hinted at deeper meaning. I continually asked, what are the participants telling me? What is working for them, what is not working for them? Subsequently, each reading became about paring down the data into workable sections. Descriptive labels were assigned to each section. For example, each time a participant spoke of negative experiences with the Workplace Safety and Insurance Board (WSIB; e.g., processes, paperwork, or case workers), I labelled that section "issues with WSIB." Though the sections were initially quite large, as the process progressed, I was able to break the data down into more specific labels. For example, the broad label "issues with WSIB" was eventually broken down into more descriptive labels, such as "issues with WSIB paperwork," "WSIB staff difficult to deal with," and "WSIB workers lack training." The labels were defined and continually refined and, when similar or overlapping labels surfaced, they were continually combined until prominent labels became clear.

I continued to immerse myself in the data and re-read the transcript summaries and descriptive labels and began to assign codes (Thorne, 2016). The difference between a descriptive label and a code is that the codes are a more concrete result of what the descriptive labels have finally come to say. That said, codes are not so concrete that they cannot be changed; they are more like concrete that is nearly dry but can still be mixed up and re-created, which

happened continually. Again, this process of continual transformation was documented to ensure an audit trail (Thorne, 2016).

The findings came to light through this analysis, further providing insight into what mining workers perceived to be the barriers to and facilitators of RTW following an injury or illness. The findings can be used to inform future workplace practices and policies, much like previous studies using interpretive description have done.

Methodological Rigour

According to Thorne (2016), findings should reflect a “meaningful synthesis” (p. 155) and tell a “powerful story” (p. 155), and the researcher must record the process of analysis and be able to defend the choices that were made. I have kept an audit trail by journaling my thought processes, and keeping all my notes through which I attempted to organize my thoughts and ideas throughout the analytical process as a means to “retrace the development of abstractions” (Thorne et al., 1997). However, despite our best efforts to remain neutral, the automatic and sub-conscious grouping of data happens based on who we are as people (i.e., a combination of experience, personality, and affiliations) (Thorne, 2016; Thorne et al., 1997). I maintained awareness of this and asked myself questions such as, Why do I feel this way? Why did I just jump to that conclusion? What factors may have led to my assumptions? Ideally, presenting the preliminary concepts to the interviewees and obtaining their feedback is a great way to facilitate rigour (Thorne et al., 1997). However, this was not feasible in my case as I was permitted only one interaction with the participants because of factors such as ethics, protection of confidentiality and anonymity, time, and resources.

Throughout the analytical process I was supported by a designated committee member who has experience with Thorne’s interpretive description. They challenged my conceptualizations and helped me to recognize when my biases were leaking into my analysis.

Transferability

A reader's ability to apply the findings to their own reality or field of study reflects the transferability of the study's findings (Kuper, Lingard, and Levinson 2008). The sample population for this study was broad in that we targeted the entire mining industry as opposed to a specific occupation within the industry. Transferability is high when considering the findings from a broad perspective; however, transferability decreases if the findings are applied to a specific occupation. Considering the complexities of the RTW process, transferability would be fairly minimal even within the same occupation. That said, these findings will inform the broader understanding of the relationship between RTW and injury or illness.

Reflexivity

A main element of Thorne's (2016) epistemological integrity is interpretive authority, which speaks to the audience's need to trust that the researcher's findings "fairly illustrate or reveal some truth external to his or her own bias or experience" (p. 235). This reflexivity provides a contextual illustration of how, as the researcher, I was situated within this study. Although this may be your first time reading this paper, who I am (e.g., my background, experience, and disciplinary orientation) in relation to this research was in the back of my mind long before embarking on this journey and I have continually engaged in self-reflection and challenged my pre-dispositions.

Born and raised in the medium-sized city of Sudbury, Ontario, and deeply rooted within the blue-collar work ethic, I value the honest efforts of the average working person. Sudbury's mining community has employed at least three generations of my family.

I have always been intrigued by the mining industry and growing up my sisters and I were mystified by what it was that our dad did so deep underground. Attempts to dismantle the mystery of this dark underworld were manifested in dad's sketches of the mine and machinery

used within in it. As I grew older, my interest shifted to labour relations between the company and the workers and, eventually, I earned an undergraduate degree in Labour Studies from Laurentian University.

I believe the social and political fabric woven throughout a capitalist economy does not serve the working people, but instead serves the rich and powerful. Despite the innate power imbalance between big business and labour, I believe in working to improve employer and labour relations and I continually entertained this ideal when I felt myself unjustly making assumptions about either the interviewee's testimony or the employer's intentions.

Regarding health, advocating for positive mental health in all aspects of life is something I feel very strongly about. My family and I witnessed the degradation of my sister's mental state as a result of a physical ailment. Through this study I wish to illuminate the interconnectedness of the physical and mental elements of injury or illness.

Acknowledging the lenses through which I am approaching this research has helped me recognize when I might be more susceptible to bias due to a commonality between myself and a participant as it relates to my own personal beliefs and values. My bias surfaced through discussion with a committee member and also keeping a journal was helpful in identifying my bias. Discussion and journal reflection was a channel through which I could challenge my pre-existing views.

Chapter 4: Findings

This chapter presents my findings based on the data analysis of 21 semi-structured interviews with mining workers. I illustrate the workers' perceptions of the barriers to and facilitators of the RTW process subsequent to an injury or illness. This chapter provides a rich understanding of the accounts of individuals who personally experienced the interplay between injury or illness and the RTW system with all its moving parts. *Holistic Pillars of Well-Being Supporting the RTW Process*, as shown in Figure 1 in the *Holistic Pillars* section below, is the overarching theme that surfaced as a result of data analysis using interpretive description and represents what mining workers perceive to be facilitators of the RTW process. The overarching theme can be further broken down into three key themes (*Holistic Supports*, *Navigating the Maze*, and *Organizational Championship*) and several sub-themes to offer insight into mining workers' perceptions.

Participants

As discussed in Chapter 3, the sample included 21 individuals from a local mining operation, with the most common occupations being miner, mechanic, driller, and truck driver and a small representation of above ground office setting occupations. The sample was male dominated, which is discussed in the limitations section.

For reasons related to confidentiality, the first contact with potential participants was made by the employer's Occupational Health Department. A representative from the Occupational Health Department contacted all the people who had submitted an injury or illness claim as of January 1, 2017. Approximately 40 people gave consent to be contacted by the primary researcher for more information on the study. For reasons unknown, 19 of those people chose not to participate in an interview.

The interviews were conducted primarily during the week of February 21 to February 24, 2017. The interviews were transcribed verbatim and each participant was assigned a code to protect anonymity (e.g., Participant 1, Participant 2, and Participant 3).

Holistic Pillars of Well-Being Supporting the RTW Process

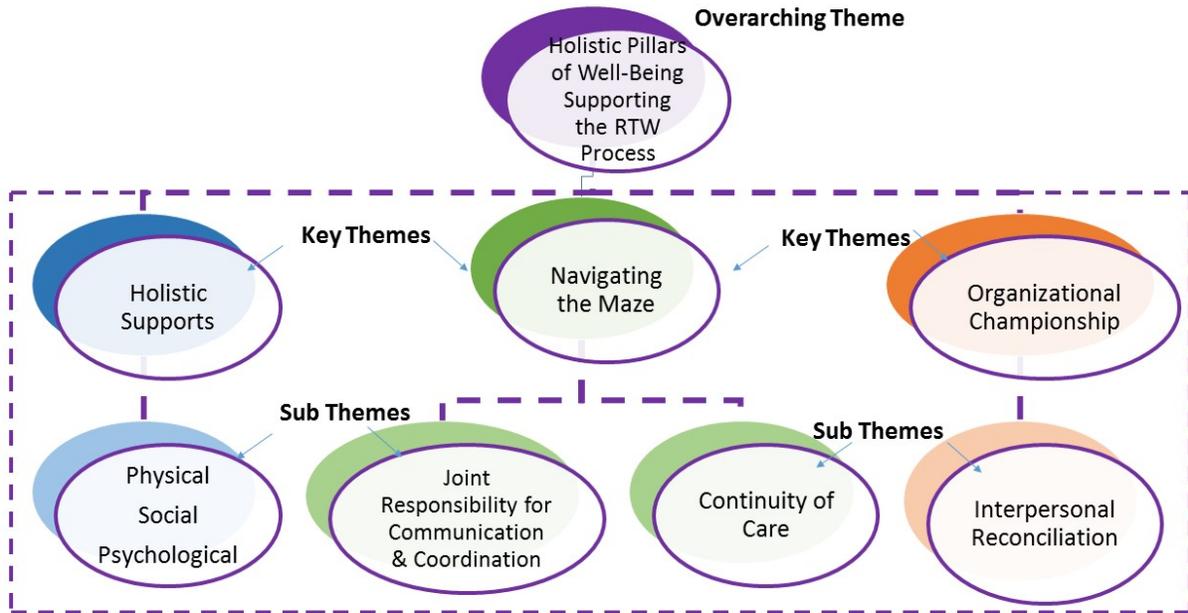
The overarching theme *Holistic Pillars of Well-Being Supporting the RTW Process* represents the foundational narrative of the overall findings that describe mining workers' perceptions of the barriers to and facilitators of the RTW process following an injury or illness. As depicted in Figure 1, this overarching theme is supported by three key themes and several sub-themes:

1. Holistic Supports
 - a. Physical Support
 - b. Social Support
 - c. Psychological Support
2. Navigating the Maze
 - a. Joint Responsibility for Communication and Coordination
 - b. Continuity of Care
3. Organizational Championship
 - a. Interpersonal Reconciliation

Combined these themes offer insight into the RTW process based on the perceptions of mining workers.

Figure 1 depicts the overarching, key, and sub-themes as separate entities. However, it should be noted that the dotted lines connecting the spheres and the arrows that appear on either side of the diagram symbolize the fluidity and plasticity of the themes and their associated meaning.

Figure 1: Holistic Pillars of Well-Being Supporting the RTW Process



The first key theme, *Holistic Supports*, was identified as foundational and speaks to the various forms of support that were regarded as facilitators of the RTW process—*Physical, Social, Psychological*—which all endorse the holistic nature of recovery and the RTW process. The second key theme, *Navigating the Maze*, speaks to perceptions of the RTW system being similar to a maze riddled with competing demands from various stakeholders that is difficult to navigate without guidance. The sub-theme *Joint Responsibility for Communication and Coordination* refers to the expectation of a shared responsibility between stakeholders to ensure the success of the RTW process, and the sub-theme *Continuity of Care* further describes this theme as it refers to the need to use interdisciplinary teams to provide effective treatment to workers going through the RTW process. The third key theme, *Organizational Championship*, speaks to the various organizational protocols, such as policies, procedures, practices, and culture, that support or hinder the RTW process. The sub-theme *Interpersonal Reconciliation* refers to the employer’s ability to reconcile interpersonal challenges within the workforce.

Key Theme 1: Holistic Supports

The key theme *Holistic Supports* refers to the forms of support that are required to maintain physical and mental well-being: physical, social, and psychological. Most participants reported that their injury or illness had a negative impact on their physical and mental state. Injuries and illnesses often require time off work to recover, which can jeopardize financial stability, leading to family/relationship strain and feelings of resentment from co-workers since the extra work must be displaced. Additionally, personal self-efficacy and identity can be compromised as injured or ill workers adjust to changes in their physical and mental capacity to do their pre-injury job. Some participants spoke about feeling useless and an eroding self-esteem.

Oh you come home and you say you know, I'll make a good day out of it and you just, you snap like—a little thing happens, you just grouchy, you can't—I know my daughter and my son would say can I have \$2 for pizza, you just, you feel so useless you know, it's terrible...[Participant 1].

Sub-theme 1a: Physical Support

Physical support is described by participants as feeling physically safe and protected while on the job. Some participants shared their perceptions that the company “doesn't care” about worker physical safety, which was an area of concern for most participants. One participant, [Participant 2], noted, “Oh, he's around [health & safety rep] all the time, yeah. But a lot of them, like supervisors, they know, but they look the other way, right, because it's getting done.”

Accounts of managers turning a blind eye to safety infractions tells us that workers feel physically unsafe and uncared for and it can have a negative impact on worker well-being.

For a guy who sweats off his...to do work for a company and the next thing you know, he's a zero. He's just...he needs to be replaced. Like a broken part. And, that's what I'm feeling. I feel like we were just tossed

aside...If you suck it up and do nothing, you're a hero. But, as soon as you put in a claim, stating that you've injured yourself, you become trash, zero. You're no good to the company anymore. Right. So, they deter you from, you know, putting in claims and offer numbers [Participant 3].

Sub-theme 1b: Social Support

Social support was reported by the vast majority of participants as strong social networks consisting of family, co-workers, and managers, among others, that facilitated recovery and RTW. A statement from [Participant 4] spoke to the importance of social support.

As bad as this has been, it's been good. Like I don't have any negatives when it comes to work, like I'm not impressed with the hospital and I'm not impressed with the benefits. I've got two issues there that I'm dealing with. But as far as the scenario in a nutshell that this happened to me and my support system to get through it, through family, friends, and work people and then my work life like knowing your job, everything [Participant 4].

Participants reported that injury or illness can result in social isolation because you are unable to participate in family activities, and, by taking time off work to recover, you are removed from the social element of the work environment, which can have a negative impact as [Participant 5] explains:

So there's a lot of support there. So when you're off, for me, it's pretty isolating. And then being separated and being alone again I think it was like emotionally—then going through the cancer and everything else, it was like—I wouldn't wish it on my worst enemy [Participant 5].

By the same token, [Participant 4] explained how the work environment, once divided into various social groups, came together to show support when they became ill. "And when this

happened all the people that showed their support. It didn't matter if you're married, single, if you've got kids whatever, it was you were a person" [Participant 4].

Furthermore, [Participant 1] explained how social support increased in an environment where everyone was experiencing similar situations. Yeah sometimes it was bad in there [re con shop] because you got 65 guys that are injured, not sleeping, depressed, you know, I think there was some good support in there because we all understood

Sub-theme 1c: Psychological Support

Psychological support further confirms the key theme of *Holistic Supports*. It is described by the mind-body connection, which refers to the innate physical and mental interconnectedness, and is essentially the inability to separate the physical and mental elements of injury or illness (Taylor et al., 1997). Many participants spoke of the impact that their injury or illness had on their mental state, most commonly symptoms of depression and anxiety.

And there is a certain separation between the mental health and physical health... And I don't know how much you integrate it into the report. But I think through your, our conversation, and you see my perspective, how much you can't separate the two... You can't, and no matter what. And so, sure, it's physical triggers that cause mental stuff, but I think we don't take into account as a working society [Participant 6].

The accounts of the participants reflected how injury or illness can penetrate all aspects of life, including work, home, and personal self-efficacy.

I mean you get depressed, angry and that's... that affects not just your life but when you're at work it's hard to keep your mind on your job. When you're really pissed off and you feel like you got shorthanded and everyone's looking at you like you're just a scab, you're just a... you're just there to leach off the company and try to coast through as easy as possible, it's [frustrating,] it's demeaning, it's...[Participant 7].

Injuries and illnesses (physical and/or mental) were reported by most participants to have had a negative impact on relationships with friends and co-workers either because of isolation due to a prolonged recovery process or by the weight of skepticism around the legitimacy of their injury or illness. Injuries often require time off work to recover and this can jeopardize financial situations, putting strain on families and/or marriages. Additionally, some participants spoke of feeling useless and how those feelings interfered with self-esteem and hindered their ability to cope and recover, naturally impacting their personal well-being.

I wasn't getting any better. They cut me off of compensation for about three months and that's when it really got bad at home, like it was a disaster, I couldn't do anything, I couldn't— I was like miserable, picking on everybody, we ended up – me and my wife ended up separating at the time, my daughter went with my wife and I kept my son with me and it was like, they were –...[Participant 1].

Additionally, those experiencing physical and/or mental injury or illness reported feeling short tempered and said that they were taking their frustrations out on their families, compromising a main source of social and psychological support. [Participant 8] noted that, “It destroyed my marriage [fibro]. My wife and I were split up for a while.” [Participant 1] said, “You end up with problems at home and a lot of them have problems at home after they get hurt because they feel they're useless you know.” And, [Participant 9] stated, “I was having issues, you know, at home and I was having issues coping and I was, I don't really, and I was having tons of issues at work, relationship type issues, right.”

I had a hard time communicating with my wife, even angry with my wife, not only ... I could see not only with my wife, but an anger, you know, like, why am I like that? I never was like that [Participant 2].

The narrative from the participants reinforced the reality that mental health challenges can be triggered by physical injuries. [Participant 5] shared the experience of struggling with depression as a result of cancer treatment.

I put a claim in, but after I went off with cancer and had the surgery and had the chemo, I was very depressed [sound drops out] for a good, I'd say, a good six to eight months at that time [Participant 5].

By the same token, mental illness can be caused by psychosocial factors such as workplace bullying. “Yeah. So, I was off work with like stress, depression and anxiety. And, it was because the boss that I still have, was basically bullying me at work, right” [Participant 10].

Ultimately, participants were painting the picture that injury or illness cannot effectively be treated without looking at the whole picture, hence the importance of the holistic pillars of well-being.

In summary, mining workers perceived holistic supports to be a primary facilitator of the RTW process. Participants’ narratives offered anecdotal evidence that reinforced the importance of holistic supports in the RTW process.

Key Theme 2: Navigating the Maze

Navigating the Maze, meaning the RTW system as a whole, represents mining workers’ challenges with managing the competing needs of the individual worker, the company for which they work, and the insurance companies on which they must rely. This theme exemplifies the parallels between the RTW system and a perplexing maze that is difficult to navigate and is characterized by a plethora of barriers that inhibit a smooth transition from injured or ill to back at work. Most of the interview participants reported that the various parties involved in the RTW process were not communicating and appeared to be operating in separate silos, each requiring different information and enforcing different protocols. Participants reported that the onus was

often placed on the employee to facilitate the RTW process without adequate support or direction, resulting in high levels of stress. A mining worker discussed how they knew the RTW process because it was part of their work portfolio, but that they imagined the challenges for those who were not familiar would be significant. "...so it wasn't like I had to find out what the process was. I knew what it was, I knew what I had to do. I know that's a lot of the unknown and added issues for other people" [Participant 10]. Another worker supported this as they spoke to the difficulties around navigating the RTW process on their own.

When he assessed me, I was off on my back for about three or four months. It took me over a year...it took me about 14 months to get back in, running back and forth to my doctor. I need this report. I need you to go get tested for carpal tunnel before we'll send you back. And, so, it was...and they're always losing files. And, you fax things directly and they say, We never got them. [Participant 11].

This recurring theme of having to coordinate the RTW process on their own has been described as confusing, frustrating, and highly stressful as these workers are often concurrently managing an injury or illness. In addition, the narrative supports that the onus is on the employee to enforce their own restrictions, making them more vulnerable to workplace repercussions.

I've been hurt you know, your doctor sends you to work with a slip saying his leg is messed up. No going underground for a couple weeks. Well they'll challenge that the first day you go back. "Just go down to the station[you respond] my doctor said no underground for 2 weeks"...They'll challenge everything [Participant 8].

The RTW system (or maze) is a multifaceted matrix that involves various stakeholders, all with their own set of policies, procedures, practices, expectations, and culture, including the employer and management, health care providers, insurance companies (e.g., WSIB), other employees, and the employee's family and friends. The workers interviewed expressed a general

distrust for the RTW system's ability to help injured or ill workers. "[A] lot of times they pushed the guy so fast and then the other ones are at home, ready to come back, it's all backwards, I don't know, it's the system is broken, really broken" [Participant 1]. Many of the participants perceived that the decision-making power within the WSIB is given too liberally to non-medical professionals, and that doctors are often overruled.

The participants expressed feelings of frustration with the way in which the WSIB case workers were always disputing what their own doctors were reporting.

Further to this point, [Participant 13] stated that the WSIB case workers were continually attempting to overrule doctor reports, "They tried to force ... they tried to overrule the doctors."

Sub-theme 2a: Joint Responsibility for Communication and Coordination

This sub-theme reflects an expectation that stakeholders will share the responsibility to facilitate a successful RTW. Shared responsibility is characterized by a communal need and appreciates the potential for conflicting requirements and is therefore solution-focused. A primary concern that surfaced from the participants' narrative was that each institution or stakeholder appeared to operate in complete isolation from the others and that the worker was left to concurrently coordinate the RTW process and their personal recovery. This left the workers feeling frustrated, confused, and alone, increasing stress levels, which in turn may have exacerbated the injury or illness, thus impeding a successful RTW.

Then it's like, okay, well, this one just told me what to do you don't have one supervisor there, you've got four, five, six of them. And none of them have the same rule or procedures that they're trying to tell you what to do, right, and it's making it hard for a guy to like, he doesn't know whether to go shit or go blind, you know, yeah [Participant 2].

Involving a worker in their RTW is a key element of coordination and communication. It is imperative that the stakeholders in the RTW process engage in meaningful communication and

adequately involve the returning worker in the RTW process. [Participant 12] described their experience of feeling left out of the RTW process.

The insurance company too, they weren't they had called me probably about a week before I went back. They weren't even aware I was going back. So, I told him, he was kind of shocked and he was happy obviously but I mean it was I guess it wasn't communicated to the proper people I guess the way it probably should have been and it wasn't organized properly so I just kind of felt forgotten I guess [Participant 12].

Being left out of the process and receiving confusing and/or misleading information, or contradicting opinions, inhibits efficiency and effectiveness by forcing the employee to blindly facilitate the RTW process. This is further supported by [Participant 2] who stated that, "It [inadequate communication] led also to miscommunication with supervisors; it led to the guys getting mad and frustrated, because it seemed like we couldn't even communicate with our cross-shifts."

The relationship between the workers and the other parties involved in RTW reflects a power imbalance. The majority of participants reported that they were met with suspicion and skepticism from the case workers at the WSIB, which led to mistrust and frustration among workers. [Participant 13] stated, "And, even WSIB today, I find them so arrogant because it's just a regular insurance. It's not the WSIB that we had at one time where it was the worker insurance." Further, [Participant 11] explained, "I got denied by WSIB. I had to appeal it. And, then I fought for two or three years to get them to recognize the injury...I had to appeal twice after that."

Workers found themselves doubting the professionalism of health care providers offered by the WSIB and, in some cases, workers even questioned the validity of medical test results. Further, they questioned the ethics of the WSIB case workers and employers.

Those with...that went through what I did, don't feel that the system is fair...They brush it off and No. It [injury or illness] didn't happen here. So, these are non-medical professionals, such as WSIB adjudicators, Occ. Med nurses, and physio people [Participant 3].

This power differential may be a barrier to recovery and successful RTW. Participants stated that the various parties were always contradicting one another. [Participant 11] said, "So, you know, if you had a doctor that's saying, 'It is work related. This happened or whatever happened.' They're always arguing. I don't think the people at WSIB are doctors." Participants emphasized how the various institutions or stakeholders, such as the WSIB, the company, or the health care professionals, all required documentation through their own processes and that they were all working within their exclusive timelines with no communication between parties. Participants felt that effective communication and coordination between these institutions would improve efficiency and effectiveness.

People who work for short-term disability and people working for long-term disability don't talk they are completely separate entities. It [inadequate communication] led also to miscommunication with supervisors; it led to the guys getting mad and frustrated, because it seemed like we couldn't even communicate with our cross-shifts [Participant 6].

According to the participants in this study, RTW was described as a process where an injured or ill individual makes an attempt to re-enter the workplace, often with restrictions. Even though the injury or illness was medically declared by a doctor by way of a functional abilities form, workers found themselves between a rock and a hard place as they weighed the risk of re-injury against social exclusion, and often found themselves dismissing their restrictions to maintain the status quo.

So, yeah, and I went back to work the 19th of December, on modified work on top of that. I tell you when to go to work, the surgeon said, Not them, not anybody else...Said, "Well, she gave you the go ahead and go back to work. Why can't you go back to work tomorrow and Friday? I said, You don't get it, do you? I said, again, I said, "She told me the 19th and that's when I'm going...They tried to force ... they tried to overrule the doctors [Participant 13].

Based on participant testimony, communication and coordination around the RTW process, including restrictions, were not equally viewed as a shared responsibility. Participants reported that accommodations and/or medical restrictions meant they were under scrutiny. "You got to fight for everything and then if you do fight and you're getting special treatment, sometimes it's just like putting a bull's-eye on your back too" [Participant 8]. [Participant 1] added to this attestation by sharing his experience in the workplace with other co-workers. He said, I was "harassed by co-workers. They say 'when are you going to stop faking with your back?' And you know, it was just destroying..." [Participant 1].

These mining workers perceived working with restrictions as worse than being off work because they felt they were blacklisted. They felt trapped because no one wanted to hire or transfer someone with restrictions. [Participant 11] and others spoke of experiencing a sense of reluctance to be accommodated for injuries or illnesses.

So, you know, if they restrict you, you can't move anywhere, then I'm stuck for life. Or, they say we can't accommodate you, then you've got no work. So, you've just put in 20 years for a company sort of deal and then they're going to shun you off and say, We've got no work. Go home. Then, what do you do? [Participant 11].

This type of workplace culture is upheld and perpetuated by the power of social exclusion.

Sub-theme 2b: Continuity of Care

Continuity of care is a critical element of communication and coordination in the context of recovery and RTW. It is characterized by a system of care that uses multidisciplinary teams to provide effective treatment: “care pathways and case management do not themselves equate to continuity. For continuity to exist, care must be experienced as connected and coherent” (Haggerty et al., 2003, p. 1221). Therefore, continuity of care can be expected to heavily depend on communication between parties, and disagreements must be approached with a solution-oriented focus. Many interviewees spoke to a sense of disconnection between parties involved in the RTW process, stating that stakeholders often contradicted one another, for example, It was stated that conflicting opinions and inaccurate diagnosis inhibit successful RTW. [Participant 5] described the perceived interplay between RTW stakeholders.

Because it always seems an adversarial thing, like, you know, because between WSIB and occ med, well, you know, occ med will call and the nurse case manager would call and say, well, you know, Manulife wants this, you know, or you’re not going to get a paycheck next week [Participant 5].

Furthermore, some participants felt that continuity of care was hindered because they felt they couldn’t be honest about their workplace issues.

You got to lie to your doctors, yeah the anxiety, that’s the only way I get sick pay, deep down it’s my boss harassing me every day. I saw it all the time, people call me, I’m going off stressed, don’t go off stressed, you won’t be paid, tell your doctor you have anxiety so the doctor books him off anxiety. [Participant 3].

Key Theme 3: Organizational Championship

Organizational championship manifests in the various structural/organizational, operational, and administrative protocols that the organization has in place to facilitate the RTW process and may include various departments, such as human resources, occupational health, and management. The employer can be perceived as a barrier to a successful RTW when its policies, procedures, and practices do not permit sufficient organizational championship for the returning worker or managers responsible for the RTW process. A lack of training provided to leaders was a strong theme across the participants' narratives. The employer was regarded a barrier to RTW when legislative requirements were not being met, such as the obligation to offer meaningful work to an injured or ill worker. There were several accounts of participants feeling as though management was not listening to employee concerns, that there was denial of transfer requests, and that unpopular jobs were being assigned unfairly. [Participant 1] described how he was treated due to his injury: "I don't need you here on light duty, I need a jumbo man, your useless to me...he says we have enough problems in the department, we don't need you. Just like that, come right out of the manager's mouth."

Many interviewees spoke of being afraid of a bull's eye on their back because of restrictions. Meaning they were not able to get a job or a transfer to another job or plant, or they felt that management (or others) were picking on them. [Participant 8] said, "Never has anything been offered. You got to fight for everything and then if you do fight and you're getting special treatment, sometimes it's just like putting a bull's-eye on your back too."

This type of treatment likely prevents workers from reporting pain and/or restrictions, which hinders their ability to manage their condition and to recover or successfully RTW.

Sub-theme 3a: Interpersonal Reconciliation

Interpersonal reconciliation is a critical element of the joint responsibility for communication and coordination. It refers to the effective reconciliation of issues that arise between workers and management or co-workers. Some participants spoke of how workplace interpersonal issues inhibited their RTW process. Interpersonal issues came to light through the participants' reports of bullying behaviours, such as name calling, rumour starting/perpetuating, gossip, and jokes. [Participant 1] described his experience of workplace harassment.

I had been at the shop for about 16–17 years so it was a disaster like the harassment, I was being harassed by my management, being harassed by co-workers, they say when are you going to stop faking with your back? And you know, it was just destroying...My supervisor says, don't you realize why you're here? You were a management problem and I said really? He said everybody that comes here it's because the mines can't handle them no more, they send them to the shop. [Participant 1].

Summary

This chapter illustrated the overarching theme *Holistic Pillars of Well-Being Supporting the RTW Process* and demonstrated the critical elements necessary for a successful RTW. This foundational theme was supported by three key themes *Holistic Supports*, *Navigating the Maze*, and *Organizational Championship* and several sub-themes. The chapter summarized what mining workers perceived to be barriers to and facilitators of the RTW process. The results of this study demonstrate a need for effective collaboration and holistic care within current RTW practices.

Chapter 5: Discussion

The literature suggests that issues such as perceived support, the availability of health care providers, and the collaboration of various stakeholders (e.g., labour, vocational rehab specialists, and human resources personnel) best facilitate successful RTW. However, while these factors are likely applicable to mining workers, there is limited evidence to confirm the connection in the mining industry. The Mining Mental Health Pilot Project (Lariviere, Kerekes, and Hanson. 2016) identified that sensitivity on the part of those involved in the RTW process was a key determinant of a healthy workplace re-entry. Likewise, a recent local study found that mining workers who experienced an injury were consistently met with mistrust and suspicions regarding the legitimacy of their injury. Furthermore participants expressed that their physical, financial, family, social, and emotional health was being compromised by their injury and the compensation processes associated with it (Mongeau et al., 2019). The narrative that evolved through interviews with my research participants echoed Mongeau et al.'s (2019) findings. The participants spoke about perceptions of being ostracized by co-workers, negatively targeted by supervisors, and unjustly denied by WSIB adjudicators, all of which negatively affected their feelings of self-worth.

Social support is a component of the theme *Holistic Pillars of Well-Being*, and Salas et al. (2015) and Mclean (2012) stated that social support is critical in mitigating the negative effects of injury or illness and combating organizational shortcomings. The findings from this research study reflect a strong connection between social support and successful RTW and recovery. Participants that experienced a successful RTW attributed it to positive social support. Conversely, those that experienced distrust and suspicion related to their injury or illness reported feelings associated with poor mental health, which in turn inhibited recovery.

The theme *Joint Responsibility for Communication and Coordination* is supported by existing literature. St-Arnaud et al. (2007) stated that ostracization by co-workers, as well as the potential for a permanent disability, could result from a lack of organizational support systems. These findings were corroborated by my research participants, as many spoke about the ineffectiveness of the systems currently in place that are intended to facilitate a successful RTW. The system was referred to as being broken, and participants noted that each stakeholder operated in isolation of the others, compromising their utility in facilitating RTW and recovery. Martin et al. (2015) deemed a high level of stakeholder collaboration in developing an RTW program to be critical to its success. Sandmark (2011) specifically spoke to the imperative to involve the returning worker.

Study participants widely acknowledged the interconnectedness of the physical and mental elements of injury or illness, which supports the theme *Holistic Pillars of Well-Being*. Ten years ago, literature demonstrated some understanding gathered from anecdotal evidence that mental health challenges may be a barrier to RTW (Blank et al., 2008). More recently, professional case management practice is beginning to acknowledge the interconnectedness of the physical and mental elements of injury or illness.

Study Limitations

A clear understanding of potential bias allows readers to interpret findings critically (Pannucci & Wilkins, 2010). One limitation of this study was the potential for sampling bias since access to participants was limited to those offering consent (Martin et al., 2015). Some potential people may have been reluctant to participate because of physical limitations (e.g., terminal illness or immobility due to injury), psychological limitations (e.g., depression or anxiety may hinder their motivation to participate), or a lack of understanding of the study's purpose.

In addition, the majority of the sample was men. A stronger female narrative could have offered another perspective to the barriers to and facilitators of the RTW process (Mclean, 2012). Furthermore, the small sample size (Mclean, 2012), self-reporting (Ling et al., 2016; St-Arnaud et al., 2007), and the broad definition of mining workers may have diluted the overall narrative because those performing administrative work likely experience different barriers than those working underground.

Some studies collect non-participant data (Martin et al., 2015), such as demographic information, which helps researchers better understand why potential participants may have declined to participate (Martin et al., 2015). However, in this case, access to non-participant demographic information was protected by privacy laws enforced by the collective bargaining agreement, preventing me from conducting a non-response analysis.

It is possible that transferability (Mclean, 2012; Blank et al., 2008; Lork & Holmgren, 2018) of the study results could have been heightened by expanding the scope of the study to include not only mining workers but also other stakeholders, such as management and WSIB case workers, to gather a more fulsome depiction of the realities associated with the RTW system.

Finally, the cross-sectional methodology is deemed to be a limitation (St-Arnaud et al., 2007; Carlisle & Parker, 2014; Ling et al., 2016) as it is merely a snapshot in time and doesn't have the same accuracy as a longitudinal study.

Conclusion

This study provides qualitative information around the barriers to and facilitators of RTW following an occupational or non-occupational injury or illness. The cumulative results of Phases 1 and 2 of the Mining Mental Health Study will help identify primary correlates of a

successful RTW and contribute to developing effective RTW strategies through informed recommendations.

To conclude, this study equates the RTW system to a complex maze riddled with barriers that inhibit recovery and the successful RTW of an injured or ill worker. Presently, the RTW system does not appear to appreciate the holistic nature of the recovery process and the system that an injured or ill worker must navigate in hopes of returning successfully to their workplace. The majority of the participants spoke to having to navigate the RTW system with little to no support or guidance. Several incidents were reported where pay checks were held or payments were stopped due to a minor technicality in paperwork or sheer failure to communicate. This study highlights some key barriers to the RTW process and how to effectively combat them.

To counteract the challenges associated with the current RTW system, stakeholders need to be cognizant of the impact the various contextual factors may have on the individual navigating the process. Improving the facilitation of the RTW system will require an increased understanding and acceptance of the mind–body connection and a heightened appreciation for continuity of care through joint responsibility for communication and coordination. Continuity of care is compromised not by a multidisciplinary team but by a multidisciplinary team that fails to effectively communicate with one another. RTW is a joint responsibility and all involved should be accountable to adequately communicate and as seen through the participants' narrative this is not the reality. When stakeholders fail to communicate important information is susceptible to falling through the cracks, the process becomes increasingly fragmented and creates confusion around how to manage the recovery and return of the worker, thus the recovery and return of the worker is jeopardized as validated through the interviews.

For the most part, organizations seem to acknowledge that certain factors can exacerbate both physical and mental illnesses and are beginning to recognize the interconnectedness of the

two, but many stakeholders continue to struggle with the practical application of this ideology. This research has shed light on the dynamic relationship between health and various contextual factors in the workplace and provides a voice to injured and ill workers. This research increases understanding of the complex relationship between RTW programs, those who implement and coordinate them, and the individuals who use them. Therefore, it is a credible resource for those in the mining industry seeking an avenue to understand what reasonable workplace modifications can be implemented to heighten the productivity and confidence of returning workers.

Implications for Practice

The results of this study equate the RTW system to a complex maze that has been identified by the research participants as being extremely challenging to navigate, especially without support and/or guidance. Navigating the RTW maze entails collaboration between several stakeholders, each with their own agenda and protocols, with little opportunity for coordination, thus heightening the potential for miscommunication. From a pragmatic perspective, mandatory use of an RTW coordinator would facilitate the process and minimize the negative impact on workers. To that end, I strongly believe that the findings presented in this paper ought to be considered by all stakeholders when attempting to improve coordination and communication in the RTW process since I have emphasized they are a joint responsibility.

Through a disability management lens, there are practical implications for understanding and appreciating the mind–body connection. These findings substantiate how a physical injury or illness can impact the mental state of a worker and vice versa. Company managers, WSIB case workers, and various health care professionals could benefit from training in mental health literacy, which is defined as “knowledge and beliefs about mental disorders which aid in their recognition, management or prevention” (Jorm, 2000, p. 396). Mental health literacy training

would likely heighten understanding of the holistic nature of injury and illness and inform the scope of management and/or treatment strategies.

When considering implications for practice it is sensible to review the implications for policy and decision-makers. A paper issued Health Services Publishing, Education, and recruitment examined Canadian initiatives (legal and policy) as they relate to the mental health of the workforce and how they can affect mental health of working Canadians (Lippel, K. 2011). This paper identified three legislative areas that require some attention. The Occupational Health & Safety Act, Worker's Compensation legislation, and regulations around RTW. A specific area of improvement is that the laws currently in existence to protect workers from psychosocial hazards are most often specifically focused on violence and harassment (Lippel, K. 2011). As a safeguard this is problematic because violence and harassment is not always explicit in the workplace. Several participants that I spoke with shared experiences of harassment by their co-workers and in some cases by management and the victims felt they had no one to turn to for help. Despite the protections outlined in legislation these harassing behaviours are often left unaddressed. These behaviours were reported by participants to have a negative impact on their recovery and RTW. Policy improvements that would promote the holistic nature of RTW and the processes associated with it could help shift the thinking around psychosocial factors and how they may be impacting the RTW and recovery of an injured or ill worker.

Furthermore, many of the participants spoke to the excessively long wait times to see a mental health professional such as a psychologist, additionally, many reported not having adequate coverage to seek professional help. This is indicative of a gap in public/legal policy. This was also recognized by a 2016 Australian study that examined the economic impact of psychological distress among coal miners. The authors of this study recommended better government policy that improved access to health care, especially for mining workers

specifically those in fly-in-fly-out camps (Ling et. al, 2016). I would echo this recommendation as people need to have access to health care (mental and physical) if we are to mitigate the negative impact of poor mental health and facilitate a safe recovery and RTW. I strongly believe that the research participants would support this recommendation.

One study (2012) explored the psychosocial issues that were perceived to impact the mental health and well-being of resident mine workers in Australia. This study highlighted the necessity for policy and decision makers to consider more closely the different contexts and the varying factors that promote mental health and well-being (Mclean, K. 2012). This resonates with me as I often feel, based on participant testimony, that stakeholders involved in RTW fail to adequately involve the worker in the RTW process. Many participants reported that they knew what they needed to facilitate a successful RTW and recovery but they were never asked and if they were their suggestions were not taken seriously.

Lastly, workplace interventions to facilitate prompt, safe, and successful RTW could be significantly improved with the support of legal and public policy that is informed by evidence. I believe this study can contribute to the growing body of research around mining, RTW, and mental health.

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Appendices

Appendix A: Brief Description of Phase 1 Including Measurement Tools



Mining Mental Health Research Project

Phase 1 Questionnaire (Status, Process Survey Tools)

The questionnaire for this study drew from existing instruments (e.g., Beck anxiety and depression inventories, Pittsburgh Sleep Quality Index, Copenhagen Burnout Inventory (see full list below) consultations with union and corporate leaders in mining (i.e. personal communication) as well as worker feedback from a pilot study (Lariviere et al., 2016). Those who were unable to complete the questionnaire during phase one will be given the option to complete it during phase two when they come in for their interview.

Questionnaire Process

The questionnaire was facilitated across Vale Ontario operations throughout the summer of 2016; resulting in a 55% participation rate that will constitute the body of the quantitative component of the study. Data entry (including data checking) is expected to reach completion by the end of March 2017.

List of Survey Tools Used in Phase 1 Questionnaire

1. Demographics
2. PCL-5 the PTSD checklist for DSM 5
3. Beck Depression Inventory (BDI)
4. Beck Anxiety Inventory (BAI)
5. The Pittsburgh Sleep Quality Index
6. Fatigue Severity Scale
7. AUDIT
8. AUDIT (modified for drug use)
9. CAGE (drug version)
10. Copenhagen Burnout Inventory
11. Perceived Stress Scale
12. Relationship Questionnaire
13. The Following NIOSH Generic Job Stress Questionnaire subscales:
 - a) Job Requirements
 - b) Job Satisfaction
 - c) Mental Demands
 - d) Physical Environment
 - e) Work Hazards
 - f) Workload and Responsibility
 - g) Social Support
14. Guarding Minds @ Work
15. Recovery Questionnaire

Appendix B: Laurentian University Research Ethics Board's 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 / Modifications to project X / 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	December 9 th , 2016
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 C: Mining Mental Health Phase 2 Poster



Mining Mental Health

Mining Mental Health

Research Project

Researchers:

- Dr. Michel Larivière, Ph.D., C. Psych. Faculty of Health, CROSH, Laurentian University
- Dr. Zsuzsanna Kerekes, Ph.D. Faculty of Health CROSH - Laurentian University
- Lisa Schutt, Master's student, Faculty of Rural and Northern Health, CROSH - Laurentian University
- Caroline Dignard, Ph.D. Candidate, Faculty of Rural and Northern Health, CROSH – Laurentian University

Laurentian University has partnered with the Joint Occupational Health Committee (JOHC) at Vale on research into the mental health and wellbeing of employees in Ontario. You are invited to participate in the study. Participation will involve an individual interview that will last approximately 1 hour. Additionally, participants can volunteer to complete the Mining Mental Health questionnaire if they have not had a chance to do so.

A team of Vale, USW and CROSH members have been working for the past 2 years on the *Mining Mental Health* project to better understand the state of mental health and well-being within the Vale workforce. To date we have facilitated surveys at approximately 26 locations and have had over 2,200 employees volunteer to participate in the study. It is important to provide the entire Vale workforce with the opportunity to participate in the study, which brings us now to *phase two*.

The goal of phase two is to reach out to those who are currently off work due to an occupational or non-occupational injury or illness. The interview questions have been designed to gain valuable insight into the different aspects of Return to Work at various stages of the process.

The CROSH team will be recruiting individuals who are off work to complete the questionnaire (if they have not had a chance to do so) but also to participate in an individual interview. Participation is strictly voluntary and the ethics board at Laurentian University has ensured that we are taking every precaution to protect the confidentiality of participants. No individual results will be shared with Vale, Union, family, or friends. Only the CROSH team will have access to individual results and they will be shared in summary form later in 2017. The study seeks to promote overall good mental health as well as to provide some insight into how to implement mental health strategies within the company.

Our research team plans to reach out to the individuals who are off work while remaining in compliance with privacy protections, and as such Vale's disability management team will provide the first contact by phone; at which point you will be able to provide consent to be contacted by CROSH, or to request an information package in the mail; which will include details of study, as well as the contact information of the research team.

To take part in the study or if you have any questions or concerns please contact Lisa Schutt by email at lschutt@laurentian.ca, Zsuzsanna Kerekes by email at zkerekes@laurentian.ca, Caroline Dignard by email at cy_dignard@laurentian.ca You may also contact Dr. Michel Larivière by phone at (705) 675-1151 Ext.1202 or 1-800-461-4030 Ext. 1202

Appendix D: Research Participant Information Sheet



Mining Mental Health Research Project

Thanks for volunteering to participate in the Mining Mental Health research project! Below you will find all the information you will need in preparing for your session with us. ***The sessions will take place between February 21st & 24th. We will be offering flexible scheduling throughout that week to accommodate your schedules.***

Driving Directions

Your session will take place at the **Ben Avery Building at Laurentian University** (if you have ever been to the pool or the gym, this is the building you will need to go to).

1. Head down Ramsey Lake Rd.
2. You will arrive at a set of lights (this is the main entrance to the University), **continue past the lights.**
3. Just beyond the lights, TURN RIGHT on SouthBay Rd.
4. Continue down SouthBay Rd. then take the first RIGHT (just after you pass St-Joseph's Villa on the left)
5. Continue to the end of this road. You will arrive at the Ben Avery Building (across from the track).

*If you have difficulty finding the building, you can call 705 675 1151 ext. 1202

Parking

Just past the Ben Avery building, you will see Lot 13 on your right, and lot 14 straight ahead. Go straight ahead into lot 14. If the gate is not open, someone will be there to open it for you.

Entrance

There is only one entrance to the building from this lot. We will put a sign in the door that reads "Ben Avery Entrance" and someone will be there to welcome you.

Appendix D: Research Participant Information Sheet (cont'd)



Mining Mental Health Research Project

Your Session with CROSH

- 1. Arrival → Your scheduled session time**
- 2. Welcome & Consent → You will be asked to sign a consent form if you have not already**
- 3. Individual Interviews → Approximately 50-60 min.**
- 4. Questionnaire completion (optional) → Approximately 40-60 min. Opportunity to complete before or after your interview depending on time limitations.**

A few others notes...

- Please arrive 15 minutes prior to your scheduled session with us
- Coffee will be provided
- Your confidentiality will be maintained, but we will need you to sign consent form, however, this form will be kept entirely separate from the survey (optional); and no identifiers will be required for the individual interview
- If you cannot attend your scheduled session, please notify us as soon as possible by email at lschutt@laurentian.ca or zkerekes@laurentian.ca or by phone at (705) 675-1151 Ext. 1202.
- If you have any questions, you may also email us at one or both addresses above.

Appendix E: Mining Mental Health Phase 2 Frequently Asked Questions



Mining Mental Health Research Project Phase 2

- A team of Vale, USW and CROSH members have been working for the past 1.5 years on the Mining Mental Health project to ensure it yields meaningful results. The purpose is to gather information in order develop strategies to promote the best possible mental health for all employees.
- To date CROSH has successfully surveyed over 2,200 employees.
- The goal of phase two is to reach out to those who are currently off work and/or have participated in modified work to gain some insight into the barriers and facilitators of the disability and return to work experience.
- CROSH will be recruiting individuals to complete the survey, if they have not already had the chance to do so and also to participate in individual interviews.
- If they wish to participate in this we (Vale) need their permission to provide their name and address to CROSH so they can offer more information to the employee. If they consent, and request, the employee will receive a package explaining details of study, as well as the contact information of the research team.
- The employee can also contact CROSH directly to express interest in participating and make arrangements to meet with the CROSH team.
 - Dr. Lariviere's office at CROSH (705) 675-1151 Ext.1202 or
 - Toll free 1-800-461-4030 Ext. 1202
 - Have the employee inform them you are interested in participating in the Mining Mental Health Study.
 - If they get an answering machine, please have them leave a message indicating that they are interested in participating in the mining mental health study and leave a contact number for the CROSH team to call back.
 - The employee can also email one of the researchers working on the project to express interest:
 - Lisa Schutt: lschutt@laurentian.ca
 - Zsuzsanna Kerekes: zkerekes@laurentian.ca
- Participation will be scheduled by the CROSH representative to attend a session with the researcher at the Ben Avery building within Laurentian University.
- Confidentiality and anonymity will be strictly protected. No individual results will be shared with the Vale, the Union, family, or friends, and participation is voluntary.
- Only the CROSH team will have access to individual results and they will be shared in summary form only in Q2 of 2017 with the Joint Occupational Health Committee.
- The results aim to provide recommendation to implement mental health strategies within the company.

Appendix E: Mining Mental Health Phase 2 Frequently Asked Questions (cont'd)



Frequently Asked Questions

I am off work, but my injury is not an occupational injury, can I still participate?

- YES, the study will invite all those who are off work for occupational and non-occupational injuries and who wish to participate (if you have not already).

Can I be penalized for not participating?

- No, your participation is strictly voluntary. You are under no obligation to participate in the study. However, the results of the study have the potential to change the work environments by helping to erode the stigma surrounding mental health through the implementation of mental health strategies and improving RTW procedures/Processes.

The interviews/surveys are taking place at Laurentian University; how will I find my way around? And do I have to pay for parking?

- The interviews/surveys will take place in the Ben Avery building at Laurentian University, you will park in Lot 13 and you will NOT have to pay for parking. CROSH will provide you with a campus map and on the days where interviews/surveys are scheduled there will be ushers to help participants find their way to the designated room(s).

Will I be paid my regular wages for participating?

- Employees will NOT receive any remuneration for participating in the study. Some benefits can result from individuals reflecting on their own mental health and well-being and choosing to consult with an Employee Assistance Program or other health professionals, which has the potential to improve their mental health and well-being. Information obtained from the individual interviews may help us to better understand the factors that predict absenteeism and return to work. The results may also help inform interventions for these workers.

Will my employment be affected?

- No, your employment will not be affected in anyway. Participation in the study is strictly voluntary and ALL the information is kept confidential and anonymous. NO individual results will be shared with the company or union.

Will I have access to trained professional during the session?

- Although, the research ethics board requires the sessions to be supervised it must be noted that the researchers have a strict research relationship with the participants and will NOT be assessing and/or treating in any way. However, should a participant experience any uncomfortableness and/or sensitivities they will be provided with support and the contact information of Employee Assistance Programs as well as other resources.

Appendix E: Mining Mental Health Phase 2 Frequently Asked Questions (cont'd)



Can I bring someone along with me for emotional support?

- The research team would like to ensure that all participants are as comfortable as possible throughout the session. The sensitive nature of the survey and interview may be difficult for some to manage alone. The research team will permit participants to be accompanied by an individual whom they feel provides them with the necessary emotional support to effectively participate in the study.

Are there any risks involved in participating?

- Though minimal, there are psychological/emotional risks associated with taking part in this study. Some participants may feel embarrassed or uncomfortable sharing personal details when asked certain questions. However, participants will be informed prior to their participation of the topics that are to be discussed. They will also be reminded that their participation is voluntary and that they can answer any question they choose. They are permitted to omit any answer that they may be uncomfortable answering. They will be provided with contact information for the Employment Assistance programs through Vale as well as the contact information of the CROSH research team.

How can I be certain that the information is being kept confidential?

- In keeping with Laurentian University's policy on Managing Confidential Digital Information, all digital data will be stored on LU approved services which is only accessible to members of the research team. The audio recorder will be stored in a locked cabinet in Dr. Larivière's locked office space at Laurentian University's School of Human Kinetics. If digital data must be transferred onto a removable storage device, it will be one sanctioned and encrypted by the university.

Can I have the survey mailed to me so that I won't have to travel?

- Due to the sensitive nature of the survey content the research team was unable to obtain permission to release the survey through the mail. The ethics board is strictly enforcing that the survey be filled out under the supervision of professionals.

Appendix F: Informed Consent Form for Interviews



Mining Mental Health Research Project

Letter of Information and Consent (Individual Interviews)

Study title: Mining Employees: The mental health and well-being of the Vale workforce in Ontario: Toward a better understanding of the predictors of injury 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 at Vale. 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 these issues are strong drivers of worker absenteeism, productivity and costs. Furthermore, it will elucidate the predictors/facilitators/barriers to return to work following disability due to mental health issues. The individual interview portions of this study will allow us to hear this feedback. Furthermore, the individual interview portions will allow the scientists to start to better understand the factors that predict absence and facilitate return to work.

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 individual interview portions. You may, however, skip any questions that you are uncomfortable answering. You are not obligated to share details you are not comfortable sharing.

All information you provide during the individual interview portions will remain confidential. We will not be disclosing any personal information and no identifiers are required during the individual interview (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 during the individual interview portions of this study.

Benefits: You may or may not benefit from participating in this study. Information learned from this study will allow the researchers to understand about the current state of mental health at Vale. Moreover, the information may help improve mental health and well-being at Vale.

Appendix F: Informed Consent Form for Interviews (cont'd)



Tasks: Should you choose to participate in this study, you are invited to participate in an individual interview to discuss personal experiences regarding leaves of absence and facilitators in returning to work following an absence. You may choose to complete the individual interview.

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 audio recorder will be stored in a locked cabinet in Dr. Larivière's locked office space at Laurentian University. Only members of the research team will have access to the data. Any digital data will be stored on a secure server approved by Laurentian University and only accessible to the research team.

All measures of privacy, confidentiality and security will be respected. For those taking part in the individual interviews, it is important to note that although every effort will be made to preserve confidentiality, due to the interviews being conducted at one location there is a risk that you may encounter other participants. Therefore, we ask participants to respect the confidentiality of others by not speaking of what is discussed outside of the research context.

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

Appendix F: Informed Consent Form for Interviews (cont'd)



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. I may choose to participate in the individual interviews to answer questions regarding absenteeism and return to work. Taking part in the individual interview portions of 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.
- I agree to be audio-recorded during the individual interview, should I choose to take part in this phase of the study.

Study Participant's Name Study Participant's Signature Date

For further information, please contact:

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Appendix G: Interview Questions



Mining Mental Health Research Project Interview Questions

- 1. Questions related to the cause(s) of the disability (ies)**
 - a) What issue(s)/event(s) caused your current or most recent illness/injury-related absence from work?
 - b) What factors do you feel may have led to your most recent illness/injury-related absence from work?
 - c) Are there any factors that you think could have prevented you from going off of work?
- 2. Questions related to the submission of a WSIB/short/long term disability claim.**
 - a) Please describe the steps or tasks that were required of you in submitting your disability claim.
(Query: what parties were involved in the process (PSP, WSIB, health care providers, Vale's Occupational Medicine Department, Vale claims administrators etc.)
(Query: how long did the process take? Were there obstacles or barriers you faced? If there were stressors in the process, what were they?)
 - b) What effect(s), (positive and negative) did the steps or tasks required in submitting a claim have on you?
 - c) Tell me how this process might be improved?
- 3. Questions related to the actual off-work, disability experience**
 - a) How long were you/have you been off work?
 - b) Who was involved in supporting/treating/helping you during your disability leave?
(Query: what parties were involved in the process (WSIB, health care providers, Vale's Occupational Medicine Department, etc.).
 - c) How often did you meet with or were contacted by these individuals and what were the main topics of these discussions and/or interactions?
 - d) Were you contacted by your supervisor or management while you were off work? If yes what was the nature of the contact and how did you feel about that? If not, how did you feel about that?
 - e) Tell me about your experience of being off work?
(Query: what (has) helped and is (was) challenging during your absence from work)
 - f) What were the main obstacles to your recovery?
 - g) What was most helpful for you while you were off work and/or assisted in your recovery?
 - h) What would have been most helpful to you while you were off work in terms of your health, wellbeing and recovery?
(Query: From your employer and/or supervisor(s), co-worker(s), health care provider(s), significant other(s)?)

Appendix G: Interview Questions (cont'd)



4. Questions related to the return to work process and/or the identification of accommodations/restrictions

- a) Describe the Return-To-Work (RTW) process in which you are (were) involved.
(Query: what is (was) helpful and what was challenging?)
- b) Discuss the main factors that prompt(ed) or motivate(d) your RTW.
- c) Who was (is) involved in your RTW?
(Query: employer, insurers, health care providers, union, significant others)
(Query: what is (was) their main role and most significant contributions?)
- d) Who is (was) involved with monitoring your RTW and in what manner is (was) this monitoring performed?
(Query: the employer, insurers, and health care providers)
(Query: meetings, reports/letters/forms/notes, telephone conversations)
- e) Describe how ready you felt (feel) as you began (work toward) your RTW?
- f) In what way(s) has (could) your RTW program improve?

Modified Work Questions

- a) Tell me more about the circumstances that influenced you to stay at work and not have to apply for disability leave
- b) Describe your work accommodations or modified duties? Do you feel that the modified work that was provided to you was valuable?
- c) What factors contributed to or encouraged you to stay at work?
- d) Did you feel staying at work in modified work while you were recovering was beneficial for you? Please describe.