

An Examination of Some Theories that Address the Heavy Alcohol Consumption of University
Students

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Abstract

The following paper investigates some of the many theories used to explain underlying reasons contributing to student drinking. Reasons for student drinking include escape from reality, social discomfort, former child abuse and neglect, and specific personality types. After reviewing various theories of addiction, this paper uses a deductive approach to identify the three theories most relevant student binge drinking: the social learning theory, the behavioural theory, and the personality theory. From social reasons to behavioural and personality related reasons, students drink to be more social and to cope with stress, but these rewards do not come without risks. The ability of theory to adapt to address the unique needs of individuals makes it an important, albeit underused, tool. Using theory to inform intervention strategies, then, is essential for developing effective treatment. Future research in this area should focus on methods for integrating theory with addiction treatment.

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An Examination of Some Theories that Address the Drinking Habits of University Students

Chapter 1

Introduction

Prior to developing an addiction to alcohol, individuals may engage in casual drinking, but these habits have the potential to become a dependency. Alcohol dependency holds the potential to not only serve as a remarkably harmful lifestyle, but is also detrimental to general health, compromising both individual and social development. Not only does this disorder impose risks for the individual themselves, but negatively influences the people around them. Multiple theories are necessary to understand the complexity of substance use. Furthermore, many theories have been constructed and developed over time in order to understand the concept of alcohol dependency.

Several frameworks refer to alcohol dependency as a disease or an illness, but the word “disorder” will be used throughout this paper to further describe the condition. Disease is defined as “a pathological condition of a part, organ, or system of an organism resulting from various causes, such as infection, genetic defect, or environmental stress, and characterized by an identifiable group of signs or symptoms” (Merriam-Webster’s online dictionary, 2013) and serves as a false definition of what alcohol dependency is. On the contrary, the term “disorder” is used in the DSM-V and allows for a broader understanding of the condition: “An ailment which affects the function of mind or body” (Merriam-Webster’s online dictionary, 2013.).

Research indicates that individuals enrolled in university possess a more risky level of alcohol consumption than peers who were not enrolled. University alcohol consumption has shown to be a recurring problem within our society and this behaviour has escalated over the past

few years (Englund, Egeland, Oliva, & Collins, 2008; Kypri, Cronin, & Wright, 2005; Hallett et al., 2012; Maggs, Williams, & Lee, 2011; Parada et al., 2009). White and Swartzwelder (2009) found that university students drink more than their non-university peers and were more likely to meet criteria for DSM-V diagnoses of alcohol use disorders, estimating that 1 in 5 university students suffer from clinically significant alcohol related problems.

There are numerous underlying reasons and potential risks associated with student binge drinking. Some of the main reasons include drinking to relax and drinking to get high (Dodd, Glassman, Arthur, Webb, & Miller, 2010; Patrick & Schulenberg, 2011). While still young and naïve, students are among the most vulnerable populations when it comes to alcohol use. I will explore the theories used to understand a student's behaviour regarding alcohol use. The objective of this study is to evaluate common theories examining student binge drinking and analyze them for their strengths and weaknesses through a systematic review. Potential treatment options will also be given attention when exploring the popular theories. Not only are explanations of student drinking an emerging interest in future research, but also understanding the ways that students can be helped. Exploring both prevention and intervention strategies are desirable for future research. This research is consistent with the work of Hill (2010) who explored and provided suggestions regarding the ideologies of addiction and therapy.

When evaluating reasons for drinking, information is gathered from students, and efforts are taken in order to identify the reasons underlying binge drinking in the university population. Finlay, Ram, Maggs and Caldwell (2012) state, "changing the culture of heavy drinking on university campuses is a valued priority of alcohol and developmental researchers, prevention scientists, and college administrators" (p. 1). More research is needed in order to ascertain the underlying theories associated with binge drinking.

Student Drinking

Student drinking has become problematic in society. Post-secondary student populations are frequently reported to drink more than their non-university peers (Englund et al., 2008; Kypri, et al., 2005; Maggs et al., 2011; Hallett et al., 2012; Parada et al., 2012). Kypri et al. (2005) indicated that hazardous drinking activity has increased amongst students. Approximately 15% of university students, opposed to 12% who are non-students, develop alcohol-dependent behaviours. Students need to be assessed, and prevention initiatives need to be available from the time freshmen students arrive on campus. Many students have already acquired these risky drinking habits prior to starting university (White & Swartzwelder, 2009).

Dodd et al. (2010) conducted a study involving groups consisting of males and females. Students adopted a carefree approach towards drinking. Being 18 and free from parent restrictions, students express an interest in making their own choices. Male students indicated the word “sober” be avoided in drinking campaigns because they would not acknowledge a campaign promoting sobriety. Despite being aware of the many social and behavioural consequences, students admit very little would motivate them to reduce their drinking. They claim testimonials, messages through social media and scare tactics would probably be of most benefit in an attempt to curtail drinking (Dodd et al., 2010).

White and Swartzwelder’s (2009) study revealed binge drinking, blackouts, vomiting and hangovers occurred prior to the beginning of first year university. Of the students who consumed alcohol within two weeks of completing the survey for this study, more than half met the criteria for binge drinking at least once during the two-week period. “Binge drinking” which refers to any hazardous type of drinking, is defined as an intake of large amounts of alcohol within a short period of time, a few days throughout the week (Parada et al., 2012). Students often

underestimate the effect of alcohol and may increase the number of drinks they consume, essentially overdrinking on a regular basis (Maggs et al., 2011).

Of concern to this study are reasons pertaining to risky and hazardous student drinking. Drinking activity amongst students has increased, becoming excessive and posing risks for negative behavioural consequences (Maggs et al., 2011). In a study conducted by Webb, Ashton, Kelly and Kamali (1996), an online survey was distributed to approximately 3,075 students across ten universities. About 50-60% of students had exceeded the “weekly sensible drinking limit” and 28% of the students reported binge drinking. In 2011, Heather et al. conducted a study involving 770 students across seven universities. The Alcohol-Use Disorders Identification Test revealed that 61% of the sample scored positive, 41% were classified as hazardous drinkers, 11% as harmful drinkers, and 10% with probable dependence.

In a nationally representative survey, 40% of students reported engaging in heavy binge drinking within the previous two weeks of being questioned (Johnston, O'Malley, Bachman, & Schulenberg, 2010). These findings are commensurate with the study conducted by Finlay et al. (2012) which evaluated 717 first year students under the age of 21, 91% who resided on campus. Upon completion of the study, it was recognized that women, more frequently than men, attended class, took more non-leisure oriented classes, and spent more time engaged in social events. Men spent a greater amount of time engaged in leisure-oriented activities such as media use and athletics. It is noted that gender differences may cause different motivations applying to gender and alcohol use. It may be in society's best interest to implement a gender-specific prevention program prior to university (Finlay et al., 2012; White & Swartzwelder, 2009). “Resolving this issue while students still live at home with caregivers would remove a considerable burden for universities already struggling to minimize the harm that students do to

themselves and others by drinking irresponsibly” (White & Swartzwelder, 2009, p. 4). Research by Valliant and Scanlan (1994) has shown that students who reside with parents consume less alcohol, providing validity to more recent findings by White and Swartzwelder (2009).

In this particular study, Thursdays, Fridays and Saturdays appeared to rank highest in alcohol consumption levels among students. Men consumed more drinks than females, which is consistent with the study completed by Dodd et al. (2010). No differences were found among gender in terms of hazardous drinking (Finlay et al., 2012).

Adolescent alcohol misuse has been found to strongly correlate with excessive amounts of drinking and alcohol dependence later on in life. Research regarding the root of the problem is needed to lower the rates of potential alcohol dependency (Grant et al., 2006). By assessing theories that conceptualize the theories regarding student drinking, this study will contribute to our understanding of the issue, providing further assessment of prevention efforts. Further research in this area may reduce potential risks affecting students and society.

Risks Associated With Binge Drinking

Studies have shown there are risks for students who binge drink with comparison to those who regulate their drinking activity. Common risks affecting the future of students include adolescent neurocognitive development and negative behavioural consequences. Immediate risks include low grades and attendance at school, driving accidents, assaults and death (Johnston et al., 2010; Maggs et al., 2011; Parada et al., 2012).

Risks are also placed on students who have no intention of using protective strategies while engaging in binge drinking activities. In the study conducted by Patrick, Lee and Larimer (2011), enhancement and social motives were inversely related to protective strategies, and there was a negative association between coping and protective strategies. An example of a protective

strategy was finding a designated driver. Some students used these strategies to reduce their blood alcohol content (BAC) and many students, instead of drinking for their own reasons, wanted to drink the same amount as their peers (Patrick et al., 2011).

Neurocognitive Functioning

Parada et al. (2012) stated that binge drinking is believed to pose more of a risk to neurocognitive functioning in students than by regulatory drinking patterns. The adolescent stage is the most important in terms of brain development, general functioning, and is the stage when most complex abilities are learned. Some of these tasks include problem solving, working memory and inhibitory control. During this stage there is a high amount of vulnerability in regards to cognitive abilities. Binge drinking therefore negatively impacts an individual's ability to develop these important cognitive abilities to their full potential (Parada et al., 2012).

Specifically, binge-drinking patterns among students and their executive functioning were analyzed in this study by dividing students into a binge drinking group and a non-drinking group. These groups were defined by the amount of drinks consumed over a prescribed period of time. Participants were given specific tasks that would define their executive functioning skills. These included Backward Digit Span Test and Backward Spatial Span Test, which focus on the analysis of working memory; the Self Ordered Pointing Test, which assesses planning and monitoring aspects of working memory; the Letter Fluency Test, which measures functioning in the prefrontal cortex; the Zoo Map Subtest, which assesses ecological validity and its utility in detecting impairment in alcoholics; and the Wisconsin Card Sorting Test, which evaluates comprehension of concept information and reactive cognitive flexibility (Parada et al., 2012).

Students who possessed higher levels of binge drinking activity score lower on the Backward Digit Span Test and the Self Ordered Pointing Test. This would indicate capacity to

retain information and utilize verbal working memory. The Self Ordered Pointing Test is associated with activity in Brodmann's Areas 46 and 9, which are located in the mid-dorsolateral prefrontal cortex. Overall, the hypothesis was partially confirmed, showing that the binge-drinking group did not perform as well as the non-drinking group on executive function assessment tasks. This information confirms a risk to executive functioning development among students engaging in hazardous drinking (Parada et al., 2012).

Negative Consequences

Students put themselves at risk for negative consequences when engaging in activities involving alcohol. In the past, students have reported participating in drinking games and activities, causing them to intensely chug alcohol and vomit as a result. Some students report skipping meals before drinking activities to save calories, increasing their risk of experiencing memory blackouts and engaging in one-night stands (White & Swartzwelder, 2009). Students who engage in binge drinking and hazardous drinking styles are at an increased risk for negative and behavioural consequences (Maggs et al., 2011). Student drinking habits predicted many negative physical consequences, including stumbling and passing out. Although weekends were most popular for drinking activities, social affairs caused students to engage in heavy drinking during the week, putting them at higher risks for behavioural and neurocognitive deficits more often (Maggs et al., 2011).

Continued Heavy Alcohol Use in Adulthood

Students do not realize that using alcohol to alleviate boredom or avoid a problem can trigger serious issues. For example, usage at the age of 16 has previously been associated with heavy drinking patterns across early adult years (Englund et al., 2008). Studies show that poor

academic performance at age 12 increased men's chances of becoming heavy drinkers by the age of 26 (Englund et al., 2008).

Results were consistent for men and women with patterns concerning maternal alcohol use. Results for women showed that maternal drinking increased the odds of young women engaging in frequent heavy drinking later on in life. Conversely, results for males showed an increased chance that males possessed a current alcohol use disorder (Englund et al., 2008). A participant's perception of their mother's alcohol consumption likely increased the chances they would also drink more often. This finding would support the notion that role models influence alcohol consumption and will most likely increase the chances of young adults continuing heavy alcohol usage throughout their lifetime (Englund et al., 2008).

Social Harm

Drinkers are subjected to social harm by engaging in risky drinking patterns. A host of concern including family, workplace, legal, and financial problems are all possibilities (Rehm, 2010). Although social consequences are not followed as closely as health consequences, alcohol-associated costs have taken over about 1-3% of gross domestic products of high-income countries (Rehm, 2010).

Impact on Diseases

Alcohol negatively contributes to a variety of medical ailments. These include: infectious diseases, cancer, diabetes, neuropsychiatric disorders, cardiovascular diseases, liver or pancreas diseases, and unintentional and intentional injuries (Rehm, 2010). Also, the infectious diseases enhanced by binge drinking include HIV, tuberculosis and pneumonia, with the risk increasing as more alcohol is consumed. Frequent drinkers engage in sensation seeking and risk-taking behaviours, which may lead to unsafe sex and infectious diseases if a large consumption of

alcohol is consumed. Once infected with HIV or AIDS, antiretroviral guidelines are not followed, and victims are less likely to reach recovery (Rehm, 2010).

Other medial ailments include cancer of the oral cavity, pharynx, larynx, esophagus, liver, colorectal and breast have been discovered. The development of cancer is dependent on the specific type and variations. One example is cancer of the upper digestive track involving the production of acetaldehyde when the body breaks down the alcoholic beverage and is carcinogenic itself (Rehm, 2010). Diabetes follows the same pathway; increased alcohol consumption leads to harsher effects for the individual. It is reported that four or more drinks in one sitting is harmful, and fewer than two or less drinks is safe (Rehm, 2010). When heavy alcohol consumption is coupled with a mental illness, particularly a neurobiological disorder; the risk for alcohol dependency is increased. Spontaneous seizures can be caused by heavy alcohol use, and a large percentage of alcohol users diagnosed with epilepsy meet the criteria for alcohol dependency (Rehm, 2010).

Alcohol misuse is contraindicated in cardiovascular disease. Alcohol can increase hypertension (Rehm, 2010). Regular and light consumption of alcohol is not harmful, however, consuming 60 grams of alcohol on one occasion at least once per month is detrimental. Cardiovascular-based deaths were found to take place more often on the weekend, when heavy drinking was more common (Rehm, 2010).

Diseases of the liver and pancreas are influenced by alcohol consumption. These include cirrhosis and alcohol-induced or chronic pancreatitis (Rehm, 2010). Rehm (2010) indicates that heavy drinking plays a crucial role and defines risks as exponential. Light to moderate alcohol consumption after being diagnosed with liver or pancreas disease can have severe consequences (Rehm, 2010).

In terms of unintentional injuries, the harm to psychomotor functioning depends on the BAC and frequency of drinking behaviour. Negative effects are usually found with BAC level between 0.04 and 0.05 percent (Rehm, 2010). Intentional injuries are defined by the amount of alcohol consumed, indicating drinking levels highly impact the outcome. These levels influence risk for suicide and aggression including homicides (Rehm, 2010).

Reasons for Drinking

Students most commonly report consuming alcohol to relax, get high, alleviate boredom, cope with social anxiety, take advantage of cheap-drink nights, take a break from academics, and escape problems (Dodd et al., 2010; Patrick & Schulenberg, 2011). The response “drinking to relax” is consistently increasing among young adults and could potentially become a focus of future prevention and intervention strategies. The cost of alcohol plays an important role when investigating factors influencing student drinking. Dodd et al. (2010) states that “drinking behaviours are strongly influenced by the cost of alcohol, as is evidenced by the widespread availability of drink specials and other value-added alcohol-related items” (p. 6).

Escaping the Real World

Upon graduation from high school, students often drink to escape the real world, which may mean avoiding a problem or simply wanting to have fun. Drinking to get high and alleviate boredom is most strongly tied to binge drinking activity, while drinking to get away from problems closely follow. Drinking to relax and having a good time was less strongly correlated with binge drinking, which is seen amongst those in their early post-high school years (Patrick & Schulenberg, 2011). After age 22, drinking to escape problems is most commonly associated with binge drinking, and these individuals were less likely to reduce their drinking habits upon completion of post secondary education (Patrick & Schulenberg, 2011). Koob (2013) indicates

that alcohol use is viewed as a reward deficit disorder, arguing individuals turn to alcohol when they are feeling down and want to escape from reality. The negative reinforcement component affiliated with compulsive alcohol use triggers addiction and future relapse (Koob, 2013).

Drinking to have fun, celebrate, break from academics and relieve stress were main reasons behind drinking for the students participating in a study by Dodd et al. (2010), with “drinking to have fun” listed as a primary reason. Students seem to declare drinking alcohol as a way to “loosen up” and enhance their level of fun. One male expressed drinking as a way to learn the limits and become a responsible drinker. Another male participant made an honest statement in regards to drinking alcohol: “you are learning now what your limits are so you are not the drunk guy at the company party. It’s like perfecting your golf game before you get your job” (Dodd et al., 2010, p. 4).

A study of sociodemographic moderators between alcohol use and reasons for drinking by Patrick and Schulenberg (2011) found the association between getting high and binge drinking was stronger amongst women than men. The remaining correlations were invariant, indicating that associations between reasons for use and binge drinking are relatively similar across a variety of student populations (Patrick & Schulenberg, 2011).

Students have labeled drinking as a “social lubricant” which assists them in starting a conversation with others more easily. The phrase “loosen up” was commonly used and also referred to as “liquid courage” (Dodd et al., 2010). Many students indicated that alcohol provided them with confidence to approach the opposite sex and seek out sexual opportunities, while overcoming social anxiety. In terms of consumption, males felt as though it was a competition to drink more than their friends, whereas females were not influenced by their peers. However, females did engage in their own competition, which entailed having drinks purchased

for them throughout the evening (Dodd et al., 2010). Social consequences also concerned students participating in this study, such as embarrassment, annoying friends with drunken behaviours, doing things they may regret, being loud and obnoxious, and ruining the night for others. “According to the female respondents, concern for avoiding the role of “that girl” is so great that girlfriends watch out for each other and “babysit” their drunken friends (Dodd et al., 2012, p.5)”. While a female’s biggest concern is being “that girl,” a male’s biggest concern is regretting a sexual choice and their negative impression of the female afterwards.

Alcohol Consumed

In a study by Finlay et al. (2012), students reported engaging in certain activities after consuming large amounts of alcohol, and the time of the week was a powerful indicator for defining alcohol consumption levels. On the contrary, students who engaged in volunteering, spiritual activities and attended classes on a regular basis seemed to engage in hazardous drinking less often, a finding consistent with previous research (Finlay et al., 2012). Regarding gender, Dodd et al. (2010) found that females reported drinking 2-3 times per month, whereas males reported drinking 2-3 times per week. The authors believe this difference may reflect the concept of social desirability within these groups.

Maggs et al. (2011) found that students drank mostly on weekends, but heavy drinking would occur on weekdays if a social event were taking place. Students that were part of a fraternity or sorority were also more frequent drinkers (Maggs et al., 2011; White & Swartzwelder, 2009). This article claims reasons for drinking are between-student risk factors, stating that specific events taking place on certain days of the week would predict alcohol consumption. Negative emotions, involvement in athletics, and attending social events were

among the most popular reasons for drinking and were influenced by the time of week they occurred (Maggs et al., 2011; White & Swartzwelder, 2009).

Child Abuse and Neglect

Many studies have associated prior childhood problems with increased drinking in adolescent years (Englund et al., 2008; Lown, Nayak, Korcha, & Greenfield, 2011).

“Externalizing problems in childhood may be a key developmental predictor of alcohol use disorders in early adulthood” (Englund et al., 2008, p. 22). This statement is consistent with findings regarding males who had behavioural problems in childhood and then possessed drinking problems at the age of 28, compared to males who did not have any childhood behavioural problems in their earlier years. Findings were also consistent for both males and females at age 26.

Lown et al. (2011) expressed concern for thousands of women who participated in a national survey focusing on the consequences of child abuse. It was stated that women being abused, either sexually or physically as a child, would predict increased future alcohol consumption levels. In this study, parents were the perpetrator of child physical abuse 75% of the time. For child sexual abuse, a non-family member was the perpetrator 60% of the time; however both were associated with a higher prevalence of alcohol misuse. In terms of future outlook, women who reported child abuse were also more likely to report parental alcoholism and drinking misuse. An increased risk for lifetime problems regarding alcohol misuse was noticed when women had two or more perpetrators, or if the perpetrator was not a family member. For child sexual abuse victims, resulted injury was the single factor that increased lifetime alcohol misuse (Lown et al., 2011).

“Poor parenting in early childhood, particularly neglect and harsh treatment, was associated with later conduct problems” (Englund et al., 2008, p. 22). This information suggests a genetic predisposition along with poor parenting can lead to child dysfunction and altered perceptions of acceptable alcohol use (Englund et al., 2008). An increased amount of alcohol consumption resulting from experiences women had with past injuries, multiple perpetrators, or perpetrators outside of the family was associated with drinking to escape problems and harsh memories (Lown et al., 2011).

Personality

Specific personality characteristics can influence the onset of alcohol use (Cyders, Flory, Rainer, & Smith, 2009; Finn, Sharkansky, Brandt, & Turcotte, 2000). Personality is a factor that is commonly linked with potential risks for alcohol dependency (Valliant & Scanlan, 1996). Although there is no specific “alcoholic personality,” many different personalities contribute to alcohol dependency, varying from person to person. For example, Valliant and Scanlan (1996) used student drinking patterns and clinical personality scales in order to determine which personality characteristics were most strongly associated with higher levels of alcohol consumption. Results showed that depression and hypomania are frequently indicative of heavy drinking patterns.

The Minnesota Multiphasic Personality Inventory (MMPI) is often used to assess personality types and to compare alcohol users and non-users (Weed, Butcher, McKenna, & Ben-Porath, 1992). A research study on hypomania and alcohol use evaluated 120 participants who completed a personality questionnaire along with a daily drinking questionnaire. A regression analysis determined that risk for hypomania was related to unstable drinking patterns (Meyer & Wolkenstein, 2010). Personality profiles have shown elevations in certain areas such

as depression, hypomania and psychopathic deviate scales (Donovan, Chaney, & O'Leary, 1978; Pettinati, Sugerman and Maurer, 2008). Many studies assess personality factors to determine whether they are important predictors of alcohol intake, frequency, and risk for alcohol dependency (Donovan et al., 1978).

Cyders et al. (2009) investigated first year university students' personalities risk for developing drinking habits. The findings describe personalities, which directly relate to drinking, and discuss emotions frequently responsible for influencing hazardous drinking. Possessing high sensation seeking and positive urgency type personalities resulted in more frequent drinking patterns. The positive urgency personality describes an individual who makes bad decisions when they are in a good mood. "First, it is important to develop risk theories based on recognized differences among difference dispositions to rash action: sensation seeking and positive urgency predicted different behaviours prospectively" (Cyders et al. 2009, p. 19). Rather than making safer and better choices as a rash decision, interventions are proposed to alter mood management when addressing these behaviours. Personality traits are typically combined with learning and particular motives to predict student-drinking behaviour (Cyders et al., 2009).

A national epidemiological survey regarding alcohol and related conditions tested certain mood, anxiety, and personality disorders in order to see which characteristics were most often associated with an alcohol use disorder (Hasin, Stinson, Ogburn, & Grant, 2007). Mood disorders included primary depressive disorder, bipolar I, bipolar II, and dysthymia; anxiety disorders included primary panic disorder (with and without agoraphobia), social and specific phobias, histrionic personality disorder, and generalized anxiety disorder; and personality disorders included avoidant, dependent, obsessive-compulsive, paranoid, schizoid, and antisocial (Hasin et al., 2007).

Findings suggest that significant associations with alcohol were found between bipolar I and bipolar II disorder, specific phobia, histrionic and antisocial personality disorders. Alcohol dependency was highly chronic, but recoverable. However, “when untreated, impaired functioning may diminish life chances and increase stressful life conditions even after alcohol dependence remits, increasing the subsequent risk for other psychiatric disorders such as major depressive disorder” (Hasin et al., 2007, p.9).

Chapter 2

Approach to the Paper

Searching social science databases for relevant research material, particularly concerning addictions and clinical psychology, identified the information in this paper. A variety of databases were utilized, searching for publications from 2008 through to the present, where pieces from the last five years were most desirable. The majority of articles were obtained from PubMed, PsycINFO, ERIC and Google Scholar.

Broad search terms ensured that relevant studies were not missed. These were “students”, “alcohol or drinking”, “theories” and “addiction” anywhere in the title or abstract. Eligibility for studies in this review included (a) the focus of the study was students (b) the study involved alcohol use or an addiction to alcohol and (c) some type of theory was assessed in accordance with drinking habits.

Following the previous outlined steps of theoretical evaluation by Webb, Sniehotta and Michie (2010), five steps were followed to thoroughly evaluate a theory. First the theory had to have been mentioned, relevant theoretical constructs were targeted, the theoretical constructs were measured, mediation effects were tested and the theory was then refined. These steps were put forward in order to thoroughly analyze a theory; they also contributed to the choice of appropriate theories to use in this research paper. This process was labeled “coding frame” and described as “helping link intervention efficacy to the degree and type of theoretical base” (Webb, Sniehotta & Mitchie, 2010, p. 9).

Studies were examined and either kept or discarded based on the relevance of information. A study may have been discarded if no particular theory was explored in regards to

alcohol use or if alcohol was only a minor variable in the study. Studies addressing a university population were considered most valuable, closely relating to the focus of the research in this paper. Other studies which were highly valuable included information connecting various theories relating to adolescent drinking, their potential for developing an addiction to alcohol and potential direction for treatment and intervention.

Addiction studies have the potential to involve many mediating effects. Certain factors may influence drinking behaviour, but are not always the sole cause. Although many addictions involve co-morbid issues, findings may also fail to reveal some complex relationships. Of most interest for this study are the many different theories regarding alcohol misuse, which focus on important aspects such as treatment, strengths, weaknesses, causes, assumptions and implications.

The theories were compared based on specific factors. A deductive approach identified the three most relevant theories to be explored further. Although many theories apply to different types of addiction, alcohol addiction, rather than other drug addiction, is the focus of this paper. The three guidelines considered throughout the research included: (a) the date of publication (b) the extent to which the aspects of the theory were explained, if explained, (e.g. strengths, weaknesses and assumptions) and (c) if an approach was made to a student population. The studies chosen as a base for this research paper included a theory or multiple theories that would assist in explaining student drinking habits. The theories used in this paper were well known and had been published in recent literature several times. These theories were used in multiple sources such as books, journal articles or web pages. Theories that were uncommon and seldom referred to were not explored further. These studies were relatively recent to ensure that the

theories were not outdated. Factors such as sample size, location, and design methods were not desirable.

The articles' dates of publication were important in regards to providing the most recent and relevant information in the field of addiction studies. Therefore, studies published approximately within the last five years were used. Second, in some papers, theories pertaining to alcohol addiction were not mentioned, or not explained to an extent which made it useful for contributing to this particular major paper. They may have briefly mentioned a theory but had not gone to the extent to include different aspects and important information regarding use of the theory and its strengths, weaknesses, assumptions or treatment aspects. Third, if theory and addiction were not addressed in a way making it a useful approach to a university population, the specific study was discarded. More specifically, the studies using a university population to test student behaviour and develop theories as a result were highly desired, opposed to the studies exploring theories in relation to a general or adolescent population.

Chapter 3

Theories of Addiction

Theories of addiction are derived to benefit an individual, society, research, health outcomes, or for an understanding of the reasons underlying addiction (Goodman, 1990; Nigg, Allegrante, & Ory, 2002). A theory is defined as “a supposition or a system of ideas intended to explain something” (Merriam-Webster’s online dictionary, 2013). Goodman (1990) strived to find an explanation for defining addiction and proposed the following notion:

A certain process in which a behaviour, that can function both to produce pleasure and to provide escape from internal discomfort, is employed in a pattern characterized by both a recurrent failure to control the behaviour, a sense of powerlessness and a continuation of the behaviour despite the negative consequences as a sense of unmanageability. (p. 5)

A theoretical framework regarding an addictive personality must explain the concept of addiction in a way that is inclusive of many different individuals and their unique cases. To meet this need, I explore the following frameworks for their comprehensive scope regarding addictive behaviour and their relation to alcohol dependency.

Addiction to alcohol has many explanations. Lindström’s (1992) book explained the biopsychosocial theory, as well as theories and treatments regarding addiction. Many recent authors are bringing the biopsychosocial model back into play as it covers a broad basis for identifying intervention options regarding alcohol use (Da Silva Cardoso, Wolf, Smedema, Brooks and Mahr, 2015; Davies, Elison, Ward & Laudet, 2015). However, Ghamei (2010) describes the biopsychosocial theory as a rationale for eclecticism with an “anything goes” approach. The theory does not hold a single set of assumptions, but gains insight into the broad

range of ideas integrated into the theory. The concept of alcohol addiction must be elucidated to enhance previous knowledge and further research (Ogborne, 2004).

The purpose of this section is to address multiple theories that assist in generating ideas contributing to the understanding of an addiction to alcohol. The intention is to target a student population and analyze the foundations of past theories to address the health-related behaviour.

Nigg et al. (2002) explains the importance of further research on health-related behaviours:

Research that seeks to compare and contrast theories of behaviour change and assess the utility of a particular theoretical model for changing two or more health-related behaviours is critical to advancing health behaviour research. Theory-comparison can help us learn more about the process by which people change and maintain health behaviours than does study of any single theory alone and thus has the potential to better guide the development of intervention. (p.1)

The following theories will work towards integrating specific information and producing a compelling approach suitable for contributing to the possible onset, duration, or outcome of an addiction. The biopsychosocial model is a perfect representation of the following theories, integrating three different levels including biological, psychological and social aspects pertaining to the onset of an addiction.

Disease Theory

The disease theory focuses on the similarities and differences between those with the “disease” of addiction and those without. This model describes addiction as a brain disease that cannot be controlled, including distorted structure and functioning, which cause the addiction to become “irreversible” (Dual Diagnosis, 2014; Horvath, Misra, Epner, & Cooper, 2014). This theory is also concerned with pathological changes in the brain resulting in uncontrollable urges

(West & Brown, 2013). The craving episodes are labeled as the “heart” of the disease theory, defined as “urgent and overpowering,” seeming to emotionally and physically take over the individual (West & Brown, 2013).

The disease theory demonstrates a progressive and permanent lifetime illness guided by a loss of control. It also describes addiction as fitting the description for a medical disorder and claims that some individuals inherit a predisposition for the disease (Lindström, 1992; West & Brown, 2013). The symptoms are distinguishable, although each case includes a different combination of genes. The environment plays a crucial role in the outcome of addiction (Dual Diagnosis, 2014).

Implications of the disease theory state that all misusers of alcohol have the same abstinence treatment goal. Individuals with a family history of alcohol dependency are placed at a higher risk because of inheritance of defective genes. Treatment is required to avoid the consequences of untreated substance misuse, up to and including death, while spontaneous recovery is unlikely. Even if treatment is received, the potential for relapse is continuously present regardless of the duration of sobriety (Lindström, 1992).

From the perspective of the disease theory, abstinence from substance use and related activity with assistance through peer or group support is the number one method regarding recovery. To recover, one must refrain from engaging in the addictive activity, although relapse is possible. Some individuals will spontaneously recover after years, which may be explained by an abnormality in the brain normalizing, or the notion that the individual was never addicted in the first place. Research has proven that various types of peer support, as well as the twelve-step program, are extremely influential in the process of abstaining from alcohol. Although others believe that physical restraint is the only way to recover, hope and motivation, key outcomes of

the support, also help achieve successful recovery (Horvath et al., 2014; West & Brown, 2013).

Biological Theory

The biological theory focuses on a number of factors explaining addiction in addition to the human behavioural outcome. These factors include genetics, brain chemistry and structure and function of the brain. Each individual's unique physiology and genetics contribute to the cause of addiction and the biological theory claims that individuals enjoy different things, some more than others to the extent that they cannot resist (Horvath et al., 2014). Brain functioning allows an individual to resist certain temptations and impulses, however those with altered brain function may be unable to resist (Horvath et al., 2014; Hyman, 2005; Lejuez, Magidson, Mitchell, Sinha, Stevens, & De Wit, 2010). The biological theory includes the physical component of an addiction to alcohol, including withdrawal systems of a physical nature: body temperature changes, fever, sweating, tremors, sneezing, chills, increased pulse rate, tachycardia, spontaneous orgasms, depression, paranoia, panic disorder and delusions. These symptoms are physical indicators that addiction is a biological entity with resulting medical problems (Sremac, 2010).

Since addiction begins through incentive-based mechanisms, chronic alcohol use leads to tolerant behaviour and continued alcohol use to the avoidance or termination of abstinence (Naqvi & Bechara, 2009). "The reinforcing effects of nearly all drugs of abuse are attributed to their ability to stimulate the release of dopamine from neurons arising from the brainstem ventral tegmental area" (Naqvi & Bechara, 2009). Furthermore, another central component includes the mesolimbic dopamine system, which plays a crucial role in acting as the pleasure neurotransmitter of the brain. This mesolimbic system is the central component, which motivates addiction and is responsible for alcohol consumption (Naqvi & Bechara, 2009).

Two sub-theories within the biological theory help to enhance the understanding of addiction from a biological perspective. The first theory involves exaggerated processing of incentive values, causing abnormal activity in the brain. The second involves abnormal activity in the prefrontal cortex, responsible for developing substance-seeking behaviours (Naqvi & Bechara, 2009). Functional imaging studies of drug abusers have shown activation in the cortical systems, revealing both incentives and internal states working together, producing motivation for the use and addiction of alcohol (Naqvi & Bechara, 2009). The insula has proven to produce urges as certain environmental cues are revealed to users, which may produce the need for the use of a specific drug. Physiological withdrawal may include seizures, tachycardia, and hypertension. This withdrawal is necessary for alleviating dysphoria in the human being (Naqvi & Bechara, 2009).

Treatment and recovery under the biological theory entails understanding the vulnerability associated with the specific individual. Detoxification from alcohol is not a solution to the biological theory, but the first step in obtaining long-term abstinence and recovery (Sremac, 2010). Abstaining or greatly reducing alcohol use would be the next step in recovery. As a result, treatment educates the individual about their triggers, as well as their genetic predisposition to addiction (Horvath et al., 2014).

Psychopathological Theory

The psychopathological theory focuses on aberrant personality characteristics, stating that alcohol dependency is a symptom of another psychiatric disorder or can be caused by a mental disorder. Symptoms may include cognitive difficulties, mood disturbances, and co-morbid issues.

Personalities can contribute to student alcohol consumption. Common personalities associated with alcohol consumption include: extraversion, gregariousness, excitement seeking, impulsivity, and immoderation (McAdams & Donnellan, 2009; Shin, Hong, & Jeon, 2012). These authors indicate that personality and drinking can influence future research (McAdams & Donnellan, 2009). Impulsivity is a persistent trait among those who are alcohol dependent. Individuals who possess specific traits are at risk for developing an alcohol dependent lifestyle (Shin et al., 2012).

The other aspect to this theory focuses on personality from a psychopathological viewpoint. Utilizing psychological tests, such as the MMPI, may uncover clinical personalities directly related to binge drinking. Some of the common personality disorders that may stem from this pathological perspective includes: depression, psychopathic deviance, paranoia, psychasthenia and schizophrenia (Polimeni, Moore, & Gruenert, 2010). Individuals who develop an addiction toward alcohol because of their personality characteristics will commonly exhibit a 4-8 code type (psychopathic, deviate and schizophrenia) (Graham, 1990; Polimeni et al., 2010, p.6). This 4-8 code type entails poor judgment and problems regarding logical and critical thinking processes. An individual that possesses this specific code type will likely have a history involving criminal behaviour, and quite often, many arrests involving bizarre crimes accompanied with violent behaviour. These individuals experience a great deal of stress, feelings of insecurity, and thoughts of being unwanted with no ability to control their feelings. They may also have a difficult time focusing and committing their full attention in a situation. Suspicion is a key aspect of this code type, where the individual will become suspicious of others' motives for no legitimate reason. This causes them to become socially withdrawn, with false assumptions causing disengagement between them and their surroundings (Polimeni et al., 2010). Psychotic

scales are more often elevated than the neurotic scales of the MMPI-2, which show a very “psychotic-oriented” and malignant profile. In terms of gender, women typically have a more pathological profile associated with confusion, hypochondriasis, depression, character disorder, deviance, and schizophrenic thoughts (Littlefield & Sher, 2010; Polimeni et al., 2010).

The “deviant proneness” model suggested by Littlefield and Sher (2010) evaluates deviant behaviour. These behaviours are thought to have developed in early childhood as a result of negative upbringing. The pharmacological vulnerability model describes the way individuals respond to positive and negative reinforcement as it pertains to alcohol consumption and personality (Littlefield & Sher, 2010). Approximately one half of people seeking treatment for an addiction will have a co-morbid mental disorder and have experienced inadequate psychological development (Sremac, 2010; Horvath et al., 2014). Addiction is an unhealthy learned behaviour in response to an individual’s environment and surroundings. It is also seen as the result of an individual’s negative feelings, which are believed to determine behaviour (Lindström, 1992; Horvath et al., 2014).

Psychological based models are useful because they evaluate maladaptive behaviours, which are behaviours that limit an individual’s functioning. The psychological model addresses addiction in addition maladaptive behaviours (Horvath et al., 2014). Juvenile delinquency and antisocial behaviour disorders have been linked with inadequate psychological development and excessive alcohol use. Antisocial disorders, depression, low self-esteem, hyper-activism, and high novelty-seeking behaviours are considered predictors of addiction (Sremac, 2010). It is believed psychological disorders contain symptoms specific to substance use and dependence (Sremac, 2010).

An implication of the psychopathological theory outlines treatment of the underlying psychiatric disorder to lead to remission of substance misuse (Lindström, 1992). Psychotherapy helps identify and resolve underlying psychological disorders by restructuring an individual's personality, while improving their cognitive and emotional functioning (Horvath et al., 2014). Research has demonstrated poor results from scientific literature regarding oriented psychotherapy as well as high dropout rates during treatment (Lindström, 1992).

Treatment regarding the psychopathological theory involves multiple medications and behavioural treatments with simple instructions and rapid screening tests (Hasin et al., 2007). It was proposed that a National Institute of Mental Health Campaign be implemented to de-stigmatize depression and educate individuals about treatment practices. This campaign would also promote pharmaceutical antidepressants to professionals and the public sector.

Learning Theory

The learning theory proposes that addiction is a learned behaviour (Collins, Witkiewitz, & Larimer, 2011; Horvath et al., 2014). The main influences of an individual's actions are motivational factors, behaviours, norms, and perceived control of behaviour. More specifically, positive attitudes about drinking, self-efficacy, lower levels of confidence to avoid drinking, and stronger beliefs that other students were engaging in this risky behaviour, contributing to the onset of maladaptive drinking patterns among students (Collins et al., 2011).

Much of the longitudinal research regarding planned behaviour and student drinking has predicted that positive attitudes towards alcohol use correlate positively with future alcohol use (Collins et al., 2011). Compulsive alcohol is linked with reinforcement principles. Because alcohol use stimulates the pleasure centers of the brain, the individual seeks this feeling

repeatedly, causing positive reinforcement. When an addict uses alcohol to overcome negative feelings and withdrawal symptoms, it is classified as negative reinforcement (Sremac, 2010).

There is much empirical support for the learning theory, although it tends to ignore the biological processes triggered by substance abuse. This theory suggests treatment requires more focus when creating and maintaining behavioural changes (Lindström, 1992). The learning theory has caused many effective non-pharmacological treatments to emerge, which focus specifically on developing and sustaining behavioural change, such as reduction of substance abuse (Lindström, 1992).

In terms of treatment, behaviours are acquired through learning principles such as acquisition and reinforcement and based on classical and operant conditioning. Classical conditioning entails pairing the pleasure of an addictive substance with environmental cues that later become habitual and have the potential to cause powerful cravings. What we learn can be unlearned as well, mainly through “cue exposure,” which consists of presenting a cue without its pairing. This is done in hopes of reducing the craving, and ultimately the addiction. Another type of classical conditioning is “counter-conditioning.” An example of this concept includes taste aversion, which is slightly more complex than classical conditioning because the time elapsed between the two pairings is much greater for taste aversion. However, pairing alcohol with induced nausea has been used as a treatment method for alcohol addiction (Horvath et al., 2014). Operant conditioning involves a system of rewards and punishments in order to reduce or enforce certain behaviours. A rehabilitation centre is an example of operant conditioning, as once the patient has demonstrated abstinence from alcohol, they may return home to their family (Horvath et al., 2014).

Webb et al. (2010) describe models of behaviour change that may influence an individual's recovery. First, the theory of planned behaviour states, "behavioural intentions are a function of attitudes and subjective norms" (Webb et al., p. 6). This theory describes a correlation between changing beliefs and behaviours, and is thus proposed as beneficial to intervention development research (Webb et al., 2010). Specific behaviours have long been involved in the development of addiction. First, the strength of its reinforcement makes individual behaviour difficult to maintain, and second, the failure to regulate prevents achievement of personal or societal goals (Webb et al., 2010).

The goal-setting theory describes the relationship between goals and performance; suggesting that two dimensions of goals, difficulty and specificity goals, influence subsequent performance (Webb et al., 2010). Self-efficacy is important within this sub-theory of behaviour because one's ability to achieve their set goal is necessary for promoting change. "SMART" goals are the ones that will help an individual overcome addiction: smart, measureable, attainable, realistic, and timely (Webb et al., 2010, p. 5).

The model of action phases is considered a goal-based action plan that works towards eliminating addictive behaviours. The first step requires the individual to decide on the exact goal that he or she wants to pursue. Next, the action is set as well as deciding on where, when and how this goal will be achieved. The third phase accounts for the initiation of the goal and any work the individual must accomplish in order to maintain it. When the outcome is finally reached, it is compared against the initial desired goal. Webb, Sheeran, and Luszczynaka (2009) previously conducted a study, which implemented this model to change behaviours:

The study provided support for the idea that interventions based upon implementation intentions could be effective for people in the early stages of addiction, however

findings also suggest that planning interventions may need to be supplemented with other interventions when addictions are stronger. (p. 11)

This indicates goal-changing behaviours as effective among a portion of the dependent population, depending on how severe the addictive habits are. Although in extreme cases, a stronger approach or multiple approaches must be implemented along with the goal achieving steps to weaken or fully diminish the addictive behaviour.

The strength model of self-control requires individuals to exert their self-control on an initial task before attempting a second, unrelated task. Due to addictive behaviours, participants often have a difficult time displaying this self-control when completing the second task. This task teaches individuals that interventions require repeatedly striving for goals, and encourages them to view the task as a possible achievement (Webb et al., 2010).

The protection motivation theory assumes that an individual's "protection motivation" is determined by threat appraisals and coping appraisals. This theory is designed to promote change in addictive behaviours by modifying the various appraisals (Webb et al., 2010). Using the protection motivation theory, Pechmann, Zhao, Goldberg and Reibling (2003) conducted a study coding the content of 194 anti-smoking advertisements. 1667 students were given sets of eight advertisements targeting protection motivation variables. Three key themes convinced students not to smoke, and these themes also influenced protection motivation by increasing severity of social disapproval risks. The same interventions based on this theory have convinced students to limit alcohol consumption behaviour.

The health belief model relates to health protective behaviours. According to the health belief model, there are four factors which influence individuals' behaviours: the perceived threat the behaviour might protect against, the perceived effectiveness of the preventive behaviour,

general health motivation, and the cues to action that reflect immediate situational determinants (Webb et al., 2010). This model suggests that interventions should target those changes of an individual's behaviour resulting from social and cognitive determinants. These interventions have gained positive feedback and have successfully promoted a wide range of behaviours (Webb et al., 2010).

The elaboration likelihood model is slightly different from the other behavioural-altering models. This model proposed two routes that an individual may take. The first involves persuasion and arguments regarding directions for behaviour change. These directions are specific to the individual, meaning, "only if these individuals have the specific motivations to follow these directions, will they do so" (Webb et al., 2010, p.7). The second route, estimated to promote a more successful rate of behaviour change, bases persuasion on the perceived dedication of the individual in overcoming their addictive behaviours (Webb et al., 2010).

The prototype willingness model concentrates on individual and social approaches when predicting an individual's behaviour. This model of behaviour also proposes two routes for behaviour change. The first is the reasoned pathway, which is similar to the theory of planned behaviour and combines attitudes and subjective norms to determine behavioural intentions. In contrast, the social reaction pathway is more peculiar and determines that prototype perceptions directly influence behavioural-change willingness, and consequently, an individual's behaviour (Webb et al., 2010). Interventions based on this social reaction pathway directly influences behaviour by focusing on perceptions of the prototypical person engaging in this addictive behaviour. These interventions have been linked to successful treatment outcomes (Webb et al., 2010).

The social cognitive theory views individual intentions as key aspects of future outcomes and actions, which place importance on self-efficacy being defined as the “foundation of human agency” (Webb et al., 2010, p. 8). This theory states the relationship between beliefs and certain behaviours are a reciprocal learning process in which experiences are the main focus of the individual learning process. From this perspective, people decide how much effort they will invest in a goal. It is the prerogative of the individual to determine if they will use their failures as learning opportunities or succumb to their addiction. The social cognitive theory is another example of a successful intervention strategy, as self-efficacy is targeted, so as long as one of these aspects is addressed: a personal quit attempt, modeling the experiences of another, verbal persuasion, or physiological and affective states (Webb et al., 2010).

The previous sub-theories described are productive for future research and intervention development geared towards promoting addictive behavioural changes. Webb et al. (2010) discuss these behaviour models are often ignored, and argue for more recognition and use of these models to promote “scientific change” (p. 10) for future research.

Theory of Planned Behaviour

Theories regarding reasoned action and planned behaviour attempt to predict individual intentions and behaviours (Armitage & Conner, 2001). The theory of planned behaviour is an extension of the theory regarding reasoned action, both including control of beliefs as well as perceived behaviours. By including information regarding perceived behaviour control, knowledge is gained about constraints on action and explaining why intentions do not always predict behaviours (Armitage & Conner, 2001). Particular interests include subjective norms containing reactions to social pressure and behaviour performance, which depends on other individual’s reactions as well. Attitudes toward certain behaviours are also of particular interest

and include evaluations more likely performed if a favourable reaction is received (Armitage & Conner, 2001). Overall, attitudes, subjective norms and perceived control were the leading predictors of desires. In this study individuals would first convert their attitudes into desires so that social pressure may first be evaluated and mediated by intentions (Armitage & Conner, 2001).

Theory of Tension Reduction

Butler, Dodge and Faurote (2010) discuss the theory of tension reduction and its use for assessing daily work stressors and alcohol usage among 106 employed university students. The tension reduction theory describes how an individual may consume alcohol to reduce tension. Results showed that students drank more on days that they worked longer hours and when they had stronger daily tension reduction beliefs, although would try to refrain from drinking if they believed it might produce more tension (Butler et al., 2010). Future tension reduction research shows that workplaces have contemplated including substance abuse prevention training as part of general training in order to improve worker health, decrease costs associated with alcohol, and to target the motivations associated with tension reduction (Butler et al., 2010).

Life Course Theory and Alcohol Dependency

The life course theory strives to understand the different pathways of an individual during their developmental phase. By looking at the process of development throughout a lifetime, this theory employs only one perspective for understanding human beings. The life course theory relates to emerging adulthood in the most conventional sense because the pathways people may embrace are everlasting. According to the life course theory, individuals near each stage of development at different times depending on external influences. Social influences and culture will impact an individual's development, such as cultural expectations and family background.

Individuals construct their own identities through choices and actions based on these cultural and social influences (Arnett & Tanner, 2009). To understand an individual, one must focus on the main events in their lives: cohorts, transitions, trajectories, life events and turning points.

A life course approach understands a chronic disorder such as alcohol dependency over generations and time. A model that approaches the concept with an integrative perspective must include biological and social factors (Ben-Shlomo & Kuh, 2002). Researchers have been increasingly interested in developing a theoretical framework for conceptualizing and analyzing disease epidemiology. Such a theoretical framework must describe whether biological, psychosocial or behavioural perspectives are influencing an individual's life course and outcomes over time (Ben-Shlomo & Kuh, 2002). Biological and social factors are explored in the biopsychosocial model, which contributes to the popularity of using this model for explaining broad perspectives of addiction. The critical and sensitive periods are the two points in time throughout the disorder where there will be impacts on health or fluctuations of strong and weak effects. This life course framework has helped connect the biological and psychosocial factors of disease causation and has provided pathways inspiring new research and explanations (Ben-Shlomo & Kuh, 2002).

Life course research has provided much insight into health aspects and the intersection of socioeconomic status, behaviours and many other factors to explain alcohol dependency and addictions. The life course theory provides a limited outlook on adult disorders and describes that both early life and adult life must be addressed simultaneously in order to improve health status and find root causes. The life course theory describes unique concepts among various individuals and the way in which they follow different pathways, experiencing different effects as a result. It also affects a diverse range of outcomes from general well being to physical

functioning and chronic diseases. Early factors regarding behaviour and personality have interacted with later factors to influence health, while early events have predicted social destinations working to impact health outcomes (Hertzman & Power, 2003). The life course theory describes the concept of an individual and their different approaches to decisions, such as alcohol-based decisions, that are influenced by individuality and lifestyle differences.

Social Learning Theory

The social learning theory is often applied to any social behaviouristic approach and states that alcohol dependency develops as a result of a negative social consequence (e.g. poverty and unemployment) by modeling the behaviour of those around them or by observing others who engage in addictive behaviours (Akers, 2011; Horvath et al., 2014; Lindström, 1992). This theory emphasizes the role of societal influences individuals are exposed to, including peer pressure and family systems. The theory focuses on the modeling of others including such as teachers, parents or peers as an influence of their decision-making strategies (Akers, 2011). Some addicts that fall under the terms of the social theory come from problematic societal backgrounds involving broken homes, past childhood trauma, and families with a history of unsupportive parenting. These are risk factors, which negatively influence adolescent alcohol use (Sremac, 2010). These factors are also labeled social stressors, and the development of alcohol dependency is explained as a result of dealing with these stressors. Akers (2011) has noted social learning theory posits that behaviour can be differentially reinforced by its consequences. This theory also proposes that individuals who tend to control their social reinforcement strategies have better treatment outcomes afterward. They learn through modeling and sanctioning in conjunction with social roles and gaining self-control, although they utilize this self-control by reinforcing their own behaviour, which often results in taking the role of others (Akers, 2011).

Treatment for the social learning theory includes concentrating on environmental modification. The goal is to improve an individual's sociability by teaching them new ways to cope with stress. The reason for drinking, whether reacting to a negative situation or drinking at a social event, will greatly influence the ability to overcome the addictive behaviour and its obstacles (West & Brown, 2013). By surrounding an individual with people who enjoy a wide range of alcohol-free activities, the individual may learn new ways to spend their time (Horvath et al., 2014). Rehabilitation will focus on improving an individual's daily life or career, and broader social modification will consist of decreasing the availability of substances, reducing social inequities, and acknowledge disadvantaged groups such as women, the elderly and racial minorities.

West and Brown (2013) indicate the relapse prevention model in conjunction with the social learning theory will allow one to overcome addiction to alcohol and maintain abstinence. Success or failure depends on the individual's coping strategies, will power, and level of self-efficacy. As time passes, abstinence should become easier. Self-efficacy will increase, allowing for resistance towards future alcohol consumption. In conjunction, the social learning theory integrates personal resources, which make the approach very individual-oriented (West & Brown, 2013).

Hirschi's Social Control Theory

Hirschi's social control theory was developed to explain reasons and actions regarding delinquency, but also explored reasons preventing individuals from acting in delinquent ways (Özbay & Özcan, 2006). Hirschi's theory contains four elements: attachment to significant others, commitment to traditional types of action, involvement in traditional activities, and beliefs in the moral values of society. Hirschi claims, "when youths are attached to parents,

peers, and teachers they are less likely to commit delinquent behaviour” (Özbay & Özcan, 2006, p.4), which contributes to the advice these significant others give to them. The more often these individuals take advice from significant others, the less likely they are to demonstrate delinquent behaviour. As for commitment to traditional types of action, attaining a job or gaining something significant and meaningful may also prevent individuals from engaging in delinquent behaviour. In terms of moral values of society, if an individual believes it is wrong to commit delinquent acts and display negative behaviour, they are less likely to engage in delinquent behaviour (Özbay & Özcan, 2006).

Total delinquency was examined in correspondence with attachment to parents, teachers and peers, commitment to school and activities as well as normative beliefs (Özbay & Özcan, 2006). According to the findings of this study, the attachment to teachers, conventionality of peers, family supervision, school commitment, belief, and school involvement are all statistically significant and less likely to pose a negative influence on delinquent behaviour. These factors predicted the same findings regarding assault. When individuals were more attached to their teachers and peers, and more involved in schoolwork and activities, they were less likely to be involved in assault. Özbay & Özcan (2006) describe gender and delinquent friends as the greatest influence on assault, ultimately contributing to the theory of differential association. Therefore, those who view assault in a more favourable light were more likely to be involved in it. In terms of school delinquency, similar variables were significant: attachment to parents, attachment to teachers, family supervision and then school commitment, belief and involvement. Last, attachment to teachers, school commitment/belief, family supervision and conventional peers were influencing factors for public disturbance (Özbay & Özcan, 2006).

There are many consistent factors contributing to delinquent behaviours establishing a consistent pattern. These findings regarding delinquency relate to student drinking because students who are more involved in their relationships with family, teachers, peers and more involved in school in general, are occupied and less likely to engage in bad behaviour. Students with close relationships may take a responsible approach to drinking because they wish to impress the people closest to them and not immerse themselves in any bad situations, taking a responsible approach to drinking. This does not mean that students will not drink; however, convincing students to engage in important areas of their lives may shift their focus from partying and binge drinking to more productive activities, such as joining a school club, school activity or spending more time with friends and family.

Higher consumption levels of alcohol are predicted for students taking part in school sports. Lisha and Sussman (2010) discovered this result in their study of individuals who were younger than 25. Athletes felt as though they had an image to maintain in regards to representing their school, as well as maintaining their academic responsibilities and social life. Social expectations seem to introduce drinking into student life, and, as a result, students who are involved with family, student activities, or homework, have less time to drink and engage in drinking activities. Athletes feel as though they need to make time for these social activities to maintain their reputation and account for the psychological, developmental and emotional problems that research has shown, such as stress (Lisha & Sussman, 2010).

In this chapter, several theories were addressed in relation to risky drinking habits adopted by university students. These theories include biological, psychological and social bases, covering a broad range of factors. The three theories that stood out were the social learning

theory, the behavioural theory and the personality theory, which are magnified in the following chapter along with their potential treatment options.

The chosen theories were narrowed down by first assessing the literature. Studies were judged on their ability to incorporate a theory and this theory's ability to explain student drinking using aspects of the given theory. This strategy returned significant results for the three chosen theories. Not only were these theories common, current and used often, but popular when explaining drinking habits. These theories provided treatment options for alcohol misuse, were identified as a promising theoretical basis explaining drinking habits, and together covered the three different levels of the biopsychosocial model.

Ultimately, three theories were chosen to undergo further exploration, and the reason why these theories were left standing was because they integrated more than one concept into their single approach, producing a broad biological, psychological and social explanation of addiction, much like the biopsychosocial model, but with a broken down view that eliminates the broad scope and serves as a more specific exploration of addiction using the different levels of this emerging model.

Chapter 4

The Three Main Contributing Theories Pertaining to Excessive Student Drinking

This chapter explores theories pertaining to excessive student drinking, and identifies the three most relevant theories for understanding why students drink. Alcohol use is “tightly woven into the social fabric of university life and brings social, economic, and personal consequences” (Schulenberg et al., 2001, p. 3). It is necessary to investigate the reasons underlying drinking to reduce negative consequences through a multi-dynamic approach to the issue. Students reported drinking for many of the same reasons adults drink: to have fun, to be social, to become intoxicated, to display status and to ease interactions among potential romantic partners (Sling, 2013). Socially, many individuals use alcohol to accompany particular events and celebrations such as: end of the year parties, sport gatherings and birthday celebrations. Sling (2013) explains that students drink simply because they can. Without many responsibilities or priorities, students have an abundance of free time. By watching others’ behaviour, students learn drinking is acceptable in social situations. According to the social learning theory, students acquire behaviours and act them out as a result of poor relationships. Specifically, delinquent behaviour and antisocial behaviour disorders have been linked with inadequate psychological development and excessive alcohol use. Personalities such as: antisocial disorders, depression, low self-esteem, hyper activism and high novelty seeking behaviours have been considered predictors of addiction, consistent with the personality theory (Sremac, 2010).

Hasin et al. (2007) sought to understand why alcohol disorders remain highly stigmatized and medical attention to alcohol disorders have declined. Several reasons they discovered are lack of clinician knowledge, the uncertainty that screening is warranted, insufficient organizational support, and low expectation of results. Schulenberg et al. (2001) assessed student

drinking throughout four longitudinal studies addressing meaning, functions and consequences of alcohol use. These studies focused on reasons pertaining to student drinking; “our primary goal was to better understand what motivates and inhibits risky drinking from a developmental perspective, and to promote a developmental perspective in future research, prevention strategies, and clinical interventions” (Schulenberg et al., 2001, p. 2).

The first of these studies assessed whether student binge drinking reflected a developmental disturbance model, finding this to be true for a sizable portion of the student population. The second study, using data to track alcohol use disorders over the duration of university attendance, concluded that these disorders are embedded within a strong developmental context. The third study examined positive and negative expectancies and consequences of student drinking in order to follow the within-person fluctuations and co-variation crucial to understanding alcohol use behaviours. Last, the fourth study assessed intervention in the context of developmental trends associated with student drinking. The greatest reductions in drinking involved students who were at greatest risk for heavy alcohol drinking and interventions seemed limited (Schulenberg et al., 2001). By developing interventions that include theoretical knowledge, individual needs can be addressed more effectively:

The lack of clear theoretical underpinning – or even in some cases, any rationale for intervention development – limits the potential to understand the relative effectiveness of interventions and hence, hinders the design of more effective interventions. Indeed, in response to this concern many organizations involved in producing intervention guidance explicitly include use of theory as a criterion for assessment. (Webb et al., 2010, p. 9)

The three main contributing theories found to be effective in understanding student drinking are the social learning theory, the behavioural theory and the personality theory. These theories are explained in more depth in the following section.

Social Learning Theory

The social learning theory emphasizes the role of societal influences, which impacts individuals and focuses on peer pressure and relationships. This theory suggests that role modeling effects personal decisions and choices (Akers, 2011). Student decision-making and actions are influenced daily by countless people. Özbay and Özcan (2006) found that having close attachment to teachers, family members and other peers, made students less likely to engage in delinquent behaviours; therefore, suggesting that social bonds are healthy and beneficial for an individual. These concepts are investigated further in the behavioural theory. From the perspective of social learning theory, I will explore the impact these relationships have on students and the potential results of student relationships that do not model desirable behaviour and attitudes. Alcohol dependency has the potential to develop as a result of these negative social consequences (Akers, 2011; Horvath et al., 2014; Lindström, 1992).

The social learning theory recognizes that underlying reasons may cause a student to frequently engage in risky drinking activity. The individual may possess an abundance of stressors in their lives or come from a problematic background including a broken home, childhood trauma or unsupportive parents. In addition, the individual may have alcohol dependent parents, which influence them to turn to alcohol in order to cope with particular stressors (Akers, 2011; Sremac, 2010).

West and Brown (2013) assessed the social learning theory, stating the “propensity of humans to learn by both direct and vicarious experience” must be included (p. 119). Students

must learn through their observation and listening skills. They will eventually model behaviour if viewed in the correct manner or if they believe it may lead to a reward. When this behaviour becomes more intense, it also becomes more habitual (West & Brown, 2013). For example, if a student were to be accepted into a club for passing a specific initiation task such as, taking a number of shots of alcohol, the membership to the club may act as their end reward. The benefit of this theory can be seen when adverse effects are demonstrated. For example, when a student takes these shots and become nauseous, they may avoid alcohol in the future.

In serious cases for students who are dependent on alcohol, overcoming addiction may be a difficult and fluctuating process, which is highly context dependent. For instance, this may be difficult if they are using alcohol to escape a problem or in a social circumstance due to peer pressure. Students must have a strong will and some background knowledge on coping strategies which they can utilize in the process of recovery if they are planning to quit (Akers, 2011).

Treatment. To treat students, whether relating to social drinking or coping with stress, environmental modification is important as well as teaching individuals new ways to cope with stressful situations. Treatment will focus on improving daily life and assessing social modification (West & Brown, 2013). West and Brown (2013) discuss the relapse prevention, focusing on factors that are useful for assessing and treating students. It is crucial to pay attention to coping strategies, will power, self-efficacy, success, failures, and how one may apply these factors within treatment.

The social learning theory predicts that the longer one abstains from alcohol, the better the future outcome will be. Students must be convinced to focus on activities and people in their lives that will draw them to positive situations. Spending more time with productive people will model this behaviour for fellow peers. Positive information regarding treatment and intervention

is beneficial to all students to reduce detrimental habits and encourage positive behaviour throughout their emerging adulthood.

The social learning theory integrates personal resources, making this theory and its suggested recovery process an individual-focused treatment that relies on students themselves to overcome negative habits associated with alcohol use (West & Brown, 2013).

Behavioural Theory

The behavioural theory was initially developed to address risky alcohol use and addiction being learned as a specific behaviour by the individual (Collins et al., 2011; Horvath et al., 2014). Students who engage in heavy drinking practices are at potential risk for negative and behavioural consequences (Maggs et al., 2011). The most common factors implicated in causing student drinking are motivational factors, attitudes towards drinking, self-efficacy, and the belief that other students engage in these types of behaviours. These reasons relate to the aspect of modeling within the social learning theory (Collins et al., 2011).

Students drink because it enhances social situations, relieving them of boredom and social awkwardness (Sling, 2013). University provides the potential for students to explore, study, join clubs and participate in sober activities, although many seem to prefer involving alcohol in their activities. Students drink to develop courage in order to improve their social status. Some students feel as though they do not possess a satisfactory “social capacity,” using alcohol to enhance their behaviour during social activities (Sling, 2013). Students are still underdeveloped in regards to interaction and they use drinking to compensate for lacking social development and to overcome social anxiety. Drinking, then, replaces the emotional and communicative aspect of interaction and friendship building.

Hirschi's social control theory accounts for delinquent behaviour and explains how this behaviour is developed. Using social control theory, Özbay and Özcan (2006) found attachment to teachers, conventionality of peers, family supervision, school commitment, belief, and school involvement statistically significant and less likely to negatively influence delinquent behaviour.

Students may acquire their behaviours through learning principles such as classic and operant conditioning as well as aversion. For example, pairing alcohol with a nauseous feeling may be used for alcohol dependency treatments (Horvath et al., 2014). Operant conditioning involves a system of rewards and punishments in order to reduce or enforce particular behaviours; therefore, if a student were sent to a rehabilitation center, returning home to their family after achieving success would be a reward (Horvath et al., 2014).

The sub-theories addressed within the behaviour theory have successfully contributed to addiction findings and the development of interventions for addictive behaviours. The implications of the behaviour theory are clearly defined by Sling (2013) who states the following:

In our technology-saturated, self-absorbed, arguably reckless lives 'dating' consists of a text invitation to a house party, pre-gaming, an extra drink or two upon arrival at the party, some grinding on the dance floor, public or private make-out (depending on the level of drunkenness) and the date finally ends with either a walk home or a walk upstairs. What happens when we're 23 and don't know how to ask someone out for coffee in person? What about when we go out to dinner and can't keep the conversation going past the first course without a few drinks? (p.138)

Adopting a negative perspective, this quote describes the social consequences of drinking in university on larger societal values regarding relationships on human interaction more generally. Individuals in the class studied by Sling (2013) brought up their own concerns, with some claiming alcohol seeming to be a necessity among university students. These students discussed tricks for escaping social awkwardness. One trick for non-drinkers was to carry around a red solo cup containing juice or water since everybody at the party would assume it was alcohol (Sling, 2013).

Treatment. Treatment proposed for students drinking as a result of their unique behaviours includes many approaches, as it depends on the target individual. Possible recovery options are first assessed before models suggest various treatment possibilities. The most relevant sub-theories are explained in terms of student goal setting and future alcohol based problem prevention. The learning theory itself developed many effective non-pharmacological treatments to arise, which focus specifically on developing and sustaining behavioural change such as reduction of substance abuse and misuse (Lindström, 1992). The theory of planned behaviour requires students to focus on changing their behaviour and informs them that their behaviour will change when they believe in a successful outcome (Webb et al., 2010). The goal-setting theory requires an individual to have two dimensions to their goals: difficulty and specificity. As previously mentioned, a “SMART” (smart, measureable, attainable, realistic and timely) goal is also important for dealing with alcohol dependency (Webb et al., 2010, p. 5). Consistent with the goal-setting theory, the model of action phases helps students work towards eliminating addictive behaviours. The student must set a goal and decide on how, where, and when this goal will be achieved. They must maintain positive outcomes and then compare the outcome to their initial goal (Webb et al., 2010). The protection motivation theory convinces

students that alcohol consumption can be dangerous through threat appraisals and coping appraisals, which are often promoted through posters and presentations intended to alter student thoughts. The health belief model relates to the protection motivation theory and discusses four factors affecting a student's behaviour: the perceived threat that the behaviour might protect against, the perceived effectiveness of the preventive behaviour, the student's general health motivation, and the cues to action that reflect immediate situational determinants. Interventions target student behaviour and have received positive reviews due to successful treatment outcomes (Webb et al., 2010). The prototype willingness model will take students' individual factors and social factors into account and will encourage them to follow two routes to recovery. The first is the reasoned pathway similar to the theory of planned behaviour determining behavioural intentions and the second is the social reaction pathway revealing direct influences on student behaviour and their perceptions of people engaging and displaying addictive behaviours. This model has shown successful outcomes (Webb et al., 2010). Last, the social cognitive theory links beliefs with behaviours defining this as a reciprocal learning process in which experience and effort are the main focuses.

Alcohol misuse among students has been found to correlate with the likelihood of future drinking. These possible treatment options are beneficial for promoting positive behavioural changes and ending risky behaviour before it causes negative impacts on students and their futures (Collins et al., 2011).

Personality Theory

The theory regarding personality defines alcohol use as influenced by specific personalities. A student's personality may relate to their drinking habits, and according to research, substance abuse treatment has proven more effective by addressing personality factors

(Polimeni et al., 2010). “Concerning the findings on personality, they argue for tailored interventions in adolescence focusing on two risk groups: (a) extravert, sensation-seeking boys who drink for enhancement motives and (b) neurotic, anxious girls who drink for coping motives” (Kuntsche, Knibbe, Gmel, & Engels, 2006, p. 11).

Students who drink excessively usually have personalities similar to that of excitement and sensation seeking, impulsiveness, extraversion and immoderation, where the sensation seekers and immoderation personalities were noted to be most at risk for future alcohol dependent lifestyles (McAdams & Donnellan, 2009; Shin et al., 2012). These students also have low inhibitory control, low levels of responsibility, and a weak will to achieve (Kuntsche et al., 2006). Students with these personalities drink more than others because of their need for excitement and to be engaged in a busy environment. In terms of personality, students’ reasons for drinking were associated with social motives and enjoyment of feelings because of their sensation-seeking and high-risk personality types (Kuntsche et al., 2006). When students drink to cope, more frequent alcohol consumption is predicted and neurotic personality types are revealed. These individuals displayed low levels of agreeableness and a negative view of themselves; they also had difficulty talking about their emotions and feared high-anxiety situations. Students may acquire personal problems because of their neurotic personality, using alcohol to cope with these problems, potentially causing future issues. Kuntsche et al. (2006) have stated the following:

Our suspicion is that personality traits strongly associated with sociability are likely to predict drinking in a college or university context, which often has a strong social component. Once individuals leave these social settings, these sorts of traits may not continue to be as predictive of drinking. On the other hand, we

suspect that traits like immoderation and even excitement seeking may remain fairly sturdy predictors of drinking-related variables across the life span. (McAdams & Donnellan, 2009, p. 6)

Alcohol allows for an individual to not only experiment with a new behaviour, but also a new personality and social identity. Many young drinkers hide behind various alcohol-induced personalities deliberately as a means of becoming more comfortable in a social setting (Sling, 2013). This new personality allows for a student to excel socially both in school and after hours: “Students use the absence of alcohol to define a daytime self who is hard-working and aspirational just as they use alcohol to construct a night-time/leisure self who is social, popular and fun” (Sling, 2013, p. 140).

Treatment. Of the individuals who seek treatment as a result of their personality, approximately one-half of those seeking treatment for an addiction will have a mental disorder and have also experienced inadequate psychological development (Sremac, 2010; Horvath et al., 2014). The personality theory states that treating an underlying psychiatric disorder will often lead to remission of substance use (Lindström, 1992).

One aspect of treatment begins with detecting certain personalities, which can be done by using the MMPI to uncover personality correlates, potentially associated with risky drinking. Of importance is the evaluation of depression, psychopathic deviance, paranoia, psychasthenia and schizophrenia (Polimeni et al., 2010). Since treatment of a psychiatric disorder has often lead to remission of substance use, detecting these personalities can provide a way of understanding and treating students. These individuals require medical intervention. Interventions would involve medications, behavioural interventions and psychotherapy to assist in resolving underlying disorders through reconstruction in personality, emotional and cognitive functioning.

Modifications to treatment and intervention methods may require further research in the future as a result of high drop-out rates during previous treatments (Hasin et al., 2007; Horvath et al., 2014; Lindström, 1992).

The three theories explored in this chapter included the social learning theory, the behavioural theory and the personality theory. These specific theories included explanations for student alcohol misuse as well as potential treatment options.

In this research paper, the social learning theory focuses on integrating societal influences with student drinking habits. Students have a tendency to make decisions that are influenced by a number of factors including peer pressure and societal issues such as broken homes and childhood trauma. Close-knit relationships lessened the chance of drinking among students, suggesting that social bonds provide healthy lifestyle choices. Treatment included coping strategies and strategies involving applying concepts such as will power and self-efficacy.

The behavioural theory states that addiction is a learned behaviour and is claimed to enhance social situations, relieving boredom and awkwardness and ultimately improving social status. This theory also reveals the social consequences of drinking and corresponding treatments, which are determined after assessing the specific individual. The most common treatment option focuses on positive thinking and goal setting, ultimately promoting positive behavioural change before the drinking becomes a problem in the future.

The personality theory suggests that certain personalities may influence alcohol consumption and proposes that personalities such as sensation seeking, impulsiveness and extraversion are among the most popular personalities found among students that engage in excessive alcohol consumption. When drinking serves as a coping mechanism, personalities including neuroticism are most common, with low levels of agreeableness and a low self-esteem.

Alcohol has provided students with an opportunity to experiment with new behaviours, as well as new personalities and social identities. As a result, young drinkers hide behind different personalities in order to become more comfortable in a social setting. Treatment regarding the personality theory suggests that mental disorders and inadequate psychological development are usually involved in the history of the individual treatment. Treatment of this underlying issue can often lead to remission of substance misuse. In order to treat these disorders, medication, behavioural intervention and psychotherapy must be utilized.

Health professionals would benefit from further investigating these theories when developing intervention and treatment plans, possibly even integrating multiple theories in order to achieve a multi-dynamic approach.

Chapter 5

Treating Students Who Abuse Alcohol: Implications and Future Direction

Implications

Theories exploring the causes of risky drinking amongst students imply social learning, behavioural and personality influence student's drinking behaviour. Students drink because they learn from modeled social behaviour. They engage in delinquent behaviours because they possess personality traits including sensation-seeking impulsivity or psychopathological traits. Alcohol use is a common issue in our society. Being aware of which treatments are available, most beneficial for specific cases, strengths, weaknesses and implications of certain treatments are important for providing optimal treatment to patients. Some students will mature and reduce drinking habits, others will not. This normative shift towards maturity is called the "maturity principle," and it said to be linked to marriage, parenthood and adult role transitions (Littlefield & Sher, 2010). For the students who do not mature, research is needed to assist in developing strategies to treat these individuals.

In regards to implications of this research, personality corresponds with developing alcohol use habits and explains the reciprocal relationship between alcohol consumption and changes to personality. Students who have shown significantly increased alcohol consumption, may display negative outcomes and a high chance for relapse.

Providing knowledge of treatments in the field of health well as for the general advancement in health-related behaviours is more than monetarily costly. Since "many clinicians are lacking in theoretical knowledge, practical skills and awareness of substance-related disorders etiology and treatment" (Taylor, 2013, p.112), using multiple theories to assess

underlying causes of student drinking is a beneficial opportunity to further research regarding drinking prevention strategies.

Increasing the relevance and effectiveness of research may result in prevention strategies being implemented before students arrive on campus and before any risky drinking habits are formed. “Addressing these issues before students arrive on campus should, theoretically, help some students avoid falling into the trap of overindulging in alcohol and suffering from alcohol related consequences once the semester starts” (White & Swartzwelder, 2009, p. 6). By targeting students who experience the same consequences repeatedly, developing individual-based interventions for avoiding alcohol-related problems may be the answer for shifting their motivations and behaviours (Mallett, Varvil-Weld, Borsari, Read, Neighbors & White, 2013).

Past research indicates interventions as necessary to target social learning aspects underlying student alcohol consumption. Interventions should teach more effective skills for coping and strategies for motivated drinkers to better manage stress (Merrill & Read, 2010). This is why “current developments in prevention and early intervention highlight the need to include the interplay between personality and motivational factors underlying risky alcohol use in adolescents” (Kuntsche et al., 2006, p. 11). The implications of this study demonstrate the need to broadly analyze additive behaviour using several theories in order to better understand treatment options and possible approaches to these treatments. A limitation of this investigates the difficulty in understanding which theory is the best predictor. However, each of the theories described in this study contribute to a comprehensive understanding of treatment (Hill, 2010). In addition, some theories suggest a proposed treatment that does not include much empirical evidence making the theory difficult to evaluate on an effectiveness scale. Nonetheless, this

treatment contributes towards the development of future treatments, prevention programs, and interventions (Hill, 2010).

There were several articles outlining implications regarding student drinking and moved forward to conduct studies that tested reasons for these risky drinking behaviours. A few examples included work by Hallett et al. (2012) and Lorant and Nicaise (2014). Although these articles covered important information regarding risky alcohol use by students, there was no specific theory suggested to assist in explaining the behaviour and therefore no theoretical framework in which could be evaluated.

Developing commonalities between specific behaviours is crucial and may influence changes to better an individual or society. Expanding intervention programs and approaches for treating addictive and risky drinking behaviour is vital for improving the health outcomes of any individual (Nigg et al., 2002). Theories contain their own set of distinct factors, which is why they are essential for understanding and treating the unique habits of students (Horvath et al., 2014). Also consistent with the social learning theory, findings suggest that interventions must address the factors underlying risky drinking habits and not the drinking issue itself. These interventions will help students learn how to cope and manage stress (Merrill & Read, 2010).

It is important for individuals, society, and especially students to be aware of treatment, prevention and intervention options. The strengths, weaknesses, and implications of certain treatments must be highlighted in order to provide optimal treatment to any patients in need.

Future Direction

Student alcohol usage needs to be evaluated. Research is important for “demonstrating associations among drinking motives and global alcohol problems, by clarifying the importance of affectively relevant motives in contributing to some commonly experienced – and potentially

meaningful – unique alcohol-related problems in the university population” (Merrill & Read, 2010, p. 13). “Interventions regarding addiction often fail to incorporate a theoretical framework, and when they do, it is often unclear if and how the intervention is linked to the theory”. More focused theories and intervention information is sought to provide the most effective outcomes (Webb et al., 2010, p.9).

Because students consistently bring their risky drinking habits with them to university, a plan must be implemented to reduce these dangerous habits. Universities do not possess the power to control drinking, but can implement policies to change consumption patterns. Education and prevention programs should be implemented prior to beginning university. Prevention programs should be a significant focus of future research because it is more difficult to alter student behaviour after they have left home and are relatively unsupervised than it is to teach responsible habits early on (White & Swartzwelder, 2009). “Authors argue that by identifying and collecting information on the specific needs that alcohol serves for particular individuals, preventative strategies may be more effectively designed” (Kuntsche et al., 2006, p. 11).

According to Lindström (1992), the biopsychosocial theory may be useful in providing information for addiction treatments in the future. Although Ghamei (2010) describes the theory as successfully covering a broad range of ideas and lacking one single set of assumptions, the theory still serves useful when approaching intervention and treatment options. The biopsychosocial theory was explained by Da Silva et al. (2015) as bringing light to risk related to addictive behaviours. The future of the biopsychosocial theory focuses on pairing with multiple approaches to zone in on particular treatment for each individual.

If students can gain improved understanding of the risks and consequences associated with risky drinking it may impact future intervention research and efforts. Future research may benefit by addressing predictors of consequences during high risk occasions, which include spring break, birthdays when students reach legal drinking age, and sporting events, to develop event-specific programs and to determine the personal effects for individuals and their evaluation of these consequences. More specifically, “information in order to examine the relationship between engaging in alcohol-oriented activities in regards to high-risk events as well as high-risk subpopulations” is needed (Mallett et al., 2013, p. 15). “Ultimately, building on the success of the dynamic interventions with university students, intervention programming must match interventions with the expected trajectory of alcohol use and abuse of their students” (Schulenburg 2001, p. 5).

This research paper takes a strong psychological perspective, and there is no doubt that benefits would come from exploring a broader scope of the literature. This includes a possibility of depth into the biological and social aspects of alcohol addiction and theories pertaining to the disorder. A biological approach may include aspects including genetics, tolerance or physical dependence, whereas a more strict sociological approach may focus on poverty, being a member of a devalued group in society, alcohol or drug problems among other family members, parental abuse or neglect or parental separation. With many available approaches to addiction, the social learning theory, behavioural theory and personality theory were chosen for further exploration, mainly because of their popularity in terms of usage in the literature, treatment and past success.

Chapter 6

Conclusion

Students use alcohol and engage in alcohol-related activities for a variety of reasons. From social to behavioural and personality reasons, students drink to become more social and eliminate social awkwardness, to cope with stressors, and to have a good time, although these rewards do not come without their risks. Alcohol use is associated with several negative outcomes and consequences for students and can affect the people around them in their daily lives. A selection of harmful outcomes associated with risky drinking includes neurocognitive deficits, decreased academic performance and attendance, driving accidents and negative behavioural changes, such as clinical depression or manic episodes. Individuals convert their attitudes into desires so that social pressure may be evaluated and mediated by intentions, for attitudes, subjective norms and perceived control were the leading predictors of desires (Armitage & Conner, 2001).

Theories of addiction are derived to benefit the society, research, and to improve the lives of individuals. Multiple theories and treatment options are explained and generate ideas for the purpose of analyzing theoretical foundations of alcohol usage to gain improvements. We use these multiple theories to create a dynamic approach in accordance with the life course theory, describing how individuals follow different pathways and make unique decisions. Interventions are developed to reduce the impact of alcohol on social, health, legal, and economic well-being. These interventions use a unique approach, attempting to limit alcohol consumption by students to decrease harmful consequences (Rehm, 2010).

Research in this area is crucial for demonstrating associations between drinking motives and global alcohol problems. If greater understanding is achieved, future intervention efforts may

display increased success. This paper has stated that theories can be used to help understand and provide explanations regarding student drinking habits. In the future, practitioners should utilize evidence-based theories to help guide and improve interventions and treatments for individuals.

References

- Akers, R. L. (2011). *Social learning and social structure: A general theory of crime and deviance*. New Brunswick, NJ: Transaction Publishers.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499. doi: 10.1348/014466601164939/full
- Arnett, J. J., & Tanner, J. L. (2009). Toward a cultural-developmental stage theory of the life course. *Experience and Development: A Festschrift in Honor of Sandra Wood Scarr* (pp. 17-39). New York, NY: Taylor & Francis
- Butler, A. B., Dodge, K. D., & Faure, E. J. (2010). College student employment and drinking: A daily study of work stressors, alcohol expectancies, and alcohol consumption. *Journal of Occupational Health Psychology*, 15(3), 291. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2914610/>
- Collins, S. E., Witkiewitz, K., & Larimer, M. E. (2011). The theory of planned behaviour as a predictor of growth in risky college drinking. *Journal of Studies on Alcohol and Drugs*, 72(2), 322. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3052901/>
- Cyders, M. A., Flory, K., Rainer, S., & Smith, G. T. (2009). The role of personality dispositions to risky behaviour in predicting first-year college drinking. *Addiction*, 104(2), 193-202. doi: 10.1111/j.1360-0443.2008.02434
- Da Silva Cardoso, E., Wolf, A., Smedema, S. M., Brooks, J., & Mahr, M. (2015). Substance use disorders, disability, and counseling interventions. *Counseling Theories and Techniques for Rehabilitation and Mental Health Professionals*.

- Davies, G., Elison, S., Ward, J., & Laudet, A. (2015). The role of lifestyle in perpetuating substance use disorder: the Lifestyle Balance Model. *Substance Abuse Treatment, Prevention, and Policy*, 10(1), 2.
- Disease. (2013). In *Merriam-Webster online*. Retrieved February 2014, from <http://www.merriam-webster.com/dictionary/disease>
- Disorder. (2013). In *Merriam-Webster online*. Retrieved February 2014, from <http://www.merriam-webster.com/dictionary/disorder>
- Dodd, V., Glassman, T., Arthur, A., Webb, M., & Miller, M. (2010). Why underage college students drink in excess: Qualitative research findings. *American Journal of Health Education*, 41(2), 93-101. doi: 10.1080/19325037.2010.10599133
- Donovan, D. M., Chaney, E. F., & O'Leary, M. R. (1978). Alcoholic MMPI subtypes: Relationship to drinking styles, benefits, and consequences. *Journal of Nervous and Mental Disease*. Retrieved from http://journals.lww.com/jonmd/Abstract/1978/08000/ALCOHOLIC_MMPI_SUBTYPES__Relationship_To_Drinking.2.aspx
- Dual Diagnosis. (2014). The disease theory of alcoholism. Retrieved from <http://www.dualdiagnosis.org/alcohol-addiction/disease-theory-alcoholism/>
- Englund, M. M., Egeland, B., Oliva, E. M., & Collins, W. A. (2008). Childhood and adolescent predictors of heavy drinking and alcohol use disorders in early adulthood: A longitudinal developmental analysis. *Addiction*, 103(s1), 23-35. doi: 10.1111/j.1360-0443.2008.02174.x
- Finlay, A. K., Ram, N., Maggs, J. L., & Caldwell, L. L. (2012). Leisure activities, the social weekend, and alcohol use: Evidence from a daily study of first-year college

- students. *Journal of Studies on Alcohol and Drugs*, 73(2), 250. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3281983/>
- Finn, P. R., Sharkansky, E. J., Brandt, K. M., & Turcotte, N. (2000). The effects of familial risk, personality, and expectancies on alcohol use and abuse. *Journal of Abnormal Psychology*, 109(1), 122. doi: 10.1037/0021-843X.109.1.122
- Ghaemi, Nassir. (2010). What's wrong with the biopsychosocial model? *Medscape-free associations*. Retrieved from <http://boards.medscape.com/forums/?128@@.29fb1d2e!comment=1>
- Goodman, A. (1990). Addiction: Definition and implications. *British Journal of Addiction*, 85(11), 1403-1408. doi: 10.1111/j.1360-0443.1990.tb01620.x
- Graham, J. R. (1990). MMPI-2: Assessing personality and psychopathology (pp. 46-48). New York: Oxford University Press.
- Grant, J. D., Scherrer, J. F., Lynskey, M. T., Lyons, M. J., Eisen, S. A., Tsuang, M. T. & Bucholz, K. K. (2006). Adolescent alcohol use is a risk factor for adult alcohol and drug dependence: Evidence from a twin design. *Psychological Medicine*, 36(1), 109-118. doi: 10.1017/S0033291705006045
- Hallett, J., Howat, P. M., Maycock, B.R., McManus, A., Kypri, K., & Dhaliwal, S. S. (2012). Undergraduate student drinking and related harms at an Australian university: Web-based survey of a large random sample. *BMC Public Health*, 12(1), 37. doi: 10.1186/1471-2458-12-37
- Hasin, D. S., Stinson, F. S., Ogburn, E., & Grant, B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States: Results

- from the National Epidemiologic Survey on Alcohol and Related Conditions. *Archives of General Psychiatry*, 64(7), 830-842. doi:10.1001/archpsyc.64.7.830
- Heather, N. Partington, S., Partington, E., Longstaff, F., Allsop, S., Jankowski, M., & Gibson, A. S. C. (2011). Alcohol use disorders and hazardous drinking among undergraduates at English universities. *Alcohol and Alcoholism*, 46(3), 270-277. doi: 10.1093/alcalc/agr024
- Hertzman, C., & Power, C. (2003). Health and human development: Understandings from life-course research. *Developmental Neuropsychology*, 24(2-3), 719-744. doi: 10.1080/87565641.2003.9651917
- Hill, W. B. (2010). *An ontological analysis of mainstream addiction theories: Exploring relational alternatives*. (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (Order No. 3402363).
- Horvath, T., Misra, K., Epner, A. K., Cooper, G. M. (2014). Addictions. <http://www.dekcsb.org/1408-addictions/article/48355-moral-and-spiritual-causes-of-addiction>
- Hyman, S. E. (2005). Addiction: A disease of learning and memory. *American Journal of Psychiatry*, 162(8), 1414-1422. doi: 10.1176/appi.ajp.162.8.1414
- Johnston, L. D., O'malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2010). Monitoring the future: National survey results on drug use, 1975-2009. Volume I: Secondary school students. NIH Publication No. 10-7584. *National Institute on Drug Abuse (NIDA)*. Retrieved from <http://eric.ed.gov/?id=ED514370>
- Koob, G. F. (2013). Theoretical frameworks and mechanistic aspects of alcohol addiction: alcohol addiction as a reward deficit disorder. In *Behavioural Neurobiology of Alcohol*

- Addiction* (pp. 3-30). Springer Berlin Heidelberg. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3448980/>
- Kuntsche, E., Knibbe, R., Gmel, G., & Engels, R. (2006). Who drinks and why? A review of socio-demographic, personality, and contextual issues behind the drinking motives in young people. *Addictive Behaviours*, *31*(10), 1844-1857. doi: 10.1016/j.addbeh.2005.12.028
- Kypri, K. Y. P., Cronin, M., & Wright, C. S. (2005). Do university students drink more hazardously than their non-student peers? *Addiction*, *100*(5), 713-714. doi: 10.1111/j.1360-0443.2005.01116.x
- Lejuez, C. W., Magidson, J. F., Mitchell, S. H., Sinha, R., Stevens, M. C., & De Wit, H. (2010). Behavioural and biological indicators of impulsivity in the development of alcohol use, problems, and disorders. *Alcoholism: Clinical and Experimental Research*, *34*(8), 1334-1345. doi: 10.1111/j.1530-0277.2010.01217.x
- Lindström, L. (1992). *Managing alcoholism: Matching clients to treatments*. Oxford University Press.
- Lisha, N. E., & Sussman, S. (2010). Relationship of high school and college sports participation with alcohol, tobacco, and illicit drug use: A review. *Addictive Behaviours*, *35*(5), 399-407. doi: 10.1016/j.addbeh.2009.12.032
- Littlefield, A. K., & Sher, K. J. (2010). The multiple, distinct ways that personality contributes to alcohol use disorders. *Social and Personality Psychology Compass*, *4*(9), 767-782. doi: 10.1111/j.1751-9004.2010.00296.x
- Lorant, V., & Nicaise, P. (2014). Binge drinking at University: a social network study in Belgium. *Health Promotion International*. doi: 10.1093/heapro/dau007

- Lown, E., Nayak, M. B., Korcha, R. A., & Greenfield, T. K. (2011). Child physical and sexual abuse: a comprehensive look at alcohol consumption patterns, consequences, and dependence from the National Alcohol Survey. *Alcoholism: Clinical and Experimental Research*, 35(2), 317-325.
- Maggs, J. L., Williams, L. R., & Lee, C. M. (2011). Ups and downs of alcohol use among first-year college students: Number of drinks, heavy drinking, and stumble and pass out drinking days. *Addictive Behaviours*, 36(3), 197-202. doi: 10.1016/j.addbeh.2010.10.005
- Mallett, K. A., Varvil-Weld, L., Borsari, B., Read, J. P., Neighbors, C., & White, H. R. (2013). An update of research examining college student alcohol-related consequences: New perspectives and implications for interventions. *Alcoholism: Clinical and Experimental Research*, 37(5), 709-716. doi: 10.1111/acer.12031
- McAdams, K. K., & Donnellan, M. B. (2009). Facets of personality and drinking in first-year college students. *Personality and Individual Differences*, 46(2), 207-212. doi: 10.1016/j.paid.2008.09.028
- Merrill, J. E., & Read, J. P. (2010). Motivational pathways to unique types of alcohol consequences. *Psychology of Addictive Behaviours*, 24(4), 705. doi: 10.1037/a0020135
- Meyer, T. D., & Wolkenstein, L. (2010). Current alcohol use and risk for hypomania in male students: Generally more or more bingeing? *Comprehensive Psychiatry*, 51(2), 171-176. doi: 10.1016/j.comppsy.2009.05.002
- Naqvi, N. H., & Bechara, A. (2009). The hidden island of addiction: The insula. *Trends in Neurosciences*, 32(1), 56-67. doi: 10.1016/j.tins.2008.09.009

- Nigg, C. R., Allegrante, J. P., & Ory, M. (2002). Theory-comparison and multiple-behaviour research: Common themes advancing health behaviour research. *Health Education Research, 17*(5), 670-679. doi: 10.1093/her/17.5.670
- Ogborne, A. C. (2004). Theories of addiction and implications for counselling. In S. Harrison & V. Carver (Eds.), *Alcohol & Drug Problems: a Practical Guide for Counselors* (3rd ed.) (pp. 3-21). doi: 10.1111/j.1360-0443.1990.tb01620.x
- Özbay, Ö. & Özcan, Y. Z. (2006). A test of Hirschi's social bonding theory juvenile delinquency in the high schools of Ankara, Turkey. *International Journal of Offender Therapy and Comparative Criminology, 50*(6), 711-726. doi: 10.1177/0306624X05283525
- Patrick, M. E., Lee, C. M., & Larimer, M. E. (2011). Drinking motives, protective behavioural strategies, and experienced consequences: Identifying students at risk. *Addictive Behaviours, 36*(3), 270-273. doi: 10.1016/j.addbeh.2010.11.007
- Patrick, M. E., & Schulenberg, J. E. (2011). How trajectories of reasons for alcohol use relate to trajectories of binge drinking: National panel data spanning late adolescence to early adulthood. *Developmental Psychology, 47*(2), 311. Retrieved from <http://psycnet.apa.org/journals/dev/47/2/311/>
- Parada, M., Corral, M., Mota, N., Crego, A., Rodríguez-Holguín, S., & Cadaveira, F. (2012). Executive functioning and alcohol binge drinking in university students. *Addictive Behaviours, 37*(2), 167-172. doi: 10.1016/j.addbeh.2011.09.015
- Pechmann, C., Zhao, G., Goldberg, M. E., & Reibling, E. T. (2003). What to convey in antismoking advertisements for adolescents: The use of protection motivation theory to identify effective message themes. *Journal of Marketing, 67*(2), 1-18. doi: 10.1509/jmkg.67.2.1.18607

- Pettinati, H. M., Sugerman, A. A., & Maurer, H. S. (2008). Four year MMPI changes in abstinent and drinking alcoholics. *Alcoholism: Clinical and Experimental Research*, 6(4), 487-494. doi: 10.1111/j.1530-0277.1982.tb05012.x
- Polimeni, A. M., Moore, S. M., & Gruenert, S. (2010). MMPI-2 profiles of clients with substance dependencies accessing a therapeutic community treatment. *Sensoria: A Journal of Mind, Brain, and Culture*, 6(1), 1-9. Retrieved from <http://ojs.lib.swin.edu.au/index.php/index/index>
- Rehm, J. (2010). The risks associated with alcohol use and alcoholism. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, 34(2), 135-143. Retrieved from <http://europepmc.org/articles/PMC3307043>
- Schulenberg, J., Maggs, J. L., Long, S. W., Sher, K. J., Gotham, H. J., Baer, J. S. & Zucker, R. A. (2001). The problem of college drinking: Insights from a developmental perspective. *Alcoholism: Clinical and Experimental Research*, 25(3), 473-477. doi: 10.1111/j.1530-0277.2001.tb02237
- Shin, S. H., Hong, H. G., & Jeon, S. M. (2012). Personality and alcohol use: the role of impulsivity. *Addictive Behaviours*, 37(1), 102-107. doi: 10.1016/j.addbeh.2011.09.006
- Sling, G. (2013). Why do students drink? In J. Chrzan (Ed.), *Alcohol: Social drinking in cultural context* (pp. 131-160). New York, NY: Taylor & Francis.
- Sremac, S. (2010). Addiction, narrative and spirituality: Theoretical-methodological approaches and overview. *Religija I Tolerancija*, 8(14), 253-270. Retrieved from http://www.academia.edu/327196/Addiction_Narrative_and_Spirituality_Theoretical-Methodological_Approaches_and_Overview

- Taylor, N. N. (2013). Making use of psychodynamic concepts and practice in the treatment of substance-related disorders. (Order No. 3599323, Alliant International University). *ProQuest Dissertations and Theses*, 156. Retrieved from <http://search.proquest.com/docview/1461462326?accountid=12005>. (1461462326)
- Theory. (2013). In *Merriam-Webster online*. Retrieved February 2014, from <http://www.merriam-webster.com/dictionary/disorder>
- Valliant, P. M., & Scanlan, P. (1994). Personality, living arrangements, and alcohol use by first year university students. *Social Behaviour and Personality: An International Journal*, 24(2), 151-156. doi: 10.2224/sbp.1996.24.2.151
- Weed, N. C., Butcher, J. N., McKenna, T., & Ben-Porath, Y. S. (1992). New measures for assessing alcohol and drug abuse with the MMPI-2: The APS and AAS. *Journal of Personality Assessment*, 58(2), 389-404. doi: 10.1207/s15327752jpa5802_15
- West, R., & Brown, J. (2013). *Theory of addiction*. Malden, MA: Blackwell Publishing Ltd. Retrieved from <http://66.199.228.237/boundary/addiction/Theoryofaddictionfirsthalf.pdf>
- Webb, E., Ashton, C. H., Kelly, P., & Kamali, F. (1996). Alcohol and drug use in UK university students. *The Lancet*, 348(9032), 922-925. doi: 10.1016/S0140-6736(96)03410-1
- Webb, T. L., Sheeran, P., & Luszczynska, A. (2009). Planning to break unwanted habits: Habit strength moderates implementation intention effects on behaviour change. *British Journal of Social Psychology*, 48(3), 507-523. doi: 10.1348 /014466608X370591
- Webb, T. L., Sniehotta, F. F., & Michie, S. (2010). Using theories of behaviour change to inform interventions for addictive behaviours. *Addiction*, 105(11), 1879-1892. doi: 10.1111 /j.1360-0443.2010.03028.x

White, A., & Swartzwelder, S. H. (2009). Inbound college students drink heavily during the summer before their freshman year: Implications for education and prevention efforts. *American Journal of Health Education*, 40(2), 90-96. doi: 10.1080/19325037.2009.1059908