

**TEACHERS' PERCEPTIONS OF MENTAL ILLNESS:  
PREDICTING FACTORS IN THE STIGMA OF MENTAL ILLNESS**

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## Abstract

Developing an understanding of teachers' perceptions toward those with mental health challenges will be helpful in working to promote more positive attitudes about mental health and in reducing the development of stigmatizing attitudes in children. The present study primarily explored teachers' stigmatizing attitudes toward those with mental illness and examined the predictive potential of three main factors (i.e., level of previous contact with someone with mental illness, previous education about mental illness, and teachers' beliefs about the causes of mental illness). Using a cross-sectional, web-based survey design, 237 Saskatchewan teachers participated in the study. As expected, significant associations were found in two of the main factors: teachers' beliefs about the causes of mental illness (endogenous and interactional) and the amount of previous contact teachers had with those who were perceived to have mental illness. Higher levels of previous contact and more extreme biological causal beliefs were associated with more stigmatizing attitudes whereas higher levels of social and interactional causal beliefs were associated with less stigmatizing attitudes. In contrast to what was expected, the third main factor investigating the relationship of previous training about mental illness was not significantly associated with stigmatizing beliefs about mental illness in teachers. The amount of previous contact with those who have mental illness and both endogenous and interactional causal beliefs about mental illness were found to be significant predictors of stigmatizing attitudes. Results provide important considerations for teachers' professional development and school-based mental health efforts.

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## Dedication

This is dedicated to S.F., R.P., R.H., and all others who have experienced  
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## Abbreviations

CAMI-R – Community Attitudes toward Mental Illness-Revised Scale

CAMI-R-A – Community Attitudes toward Mental Illness-Revised Authoritarian Subscale

CAMI-R-B – Community Attitudes toward Mental Illness-Revised Benevolence Subscale

CAMI-R-C – Community Attitudes toward Mental Illness-Revised Community Involvement Subscale

CAMI-R-SR - Community Attitudes toward Mental Illness-Revised Social Restrictiveness Subscale

SDS – Social Distance Scale

LCR – Level of Contact Report

MHLO – Mental Health Locus of Origins Scale

MHLO Endogenous – Mental Health Locus of Origins Endogenous Scale

MHLO Interactional – Mental Health Locus of Origins Interactional Scale

MHC-SF – Mental Health Continuum Short Form Scale

DES – Social Desirability Scale

DSM – Diagnostic and Statistical Manual of Mental Disorders

CMHA – Canadian Mental Health Association

NAMI – National Alliance on Mental Illness

## CHAPTER I: Introduction

In recent years, there has been a lot of public attention given to decreasing the stigma associated with mental illness. Mental illness is known to be one of the most stigmatizing of all conditions (Corrigan & Watson, 2002; Overton & Medina, 2008). Mental health stigma is much more than the use of negative labels. The stigma associated with mental health problems is linked to a range of negative stereotypical traits and is known to have a devastating impact on individuals experiencing a mental health problem (Corrigan, 2004; Corrigan & Watson, 2002). For instance, stigma plays a major role in creating isolation, prejudice and discrimination for those with mental health challenges (Bos, Pryor, Reeder, & Stutterheim, 2013; Rusch, Angermeyer, & Corrigan, 2005). Further, stigma can encourage fear, mistrust, and assumptions about dangerousness toward those diagnosed with a mental health problem simply because of the way mental illness has been perceived (Schomerus et al., 2012). In some cases, for the person experiencing a mental health problem, the stigma can be as debilitating as the problem (Cheek, 2013; Kirby & Keon, 2006). Research efforts continue to be important to providing clarity on what will be helpful in reducing the negative effects of mental illness stigma.

Stigma attached to problems of mental health result from conceptions formed through society's communication of dominant cultural norms and adopted historical beliefs (Foucault, 1965; Goffman, 1963; Jackson, 2011; Szasz, 1961). Subsequently, stigma is embodied and communicated through one's attitude toward mental illness (Corrigan, 2005; Goffman, 1963; Link, Yang, Phelan, & Collins, 2004). Conceptions and attitudes begin to form in childhood and one of the main influences in this process comes from role models in the school-age years (Adler & Wahl, 1998; Ajzen, 2011; Eagly & Chaiken, 1993; Maio & Haddock, 2010). Additionally, it is during these school-age years when the first signs and symptoms of mental health problems can

develop (American Psychiatric Association; APA, 2013). It seems reasonable that a preventative and far reaching way to minimize the development of stigmatizing attitudes associated with mental health problems is to target the attitude development phase. Based on this, it is important to work toward developing less harmful attitudes toward those with mental health challenges in childhood and adolescence.

Teachers play a vital role in a child's development and they are often the first to interact and witness developing mental health struggles in their students (Bronfenbrenner & Morris, 2007; Jackson, 2011). Given this position, teachers are very influential to a child's emerging attitudes toward mental illness (Bronfenbrenner & Morris, 2007; Grusec, 1992; Jackson, 2011). In this manner, teachers play a crucial role in helping to reduce the development of stigmatizing attitudes toward mental illness. Since attitudes are learned in childhood often through messages communicated by influential role models, developing a better understanding of teachers' perceptions toward those with mental health challenges may be helpful in working to promote positive attitudes about mental health among teachers and their students. This dissertation will primarily examine attitudes toward mental health challenges in educators and the factors that may predict stigmatizing attitudes toward those with mental illness.

### **Significance of the Problem**

In 2016, there were numerous media reports about the increasing concerns in students' mental health as well as several markedly traumatic incidents that occurred in Saskatchewan schools directly related to mental health challenges among students (Cooke, 2017; Gilles, 2016; Heroux, 2016). Most mental health challenges and diagnosed mental health disorders begin developing in childhood and adolescence (Kessler, Amminger, Anguilar-Gaxiola, Alonso, Lee & Ustun, 2007). In fact, it has been reported that 70% of mental illnesses have their onset during

childhood and adolescence (CAMH, 2014; CMHA, 2012; Kessler, Berglund, Demler, Jin, Merikangas & Walters, 2005; Valdex, Lambert, & Ialongo, 2011). It should also be noted that the prevalence rates only include those clinically *diagnosed* with mental illness, not those suffering from subsyndromal or undiagnosed mental health problems.

Related to this, research has indicated there is difficulty in diagnosing individuals with mental health problems (CMHA, 2014; CMHA, 2012; Kirby, Howlett, & Chodos, 2009). It has been asserted that only 1 out of 6 individuals receive an accurate diagnosis (Kirby et al., 2009). It has further been asserted that only 1 out of 6 individuals who are accurately diagnosed will receive treatment (Kirby et al., 2009). This is particularly concerning as early intervention has been evidenced to assist in reducing the severity and persistence of mental health problems (Kessler et al., 2007; Wahl, 1999). Considering the high occurrence of mental health challenges for children and adolescents, teachers are in a unique position as they are often the first to witness developing mental health struggles in students (Froese-Germain & Riel, 2012).

Attention must be given to understanding the challenges indicated with accurate diagnosis and effective treatment. One of the central barriers to effective intervention is thought to be the stigma surrounding problems of mental health (Brown & Bradley, 2002; CMHA, 2012; Corrigan 2005). Research indicates that the main reason for keeping mental health concerns hidden from others and not seeking help is to avoid the consequences of the stigma attached to mental illness (Golberstein, Eisenberg, & Gollust, 2008). Other research has indicated that working toward effective treatment and better mental health can only be achieved once the stigma of mental illness is alleviated (Smith & Cashwell, 2011). Considering a fundamental cause of concern for students to achieve better mental health is the stigma attached to those with

mental health challenges, and the fact that teachers are influential to developing attitudes and in supporting students' mental health, the significance of research in this area is far-reaching.

### **Background Considerations to the Area of Study**

#### **Mental Illness/Problems of Mental Health**

The definition of mental illness is necessary to explore as it arguably relates to the development and maintenance of stigma associated to mental health problems. Literature about psychopathology, the study of mental illness, conceptualizes mental illness in various ways and comes from diverse perspectives (Barlow, Durand, & Stewart, 2006; Hammer, Salzinger, & Sutton, 1973; Roleff & Engendorf, 2000). This has led to many intense and passionate debates about the topic and, while this is fascinating to explore, the abundantly diverse perspectives explaining psychopathology are so dense and conflicting that clearly conceptualizing mental illness is difficult. Similarly, the challenge to clearly conceptualize mental illness has led to controversies in research associated with the definition of mental illness. Further, how mental illness is conceptualized has been indicated to contribute to the development of the stigma attached to mental illness (Foucault, 1965; Goffman, 1961). Considering this, some of the most salient perspectives on mental illness will be briefly discussed.

**Salient perspectives of mental illness.** The biological and social theoretical perspectives have opposing epistemological and ontological underpinnings but both are important in understanding mental illness and its associated stigma. Neither of these perspectives can fully explain the complexity of mental illness and other perspectives (i.e., psychological, integrative) need to be recognized when defining mental illness. The salient perspectives that will be discussed are the biological, social, psychological, and integrative perspectives.

***Biological and medical model perspectives.*** The main argument of the biological explanation of mental illness suggests that psychopathology is rooted in disorders of the brain (Ghaemi, 2009; Wood, Allen, & Pantelis, 2009). The biological explanations of mental illness, sometimes referred to as the medical model, are pursued in disciplines of neuroscience, biochemistry, and pharmacology (Rogers & Pilgrim, 2010). While there has been compelling evidence uncovered to provide support for the biological perspective, other researchers have argued that the medical model is misguided and that mental illness reflects societal pressures and is a social construction (Foucault, 1965; Szasc, 1961). Within the social constructivist approach, mental illness is argued to result primarily from cultural forces.

Historical perspectives reveal the traditional and dominant discourse of mental illness reflected an illness framework (Beutler & Malik, 2002). Simply stated, it was believed that the cause of mental illness was biological and therefore, mental illness could be cured if the biological cause was uncovered. A medical approach to mental illness developed (Armstrong, 1995; Beutler & Malik, 2002; Durand & Barlow, 2015). This medical framework included classifying and labelling sickness through diagnosis, predicting the course of an illness, and ultimately seeking to find a cure. The *Diagnostic and Statistical Manual of Mental Disorders* (DSM; American Psychiatric Association, 2013), which is the widely accepted authoritative guide for mental illness, is a direct reflection of the influence of the medical model in shaping our understanding of mental illness. The DSM is also a manual that ignites significant controversy (Wakefield, 2013). This manual encompasses the definition, classification, and diagnosis of all problems related to mental health. The DSM's purpose is to be used on a global level by those from many different disciplines and to create a common language and understanding for mental health problems. Yet, the DSM has been highly criticized for a number

of reasons (McNally, 2011; Stein, Phillips, Bolton, Fulford, Sadler, & Kendler, 2010). Some of the criticisms include its medical model structure, the DSM's overall vague and broad definition of mental illness, its categorical and symptom-focused approach, the inflation of certain diagnoses, and the belief that it is turning day-to-day difficulties into disorders (Bingham & Banner, 2014; Malhi, 2013; Pomerantz, 2014; Wakefield, 2013). Despite the aim of clarifying mental illness through its objectivity, the DSM seems to further obscure mental illness (Goffman, 1961; McNally, 2011; Rogers & Pilgrim, 2010). A full review of these controversies will be presented in Chapter II.

It is arguable that the success of the medical model is partly due to the fact that mental illnesses are often linked to specific parts of the human body (e.g., specific regions of the brain), and to biological abnormalities within those physical structures (Weyandt, 2006; Wood, Allen, & Pantelis, 2009). Numerous examples may be offered to illustrate this premise. Generally speaking, a vast amount of biomedical research has linked various mental illnesses to specific regions of the brain (Peng et al., 2012; Pujol et al., 2004; Rogers & Pilgrim, 2010). In addition, research has shown psychotropic drugs can be used to adjust levels of neurotransmitters in the body to ameliorate the signs and symptoms of mental illness (Weyandt, 2006; Wood et al., 2009). These avenues of research are helpful in demonstrating the links between human physiology and various expressions of mental health difficulties. It is important to bear in mind, however, that although the medical model is the dominant perspective in conceptualizing mental illness, not all psychopathology may be traced back to biological sources or reduced to a physical abnormality (Barlow et al., 2006). Along these lines, Rogers and Pilgrim (2010) caution that the medical model "dominance should not be confused with its conceptual superiority" (p. 4).

**Social perspectives.** In contrast to the medical model, social perspectives conceptualize mental illness as being the result of the social, economic, political, and cultural influences on the person (Walker, 2006). A primary assertion in most social explanations emphasizes that “the essence of mental disorders resides in the cultural rules that define what is normal and abnormal” (Horwitz, 2013, p. 103). In general terms, social perspectives are not focused on the reality of mental illness, but with the social forces that create the reality (Murphy, 2001; Rogers & Pilgrim, 2010). Conrad and Barker (2010) argued that some illnesses are “embedded with cultural meaning” and not derived from the nature of the condition (p. S76), and that “all illnesses are socially constructed at the experiential level based on how individuals come to understand their illness, forge their identity, and live with and in spite of their illness” (p. S76). Additionally, the belief that medical knowledge is not necessarily objective, and that medical knowledge is itself a result of being socially constructed, is an assumption in the social constructionist approach (Foucault, 1965; Rogers & Pilgrim, 2010). It is important to note that both social constructivist and biological research have advanced perspectives of mental illness yet neither argument fully explains the different complexities of all mental illnesses (Murphy, 2001).

**Psychological perspectives.** There are other noteworthy theoretical perspectives that help explain mental illness. Cognitive theories in the field of psychology assert that cognitive deficits and biases, as well as dysfunctional and irrational beliefs that often occur unconsciously, explain various expressions of psychopathology (Beck & Haigh, 2014; Beck & Rector, 2005). Cognitive processes related to attention, memory, reasoning, and problem solving are of particular significance to psychological disturbances with many of the psychological disorders having serious cognitive perturbation (Eysenck, 1990; Wood et al., 2009). For example, various symptoms of psychological disorders include severe thought disturbances, difficulties with

reasoning and concentration, and problems with communication. Advances in cognitive psychological research have also been able to connect cognitive processes with specific brain structures and functions, through the use of neuroimaging tests, neuropsychological discoveries, and executive functioning theories (Eldar, Yankelevitch, Lamy, & Bar-Ham, 2010; Eysenck, 1990; Eysenck, Derakshan, Santos, & Calvo, 2007; Wood et al., 2009).

***Interactive perspectives.*** Interactive theoretical models, such as the bio-psycho-social model and vulnerability-stress models have also emerged acknowledging the complexity of mental illness and the interface of perspectives required to describe different aspects of mental health problems (Engel, 1977; Ingram & Luxton, 2005; Pilgrim, Kinderman, & Tai, 2008;). The bio-psycho-social model considers mental illness to be the dynamic interplay between the biological, psychological, and social aspects of mental illness. Developed by Engel (1977), the model was created in reaction to the reductionist biomedical perspectives and the extreme social constructionist literature that was citing mental illness to be a myth (APA, 2013; Foucault, 1965; Szasz, 1961). Engel (1977) brought attention to a combination of factors associated with psychopathology (Borrell-Carrio, Suchman, & Epstein, 2004). This model has been influential to improving care for those with mental health difficulties. For example, Helmchen (2013) examined the consequences of a unitary psychiatric conception in the treatment and care of individuals diagnosed with mental illness. It was found that a bio-psycho-social conceptualization of mental illness improved and personalized the care and treatment of those with mental illness. However, critics have argued that the bio-psycho-social model has been difficult to scientifically research, and in this way, the model has been argued to assist with more philosophical rather than scientific discussions on the concept of mental illness (Borrell-Carrio et al., 2004). The model has been criticized for its lack of a scientific theory that explains the

complex interaction between the biological, psychological, and social aspects, rather it only describes the components co-existing (Pilgrim et al., 2008). Despite these criticisms, the model remains influential.

According to the vulnerability stress model, psychopathology develops as a result of the interaction between stress and some form of vulnerability for a particular disorder (Ingram & Luxton, 2005). In a very basic way, the premise is that stress activates a diathesis “transforming the potential of predisposition into the presence of psychopathology” (Monroe & Simons, 1991, p. 406). A vulnerability or diathesis might include a biochemical, genetic, social, cognitive, or physiological predisposition to a mental illness (Ingram & Luxton, 2005; Monroe & Simons, 1991). These factors are proposed to be relatively stable in an individual. Further, it seems that the greater the vulnerability, the less stress that is required to activate the mental illness and the reverse is also argued (Belsky & Plues, 2009). Therefore, both the diathesis and stress need to be considered to assess the risk for an onset of a disorder. This model has provided a framework to study the interaction between the biological, sociocultural, and psychological factors of mental illness.

***Definition of mental illness.*** Individual theoretical approaches offer valuable insights to understanding the concept of mental illness but no one approach can fully explain the complexity and intricacies associated with understanding all mental health challenges. A medical model perspective, sometimes referred to as the biological approach, has been a dominant perspective, has influenced our current views on mental illness, and is the perspective used to explain mental illness in many anti-stigma campaigns (Cheek, 2013). However, a thorough conceptualization of mental illness must include the biological, social, and other salient perspectives (i.e., psychological and integrative theories; Barlow et al., 2006). Accordingly, the definition of the

construct of mental illness must include an integrative, multifactorial perspective, converging elements of the most salient perspectives (i.e., biological, psychological, social, and integrative perspectives; Barlow et al., 2006; Durand & Barlow, 2015). With regards to the stigma attached to mental health difficulties, the influence of the medical model and increased understanding of social factors are two areas that need to be further considered in explaining the development and maintenance of mental health stigma. These will be discussed further in Chapter II.

### **Conceptualizing Mental Illness Stigma**

In defining stigma, most researchers regard stigma as a social construction reflecting some difference that gets attached to a group of individuals (Major & O'Brien, 2005). It is this difference that becomes stigmatized by society. The attitudes and beliefs that are attached to this stigmatized group then become an accepted societal and cultural norm. Interestingly, most human differences are perceived to be socially irrelevant whereas "skin color, IQ, and sexual preferences are highly salient in many social contexts" (Link & Phelan, 2006, p. 528). Other features like mental illness have also become relevant to one's social appearance and status (Martin, Lang, & Olafsdotir, 2008; Rusch et al., 2005). Interestingly, it has been asserted that distinguishing mental health from mental illness seems to be a process constructed by society, as the current definitions suggest "there is no sharp line between mental health and mental illness" (Rusch et al., 2005, p. 530). In this way, the social theoretical understanding of mental illness directly relates to understanding the stigma attached to mental illness.

While acknowledging the social process and how context influences what attributes become stigmatized, the construct of stigma has generally been described as a discrediting attitude toward a given attribute that causes devaluation, ostracism, and marginalization for the person possessing the attribute (Goffman, 1963; Ikeme, 2012). Labelling theories associated the

label of mental illness, as diagnosed through the DSM, as the impetus for being stigmatized (Scheff, 1984). Jones, Farina, Hastorf, Markus, Miller, and Scott (1984) have used Goffman's observations to further define stigma as the link between a stigmatized attribute and its associated stereotypes, asserting that the devaluing attitude of a particular social identity must be shared by a large group of people (Ikeme, 2012; Link & Phelan, 2001). Furthermore, Corrigan, Edwards, Green, Diwan, and Penn (2001) suggest the term stigma denotes damaging stereotypes endorsed through prejudice and discriminatory actions toward those who belong to a certain group (Corrigan et al., 2001; Ikeme, 2012). The above definitions have been related to the specific stigmatization of those with mental illness. Moreover, most definitions imply that stigma related to mental illness results from shared attitudes formed through society's communication of dominant cultural norms (Corrigan et al., 2001; Goffman, 1963; Jackson, 2011; Jones et al., 1984).

### **Consequences and Types of Stigma**

There are numerous negative consequences for those that are stigmatized. In addition to the experience of a devalued and marginalized social identity that results in social isolation and rejection, other consequences exist. For example, research has indicated those experiencing mental illness stigma have struggled in obtaining and maintaining adequate housing, experienced discrimination when trying to gain or sustain employment, and lose family and other social supports (Corrigan, 2005; Ikeme, 2012; Kirby & Keon, 2006; Link, Cullen, Frank, & Woznlak, 1987; Wahl, 1999). The discrimination related to employment is also a major barrier to having the financial resources necessary to live (Bathje & Pryor, 2011; Corrigan, 2005; Kirby & Keon; 2006). Other research has indicated interpersonal difficulties, including a collapsed self-esteem in those that experience stigma associated with mental illness (Corrigan, 2004; Overton &

Medina, 2008). These examples illustrate how mental illness stigma impacts the quality of life for someone experiencing a mental health problem. The different types of stigma can help explain the varying ways in which the consequences of stigma occur.

Literature outlines different types of mental illness stigmatization, which include public stigma, self-stigma, stigma by association, and structural stigma (Bos et al., 2013; Corrigan, 2004). *Public stigma* is the most obvious concept and refers to the prejudicial attitudes held and endorsed by a large number of people in the general public (Corrigan, 2004). The expression of public stigma manifests in both overt and subtle ways (Bos et al., 2013). Some examples of explicit expressions of stigma include the aversion to interact with someone with a mental illness, actively avoiding and rejecting those with mental illness. Subtle expressions of stigma can be evidenced through non-verbal expressions of discomfort, such as a lack of eye contact toward a social identity that has been stigmatized by society (Bos et al., 2013; Heatherton, Kleck, Hebl, & Hull, 2000). Even though it has become socially unacceptable for some explicit and overt forms of discrimination, these subtle expressions can contribute to the maintenance of stigmatization toward those with mental illness (Brown, 2010; Jackson, 2011). In this way, both overt and subtle expressions of public stigma are equally harmful.

The *self-stigma* process refers to internalization on the part of the person experiencing mental illness, whereby there is an expectation that the person will be devalued and discriminated against because of the awareness of negative characteristics attached to mental illness (Corrigan, 2004). Self-stigma is “a private shame that diminishes self-esteem” and is accompanied by “feelings of inadequacy, inferiority, and self-hate” (Overton & Medina, 2008, p. 144). To avoid rejection, persons who experience mental illness try to conceal their illness and engage in various coping strategies, such as social withdrawal, to hide the mental health

problem. These ideas explain why someone with a mental health concern would not access services (Bathje & Pryor, 2011). This isolation may enhance the negative effects of stigma by constricting social networks (Rusch et al., 2005).

Bos et al. (2013) regard *stigma by association* as similar to Goffman's (1963) courtesy stigma concept where stigmatization also impacts those who are closely associated with stigmatized individuals (e.g., family, friends, caregivers, etc.). For example, research has indicated that stigmatization not only affects those who experience a stigmatized condition but also impacts people closely related (Corrigan, 2005). Support for this assertion has been indicated in studies that have found people are routinely treated in a discriminatory way as a result of their connection to someone with a stigmatized condition (Bos et al., 2013; Phelan, Bromet, & Link, 1998).

Finally, *structural stigma* examines systemic issues related to stigma and asserts that the practices and policies of social institutions restrict opportunities for those with mental illnesses (Corrigan, 2004). With structural stigma the “dominant cultural ideology is embodied in institutional systems so that power differentials are legitimated and social disadvantages are perpetuated” (Livingstone, 2013, p. 10). In this way, social inequalities are reproduced and “perpetuated by hegemony and the exercise of social, economic and political power” (Bos et al., 2013, p. 10). For example, institutional laws are written for the norm of society, not for a person who has a devalued social identity (Livingston, 2013). An example of this is reflected in epidemiological research that indicates those with mental illness are overrepresented in the criminal, homeless, and lower socio-economic populations (Livingston, 2013; U’ren, 2011). Given that structural stigma mirrors the dominant cultural norms and are often hidden within systemic functions, structural stigma is often difficult to recognize (Bos et al., 2013). Obviously,

policies do not contain explicit statements to reject those with mental illness. Rather, structural stigma is simply reflected in policies that do not represent inclusion for those with mental illness (Livingston, 2013).

*Public stigma* is considered to be at the core of the other three types of stigma (Bos et al., 2013), and since all levels of stigma seem to be rooted in dominant cultural norms evidenced in the stereotypical and prejudicial attitudes toward those with mental illness, attitudes about mental illness are fundamental to study. For the present study, stigma will be defined as a social process that reflects a negative attitude towards a certain attribute that leads to being devalued by others (Corrigan, 2005; Goffman, 1963; Link et al., 2001; Livingston, 2013). The process of public stigma will consist of "... - stereotypes, prejudice and discrimination – in the context of power differences and leads to reactions of the general public towards the stigmatized group as a result of stigma" (Rusch et al., 2005, p. 531), which combines the sociological and social psychological stigma models. Chapter II will review the sociological and social psychological theoretical models of mental health stigma.

### **Attitudes Toward Mental Illness**

As stigma can be reflected through one's attitudes, the most common way research has measured stigma is through attitudes toward mental illness. These public attitudes toward mental illness have long been studied and there has been considerable research documenting negative public attitudes toward persons with mental health challenges. For example, a number of these common attitudes about people with mental health challenges include beliefs that people with mental illness are dangerous, beliefs that people are responsible for their mental health problems, beliefs that people who have mental health problems are incapable, and beliefs that people with mental health problems need to be cared for (Corrigan, 2004; Martin, Pescosolido, Olafsdottir, &

McLeod, 2007; Martin, Pescosolido, & Tuch, 2000; Smith & Cashwell, 2010).

Moreover, these attitudes can be summarized into three main themes, which have been reported in attitudinal research about mental illness (Corrigan & Watson, 2002; Rusch et al., 2005). These themes include (1) fear and exclusion, (2) authoritarianism, and (3) benevolence (Corrigan & Watson, 2002; Rusch et al., 2005). The first factor indicates that people believe that those with mental health challenges are generally unpredictable, unsafe, dangerous, and therefore, need to be feared (Corrigan & Watson, 2002). As a result of the fear, the attitude that people with mental illness need to be isolated or excluded from mainstream society was commonly reported in past research (Corrigan & Watson, 2002; Rusch et al., 2005). The authoritarianism factor indicates that generally, people with problems of mental health are understood to be reckless, careless, irresponsible, and should not be making their own life decisions (Corrigan & Watson, 2002). The last factor, benevolence, reflects attitudes that individuals with mental health problems are infantile, naïve, immature, and therefore, require someone to care for them (Corrigan & Watson, 2002; Rusch et al., 2005). These common attitudes, found in research, can lead to the formation of stereotypes and further, discrimination toward those with mental health challenges. Additionally, people with stronger stereotypical beliefs have indicated a desire for increased social distance from individuals who have problems related to mental health (Van't Veer, Kraan, Drossart, & Modde, 2006).

As a result of the widespread negative attitudes toward mental illness as found in previous research, there has been increasing attention paid to reducing stigma through anti-stigma campaigns and efforts to increase positive attitudes toward people with mental illness. Since attitudes toward mental illness have been studied over many years, this has allowed for the evaluation of attitudinal change over time. Some studies have revealed positive attitude changes

while others have not (Corrigan, 2005; Phelan, Link, Steuve, & Pescosolido, 2000; Schomerus et al., 2013). For example, using a nationally-representative sample, Phelan et al. (2000) compared data, first gathered in 1950 and then again in 1996, about the definitions and attitudes of mental illness. This research revealed that the understanding of mental illness had expanded outside conventional ideas that previously associated mental illness to only psychotic disorders.

Accordingly, changes suggested that mental illness was being seen as more familiar to people and not thought of as so extreme (Corrigan, 2005; Phelan et al., 2000). While this positive change was reported, opinions that people with mental health problems are unsafe, prone to violence, and dangerous increased.

A similar result was indicated in a more recent meta-analysis. Schomerus et al (2012) evaluated all studies occurring before March 2011 relating to beliefs and attitudes about mental illness among the general public using nationally representative population samples. Results revealed two significant patterns. The public's knowledge about mental disorders had increased and there seemed to be greater acceptance of professional help for those struggling with mental health problems. In contrast, some attitudes toward persons with mental illness had not changed for the better and some attitudes had actually worsened. Most strikingly, they found that social acceptance of people with mental illness had not changed since 1990. Consequently, social acceptance of persons with serious mental health challenges as a colleague, roommate, or family-in-law had diminished or remained at low levels (Rusch et al., 2005; Schomerus et al., 2012). The results indicated some unchanged and/or deteriorating stigmatizing attitudes toward people with mental illness and have brought attention to the need for additional research and intervention in this area.

Understanding how to decrease stigmatizing attitudes has also been explored. Research has suggested that three main factors appear to be associated with stigmatizing attitudes (Alexander & Link, 2003; Corrigan et al., 2001; Rusch et al., 2005; Smith & Cashwell, 2010). One of the factors associated with stigmatizing attitudes toward mental illness is the amount of knowledge about mental illness. For example, education about mental illness has been found to reduce negative attitudes by providing accurate information and increasing people's knowledge about mental illness (Overton & Medina, 2008). As such, anti-stigma campaigns have included education in their efforts as a way to decrease stigmatizing attitudes (Cheek, 2012). Since it is widely believed that inaccurate information or a lack of education about mental illness contributes to stigmatizing attitudes, this is one factor that will be explored in the current study (Franze & Paulus, 2009; Rusch et al., 2005; Smith & Cashwell, 2010).

Research also points to the importance in the amount of previous social contact one has had with those who have mental illness (Covarrubias & Han, 2011; Korszun, Sokratis, Kamran, & Kamaldeep, 2012; Sellick & Goodear, 1985). A number of studies have indicated that the closer the relationship one has to a person with a mental illness, the less stigmatizing the attitudes (Alexander & Link, 2003; Corrigan et al., 2001; Eack, Newhill, & Watson, 2012). This factor, representing differing personal and social experiences with someone with a mental illness, will be referred to as the level of contact with someone who has a mental illness and will also be explored in the current study (Holmes, Corrigan, Williams, Canar, & Kubiak, 1999).

Research also supports the notion that one's beliefs about the causes of mental illness are related to stigmatizing attitudes and therefore, causal beliefs about mental illness will be the third factor being investigated in this study (Angermeyer & Matschinger, 2005; Deitrick, Beck, Bujantugs, Kenzine, Matschinger, & Angermeyer, 2004; Mannarini & Boffo, 2013; Phelan,

2005; Read & Harre, 2001; Read & Law, 1999). More specifically, the majority of research examining beliefs about the causes of mental illness has found that extreme biological causal beliefs have been associated with increased desire for more social distance and negative attitudes toward mental illness (Corrigan, Watson, Byrne, & Davis, 2005; Dietrich, Matschinger, & Angermeyer, 2006; McKechnie & Harper, 2011). A more thorough literature review on all factors being explored in the current study will be presented in Chapter II.

### **Rationale for the Investigation of Teachers' Attitudes Toward Mental Illness**

As described through social learning theory and ecological models, teachers are one of the strongest socialization agents for children and have an influential role in the development of all attitudes, including those about mental illness (Ajzen, 2011; Bronfenbrenner & Morris, 2007; Eagly & Chaiken, 1998; Maio & Haddock, 2010; Schneider, 2004). As a teacher, expressions of attitudes, whether intentional or unintentional, may teach children how to think, feel, and behave toward those struggling with mental health (Eagly & Chaiken, 1998; Maio & Haddock, 2010; Schneider, 2004). As a result of this potential to influence others, professionals from different fields (e.g., psychologists, counsellors, nurses, etc.) who work with those with mental health challenges have benefitted from an examination of their attitudes toward mental illness (Crowe & Averett; 2015; Schafer, Wood, & Williams, 2011; Schultz, 2007; Smith & Cashwell, 2011). Regrettably, similar research efforts have not been observed for the teaching profession and this is a recognized gap in literature. Since subtle signs of prejudice can result in the maintenance of negative attitudes toward a group of people, becoming aware of stigmatizing attitudes may have positive consequences for reducing the stigma of mental illness (Petty, Fazio, & Brinol, 2009). It is widely recognized that teachers are in a position that will inevitably influence their students' conceptions, attitudes, beliefs toward mental illness (Corrigan, Demming, Goldman, Slopen,

Medasani, & Phelan, 2005; Froese-Germain, & Riel, 2012; Koller, Osterlind, Paris, & Weston, 2004; Loades & Mastroyannopoulou, 2010; Lumpkin, 2008; Samargia, Saewyc, & Elliot, 2006). As a result, it seems prudent to explore teachers' attitudes toward mental illness.

### **The Present Study**

The purpose of the study was to examine teachers' attitudes towards mental illness and to explore factors that predict stigmatizing attitudes. The three main factors that were studied were previous education about mental illness, the level of personal contact with someone who has a mental illness, and an individual's beliefs about the causes about mental illness. Based on this, primary research questions focused on the relationship between teachers' attitudes toward mental health problems and the three main factors indicated in research to be associated with stigmatizing attitudes. Further, the potential of the three main factors to predict teachers' stigmatizing attitudes was examined in the study.

Information gained from this research will contribute to our understanding of teachers' attitudes toward those with mental health problems and the factors that influence perceptions of mental illness among teachers. Very little research has been conducted that has examined teachers' attitudes toward mental health challenges. Teachers play an important role in creating environments conducive to the acceptance of mental illness and in shaping their students' attitudes about mental illness (Kranke & Flourish, 2009; Samargia, Saewyc, & Elliot, 2006; Swords, Heary, & Hennessy, 2011). Additionally, conceptions about mental illness are formed in childhood and teachers are a major influence in the formation of these conceptions (Koller et al., 2004; Loades & Mastroyannopoulou, 2010; Lumpkin, 2008). Though teachers may not have the resources or knowledge to act in the role of mental health provider, they are confronted with mental health problems in the classroom. Understanding teachers' attitudes toward mental health

challenges and examining the predictive potential of the main factors impacting these attitudes could have important implications for teacher and school-based mental health initiatives.

Similarly, exploring demographic and descriptive information in relation to teachers' attitudes toward those with mental health problems may uncover areas for further research.

### **Definitions**

#### **Mental Illness/Challenges with Mental Health**

The researcher prefers to use the term *challenges of mental health* or *problems with mental health* in the dissertation paper however the term *mental illness* will also be cited. The term *mental illness* is consistently used in research and in the measures chosen to describe the dissertation topic and will be used to be consistent with how the topic is understood in the literature and by the public. The definition of mental illness will refer to an integrative, multifactorial perspective, converging elements of the most salient perspectives (i.e., biological, psychological, social and integrative perspectives; Durand & Barlow, 2015).

**Biological Perspective:** The biological perspective in the definition of mental illness does not imply the root cause to every mental illness is organic or that most mental illnesses can be reduced to physical abnormalities. Rather, the biological perspective is to be regarded as one area of consideration that focuses on the biological properties of a mental disorder in an effort to understand its conceptualization (Barlow et al., 2006). In describing the historical or current dominant perspective, the biological perspective is sometimes used synonymously with the medical model perspective.

**Psychological Perspective:** An example of a psychological perspective is the current research from cognitive psychology. Cognitive deficits and biases, as well as dysfunctional and irrational beliefs, often occurring unconsciously, explain various expressions of psychopathology

(Beck & Haigh, 2014). Other examples of psychological areas contributing to mental health difficulties, as defined by an integrative model, include such things as trauma, cognitive capacity, or self-esteem to name a few (Engel, 1977).

**Social Perspective:** The social perspective can be understood as a broad perspective highlighting how mental illness can be a result of many different social, economic, cultural, and political forces (U'ren, 2011). Specific examples of social areas contributing to mental health difficulties include such things as economic status, culture, religion, ethnicity, or peer group (Engel, 1977).

**Integrative Perspectives:** Interactive theoretical models, such as the bio-psycho-social model and vulnerability-stress models, acknowledge the complexity of mental illness and the interface of perspectives required to describe different aspects of mental illness (Engel, 1977; Ingram & Luxton, 2005; Pilgrim, Kinderman, & Tai, 2008;). Generally, it is believed that psychopathology develops as a result of the dynamic interaction between social, psychological, and biological factors.

### **Mental Illness Stigma**

Stigma in this dissertation will refer to public stigma. Definitions of public stigma commonly reflect a discrediting attitude toward mental illness that is shared by a large group of people (Corrigan, 2001; Goffman, 1963; Ikeme, 2012; Jones et al., 1984; Link et al., 2001; Livingstone, 2013). The process of public stigma related to mental illness will refer to: "... - stereotypes, prejudice and discrimination – in the context of power differences and leads to reactions of the general public towards the stigmatized group as a result of stigma" (Rusch et al., 2005, p. 531).

### **Level of Contact**

Level of contact will be defined as differing personal experiences with someone perceived to have a mental illness (Holmes et al., 1999). Higher levels of contact will refer to more personal experiences and contact with those perceived to have a mental health difficulty (Holmes et al., 1999).

### **Causal Beliefs**

Causal beliefs will be defined as one's beliefs about origins or causes of mental health difficulties. More specifically, this will include endogenous causal beliefs and interactional causal beliefs (Angermeyer & Matschinger, 2005; Deitrick et al., 2004; Mannarini & Boffo, 2013; Phelan, 2005; Read & Harre, 2001; Read & Law, 1999).

**Endogenous Causal Beliefs.** These causal beliefs reflect a biological explanation of mental illness or "a medical model" emphasizing genetic and physiological factors as causes for mental illness (Hill & Bale, 1980).

**Interactional Causal Beliefs.** The interactional causal beliefs represent social and individual factors as origins of mental illness (Hill & Bale, 1980)

## CHAPTER II: Literature Review

The present study examined teachers' stigmatizing attitudes toward those with mental health challenges. Understanding stigma as it relates to mental illness required the review of literature in various areas. A discussion of the historical roots of mental illness, controversies associated with the Diagnostic and Statistical Manual of Mental Disorders (DSM) and social theoretical models of mental illness stigma will be summarized. Additionally, sociological and social psychological theories specifically describe the stigma process and significantly contribute to the understanding of mental illness stigma (Corrigan, 2005; Link & Phelan, 2001; Rusch, Angermeyer, & Corrigan, 2005). Given the amount of literature suggesting that stigma is reflected in dominant cultural norms toward certain social groups, attitudes about mental illness have been a fundamental construct in investigating stigma (Hindshaw & Stier, 2008; Link, Yang, Phelan, & Collins, 2004; Phelan, Link, Stueve, & Pescosolido, 2000). Based on this, research examining the link between attitudes and behaviours and factors that contribute to attitudes on mental illness will be reviewed. Finally, the literature on attitude-formation and social learning theory suggests that teachers are in a unique position to affect attitude development, providing the rationale for studying teachers' attitudes toward those with mental health problems (Bryne, 2000; Corrigan, 2005; Corrigan, Demming, Goldman, Slopen, Medasani & Phelan, 2005; Jackson, 2011; Swords, Heary, & Hennessy, 2011).

### Fundamental Concepts to Understanding Mental Illness Stigma

#### Historical Perspectives

Mental health problems were once thought to be the result of supernatural forces (Willerman & Cohen, 1990). Generally, the central feature fueling the supernatural belief was that circumstances external to our bodies caused mental illness and included things like

witchcraft, gods, and possession by evil spirits (Alloy, Jacobson, & Acocella, 1999; Brown & Menninger, 1940). In fact, speculation about the origins of mental health problems may be traced back through the centuries to the times of antiquity (Alloy et al., 1999; Barlow et al., 2006; Brown & Menninger, 1940). A historical review indicated that although different perspectives were evident, a medical perspective of mental illness became dominant. It is argued that this dominance minimized other important explanations of mental illness and as a result, has contributed to the development of the stigma associated with mental illness (U'ren, 2011; Schwab & Schwab, 1978; Shuttleworth, 2002).

Historically, there have been several strong advocates for a medical approach to mental illness and they have influenced the current conception, treatment, and research approaches to mental health challenges (Beutler & Malik, 2002). The Greek physician Hippocrates, who is considered the father of modern medicine, suggested that psychological disorders were similar to physical disorders (Barlow et al., 2006). Hippocrates rejected the idea that the cause of mental health challenges was the result of supernatural forces. Rather, he argued ideas suggesting mental disorders were due to brain pathology and emphasized the importance of a genetic predisposition to mental illness (Alloy et al., 1999). Interestingly, Hippocrates, and in later years, Galen, have been credited with applying the Humoral theory to medicine, which has been recognized to be the first example of associating mental health difficulties with physical or chemical imbalances (Taylor & Vaidya, 2009).

In the eighteenth century, mental illness, described as "*madness*" during this time, was primarily viewed as an illness rather than the act of a demon or other supernatural power (Alloy et al., 1999; Foucault, 1965). The belief that medicine would ultimately overcome madness became increasingly popular and, as a result, madness was progressively turned over to the

medical profession to study (Armstrong, 1995; Foucault, 1965). Hospitals for “*lunatics*” were developed to provide medical attention for those with mental illness, reflecting the accelerating dominant thought that a mental illness was a disease (Foucault, 1965). However, these early asylums have been noted to be more like prisons and some research inferred that there was little support provided to patients in terms of treatment because the focus was on finding the biological origin of the problem (Barlow et al., 2006; Foucault, 1965). Similarly, it has been indicated that mental illness researchers and experts of this time were so confident that a physical cause would be discovered that individuals with difficulties were treated as if their problems were biologically based (Armstrong, 1995; Foucault, 1965). This evidences the medical focus toward problems of mental health despite any known organic or physical cause. Given these beliefs and without any identifiable organic cause, the attitude representing the belief that mental illness was incurable developed (Barlow et al., 2006). This historical information provides an account for the beginnings of the medical model and the institutionalization of those with mental illness.

Also during the eighteenth century, a different approach to mental disorders called moral therapy emerged (Foucault, 1965). This new approach originated from the French psychiatrist, Philippe Pinel and British philanthropist, William Tuke (Barlow et al., 2006). The essence of moral therapy included providing social interactions, reducing shackles and chains, and treating those institutionalized as normally as possible (Alloy et al., 1999; Barlow et al., 2006). This reflected a psychosocial orientation to mental illness. In this approach positive, encouraging, caring relationships were significant. Apparently, those working with mental illness were surprised when “a humane socially facilitating atmosphere produced *miraculous results*” (Barlow et al., 2006, p. 14). In North America, another advocate, Dorthea Dix, who had worked in

various mental illness institutions, was appalled by their conditions and began the mental hygiene movement (Alloy et al., 1999). Dorthea was an activist throughout Canada and the United States, and worked to improve conditions in these institutions by ensuring that everyone who needed care received it. While the work she accomplished had a tremendous impact, it has been indicated that that Dorthea's efforts resulted in a consequential increase in the number of mental patients (Barlow et al., 2006). Although the institutionalization of those with mental illness was to bring humane treatment and relief, moral therapy collapsed when asylums became too large to give individual attention to patients. Therapeutic efforts in overcrowded mental hospitals were impossible (Alloy et al., 1999). Foucault (1965) wrote that mental hospitals began to resemble custodial institutions, as resources were insufficient to provide adequate treatment.

The medical convention was strengthened in the nineteenth century by the discovery of syphilis and by the influence of American Psychiatrist, John P. Grey (Durand & Barlow, 2015). Originally, all individuals with syphilis were thought to have psychosis because advanced syphilis mirrored symptoms of psychosis (Barlow et al., 2006). The discovery of syphilis occurred when individuals being treated for psychosis were observed to deteriorate and die. The difference in the course of the two illnesses (psychosis not resulting in death) led to the identification of syphilis as a curable infection (Alloy et al., 1999). Also significant to this discovery was that this was the first time behavioural and cognitive symptoms associated with mental illness were directly linked to a physical cause (Alloy et al., 1999). Along with this discovery, John P. Grey had a commanding influence with his steadfast assertions that insanity always had physical causes (Barlow et al., 2006). Accordingly, he believed those with mental illness should always be treated the same as the physically ill, which of course, implied

hospitalization. Grey's strong influence provided further support for the hospitalization of those with mental illness and mental asylums (Foucault, 1965).

The medical approach further asserted its dominance through the work of Emil Kraepelin, known to be the founder of modern psychiatry (Beutler & Malik, 2002). Diagnosis and classification of mental illness was developed through his work, which included distinguishing various disorders, identifying clusters of presenting symptoms, and identifying that many of the disorders have a different age of onset and course (Alloy et al., 1999; Beutler & Malik, 2002). Foucault (1965) has argued that historical medical discourse developed psychiatry into the science of abnormal and normal behaviour (Foucault, 2003). Further, it was asserted that madness, as abnormal behaviour, became an object for medical science and psychiatry became a type of *power* over this abnormality (Armstrong, 1995). The search for the biological origin of psychological disorders remained of primary focus and, despite the fact that some very humane and effective treatment approaches were available, intervention and treatment approaches were secondary and even eliminated in some settings (Barlow et al., 2006; Foucault, 1965). This emerging medical model influenced standards of pathology and normality, equated psychological problems to disease, and influenced research priorities and therapeutic perspectives (Nye, 2003). Central to the medical model was locating the organic cause and curing the illness.

As the discipline of psychology advanced in the twentieth century, psychological conceptions of mental illness emerged in which intervention and treatment regimes gained credibility (Barlow et al., 2006). The deinstitutionalization of those with mental illness was a major milestone in the mid-twentieth century and marked an important shift towards more humane approaches for those with mental health challenges. At the same time, increasing

scientific discoveries connecting biological aspects to symptoms associated with mental illness proved beneficial to understanding mental health problems (Weyandt, 2006). The medical model remained dominant even though not all mental illnesses could be attributed to a medical cause. The intense controversy about the medical model has been based on the argument that beliefs were so strong that biological origins would be discovered other possible explanations, treatments and intervention for those with mental health problems have been perhaps minimized (Szasz, 1961; U'ren, 2011).

### **The DSM Controversies**

Historical circumstances influenced the development of the widely recognized, globally referenced manual for mental illness. Since 1952, the *Diagnostic and Statistical Manual of Mental Disorders* has been the authority on mental illness (APA, 2013). The DSM is a handbook for all for mental health professionals and intended to be utilized on a global level, in a wide array of contexts, and by clinicians and researchers of many different orientations (e.g., biological, psychoanalytic, cognitive, behavioral; APA, 2000; McNally, 2011).

As indicated, the DSM is intended to be used by a wide range of nonmedical mental health professionals, but the use of terms such as *onset*, *symptoms*, *prognosis*, and *course* clearly position the DSM as a medical model (Alloy et al., 1999; Kecmanovic, 2013). In fact, significantly overhauling the manual to emphasize the biological roots of mental disorders was seriously considered for the most recent edition (Pomerantz, 2014). Of course, literature indicates this idea was widely criticized (McNally, 2011; Wakefield, 2013). While there is convincing evidence of biological abnormalities in those with mental health problems, not all mental illnesses have organic associations, and if they do, biological factors are only one dynamic in the many factors associated with mental illness (Malhi, 2013).

Consistent with other medical model structures, the categorical approach of the DSM has also been widely criticized. The categorical approach is definitive and contains symptom thresholds and cut-off values (Beutler & Malik, 2002; Kecmanovic, 2013; Stein, Phillips, Bolton, Fulford, Sadler, & Kendler, 2010; Wakefield, 2013). Moreover, a certain amount of criteria need to be met under certain circumstances and in specific time frames. Diagnostic thresholds differentiate illness and health between individuals that, in some cases, may be separated by a mere symptom (Beutler & Malik, 2002). It is argued that these diagnostic thresholds may be arbitrary values and for some disorders (e.g., those reflective of current social norms) and these thresholds may reflect moral judgments of normality and pathology (Perone, 2014). According to Rousanville, Jackson, Kendel and Kendler (2002), the most contentious DSM issue is “...whether disease, illness, and disorder are scientific biomedical terms or are sociopolitical terms that necessarily involve a value judgment” (p.3).

Another troubling aspect regarding the DSM lies in the meaning that is implied when asked to define psychopathology (Wakefield, 1992). Implicit to this process is to separate normality from abnormality. In this manner, to define abnormality is to determine acceptable from unacceptable behaviour and further, determine which undesirable behaviours are viewed as psychopathology rather than simply as unacceptable characteristics (Alloy et al., 1999; Kecmanovic, 2013). The DSM's essence seems to be the distinction between normality and pathology as applied to mental health and society's current social and cultural norms are most often reflected in this process. (First & Wakefield, 2010; Kecmanovic, 2013). For example, for transgender individuals, the gender dysphoria diagnosis (previously gender identity disorder) has been posited to be similar to the homosexuality diagnosis, which was considered a disorder in earlier versions of the DSM (Perone, 2014). The previously diagnosable homosexuality disorder

was a tremendous injustice and a mistake based on the dominant cultural perception, which reflected a moral judgment representing the social and cultural values of that time (Perone, 2014).

These controversies reflect how the historically influenced, dominant medical perspective is reflected in our current approach to mental health. Even with these challenges, the DSM is regarded as “a necessary evil and the lack of suitable alternatives has led to its aggrandizement” (Malhi, 2013). Considering this, it has been argued that some of the controversial issues (e.g., labeling, classifying, defining abnormality based on social or cultural rules) relate to the stigma associated with mental health problems.

### **The Social Perspective of Mental Illness**

Factors in one's social environment contribute to the development of mental health problems, yet it has been indicated that these factors have been historically minimized (U'ren, 2011). Literature reveals controversy emerging in the middle of the twentieth century critiquing a lack of acknowledgement of factors relating to mental illness that could be described as social, cultural, economic, or political (Foucault, 1965; Goffman, 1961; Scheff, 1967). Some of the literature is quite intense and highly controversial and contains strong criticisms of the medical model, biological dominance, and the significantly understated impact of social forces on mental illness (Szasz, 1961; Foucault, 1965). While the evidence for biological associations with some mental illnesses is not in question, it is important to acknowledge the social perspective because it provides important links to understanding the stigma of mental illness.

This social perspective can be understood as a broad perspective highlighting how mental illness can be a result of many different social, economic, cultural, and political forces (U'ren, 2011). Various disciplines such as sociology, anthropology, philosophy, and psychology have

influenced this broad perspective. Two main approaches will be discussed: the social causation and the social constructivism approaches. A social causation approach focuses attention on social class, socioeconomic status, poverty, ethnicity, and race relating to the experience of mental illness, whereas a social constructionist perspective questions the very nature of the construct of mental illness (Rogers & Pilgrim, 2010; U'ren, 2011).

Generally, in order to understand mental illness, the social causation perspective examines circumstances external to the individual (Tew, 2005). For example, the underlying biological cause (e.g., dysfunctional levels of neurotransmitters) of a depressed man who lost his job and consequently his family due to an economic societal crisis would not be the primary concern in this model. Rather, it would be the social and economic losses causing the reaction that would be of central importance in the social causation perspective. In another example, probing the psyche and related cognitions of a First Nations adolescent in a predominantly Caucasian school setting who experiences social anxiety as a result of being significantly bullied and ignored by peers because of his or her race would not be the lens of the social causation approach. In both of these two examples, examining the relationship between social disadvantage and mental illness would be the primary focus (Hudson, 2005; McNally, 2011). Poverty, unemployment, homelessness, ethnicity, and race are significant risk factors for psychopathology (Tew, 2005). In a historically telling epidemiological study of social class and mental illness, known as the New Haven study published in 1958, researchers found an inverse relationship between social class and overall mental illness diagnoses (Hollingshead & Redlick, 2007). Specifically, the rate of psychological problems increased as social class decreased. Although this study was limited in generalizability, the findings have been corroborated in many subsequent studies (Luepnitz, Randolph, & Gutsch, 1982; Rogers & Pilgrim, 2010; Tew, 2005).

Lower socioeconomic status has been found to be associated with higher rates of drug abuse and dependence, anxiety disorders, affective disorders, personality disorders, schizophrenia, and bipolar disorder (Hudson, 2005; Kessler et. al, 2005; U'ren, 2011). Research has indicated similar relationships between minority racial groups and mental illness. For example, several studies have found that African American and Hispanic inpatients were more likely to be diagnosed with schizophrenia compared to Caucasian inpatients (Choi et al., 2012; U'ren, 2011). Others studies have indicated that the expression and interpretation of mental illness is largely influenced by one's culture (Tew, 2005).

Furthermore, research has found the recommended treatment regime and treatment setting have been influenced by social factors (Knaster & Micucci, 2013). Cohen et al. (1990) found that in children with the same presenting issues, race was the only variable that predicted the type of setting that was recommended by their mental health workers. Caucasian children were more likely to be placed in an inpatient psychiatric facility whereas African American children were more likely to be placed in a juvenile corrections facility. This research, among other studies, has shown that clinical judgment can be influenced by a client's race, ethnicity, and socioeconomic status (McNally, 2005; U'ren, 2011). These findings have implications for the social influences of mental illness.

In addition to the importance in understanding the impact of social stress on those that are not privileged, these findings also demonstrate oppressive forms of power (Tew, 2005). Oppression forms when dominant groups construct social differences that represent superiority or inferiority. These social differences have led to systematic patterns of inequality on the basis of characteristics such as gender, race, or culture, class, age, disability, and sexual orientation (Tew, 2005). Those characterized as inferior run the risk of being oppressed and excluded from

mainstream society. Given the correlational association between those defined by society as inferior (the socially disadvantaged) and the prevalence mental illness, social causation researchers focus on the social circumstances creating the relationship (MacNally, 2011; U'Ren, 2011). This correlation between mental illness and the socially disadvantaged can further explain how mental illness has become a sign of inferiority itself, and a social difference in which a great deal of stigma is often attached (Tew, 2005). Aspects of the social causation perspective assist in understanding the stigma of mental illness and suggest mental illness be considered an issue of social justice (Corrigan, 2005; Tew, 2005).

Social constructionist perspectives assert that the concept of mental illness has been constructed, defined, and created by historical, social, economic, and political occurrences (Putwain, Grey, & Emiliarhowicz, 2000). A central assumption within this broad approach is that reality is not self-evident, stable, and waiting to be discovered, but instead it is a product of human activity (Crowe, 2000; Georgaca, 2004; U'ren, 2011). Culture is argued to profoundly shape the experience of the mental disorder as well as the expression of a disorder. Mental illness as a social construction is "...to deny its inevitability and to affirm its basis in the contingent social circumstances" (U'ren, 2011, p. 133). Generally, social constructionists imply that particular things could have been different and specifically imply that mental disorders are a result of historical, social, and cultural circumstance. Numerous examples may be offered to support these ideas. Murphy (2001) discussed the example of eating disorders and argued that the occurrence and prevalence of these disorders track western conceptions of female beauty. It is arguable that socio-cultural norms help to shape our beliefs about what constitutes physical beauty. These social constructions of physical beauty may not always align with what is realistic or healthy, and some individuals may be moved to pursue maladaptive strategies to strive for

physical beauty (e.g., severely restricting their diets, binging and purging, etc.). In this manner, evolving socially constructed beliefs about physical beauty may ultimately shape our constructions of mental illness. Social constructionists argue that these disorders may be better explained by understanding societal and cultural influences. Other examples include the previously diagnosable disorder of homosexuality, the current focus of Internet gaming disorder indicated for diagnostic consideration, and the current diagnosis of gender dysphoria, previously titled gender identity disorder (APA, 1972; 2013; Perone, 2014; Petry & Obrien, 2013; Pomerantz, 2014).

During the 1960s, an era of opposition to psychiatry emerged and many scholars within the social constructivist perspective seriously questioned the reality of mental illness (Foucault, 1965; Goffman, 1961; Perone, 2014; Scheff, 1967). Thomas Szasz (1961) problematized the factual status of mental illness and challenged the profession of psychiatry. Many scholars asserted that mental illness merely reflected deviation from social norms, which influenced the development of labelling and deviance theories (Goffman; 1961; Scheff, 1967). Sociologist Erving Goffman (1961) argued that the label of mental illness represented a way in which society tried to control non-conformists (Crowe, 2000; Perone, 2014). Further, it was asserted that institutions, while making claims of providing treatment to those diagnosed with mental illness, profoundly shaped the identity of someone with a mental disorder (Goffman, 1961; Perone, 2014). Others argued the label of a mental disorder resulted in a self-fulfilling prophecy (Scheff, 1967; 1984).

An even more extreme argument was proposed by Michel Foucault (1965), who suggested that our current understandings of mental illness have been created through normalizing oppressive regimes and historical occurrences. In *Madness and Civilization*,

Foucault (1965) questioned the very notion of what it means to be *mad*, illustrating how the construct of mental illness changed throughout history and reflected a particular time and place. According to Foucault (1965), dominant medical discourses have constituted our current conceptualizations of mental illness, evidenced by the DSM. Social constructivists assert that the “sophistication of these [mental illness] nosologies, the clinical and apparently objective nature of their diagnostic criteria, tends to obscure the complex institutional histories that enabled their production” (Nadesan, 2005, p. 30). This perspective associates our current beliefs about mental illness to historical occurrences, dominating scientific and medical discourse, and normalizing and oppressive regimes.

Given the epistemology of this position, reality is not factual but created. Currently, most of the mental illness debate is not whether mental illness exists, but how it is conceptualized (McNally, 2011). In many of the social approaches, finding truth in the subject matter is not the objective (Rogers & Pilgrim, 2010). Rather, questioning truth and subjectivity are its purpose. Examining mental illness through the social perspective results in a broadening of perspectives that opens up critical reflection and alternative points of view. Since ancient times, the biological explanations were central to mental illness yet, as research indicates, various social, cultural, and economic factors have influenced the construct of mental illness as it is understood today (U'ren, 2011). In this way the social perspective is important not simply to our current scholarship but for the continued awareness of our tendency to uncritically accept what is regarded as truth.

By acknowledging mental illness within a social context, one can begin to position mental illness as an issue for social justice and this helps explain the stigma associated with mental illness (Larson, 2008). As a result of understanding how society has largely influenced the cause, prevalence, and treatment of mental illness, it can be proposed that mental illness be

understood in the same light as the other forms of social disadvantage (Larson, 2008; Tew, 2005). This is not to dismiss advances in biological research that have produced unwavering evidence about the association between biology and mental illness but to increase understanding on the sociocultural forces impacting mental illness and acknowledge the complex history that has contributed to the development of mental illness. It is in this way that these social perspectives are necessary to consider when understanding the stigma related to mental illness.

### **Theoretical Models of Stigma**

Theoretical models of stigma stem from concepts found within the broad social perspective of mental illness. Historically, *stigma* is a term that can be traced to Ancient Greece and referred to a physical mark that was intentionally cut or burned in those considered to be social deviants, such as slaves and criminals, to signify a devalued social status (Bos, Pryor, Reeder, & Stutterheim, 2013; Goffman, 1963). Stigma was a physical scar of disgrace that communicated the person was contaminated, ruined, and should be avoided. While there is some variability in current understandings of the concept, generally stigma is no longer regarded as a mere bodily mark but an attribute symbolizing widespread social condemnation (Bos et al., 2013; Goffman, 1963). For example, stigma may be “visible or invisible, controllable or uncontrollable... linked to appearance (e.g., a physical deformity), behavior (e.g., child abuser), or group membership (African American)” (Major & O’Brien, 2005, p. 395). While stigma can apply to a vast array of circumstances, mental illness has been indicated to be one of the most stigmatizing positions (Overton & Medina, 2008).

Current understandings of stigma are rooted in Erving Goffman’s (1963) seminal book, *Stigma: Notes on the Management of a Spoiled Identity* (Bos et al., 2013; Link & Phelan, 2001). According to Goffman (1963), stigma discredits an individual, reducing him or her “from a

whole and usual person to a tainted, discounted one" (p.3). Goffman proposed that stigma "spoils [one's] social identity" and the impact is having a devalued and "discredited" identity (Goffman, 1963, p. 19). Most stigma scholars agree that stigma is not something inherent to an individual but an attribute that becomes stigmatized by society (Corrigan et al., 2001; Goffman, 1963; Jackson, 2011; Jones et al., 1984). Yet the cause of the stigmatization lies not in the attribute itself, but the meaning that gets constructed and then attached to the attribute (Thachuk, 2011). The meaning of the attribute is reflective one's culture and constructed through social contexts. It is based on this that Goffman stressed that stigma should be seen as a "language of relationships, not attributes" (Goffman, 1963, p. 3). In this way, stigma can be created through our language, discourse, and interactions. "Stigma does not merely reside within or attach to marked individuals... it is dialogical in nature" (Thachuk, 2011, p. 141).

Most definitions imply that the stigma related to mental illness results from shared attitudes formed through society's communication of dominant cultural norms (Corrigan et al., 2001; Goffman, 1963; Jackson, 2011; Jones et al., 1984). Both sociologists and social psychologists have contributed to conceptualizing the construct of stigma as related to mental illness. Based on a modified labelling theory, Link and Phelan (2001) have described a sociological stigma process that is contingent on power differences between certain groups. Corrigan et al. (2001) have proposed a social cognitive model of mental illness stigma and declare that stigma is the result of the application of stereotypes, prejudice, and discrimination (Corrigan, 2005; Overton & Medina, 2008). Rusch, Angermeyer, and Corrigan (2005) assert that both Link and Phelan's (2001) model and Corrigan et al.'s (2001) model are necessary in the conceptualization of stigma toward mental illness.

**Sociological Models:** Link and Phelan's (2001) mental illness stigma conceptualization

is based on a variation of labelling theory. Labelling theory has been foundational to the study of mental illness stigma; as such, a brief overview of this theory will be discussed. Labelling theory became prominent during the 1960s and 1970s following Goffman's scholarship of stigma (Link & Phelan, 2001; Scheff, 1984). This theory asserted that stigma was the result of a mental illness label. Once given a label of mental illness, the label associated the person with negative traits and behaviours indicating a devalued social status (Link, Cullen, Steuning, Shrout, & Dohrenwend, 1989). Labelling theory argued that the meaning of the mental illness was not inherent but rather socially constructed and those in positions of power could define, label, and then attach the negative characteristics to the label (Corrigan, 2005; Link et al., 1989; Scheff, 1984). For example, "some social groups (e.g., legislators and psychiatrists) have the power to impose definitions of what constitutes deviant behavior" (Corrigan, 2005, p. 130). This theory explained how power differences between certain groups were reinforced through labels of mental illness (Scheff, 1984). Psychiatry was then viewed as constructing mental illness through the use of labels; however, these assertions led to much criticism and contributed to the anti-psychiatry scholarship that erupted during the 1960s (Foucault, 1965; Szasz, 1961).

According to these early versions of labelling theory, a true underlying mental disorder was denied and the sustained problematic behaviours of mental illness were posited to be the result of the label given to the person (Link & Phelan, 2013). Theorists aligning with the labelling perspective indicated that "once a person is labeled, powerful social forces come into play to encourage a stable pattern of mental illness" (Link & Phelan, 2013, p. 526). The label was argued to be solely responsible for the social rejection and isolation experienced (Link & Phelan, 2013). Since a true disorder was denied and a label was seen to be the cause of mental

illness, numerous critiques and credibility concerns emerged regarding these early versions of labelling theory (Link et al., 1989).

Criticisms that resulted from the initial assertions of labelling theory led to the development of a modified version. Modified labelling theory differs from its predecessor in that it no longer claims that labels *cause* mental illness (Link et al., 1989). Rather, modified labelling theory focuses on how stigmatization impacts the course of mental illness. Likewise, the theory does not question the reality of mental illness but asserts that the stigmatization of the illness, caused by a label, led to prolonged symptoms of mental illness (Corrigan, 2005). Integral to this theory is that people develop conceptions, attitudes, and beliefs about mental illness in childhood (Jackson, 2011; Scheff, 1984; Wahl, 1999; Wahl & Aroesty-Cohen, 2010) and these attitudes toward mental illness become a “lay theory” about what it means to have a mental illness (Link & Phelan, 2013, p. 527). These attitudes are indicated to be the foundation for whether or not a person with mental illness will be rejected or devalued by society (Link & Phelan, 2013). Subsequently, stigmatization is posited to be a result of generally held stereotypical attitudes toward persons treated and labelled with a mental illness (Corrigan, 2005; Link & Phelan, 2013). In addition to being stigmatized by society, the person labelled with mental illness holds the same stereotypical societal attitudes, and therefore, will expect to be devalued and discriminated against and attempt to conceal their difficulty (Corrigan, 2005; Link et al., 1989). “The low sense of self, combined with reduced social and material resources increases stress, placing persons at risk for continued symptoms” (Corrigan, 2005, p. 134). Accordingly, the self-concept and social outcomes are negatively affected in a person labelled with a mental illness, which indirectly leads to sustained illness (Corrigan, 2005).

Based on this modified labelling theory, Link and Phelan (2001) further define the process of stigmatization from a sociological perspective and assert the process can be directly applied to mental illness. In this conceptualization, the definition of stigma involves the label of mental illness, the convergence of a number of interrelated components, and acknowledgement of the role of social, economic, or political power in the stigmatization process. The following outlines the components involved:

In the first component, people distinguish and label human differences. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics – to negative stereotypes. In the third, labeled persons are placed in distinct categories so as to accomplish some degree of separation of ‘us’ from ‘them.’ In the forth, labeled persons experience status loss and discrimination that lead to unequal outcomes. Stigmatization is entirely contingent on access to social, economic, and political power that allows the identification of differences, the construction of stereotypes, the separation of labeled persons into distinct categories, and the full execution of disapproval, rejection, exclusion, and discrimination. (Link & Phelan, 2001, p. 367).

Therefore, in Link and Phelan's (2001) process, “stigma exists when elements of labeling, stereotyping, separation, status loss, and discrimination co-occur in a power situation that allows these processes to unfold” (p. 382). It is further asserted that each of these components may be present to greater or lesser degrees. For example, labels can be more or less socially noticeable, reflect many or few stereotypes, and the extent of status loss and discrimination can vary (Link & Phelan, 2001). Important to the construct of stigma, this conceptualization clearly explains the concept of power in relation to different social groups. Minority status groups do not have the social power to inflict the same hurtful discriminatory stigma that a dominant status group has (Link & Phelan, 2001). For example, people with mental illness trying to discriminate against people without mental illness will not have the same negative impact because they are not the dominant social group. While these sociological perspectives have been highly influential to the understanding of mental illness stigma, social

cognitive psychological research has elaborated on the cognitive processes involved in the discrimination of those with mental illness (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003).

**Social Cognitive Model of Stigmatization.** Social psychology has identified three components to public stigma, which include cognitive, affective, and behavioural aspects (Overton & Medina, 2008). Public stigma is then conceptualized as a social process that involves the application of stereotypes (cognitive components), prejudice (affective components) and discrimination (behavioural components; Corrigan, 2005; Major & O'Brien, 2005; Overton & Medina, 2008; Rusch et al., 2005). This process begins with a cue (also referred to as a signal or sign), which denotes the social cognitive process of recognizing that something is different about a person (Overton & Medina, 2008). A cue has a much broader implication than a label and can take many forms. Specific to mental illness, Corrigan (2001) describes cues to be either a symptom associated with what is thought to represent mental illness, a skill deficit associated with what is thought to represent mental illness, one's physical appearance thought to represent mental illness, or the label of mental illness. Once a cue has been identified, stereotypes are activated.

The social cognitive model takes into account the cognitive process of categorization, central to understanding mental illness stigma (Corrigan, 2005). Any kind of pre-judgment or appraisal of a group of people (e.g., negative stereotypes, prejudice toward a group, etc.) implies the awareness and application of group distinction (Fiske, Gilbert, & Lindzey, 2010). This cognitive categorization process occurs due to the overwhelming amount of stimuli in the environment. Grouping environmental stimuli together into meaningful categories is necessary for remembering and recalling information (Corrigan, 2005; Heatherton et al., 2000). Similarly,

the complexity in social situations requires utilization of this cognitive categorization process (Corrigan, 2005; Schneider, 2004). Through this process, certain characteristics are assigned to a group of people and then those characteristics are applied to others who also belong to that group. For example, the category or group of mental illness may be created and then characteristics, such as crazy or dangerous, become associated with this group. These cognitive representations result in a common and shared perspective of those with mental illness (Corrigan, 2005; Fiske et al., 2010).

A stereotype of people with mental illness can be defined as a cognitive representation of a group that has been stored in memory (Corrigan, 2005; Macrae, Strangor, & Hewstone, 1996). Once developed, these cognitive representations have broad influences on a person's perception, including what to attend to and how additional environmental stimuli is interpreted and stored (Schneider, 2004). Stereotypes are often recalled and used to guide judgments and behaviour toward others (Macrae et al., 1996). These stereotypes are "represented as part of the social fabric of a society, shared by the people within that culture" (Macrae et al., 1996, p. 4). In this way, the cognitive representation is often a socially shared one and depicts individuals with mental illness as possessing certain characteristics and behaviours (Overton & Medina, 2008). The cognitive representations that people hold regarding those who become stigmatized can trigger negative emotional responses and behavioural reactions (Macrae et al., 1996; Nelson, 2009; Overton & Medina, 2008). Likewise, once stereotypes are activated, prejudice and discrimination can occur.

Prejudice occurs when negative stereotypes are endorsed (Brown, 2010; Rusch et al., 2005). Jackson (2011) denotes prejudice as a disrespectful attitude toward or a negative evaluative response to groups as a whole or toward individuals on the basis of their group

memberships. While prejudice is widely defined as a negative attitude, Allport's (1954) formative work has indicated prejudice may also be "felt or expressed" (as cited in Heatherton et al., 2000, p. 9). "Prejudice is an attitude, and like most attitudes, it is multifaceted, complex and fairly labile" (Schneider, 2004, p. 266). Further, prejudice means pre-judgment and implies assumptions are being made about others usually without having completely accurate information or knowledge. Heatherton et al. (2000) bring attention to the fact that stigma and prejudice are similar constructs. It is conveyed that a person who is stigmatized is almost always the target of prejudice (Heatherton et al., 2000). Given that both stigma and prejudice involve inescapable cultural ideas about the merit of different groups and are linked to inequality, it seems there is considerable overlap in the two constructs (Bos et al., 2013; Heatherton et al., 2000). While stigma encompasses prejudice, it also includes stereotypes and discrimination and therefore, represents a broader construct (Bos et al., 2013; Heatherton et al., 2000). Prejudice can either be overt or very subtle in its expression (Dovidio, Glick, & Rudman, 2005) and "...leads to discrimination as a behavioral reaction" (Rusch et al., 2005, p. 531).

Discrimination occurs as a result of prejudice and refers to a behavioural response such as a negative action directed toward a person with a mental illness (Corrigan, 2005; Corrigan & Penn, 1999; Nelson, 2009; Overton & Medina, 2008). An example of discrimination can include rejection or avoidance toward someone with mental illness because of the stereotypes and prejudice that exist about those with mental illness. Scholars have asserted a causal relationship between stereotypes, prejudice, and discrimination (Corrigan, 2005; Jackson, 2011; Nelson, 2009; Overton & Medina, 2008; Sensoy & DiAngelo, 2012) in that prejudice is activated from stereotypes and can result in discrimination. Sensoy and DiAngelo (2012) indicate that because "prejudice informs how we view others, it necessarily informs how we act towards them" (p. 34).

Even without overt behavioural discrimination, prejudice is communicated through nonverbal and subtle messages toward someone with mental illness (Jackson, 2011; Schneider, 2004).

Prejudice can be expressed in indirect ways, such as avoidance, disinterest, and disdain.

Remarkably, most prejudice results in discrimination of some kind whether it is very subtle or more direct (Corrigan, 2005). Given the fact that discrimination occurs when prejudice is acted on (Sensoy & DiAngelo, 2012), prejudice may be seen as the stimulus for the stigma of mental illness, resulting from stereotypes and leading to the discrimination of those with mental illness.

Therefore, to reduce the stigma of mental illness, efforts to intervene on the development of negative stereotypes that result in prejudicial attitudes are significant.

**Combining Theoretical Perspectives.** Social cognitive psychological literature has provided commanding contributions, advancing understandings of stigma, explaining the cognitive process of stigmatization, going beyond the label of mental illness, and explaining how stigma relates to prejudice, which is manifested in attitudes (Heatherton et al., 2000; Corrigan, 2005). Yet, as Rusch et al. (2005) have noted, several of Link and Phelan's (2001) concepts (e.g., creating *us versus them*, stereotyping, discrimination) can work within this model. The idea of social, economic, or political power being necessary for the discrimination of those with mental illness seems fundamental. Therefore, when both conceptualizations are combined, public stigma has been asserted to consist of “stereotypes, prejudice and discrimination – in the context of power differences and leads to reactions of the general public towards the stigmatized group as a result of stigma” (Rusch et al., 2005, p. 531).

In both conceptualizations it seems that decreasing the formation of stigmatizing attitudes and shaping positive, healthy attitudes toward those with mental health difficulties could be a hopeful intervention to reducing the stigma of mental illness (Byrne, 2000; Jackson, 2011;

Nelson, 2009). As stereotypes and prejudice manifest in attitudes, the study of stigma has involved examining attitudes about mental illness (Hinshaw & Stier, 2008; Jackson, 2011; Link et al., 2004). Through the study of attitudes, stereotypes and prejudice are often revealed (Wahl & Aroesty-Cohen, 2009). It is because of this that the attitude construct is fundamental to the study of stigma (Jackson, 2011; Link et al., 2004). Both sociological and social psychological conceptualizations assert that the cognitive, social, and cultural process of acquiring dominant attitudes occurs in childhood. As a result, it is important to examine stereotypical and prejudicial attitude formation as well as the relationship between attitudes and behaviour.

### **The Attitude-Behaviour Connection**

Interest in attitude research has been evident since the early 1920s and 1930s (Fiske et al., 2010). The study of attitudes has been central to social psychology “because of the importance accorded to attitudes as causes of individual phenomena such as attitude-consistent behaviour ... and discrimination” (Eagly & Chaiken, 1993, p. 1). Simply, attitudes were thought to predict behaviour. However, when some research studying the relationship between attitudes and behaviour found low attitude-behavior correlations, the attitude-behaviour assumption was questioned (Fiske et al., 2010). For example, Wicker (1969, as cited in Eagly & Chaiken, 1993) conducted a meta-analysis of 42 attitude-behaviour studies and results indicated that most studies did not find support for strong attitude-behaviour relations. Wicker’s results were highly criticized mainly because most of the studies that were included in his research were conducted in an artificial laboratory setting (Eagly & Chaiken, 1993). Eagly and Chaiken (1993) indicated that attitude-behaviour studies that followed Wicker’s meta-analysis seemed to maintain a pattern of significant, positive, and moderately strong attitude-behavior connections. For example, Shuman and Johnson (1976, as cited in Eagly and Chaiken, 1993) concluded that most

of the attitude-behaviour research discovered significant relationships between attitudes and behaviour, although the magnitude of these relations varied. This early research revealed that the attitude-behaviour association was much more complex than was originally thought. More recently, there has been a great deal of attention focused on when attitudes predict behaviour and when they do not (Glasman & Albarracin, 2006; Maio & Haddock, 2010; Petty, Fazio, & Brinol, 2009).

Most current scholars accept that attitudes do impact behaviour, but it is also necessary to understand the factors involved (Maio & Haddock, 2010). Research has indicated direct experience with an attitude-object, such as having direct experience with someone with a mental illness, and possession of substantial information about that attitude object are aspects related to whether an attitude will predict behaviour (Maio & Haddock, 2010). Additionally, Holland, Verplanken, and van Knippenberg (2002, as cited in Maio & Haddock, 2010) found that the strength of the attitude is crucial. Researchers have identified that strong attitudes are more likely to influence behaviour and weak attitudes are more likely to result from behaviour (Crano & Prislin, 2006; Maio & Haddock, 2010). A few other factors identified in research that were found to impact the attitude-behaviour association include: accessibility of the attitude; personality differences; correspondence of the attitude measure (implicit and explicit attitudes relate to different types of behaviours); and the type of behaviour one is trying to predict (e.g., attitude predicting the behaviour of voting versus attitude predicting the behaviour of exercising; Petty et al., 2009; Maio & Haddock, 2009).

Several theories (i.e., theory of reasoned action, theory of planned behaviour, motivation and opportunity as determinants of behaviour) have been developed and assist social psychologists in understanding the association of attitudes to behaviour (Ajzen, 2011; Madden,

Ellen, & Ajzen, 1992; Petty et al., 2009). The theory of reasoned action asserts that intentional behaviour is the causal relationship between attitudes, behavioural intentions, and subjective norms (Eagly & Chaiken, 1993; Petty & al., 2009). Very simply stated, a person's attitude, along with subjective norms, forms behavioural intentions and, in turn, influences behaviour. Specific to mental illness, a negative attitude toward mental illness, in addition to how a person believes they will be perceived by others, influences a person's behavioural intention and results in the behaviour (Madden et al., 1992). The theory of planned behaviour builds on the theory of reasoned action by adding the perception of behavioural control as another determinant for behaviour (Ajken, 2011). Yet these theories only elucidate intentional and voluntary behaviour whereas other scholars have indicated some behaviour to be spontaneous (Petty et al., 2009). The Motivation and Opportunity as Determinants of Attitude-Behaviour (MODE) model accounts for both intentional and spontaneous behaviour.

The MODE model indicates two different ways in which attitudes can impact behaviour (Petty et al., 2009). This model suggests that attitudes can influence behaviour in both deliberate and spontaneous ways, in which the difference between the influence of explicit and implicit attitudes is important (Petty et al., 2009). If individuals have both sufficient motivation and opportunity (e.g., time), their decision to act will be deliberate and the consideration of their explicit attitudes, as well as other available information, will have occurred (Maio & Haddock, 2009; Petty et al., 2010). If either motivation or opportunity is unavailable an automatic process, as opposed to a deliberate one, occurs. Under these circumstances, an implicit attitude becomes automatically activated and prompts behaviour consistent with the attitude. This model explains how both deliberate and spontaneous behaviours are influenced by attitudes and the differences between explicit and implicit attitudes are significant in this regard (Petty et al., 2010).

Explicit attitudes are deliberately formed, obvious, and at the conscious level whereas implicit attitudes are at the unconscious level, involuntarily formed, and are typically unknown to people (Fiske et al., 2010; Greenwald, McGhee, & Schwartz, 1998; Maio & Haddock, 2010). As a result of these differences, it is possible and even common for an explicit attitude and an implicit attitude to contradict each other (Petty et al., 2009; Stull, McGrew, Salyers, & Ashburn-Nardo, 2013). For example, a person may hold an explicit attitude that people with mental illness should have equal opportunities representing an attitude that does not condone any type of discrimination. A strong explicit attitude is evident in this example and can be easily shared with others. However, in the same situation, that person may be uncomfortable or try to avoid someone who is exhibiting signs indicating they have a mental illness. Implicit attitudes may develop without conscious awareness and are rooted in childhood experiences (Fiske et al., 2010). Indirectly and in subtle ways, behaviour and actions can be impacted (Jackson, 2011; Petty et al., 2009;). While on a conscious level a person may hold a positive attitude toward mental illness, but on a subconscious level a person may believe people with mental illness are dangerous and to be feared. In this way, measures of implicit and explicit attitudes may not correlate because they measure different things. Consequently, explicit and implicit attitudes may predict different types of behaviours (Fiske et al., 2010). With increased attention to mental illness and anti-stigma campaigns, people have become more aware of socially desirable attitudes that encourage non-discriminatory behaviours toward those with mental illness. However, implicit attitudes may still be evident and can impact behaviour toward those with mental illness in subtle ways (Greenwald et al., 1998; Maio & Haddock, 2009; Petty et al., 2009). Given the fact that implicit attitudes are hidden and subtle, implicit attitudes may explain how negative attitudes toward mental illness, stereotyping, and prejudice are maintained, despite

many efforts to reduce mental illness stigma. Explicit attitudes have been more commonly studied while implicit attitudes have only recently been explored in research examining the stigma of mental illness (O'Driscoll, Heary, Hennessy, & McKeague, 2012; Teachman, Wilson, & Komarovskaya, 2006).

Predicting behaviour from attitudes involves various factors and there is more to elucidate about this relationship. However, several studies have revealed that attitudes do influence behaviour (Cook, Tankersley, & Cook, 2000). Demirkiran and Eskin (2005) found that positive explicit attitudes toward mental illness increased the likelihood that nurses and doctors would engage in more positive and therapeutic interactions with patients experiencing mental illness. Peris, Teachman, and Nosek (2008) illustrated how negative attitudes in mental health professionals resulted in assigning a poorer prognosis and more mental illness diagnoses to those with certain mental health difficulties. Additionally, research has indicated that when an attitude is held that identifies a mental health condition to be unmanageable, mental health professionals tend to elicit higher levels of anger and are more unwilling to assist (Weiner, Perry, & Magnusson, 1988). Similarly, in a sample of teachers, Stanovich and Jordan (1998; 2003) have found strong attitude-behaviour relations between teachers' epistemological beliefs of students' learning and behavioural problems and the corresponding teaching behaviour toward those students. Teaching practices differed on the basis of their particular epistemological attitude (Stanovich & Jordan, 1998; 2003).

Overall, although the association of attitudes to behaviour is much more complex than can be outlined here, attitudes remain important to consider in understanding behaviour and the discrimination that occurs from mental illness stigma. Since stereotypes, prejudice, and discrimination have been indicated to be causally related, the fact that discrimination can include

both very subtle and explicitly overt expressions, and the fact that much of the attitudinal research supports the connection to behaviour under various conditions, examining explicit stigmatizing attitudes toward mental illness has been the most widely utilized approach in research to study the stigma of mental illness (Hinshaw & Stier, 2008; Link et al., 2004).

### **The Formation of Prejudicial and Stereotypical Attitudes**

#### **Social Learning Theory**

As has been indicated, attitudes reflect societal and cultural norms and relate to the discrimination of those with mental illness. Attitudes begin to develop in childhood where research has identified that “negative attitudes to people with mental illness start at playschool and endure into early adulthood” (Byrne, 2000, p. 67). Social learning theory focuses on how children come to internalize and accept the attitudes of the culture in which they are raised and asserts that these attitudes are primarily formed from the people in the living environment (i.e., socialization agents) through socialization (Bandura, 1977; Grusec, 1992; Jackson, 2011). In fact, it is asserted that every interaction in our environment teaches what to accept and what to reject (Bandura, 1977; Sensoy & DiAngelo, 2012). This is accomplished in various ways including direct instruction (e.g., overt expressions of attitudes), by observing role models (e.g., witnessing an affective response toward someone with a mental illness) and by experiencing positive or negative consequences of early expressions of an attitude (e.g., how a teacher might react to a stereotypical joke or an act of bullying, etc.; Brown, 2010; Jackson, 2011). Attitude formation can be either an unconscious or a conscious process (Eagly & Chaiken, 1998) and occurs through cognitive, affective, or behavioural mediums (Maio & Haddock, 2009). The cognitive category contains thoughts that people have about a person with mental illness (attitude object), the affective category consists of feelings or emotions people have in relation to a person

with mental illness, and the behavioural category encompasses people's actions toward a person with mental illness (Eagly & Chaiken, 1998).

A cognitive learning process occurs when people gain information about the attitude object that results in the formation of beliefs about that object (Schneider, 2004). Likewise, the cognitive component represents thoughts or ideas about a person with mental illness. These beliefs are understood to be associations that people establish between a person with mental illness and various attributes and can occur on a continuum of positive or negative beliefs (Corrigan, 2005). This cognitive learning process is also an example of how cognitive representations and stereotypes form (Schneider, 2004). Both direct and indirect experience can provide information for the development of beliefs (Eagly & Chaiken, 1998). For example, a role model giving a direct message that people with mental illness are dangerous is an example of how a cognitive representation may be formed and teaches a child how to think about those with mental illness. Alternatively, one may learn indirectly through media portrayals about those with mental illness. While both indirect and direct experiences result in the formation of attitudes, research has indicated that stronger attitudes seem to form by having direct experiences (Maio & Haddock, 2009).

Attitudes can be formed on the basis of affective experiences, and the classical conditioning model is one way to explain how this can occur (Corrigan, 2005; Maio & Haddock, 2009; Petty et al., 2009). According to the classical conditioning model, prejudice against a social group is shaped by socialization experiences that repeatedly pair an aversive stimulus with the social group (e.g., observing a socialization agent's facial expression during contact with someone with mental illness; Corrigan, 2005). From this perspective, attitude development is the result of an observed or experienced affective reaction elicited toward the attitude object.

Feelings, moods, emotions, and sympathetic nervous system activity that result in a response to a person with mental illness are examples of an affective response that can form an attitude (Eagly & Chaiken, 1993). Research has indicated that observing affective nonverbal signs of prejudice such as avoiding eye contact or showing nervous behaviours when interacting with members of a group who is stigmatized can be powerful to the development of attitudes toward a certain group (Jackson, 2011). For example, observing a socialization agent's disdain, scowl, or other sign of discomfort toward a person with mental illness will likely result in a child learning similar feelings of discomfort. Another example might include a frequent encounter with a homeless person who has been indicated to have mental illness. Given homelessness generally represents an unpleasant context, a person with mental illness may be associated with an unpleasant feeling (Corrigan, 2005; Eagly & Chaiken, 1993). Media exposure can also contribute to developing affective responses that translate into attitudes toward mental illness (Schneider, 2004).

Learning theorists have also described attitude formation as a result of the observation of behavioural responses to those with mental illness (Eagly & Chaiken, 1993). Simply, the behavioural learning medium consists of overt actions that people exhibit in relation to the attitude object. For example, observing the way a person with mental health problems is treated by others can result in the formation of the attitude. As with cognitive and affective learning mediums, a range of extremely positive to extremely negative reactions can exist for these behavioural appraisals (Eagly & Chaiken, 1993). Attitudes can be formed primarily or exclusively on the basis of any one of the three types (cognitive, affective, or behavioural) of learning process.

In terms of the age when the development of attitudes occurs, research about race and gender provides evidence that children are aware of racial and gender categories between four

and six years of age (Jackson, 2011). Studies specific to mental illness have indicated that by age six or seven, children have already developed an idea of characteristics that align with the category of mental illness (Adler & Wahl, 1998; Fox, Buchanan-Barrow, & Barret, 2010). Specifically, these attitudes characterize people with mental illness as less attractive than individuals with other disabilities and lead to a desire for greater social distance from individuals with mental health problems (Spitzer & Cameron, 1995; Weiss, 1986). Once an expectancy of what mental illness is or how those with mental illness should be treated exists, the social psychological process of expectancy confirmation begins (Corrigan, 2005). The environment is scanned for evidence to confirm initial expectations for the social group in question. This of course, can result in an inaccurate and biased attitude toward a certain group of people (Corrigan, 2005).

While the formation of attitudes is a dynamic process and not unidirectional (e.g., adult to child), the environment and specifically socialization agents have a tremendous influence (Bronfenbrenner & Morris, 2007; Eagly & Chaiken, 1993). A few of these socialization agents include parents, teachers, peers, and media sources (Schneider, 2004). In many cases, children may learn attitudes from adults who do not realize they are communicating a message (Petty et al., 2009). Research has indicated that although parents have a powerful influence in early childhood, once children enter the school system it is their role models within the school (e.g., teachers, principals) and their peers that also have a very strong influence (Bronfenbrenner & Morris, 2007; Jackson, 2011; Schneider, 2004). Ecological models highlight environmental influences in a child's development, where parents as well as teachers are in the child's microsystem (Bronfenbrenner & Morris, 2007; Krishnan, 2010).

### **Teachers as Socialization Agents**

Highlighted through social learning theory, and further supported through ecological models, teachers are one of the strongest socialization agents for children and have an influential role in the development of all attitudes, including those about mental illness (Bandura, 1977; Bronfenbrenner & Morris, 2008; Krishnan, 2010; Schneider, 2004). Previous research has investigated the nature of stigmatizing attitudes about mental illness in different professions including psychiatry, medicine, psychology, social work, and professional counselling (Schafer, Wood, & Williams, 2011; Schultz, 2007; Smith & Cashwell, 2011). Since most of these professionals work directly with those who are experiencing mental health problems and are responsible to guide others in mental health treatment, research findings about the attitudes these professionals have about mental illness have been invaluable. Although most findings indicate mental health professionals hold primarily positive attitudes toward those with mental illness, a few studies have uncovered stigmatizing attitudes among professionals working in the mental health profession (Schultz, 2007; Wahl & Aroesty-Cohen, 2009). The awareness of these stigmatizing attitudes have been helpful for these professions in developing interventions that may be useful in changing the stigmatizing attitudes uncovered.

The profession of teaching has received very little attention in research examining attitudes toward mental illness. In one study conducted over 40 years ago, Bentz, Edgerton, and Miller (1971) compared teachers' attitudes to public attitudes toward mental illness and mixed results were reported. While the general public expressed old stereotypical beliefs about the causes of mental illness, teachers reflected more contemporary understandings. However, the general public did appear to be more positive than teachers about the likelihood of individuals with a mental illness recovering with treatment.

Considering most mental health problems have their onset earlier in life, the teachers and peers of children and adolescents experiencing these difficulties will often be the first to observe early signs and symptoms of an emerging mental health problem (Kessler et al., 2007). Studies examining the experiences of children and adolescents with mental illness highlight the importance of the school environment and the teacher's influence (Corrigan, Demming, Goldman, Slopen, Medasani, & Phelan, 2005). For example, Kranke and Floersch (2009) explored the lived realities of adolescents with mental health difficulties and reported that they experienced ostracism from peers, social exclusion, and unsympathetic teachers. Swords, Heary, and Hennessy (2011) examined the most helpful factors to reduce the stigma of mental illness for children and adolescence experiencing a mental health problem. Overall, results revealed that creating a peer environment that is inclusive and accepting is crucial to reducing the experience of stigma. Furthermore, teachers are instrumental in creating environments conducive to acceptance, as well as being a commanding influence, modeling positive attitudes and behaviours regarding mental illness (Samargia, Saewyc, & Elliot, 2006).

It is widely accepted that teachers are in a unique position to shape attitudes about mental illness and to create an accepting environment that may ultimately reduce the stigma of mental illness (Froese-Gemrain & Riel, 2012; Koller, Osterlind, Paris, & Weston, 2004; Loades & Mastroyannopoulou, 2010; Lumpkin, 2008). However, research that has focused on teachers' perceptions of their ability to work with students with mental illnesses has indicated that teachers often feel inadequately prepared to work with students with mental health needs (Repie, 2005; Rothi, Leavey, & Best, 2008). Additionally, teachers' comfort and knowledge in dealing with students' mental health challenges is reportedly low (Daniszewski, 2013). There is disagreement about whether this should be a role for teachers because of the lack of resources and so many

other competing demands (Froese-Germain, & Riel, 2012). Despite these debates, teachers are in a position that will inevitably influence their students' conceptions, attitudes, and beliefs toward mental illness. In this way, examining teachers' attitudes toward those with problems of mental health seems fundamental.

### **Factors Associated with Attitudes Toward Mental Illness**

Research exploring stigma has examined attitudes toward mental illness and identified three main factors that appear to be linked with stigmatizing attitudes. These factors include: a) educational opportunities about mental illness; b) beliefs about the causes of mental illness; and c) levels of personal contact with individuals who have a mental illness. Investigating these factors in relation to teachers' attitudes toward mental illness will be important as findings could reveal professional development needs or other aspects that could be helpful to increasing positive attitudes about mental illness. The following summarizes the research related to factors associated with stigmatizing attitudes toward mental illness.

#### **Previous Education**

As indicated in attitude development theory, receiving information about the attitude object is one way that attitudes form (Schneider, 2004). Since negative attitudes toward mental illness often reflect biased cognitive representations (i.e., stereotypes), providing accurate education about an attitude object may help in the formation of realistic and positive attitudes (Schneider, 2004). In this way, it has been widely believed that inaccurate information or a lack of knowledge about mental illness contributes to stigmatizing attitudes and several studies have examined this (Franze & Paulus, 2009; Rusch et al., 2005; Smith & Cashwell, 2010). Feldman and Crandall (2007) found that the less information a person had about mental illness, the more stigmatizing the attitudes and the less social acceptance for people with mental health problems

resulted. Moreover, education has been found to diminish stigma by providing information and increasing people's knowledge about mental illness (Overton & Medina, 2008).

Anti-stigma campaigns are also grounded in the notion that more education on mental illness would result in less stigmatizing attitudes (Cheek, 2013; Corrigan & Watson, 2012). Further, it is generally believed that people who have more knowledge about mental illness are less likely to endorse stigma and discrimination. There are a number of studies that have found positive attitude change in people of all ages following an educational intervention about mental health (O'Mara, Meuller, Browne, Akhtar, Danesh, Hoy, & Vrklijan, 2009; Wahl & Aroesty-Cohen, 2009; Watson et al., 2004). As such, brief educational courses about mental illness have been shown to reduce stigmatizing attitudes among a variety of groups (Conrad, Dietrick, Heider, Blume, Angermeyer, & Riedle-Heller, 2009; Franze & Paulus, 2009). For example, Esters (1996) provided an instructional unit on mental health to students in a rural high school. Both attitudes toward mental illness and attitudes toward seeking psychological help were measured. There were two groups in the study, one receiving the instruction about mental health (the intervention group) and a second group who did not receive instruction (control group). A significant difference between the two groups was found on the attitudes measured. The intervention group reported greater willingness to seek psychological help if necessary and held more positive attitudes toward mental illness. The positive changes that were linked to the instruction were maintained at a twelve-week follow-up assessment.

Based on these findings, one would expect that professionals working in the mental health field would have more positive attitudes toward mental illness because of the extensive education about mental illness that is required to work in this field. Smith and Cashwell (2010) compared attitudes toward mental illness in groups of mental health professionals to groups of

non-mental health professionals. They hypothesized that, as a result of the extensive mental health education, the group of mental health professionals would report wanting less social distance (a measure of stigma) toward individuals who have a mental illness, representing more positive attitudes. As expected, the results of this study revealed that non-mental health professionals did report a desire for more social distance than those professionals associated with the mental health field. Moreover, non-mental health professionals held more negative attitudes, as indicated in their desire for greater social distance toward those with mental illness. This finding provides further support that education about mental illness may have a positive effect on reducing the stigmatizing attitudes about mental illness.

Most studies examining the attitudes of mental health professionals about mental illness have yielded similar findings (Schultz, 2007; Wahl & Aroesty-Cohen, 2009). Wahl and Aroesty-Cohen (2009) reviewed 19 studies that investigated attitudes toward mental illness in mental health professionals and the majority confirmed that mental health professionals held more positive attitudes. In fact, 14 of the 19 studies revealed more positive attitudes held by mental health professionals when compared to the general public. However, a concerning result was noted when 5 of the 19 studies revealed predominantly negative views held by mental health professionals and, out of the 14 studies revealing overall positive results, some negative attitudes were still present. This pattern was also found in a similar review conducted by Schultz (2007).

Considering these findings it seems reasonable to postulate that education about mental illness has yielded an overall positive impact in changing stigmatizing attitudes toward mental illness, but some exceptions have certainly been noted (Schultz, 2007; Wahl & Aroesty-Cohen, 2009). Nevertheless, the awareness of these exceptions within certain groups has been helpful in developing focused interventions designed to increase positive attitudes toward mental illness. In

this way, examining teachers' previous education about mental illness in relation to their attitudes toward mental illness will be important. The exceptions noted in the research points to the need to examine other factors that may be related to attitudes about mental illness.

### **Level of Contact**

Education about mental illness is not the only factor that has been hypothesized to be related to attitudes toward mental illness. Attitude theory suggests that direct experience with the attitude object will result in stronger attitudes and greater attitude-behaviour association (Maio & Haddock, 2009). A number of studies have indicated that the closer the relationship one has to a person with a mental illness, the less stigmatizing the attitudes (Alexander & Link, 2003; Corrigan et al., 2001; Eack, Newhill, & Watson, 2012; Wallach, 2004). This factor, representing differing personal experiences with someone with a mental illness, is referred to as the level of contact. Eack et al. (2012) examined the degree to which increased knowledge about and increased contact with individuals diagnosed with schizophrenia impacted attitudes toward people with the disorder in graduate level social work students. The students received educational instruction on how to work with clients with schizophrenia and other severe mental illnesses. Pre-post measures of knowledge, attitudes, and the amount of contact with people with a severe mental illness were completed. Results did reveal a significant improvement in student knowledge and general attitudes toward people with a severe mental illness after the course. However, it was found that increased knowledge about schizophrenia was related to general attitudinal improvement only when accompanied by increased personal social contact (Eack et al., 2012).

Similarly, Korszun, Sokratis, Kamran, and Kamaldeep (2012) found that medical students who had a personal experience with a mental health problem or those who had a family

member who had a mental health difficulty were less likely to hold stigmatizing attitudes about people with mental illness. Furthermore, Covarrubias and Han (2011) found that students in social work who had more personal levels of contact with someone identified to have a mental illness endorsed more positive attitudes, such as greater optimism for treatment outcomes and less desire for social distance.

Alexander and Link (2003) examined the relationship between the level of contact with someone with a mental illness and stigmatizing attitudes toward mental illness using data from a nationally representative sample. A subsample was chosen and participants were read a vignette of a person with mental illness. Following the vignette, the participants were asked to complete an attitudinal measure of social distance and to indicate the perceived dangerousness of the person in the vignette. The level of previous contact with someone with a mental illness was also measured using various examples of types of contact. Specifically, participants were asked to indicate whether they have had a personal experience being treated for mental illness, a first degree relative who was treated for mental illness, another relative who was treated for mental illness, a spouse or close friend treated for mental illness, worked or volunteered in a mental health setting, visited a psychiatric hospital, or simply seen someone in public place who seemed like he/she had a mental illness. Results indicated that as the contact level became more personal (i.e., personal experience or first degree relative) the perceived dangerousness and desire for social distance decreased. It was concluded that the level of contact was a significant predictor of stigmatizing attitudes even when controlling for other variables. Similarly, Read and Law (1999) found that strongest influence on an individual's attitude, both before and after education about mental illness, was the level of contact (as indexed by the number of people the respondent knew

with a psychiatric history). This literature points to the importance of examining teachers' level of contact with someone with a mental illness in relation to their attitude toward mental illness.

### Causal Beliefs

Beliefs about the causes of mental illness have been linked to the overall prejudice and discrimination experienced by those with a mental illness (Angermeyer & Matschinger, 2005; Deitrick, Beck, Bujantugs, Kenzine, Matschinger, & Angermeyer, 2004; Mannarini & Boffo, 2013; Phelan, 2005; Read & Harre, 2001; Read & Law, 1999). Moreover, the literature suggests that beliefs about the causes of mental illness may influence the degree to which people reject others with mental illness, as well as have an impact on the desire for greater social distance. Historical beliefs about mental illness indicated that the public thought of mental illness as being the product of moralistic explanations, such as "God's will," "lack of moral strength," and "bad character" (Bentz et al., 1971). These beliefs were thought to increase stigmatizing attitudes about mental illness. As a result, the content of educational efforts have included disseminating information on the causes of mental illness.

Many educational programs designed to decrease stigmatizing attitudes have been developed around the traditional and dominant view of mental illness, the main message reflecting a strict biological etiology that is reflective of the medical model (Cheek, 2013; Corrigan & Watson, 2004; Phelan, 2005; Thachuk, 2011). These efforts have indicated success in changing the public's old stereotypical beliefs about the etiology of mental illness (Corrigan, 2005). Research has found that individuals are now more likely to attribute the cause of mental disorders to "chemical imbalances" and "genetic factors" than earlier reported (Corrigan, 2005). The notion that *mental illness is like any other illness* was assumed to reduce the amount of shame and blame associated with mental illness and was anticipated to normalize public

perceptions of mental illness (Luty, Easow & Mendes, 2011; Read & Harre, 2001). Interestingly, some research has revealed that biological causal beliefs have been associated with increased desire for greater social distance and negative attitudes toward mental illness (Corrigan, Watson, Byrne, & Davis, 2005; Dietrich, Matschinger, & Angermeyer, 2006; McKechnie & Harper, 2011).

Read and Law (1999) assessed attitudes toward mental illness both before and after four lectures on the causes of mental illness. Results indicated that biogenetically oriented participants characterized people with a mental illness as unpredictable and dangerous and were more likely to fear them and avoid interacting with them. These results may suggest that while beliefs endorsing a biological explanation for mental illness seem to dismiss the perception of a person's individual responsibility, a biological explanation may also denote a lack of control over the mental disorder (Read & Harre, 2001). It is possible that believing a person lacks control over their difficulty may actually increase negative attitudes toward individuals with mental health difficulties. This perceived lack of control may infer unpredictability and the inability to be treated (Read & Harre, 2001).

Although research has indicated more stigmatizing attitudes have resulted from beliefs reflecting an extreme biological explanation of mental illness, research has not clearly shown that more positive attitudes result from psychosocial causal beliefs about mental illness (Corrigan, 2005; McKechnie & Harper, 2011; Read & Harre, 2001). For example, Read and Harre (2001) examined the role of biological and genetic causal beliefs in the stigmatization of mental patients in 469 New Zealanders. The study revealed that the greater belief in biogenetic causes, the more negative the attitude toward people with a mental illness. Intriguingly,

psychosocial causal beliefs were insignificant, and therefore not associated with either positive or negative attitudes toward mental illness.

Specific to teachers, Stanovich and Jordan (1998; 2003) have investigated teachers' beliefs on the causes of students' learning and behavioural problems. In these studies, teachers' beliefs were assessed on a continuum between pathognomonic and interventionist causes. Pathognomonic beliefs were described similarly to a strict biological and medical approach to explain illness and further suggest the student's problem to be indicative of disease. Therefore, the problem is characterized as pathologically based. The educational practices in teachers that endorsed these beliefs have been found to include few or no interventions, little interaction with other school resources, and minimal parental contact. Teachers evidencing pathognomonic beliefs were negative about inclusive classrooms and believe that systemic measures should reduce such diversity. On the opposite end of the continuum, teachers that held more interventionist beliefs had attitudes that accepted classroom diversity and believed the interaction between the student and the environment could assist with the students' difficulties. Teachers with these beliefs made significant efforts at classroom interventions that were collaborative and team-based, linked assessment procedures with teaching practices, and had regular communication with parents. As such, it seems that attitudes reflecting the causes of problems as strictly biological, medical, and pathologically based resulted in ineffective teaching behaviours. With these implications, the importance of exploring teachers' attitudes about the causes of mental illness is evident (Stanovich & Jordan, 1998; 2003).

Overall, biological explanations for mental illness do not seem to be linked to improved social tolerance toward those experiencing mental illness (McKechnie & Harper, 2011) and most research has indicated biological causal beliefs to increase stigmatizing attitudes (Corrigan et al.,

2005; Dietrich et al., 2006; McKechnie & Harper, 2011; Read & Harre, 2001; Read & Law, 1999; Rusch et al., 2005; Van't Veer et al., 2006). Research on teachers' attitudes about the causes of students' learning and behavioural problems directly relate to differential teaching practices (Stanovich & Jordan, 1998; 2003). Of concern, those with beliefs similar to an illness model exhibit an ineffective and unsuccessful teaching approach. In this way, it is necessary to examine teachers' beliefs about the causes of mental illness.

### **Demographic and Descriptive Considerations**

Other factors considered in relation to attitudes toward mental illness were demographic variables. Yet, studies have found inconsistent results when demographic factors are considered (Hogberg, Magnusson, Lutzen, and Ewalds-Kvist, 2010; Smith & Cashwell, 2010). For example, in several studies gender has been found to be a main effect in understanding attitudes towards mental illness (Hogberg et al., 2010; Phelan & Basow, 2007; Smith & Cashwell, 2010). These studies indicate that men wanted more social distance and held more prejudicial attitudes toward those with mental illness when compared to women. Other studies (Goodear, 1985; Leong & Zachar, 1999; Read & Harre, 2001) have found no significant differences between men and women regarding attitudes toward mental illness. Some studies suggested that age and education levels impact attitudes toward mental illness (Hogberg et al., 2012; Van't Veer et al., 2006). Results suggested the younger in age and the higher the education level the less stigmatizing attitudes toward mental illness (Hogberg et al., 2012; Van't Veer et al., 2006). However, contradictory results have been reported, and the association of these variables to stigmatizing attitudes toward mental illness is modest at best (Van't Veer et. al., 2006) thus warranting further exploration.

**Research Methods in Studies Exploring Stigmatizing Attitudes toward Mental Illness**

The stigma of mental illness has been studied since the early 1950s and the literature indicates both quantitative and qualitative efforts. There are different types of stigma (i.e., public, self, association stigma, and structural stigma) and several different components of stigma (i.e., emotional reactions, stereotypes, prejudicial attitudes, discriminatory behaviours) which has resulted in various methodologies and measurement tools to assess stigma (Corrigan, 2005; Link et al., 2004). In the quantitative realm, designs have included experimental and survey (non-experimental) research approaches. Within the qualitative area, various methods such as ethnography, grounded theory, and phenomenology have been evidenced using observation and interviews to understand the lived experience of someone with a mental illness (Corrigan, 2005; Link et al., 2004). A cross-sectional correlational survey method was most suitable for the present study investigating teachers' stigmatizing attitudes toward mental illness and factors impacting these attitudes.

Reviewing past research on attitudes toward mental illness, population-based survey designs have been helpful to increasing information on the stigma of mental illness (Alexander & Link, 2003; Phelan, Link, Stueve, & Pescosolido, 2000; Schomerus et al., 2012; Song, Chang, Shih, Lin, & Yang, 2005; Wahl & Aroesty-Cohen, 2010). Survey research is generally conducted to describe a population and to explore relationships between variables. From information gathered in a survey, the researcher can make assertions about the population (Corrigan, 2005). One of the major purposes of survey research, and its greatest strength, is to provide estimates of a population from appropriate samples of that population (Cresswell, 2009). A non-experimental survey design allowed for a quantitative exploration and description of features (e.g., attitudes,

trends, behaviours) achieved by studying a sample of the population (Cresswell, 2009; Fowler, 2002).

In studies that explored the stigma of mental illness, surveys were used for a number of reasons including to describe the general public's attitudes and beliefs toward mental illness, to describe trends in attitudes toward mental illness, to explore a specific population's (e.g., mental health professionals) attitudes toward mental illness, and to test theories that specify relationships among variables (Angermeyer & Dietrick, 2006; Corrigan, 2005; Schomerus et al., 2012; Smith & Cashwell, 2011; Van't Veer et al., 2006). While it is acknowledged that survey research cannot replicate the level of control possible in experimental designs, it usually allows for information from a greater number of participants and can include wide-ranging questions on one particular topic, thus facilitating the collection of broad-based information (Cresswell, 2009; Link et al., 2004).

Overall, there are several strengths for this type of research in relation to the stigma of mental illness. A large amount of diverse information can be obtained for the topic of interest within a particular population (e.g., general public or mental health professionals). The survey research design has also been indicated to possibly reduce researcher bias because there is no observation necessary (Cresswell, 2009). Additionally, the development of web-based surveys has allowed participants greater anonymity and it is possible that this may even decrease social desirability responding as compared to other types of survey modalities (i.e., telephone or in-person questionnaire administration; Cresswell, 2009). A survey is a very convenient way to access information and facilitate the exploration of several different variables in one survey design (Link et al., 2004). It is, however, recommended that close attention be paid to the questioning, the appropriateness of measures used, the administration procedures, and the

response rate as each of these can limit the generalizability and strength of the results, which can sometimes lead to false conclusions (Corrigan, 2005).

### **Summary**

Understanding historical perspectives of mental illness helps to explain our current view of mental illness. The social perspective and related stigma theories conceptualize stigma as a social process that functions to devalue groups of people on the basis of certain characteristics (Link & Phelan, 2001; Corrigan et al., 2001; Livingstone, 2013). The sociological and social cognitive stigma theories help explain that the process of stigmatization toward those with mental health problems occurs from negative stereotyping, prejudicial attitudes, and results in discrimination while in the context of a power situation (Goffman, 1963; Corrigan et al., 2001; Link & Phelan, 2001; Rusch et al., 2005).

Theories of stigma related to mental illness indicate how stigma manifests in negative attitudes, which are reflected in stereotypes and prejudice (Corrigan et al., 2001; Jackson, 2011). In this way, attitudes toward mental illness are central to the study of stigma (Link et al., 2004). Since prejudicial attitudes develop in childhood and socialization agents directly and indirectly influence attitudinal development, preventative efforts to intervene on the development of stigmatizing attitudes seem hopeful (Brown, 2010; Corrigan, 2005; Schneider, 2004). Teachers have been identified as effective socialization agents, and as a result, they have the potential to influence the development of more positive attitudes toward mental illness through their role in a child's life (Bronfenbrenner & Morris, 2007; Froese-Germain & Riel, 2012; Jackson, 2011; Krishnan, 2010; Schneider, 2004).

While research has examined attitudes toward mental illness in various populations (e.g., mental health professionals, nurses, doctors, etc.) there have been very few efforts examining

teachers' stigmatizing attitudes. Examining teachers' attitudes toward those with mental health problems as well as the factors identified in past research to influence attitudes toward mental illness were areas of focus for the present study. Given the fact that, to date, there has been relatively little research that has examined attitudes toward mental illness among teachers, a survey design was used for the present study as it allowed for a range of exploratory and descriptive information to be collected about teachers' perceptions of mental health challenges. Additionally, the survey design provided the opportunity to statistically explore teachers' attitudes toward mental illness and the factors that have been indicated in research to predict these attitudes.

## Chapter III: Methods

### The Present Study

The purpose of the present study was to examine teachers' attitudes toward mental health challenges and to explore factors that predict stigmatizing attitudes. The three main factors that were studied are (a) previous education about mental illness, (b) the level of personal contact with someone who has a mental illness, and (c) an individual's beliefs about the causes about mental illness. Understanding teachers' attitudes toward mental health challenges and examining the predictive potential of the three factors identified have important implications for teacher-and school-based mental health initiatives.

### Research Questions, Hypotheses, and Data Analyses

The primary research questions are as follows:

1. Is there a relationship between teachers' attitudes toward mental illness and the level of contact they have had with individuals who have a mental illness?

*Hypothesis:* Teachers with more personal experiences with individuals identified to have mental illness will evidence less stigmatizing beliefs about mental illness than teachers with less personal experience.

*Data Analysis:* Using SPSS, a correlational analysis was conducted using Spearman's Rank Order Correlation.

2. Is there a relationship between teachers' attitudes toward mental illness and their causal beliefs about mental illness?

*Hypothesis:* Teachers who are more likely to believe that mental illness is primarily caused by endogenous or biological factors (e.g., heredity, genetics) will have more stigmatizing beliefs about mental illness.

*Data Analysis:* Using SPSS, a correlational analysis was conducted using Pearson Product Moment Correlation.

3. Is there a relationship between teachers' attitudes toward mental illness and the amount of previous mental health education they have received?

*Hypothesis:* Teachers with previous education about mental illness will have less stigmatizing beliefs about mental illness than teachers with no training.

*Data Analysis:* Using SPSS, a correlational analysis was conducted using Pearson Product Moment Correlation.

4. Will a significant amount of variance in teachers' stigmatizing beliefs about mental illness be statically accounted for by the three main predictors in this study?

*Hypothesis:* The amount of variance that is accounted for by the three main predictors (level of contact, previous training, causal beliefs) will be statistically significant.

*Data Analysis:* Using SPSS, a multiple regression analysis was conducted, to determine the amount of variance accounted for by the three main predictors in this study.

The secondary research questions are as follows:

5. Is there a relationship between teachers' age and attitudes toward mental illness?

*Hypothesis:* Teachers younger in age will have less stigmatizing attitudes toward mental illness than teachers older in age.

*Data Analysis:* Using SPSS, a correlational analysis was conducted using Pearson Product Moment Correlation.

6. Is there a relationship between teachers' attitudes toward mental illness and gender?

*Hypothesis:* Female teachers will have less stigmatizing beliefs about mental illness than male teachers.

*Data Analysis:* Using SPSS, a correlational analysis using point biserial correlation and independent *t*-tests were conducted.

7. Is there a relationship between teachers' attitudes toward mental illness and the level of education they have achieved?

*Hypothesis:* Teachers with more education will have less stigmatizing beliefs about mental illness than teachers with lower levels of education.

*Data Analysis:* Using SPSS, a correlational analysis was conducted using Spearman's Rank Order Correlation.

### **Research Design**

The present study used a cross-sectional web-based correlational survey design to investigate teachers' attitudes and perceptions toward mental illness. An electronic survey created by the researcher was developed to examine teachers' attitudes about mental illness and the three main factors indicated in research to be associated with stigmatizing attitudes.

### **Participants**

Teachers working in Saskatchewan were the desired population of the study. Characteristics of eligible participants were defined as having at minimum a Bachelor of Education degree and working for a private, public, or federal school. Participants were asked if they had a valid Saskatchewan teaching license, and if not, they were asked to identify in what type of setting they were teaching. The researcher reviewed this criteria and it was determined whether participant guidelines for involvement in the study were met. There were no participants excluded from the study as all participants indicated having a valid teaching license.

## Recruitment

Recruitment procedures involved the assistance from several school boards, teaching affiliate organizations, and Saskatchewan directors of education. The Saskatchewan School Boards Association represents public, separate, and francophone school divisions and reflects the rural, urban, and northern diversity of schools in our province. Membership in the Saskatchewan School Boards Association is voluntary and is open to school boards and First Nations education authorities. Representatives from the Saskatchewan School Boards Association agreed to send out an email to directors of education in the province. The email was written by the researcher, introduced the study, contained the web-based survey link and sent out on two occasions (May 2016 and June 2016; See Appendix A). Notice of the research was also verbally communicated by the School Boards Association representative at a director of education meeting in June 2016.

The Saskatchewan School Boards Association representative also requested that all directors of education in Saskatchewan (i.e., public, private, separate school boards and tribal council schools) receive a personal email from the researcher introducing them to the research and personally inviting them to send the survey link to teachers affiliated with their schools. This resulted in application to several individual school boards as some of the school boards have an independent application process. This process was requested by the directors of education and completed by the researcher.

Other recruitment strategies included discussion with representatives from the Saskatchewan Teachers' Federation (STF). The STF is a professional organization that represents teachers in Saskatchewan who teach at all grades levels (i.e., kindergarten to grade 12). The STF agreed to include notice of the study in a monthly newsletter. A brief overview and

a link to the web-based survey were provided in the monthly newsletter in May and in June 2016, informing teachers of the opportunity to participate (Appendix B).

### **Ethics**

Ethics approval was sought and received from the Research Ethics Board at the University of Regina on March 16, 2016 (Appendix C). Outlined in the consent form, participants were informed that their survey responses would be kept in password-protected electronic files that are only accessible by the researcher or her advisor. It was indicated that the data would be kept for a period of five years. After this time period has elapsed (October 2021) the data would be permanently deleted.

Prior to completing the survey, participants were also informed that their participation was voluntary and they could withdraw from the survey at any point or only answer those questions that they were comfortable with. They were also informed that their choice to participate would not have any effect on their position (e.g. employment).

SurveyMonkey was chosen as the electronic web-based survey tool and it uses some of the most advanced technology for Internet security that is available. The enterprise package was purchased which allows for data encryption, data passwords, and a detailed privacy policy. Data is stored on servers in the United States and no identifying information was collected on the survey. Only the researcher is able to access this particular survey. To further ensure anonymity of the results, the survey software does not save IP addresses.

### **Sample**

A non-probability, purposeful, convenient, and voluntary sampling technique was utilized. To attract participants, a small incentive was offered. It was optional to the participants to decide if they wanted to enter a draw to win a \$100.00 gift certificate. If they agreed, they

were asked to indicate their name and contact information at the completion of the survey. Once the data was submitted, the researcher removed all names and contact information from the database. This way, identifying information was completely removed from the data and was in no way associated with the survey responses. This was clearly outlined in the informed consent (Appendix D).

In regard to sample size, research has previously indicated that “the bigger sample size, the better” (Field, 2013, p. 313). The Saskatchewan Teachers’ Federation has 13,000 members and even a small response rate of about 10% would not have been practical to attain for this study. Participation was voluntary and the researcher was relying on others (e.g., directors of education) to disseminate the survey invitation to teachers. Additionally, it was known that several school boards could not participate for various reasons (e.g., previously committed teachers to too many research projects, indicated clearly they were not interested). As was the case in this study, while a large sample was anticipated, it was not practical to obtain. Another common recommendation for the sample size of a multiple regression analysis is a minimum of 10 cases of data for each predictor variable in the model (Field, 2013). However, it has been argued that this may be considered an overly simplified approach to determining sample size (Field, 2013).

Cohen (1992a; 1992b) recommends several guidelines to consider in determining sample size by way of a power analysis. Some of the considerations necessary to conduct a power analysis include (a) the type of statistical analysis, (b) significance criterion, (c) the effect size, and (d) the desired statistical power. Field (2013) and Cohen (1992a; 1992b) suggest an acceptable statistical power is .80. Effect sizes represent the degree to which the null hypothesis is false and for multiple regression analysis the recommended effect size is 0.02 for a small

effect, 0.13 for a medium effect, and 0.26 for a large effect (Cohen, 1992a; 1992b; Field, 2013).

The significance criterion for statistical analyses will be set at .05 for all statistical analyses to allow for a 95% confidence interval (Field, 2013). As Field (2013) generally illustrated, for a multiple regression analysis with a medium effect size ( $R^2 = .13$ ) and a sample of 160 participants, up to 20 predictor variables could be used. The plan for the present study included a multiple regression analysis that involved 4 predictor variables, a significance criterion of 0.05, and a medium effect ( $R^2 = .13$ ). The a priori power analysis resulted in a recommended sample size of 85 respondents (Field, 2013, p. 314). This was surpassed in the present study.

## Measures

With a survey design, one of the most fundamental aspects to the quality of the research is construct validity and therefore, a credible design relies on an appropriate choice of measures (Corrigan 2005; Link et al., 2004). Measures have been developed that assess specific aspects of stigma including emotional reactions, perceived levels of dangerousness, and perceived devaluation of those with mental illness stigma (Alexander & Link, 2003; Angermeyer & Matschinger, 2005; Corrigan et al., 2003; Link et al., 1987; Link, Phelan, Bresnahan, Stueve, & Pescolido, 1999; Mossakowski, Kaplan, & Hill, 2011). Additionally, as mental health professionals' attitudes toward mental illness have been extensively studied, there has been a relatively new scale created to assess attitudes specific to those working in the mental health field (Kassam, Papish, Modgill, & Patten, 2012). Given these scales only assess certain aspects or a particular population related to the stigma of mental illness, they would be inappropriate to use for a study assessing multidimensional attitudes of mental illness in teachers. It seems obvious that, as a result of the varied conceptualizations of stigma, various stigma measures exist and many measure different aspects of the construct. In this way, there was not one instrument

that is considered a *gold standard* or the best measure to use to assess stigma associated to mental illness (Link et al., 2004; Schomerus et al., 2011; Wahl & Aroesty-Cohen, 2010). Since a measure specifically designed to assess multidimensional attitudes toward mental illness in teachers does not exist, adaptations to existing measures were necessary. Measures were chosen based on various considerations, which included the multidimensionality of stigmatizing attitudes, the tripartite (i.e., affect, thoughts, behaviour intent) components of attitudes, the practicality of use, reasonability of length, overall reliability of the measure and proven use in past research.

The present study included the use of: two stigmatizing attitude measures; measures of the factors associated with stigmatizing attitudes (i.e., previous education about mental illness, causal beliefs, and level of contact); a social desirability scale; and the demographic and descriptive variables. The specific measures for each of these components of the study will be described below.

**Community Attitudes Toward Mental Illness-Revised (CAMI-R).** For a study investigating teachers' attitudes toward mental illness and the predictive potential of three factors identified in research (i.e., previous education about mental illness, level of contact with someone who has mental illness, and causal beliefs about mental illness), a multidimensional attitudinal measure was determined to be best suited. Therefore, a revised version of the Community Attitudes Toward Mental Illness scale (CAMI) was chosen (Taylor & Dear, 1981). The original CAMI was an adapted version of Cohen and Struening's (1962) Opinions of Mental Illness (OMI) scale.

The OMI has been used extensively in previous research about mental illness and there have been several strengths identified. One of these strengths was the fact that it addressed many

salient issues considered in conceptualizations of stigma; Taylor and Dear's (1981) version of the CAMI maintains this aspect (Corrigan, 2005; Link & Phelan, 2001). These salient issues consist of stereotypes related to devaluing those with mental illness and the perception of inferiority of those who have mental illness (Link et al., 2004). Status loss associated with those who have a mental illness and the inclination to discriminate are also important aspects that were included in this measure (Link et al., 2004). Cohen and Struening (1962) also conceived attitudes as "inferred variables which carry an affective" component (p. 349). As mentioned, seminal theorist Gordon Allport (1954) asserted that prejudicial attitudes are also "felt or expressed" and therefore, the affective component of the attitude is important to operationally consider (as cited in Heatherton, Kleck, Hebl, & Hull, 2009, p. 9). The original CAMI uses the OMI as a conceptual base, retained three of the OMI's five subscales, those being Authoritarianism, Benevolence, and Social Restrictiveness, and created a fourth to assess attitudes towards community mental health treatment (Link et al., 2004; Smith, 2009). The following are the four subscales in the original CAMI (Link et al., 2004; Smith, 2009; Taylor & Dear, 1981,).

1. The *Authoritarianism* subscale emphasizes that people with mental illness are different and taps into attitudes that identify people with a mental illness as inferior. Beliefs indicating coercive and more punitive handling of people with mental illness are items that could be endorsed. An example of an item reflecting this scale is "As soon as a person shows signs of mental difficulty, he or she should be hospitalized."
2. The *Benevolence* subscale assesses attitudes reflecting a paternalistic view of mental illness. The belief that daily activities need to be restricted or managed is highlighted through this scale. An example of an item on this scale is "People who have mental illness need the same kind of control and discipline as a young child."

3. The *Social Restrictiveness* subscale assesses attitudes that a person with mental illness is a danger to society and must be restricted in social areas of marriage or having children. An example of a question on this scale is “A person would be foolish to marry someone who has suffered from mental illness, even though the person seems fully recovered.”
4. The *Community Mental Health Ideology* subscale contains items about attitudes related to community mental health treatment. Items assess how people feel about having people with mental illness living, working, or receiving treatment in their neighbourhood. An example of a question on this scale is “I would not want to live next door to someone who has been mentally ill.”

Previous research reported Cronbach's alpha for the full CAMI scale to be 0.89 (Schafer et al., 2011) and estimates of internal consistency for the four subscales have been reported to be 0.88 for *community mental health*, 0.80 for *social restrictiveness*, 0.76 for *benevolence* and the 0.66 for *authoritarianism* (Link et al. 2004). The original CAMI is a 40-item measure, with 10 statements for each of the four subscales with some revised wording. Participants respond to statements on a five-point Likert scale (1=*strongly disagree* to 5=*strongly agree*) with five of the statements in each subscale being negatively worded and reverse-coded. Responses are added together and divided by 10 to obtain a mean score for each subscale where higher scores represent more stigmatizing attitudes.

The original CAMI has been used extensively in research as a general attitudinal measure with diverse and varied samples (Schafer et al., 2011; Smith & Cashwell; 2010; 2011; Song et al., 2005; Wahl & Aroesty-Cohen, 2010). It is a convenient and brief tool that covers many of the important aspects of stigma. While the original CAMI has been used with a number of populations (e.g., general public, mental health professionals, nurses) it has not been used

specifically with teachers. Although it is considered an updated version of the OMI, it may also be dated. Therefore, the student researcher (along with the research advisor and research committee) reviewed the questions and made minor revisions to a few items to better suit the teacher population. Accordingly, items were reviewed to ensure appropriate wording for the current day (e.g., an individual with mental illness versus the mentally ill; Hogberg et al., 2008), relevant to teachers (e.g., students' with mental illness are a burden for many teachers) as well as to ensure that the tripartite components of attitudes (i.e., stereotypes, affective components, and behavioural intentions). This tool will be referred as the Community Attitudes toward Mental Illness – Revised (CAMI-R; Appendix E) and was used as a dependent variable for the multiple regression analysis.

Given that this measure is an explicit attitude and self-report measure, consideration of social desirability responding bias is required. Social desirability bias indicates there is a risk that participants may have responded in a socially acceptable rather than truthful manner. For instance, the increased public education and anti-stigma campaigns advocating that devaluing a person on the basis of mental illness is not socially acceptable may have influenced participants' responses (Link et al., 2004; Smith & Cashwell, 2011). This may have lead to participants responding in a socially acceptable way and it is often difficult to identify to what degree the responses are true and to what degree the responses are a result of social desirability responding.

**Social Distance Scaling.** The level of social distance preferred toward someone with a mental illness is one of the most common and widely used measures of stigma (Alexander & Link, 2003; Covarrubias & Han, 2011; Feldman & Crandall, 2007; Link et al., 2004). Assessing a participant's willingness to interact with someone with a mental illness in different social circumstances is considered a measure of social distance (Link et al., 2004). Social distance

scales are highly convenient and require very little time to complete, which are obvious strengths of such measures (Link et al., 2004). Frequently, these measures are self-report that use Likert-scale responding and participants are asked to rate their willingness to interact in situations that vary in association to someone with a mental illness (Alexander & Link, 2003; Corrigan et al., 2001; Link, Cullen, Frank, & Woznlak, 1987; Smith & Cashwell, 2011). As indicated in the conceptualizations of stigma (Corrigan, 2001; Link et al., 2004), social rejection is a consequence of stigma and represents a type of discriminatory behaviour (Goffman, 1963). In this way, examining how comfortable or willing a person is in social situations that vary in closeness (e.g., colleague or spouse) with someone who has a mental illness has been considered an appropriate measure of stigma (Alexander & Link, 2003; Corrigan et al., 2001; Link et al., 2004).

Broadly considered an attitudinal measure, social distance scaling was first used for the construct of race and ethnicity in 1924 and with mental illness in 1957 (Link et al., 2004). Social distance scales have been used to assess attitudes toward people with mental illness in various studies (Link et al., 1999; Day, Edgren, & Eshleman, 2007). One of the reasons for its common use is that, generally speaking, social distance scales have tended to show good to excellent internal consistency reliability with Cronbach's alpha ranging from 0.75 to .90 (Lauber, Nordt, Braunschweig, & Rossler, 2006; Link et al., 1987; Link et al., 2004; Smith & Cashwell, 2011). The evidence of construct validity in social distance scales is a strength (Link et al., 1987; Smith & Cashwell, 2011).

Additionally, attitude theorists suggest that the measurement of attitudes and one's behavioural intentions generally have a strong influence on behaviour (Ajzen, 2011; Eagly & Chaiken, 1993). Accordingly, attitudes and behavioural intentions, as measured by social

distance scales, can be good predictors of behaviour (Ajzen, 2011; Eagly & Chaiken, 1993; Petty, Fazio, & Brinol, 2009). Further, it is argued that social distance scaling contains very few risks to participants and facilitates the collection of important information regarding influences on discriminatory behaviour (i.e., attitudes and behavioural intentions; Ajzen, 2011; Link et al., 2004).

The Social Distance Scale (SDS; Appendix F) created by Link et al. (1987) is a brief, convenient scale that has been widely used to assess the presence of stigma toward individuals with a mental illness and will be used in the present study (Alexander & Link, 2003; Corrigan, et al., 2001; Feeg, Prager, Moylan, Maurer, & Cullinan, 2014; Lauber et al., 2006). This scale has seven items and uses a four-point scale ranging from 1 (*definitely willing*) to 4 (*definitely unwilling*). Items are added together to get a total social distance score where higher scores indicate less social distance and lower scores indicate greater social distance. The SDS assesses respondents' willingness to accept people with mental illness in various roles (e.g., colleague; neighbour). In other words, the scale asks for self-report accounts of how a participant wants to, or intends to, interact with a person with a mental illness, providing specific situations to assess the behavioural intentions and affective components of participants' attitudes. These aspects are important for reliable attitude measures (Ajzen, 2011). Sample items include, "How would you feel about renting a room to someone with a mental illness?" Moderate to good estimates of internal consistency for this scale have been reported (i.e.,  $\alpha=0.81$ ;  $\alpha=0.85$ ;  $\alpha=0.86$ ;  $\alpha =0.75$ ; Alexander & Link, 2003; Anagnostopoulos & Hantzi, 2011; Lauber et al., 2004; Link et al., 1987, respectively). In previous studies, the SDS was significantly correlated with other stigma measures (Link et al., 1987; Smith & Cashwell, 2011). The Link et al.'s (1987) Social Distance Scale (SDS) will be used as a measure of stigma in the current study. Both the CAMI-R and the

SDS will be considered separate stigma measures because, while there are similarities in what these tools are measuring, there are also differences.

**Contact/Experience with Mental Illness.** The Level of Contact Report (Appendix G) is a 12-item measure developed by Holmes, Corrigan, Williams, Cana, and Kuiak (1999) and assesses prior exposure to, and contact with, mental illness. The items describe varying levels of contact or experience with an individual with mental illness from "I have a mental illness" to "I have never observed a person that I was aware had a serious mental illness." Participants are instructed to place a check mark on every statement that is true for them. The index for level of contact is the rank score of the most personal situation indicated. For example, if a participant checked several boxes the score of the most intimate of all items endorsed would be used. Higher scores indicate more intimate contact with someone with a mental illness. Holmes et al. (1999) stated that individuals with significant expertise in psychiatric rehabilitation and severe mental illness ranked the situations in terms of intimate contact. It was found that the mean of rank order correlations, which summarizes interrater reliability, was 0.83 in the original sample ( $n=100$ ; Corrigan et al., 2001). Therefore, reliability is stated to be strong for the Level of Contact Report as the rank order of the measure was validated (Holmes et al., 1999). This scale is considered to offer increased statistical power over past categorical measures that simply ask a person if they knew someone with a mental illness and has been used in mental illness stigma research (Corrigan et al., 2001; James, Omoaregba, & Okogbenin, 2012; Phelan & Basow, 2007). This measure is used in the present study.

**Causes of Mental Illness.** The Mental Health Locus of Origin scale (Appendix H) developed by Hill and Bale (1980) has established psychometric properties and has been most used and cited in research (McKechnie & Harper, 2010; Read & Harre, 2001; Read & Law,

1999). This measure assesses beliefs about the etiology of psychological problems. Such beliefs are characterized using two extremes: the 'endogenous' or medical beliefs scale which emphasize genetic and physiological factors as causes of mental illness and the 'interactional' scale which emphasizes social and interactional origins for mental illness. There are a total of 20 items on the scale, which include 13 statements reflecting a medical explanation (e.g., the cause of most psychological problems is found in the brain) and seven statements reflecting a social explanation (e.g., many people would become mentally unwell if they had to live in a very stressful situation). Participants respond to each item using a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). After reverse scoring the interactional items, scores are summed (Hill & Bale, 1980). Scores can range from 20 (interactional extreme) to 120 (endogenous extreme) with a mid-point of 70. The internal consistency for the MHLO was reported to be 0.76 in past research (Hill & Bale, 1980). This scale was used in the present study.

**Previous Education.** There are no known commonly used measures available to assess participants' education or knowledge about mental illness. Therefore, participants were asked if they have received education about mental illness (Appendix F). The simple yes and no answer created a dichotomous education variable. If yes, participants indicated where they received their education by circling one of three options (i.e., university program, in-service or other). If participants indicated 'other' they were asked to provide a description of the type of education they acquired. Additionally, participants were asked to estimate the amount of education (as a function of the number of hours) that they have received regarding mental illness. This was then turned into the continuous education variable. Participants were also asked to state the nature/topics of the education they received.

**Social Desirability Scale.** The public attention given to the stigma of mental illness through anti-stigma campaigns has increased people's literacy and knowledge of socially acceptable behaviours toward individuals with mental illness (Hinshaw & Stier, 2008). This attention has advocated that rejecting or devaluing a person on the basis of mental illness is not socially acceptable. Participants may be aware of these anti-stigma messages and consequently, respond in a socially acceptable rather than truthful way. It is often difficult to identify to what degree the responses are true and to what degree the responses are a result of social desirability responding (Link et al., 2004; Smith & Cashwell, 2011).

Moreover, explicit attitudinal measures, particularly related to this topic, are subject to social desirability bias. In order to gauge whether participants are responding to the survey questions in a truthful rather than in a socially desirable way, the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960; Appendix J) has been included as a validity check. This scale contains 33 items and respondents are asked to answer either true or false to each statement. This scale has demonstrated strong reliability, with a reliability co-efficient ranging from 0.71 to 0.88 (Crowne & Marlowe, 1960; Moss, 2008) and has been used in research to gauge social desirability in relation to attitudes toward mental illness (Smith & Cashwell, 2010).

**Demographic/Descriptive Variables.** Respondents were asked to complete a demographic questionnaire that gathered information about personal characteristics (gender, age, race, SES, level of education, and teaching experience; see Appendix K). Teachers' knowledge and comfort in dealing with students with mental health challenges and teachers own self-reported general mental health have been identified in research as important areas to explore (Daniszewski, 2013; Froese-Germain & Riel, 2012; Hsiang, 2016). Specifically, questions

(adapted from Daniszewski, 2013) asking teachers to rate their own levels of comfort and knowledge regarding dealing with students' mental health challenges (1=*not knowledgeable/comfortable* to 5=*very knowledgeable/comfortable*) were included. Additionally, there were several open-ended questions asking about what teachers are currently doing to support students' mental health, what the barriers are to increasing support for students' mental health problems in schools, and teachers' thoughts on the definition of mental illness. This information further supported the quantitative sections and allowed for unrestricted expression for participants. Summaries of this information are provided.

The general mental health of participants was examined using the Mental Health Continuum Short Form (MHC-SF) questionnaire. Hsiang (2016) found that teachers' mental health has been impacted by the increased emotional work demands on teachers. This increased stress has negatively impacted quality of life and is associated with higher burn-out ratings (Hsiang, 2016). The MHC-SF questionnaire consists of 14 items rated on a 6-point Likert scale, asking about how good teachers are feeling and functioning in their life (Gilmour, 2014; Lamers, Westerhof, Bohlmeijer, Klooster, & Keyes, 2011). There are three subscales scores (i.e., emotional, social, and psychological well-being) and a total score. Estimates of the internal consistency on the subscales have ranged from 0.77 to 0.83 (Gilmour, 2014; Lamers et al., 2011). Results will indicate three categories of mental health, which are flourishing mental health, languishing mental health, and moderate mental health. In addition to gathering this data for descriptive purposes, this information was used to further explore how this scale relates to stigmatizing attitudes.

## Data Analyses

SPSS statistical software was used for all statistical analysis. To explore the association between the predictor variables and stigmatizing attitudes, correlational analyses were conducted. The method of correlation (i.e., Pearson product moment, Spearman rank-order, point-biserial) depended on the type of variables (continuous, ranked or dichotomous variable) that were being correlated. In some cases (i.e., gender and stigmatizing attitudes) an independent samples *t*-test was conducted to compare of stigmatizing attitudes between two groups (i.e., male and females). Finally, standard simultaneous entry multiple regression and stepwise multiple regression analysis were used to assess the potential to predict stigmatizing attitudes toward mental illness.

Supplementary analyses involved the exploration of demographic and descriptive information in relation to stigmatizing attitudes. This included information on teachers' self-rated knowledge and comfort in dealing with students' mental health and teachers' self-reported mental health ratings. Teachers' written comments were summarized and conveyed.

## Final Considerations

For a study investigating teachers' attitudes toward mental illness and the relationship of the three factors identified to influence these attitudes in research, a cross-sectional, correlational survey design was best suited. After reviewing measures indicated in research to assess stigma, commonly assessed through attitudinal scales, the CAMI-R and SDS will be used (Link et al., 1987; Taylor & Dear, 1981). While there have been some limitations mentioned for the measures chosen for the proposed study, processes were taken to minimize these limitations. As such, all measures were reviewed to determine the most appropriate wording for the use with teachers and to ensure items represent the current day and culture. As self-reported information may be

subject to distortions and inaccuracies, a social desirability scale will be included in the survey.

Consideration of the study's cross-sectional nature and the fact that attitudinal measures cannot directly predict behaviour are necessary to keep in mind in the interpretation of the results.

## **Chapter IV: Results**

Following data collection, the data was exported from the web-based survey tool to SPSS statistical software. Cleaning and screening procedures were conducted to detect any errors or incomplete parts of the data. Descriptive statistics and frequencies were computed for all variables to detect any outliers, inconsistent, or invalid data. Data was transformed into scale and subscale scores and internal consistency was calculated using Cronbach's alpha for each of the scale scores. Relationships between variables were assessed using the Pearson product-moment correlation coefficient, Spearman's Rank-Order correlation coefficient and the point-biserial correlation coefficient, based on the types of variables that were correlated (i.e., continuous, rank, or dichotomous, respectively). Independent samples *t*-tests were used to compare the means of two unrelated groups (e.g., males and females) on stigmatizing scales. Finally, standard multiple regression and stepwise multiple regression analyses were completed to examine the predictive power of several variables on stigmatizing attitudes and preferred social distance toward those with mental illness. Supplementary analyses included the exploration of descriptive and demographic data to determine other factors associated with stigmatizing attitudes. This included teachers' self-reported knowledge and comfort in dealing various aspects related to students with mental health challenges as well as teachers' own mental health ratings.

### **Demographic and Descriptive Information**

A total of 237 teachers across Saskatchewan responded to the survey over a 6-month period. Table 1 and Table 2 illustrate descriptive statistics and demographic characteristics of the sample. The majority of respondents completed the survey between May 2016 and July 2016 ( $n=191$ ). Efforts were made to have the survey sent to teachers within the same time frames

Table 1

*Demographic Information of Sample*

	Frequency	Percent
Gender (n=237)		
Males	57	24.1
Females	179	75.5
Did not wish to answer	1	0.4
Race (n=235)		
Aboriginal	15	6.4
Asian	2	0.9
Black	1	0.4
White	215	91.5
Other	2	0.9
Participants' SES Background (n=235)		
Poverty	12	5.1
Lower Middle	49	20.9
Middle Class	141	60.0
Upper Middle	32	13.6
Wealthy	1	.4
Highest level of Education (in degree; n=235)		
One Undergraduate	87	37
Two or more	62	26.4
Some graduate training	25	10.6
Masters	55	23.4
Enrolled in or completed Doctorate	6	2.6
Setting of School (n=233)		
Rural	113	48.5
Urban	120	51.5
If Rural setting (n=113)		
Federal School	6	5.3
Provincial School	107	94.7
Racial identity of students (n=233)		
Aboriginal	45	19.3
Asian	1	0.4
Black	0	0
White	176	75.5
Other	11	4.7
SES of students taught (n=233)		
Poverty	36	15.5
Lower middle class	53	22.7
Middle Class	105	45.1
Upper middle class	33	14.2
Wealthy	6	2.6
Training about Mental Illness (n=193)		
Yes	75	39
No	118	61

however, two school boards requested to send out the survey between August and October 2016 ( $n=46$ ). The average completion time was not possible to calculate because several participants chose to complete the survey over a few days, skewing the total uninterrupted survey completion time. The missing data screening process suggested data was missing at random, however, it was possible that some participants experienced *survey fatigue* as sample size numbers on the various scales decreased toward the end of the survey (i.e., 43 participants stopped responding at various places in the survey). When scales were computed, incomplete data was handled by removing an entire case if one or more of the response values were missing for a particular scale (i.e., listwise deletion).

Table 1 illustrates that a large majority of participants were female (75.5%) compared to males (24.1%) and the age of participants ranged from 21 to 66 years of age ( $M=39$ ,  $SD=10$ ). Almost an equal number of teachers from rural (48.5%) and urban areas (51.5%) responded but there was only a small representation from federally funded schools (5.3%). The racial makeup of the sample included the majority of teachers' identifying as White (92%), 6% identifying as Aboriginal, and a small percentage (2%) identifying as Black, Asian or other race. Teachers who responded varied in teaching experience (ranging from 1 to 39 years;  $M=13.90$ ,  $SD=9.20$ ) and grade levels taught (i.e., teachers with experience from pre-kindergarten to grade 12 were represented).

Table 2

*Participants' Age and Teaching Experience*

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	Minimum	Maximum
Age	233	39.38	10.13	21	66
Number of years teaching	226	13.90	9.20	1	39

To explore teachers' knowledge and comfort in dealing with mental health challenges, some questions adapted from Daniszewski (2013) were asked and rated on a 5-point Likert scale. Table 3 illustrates that 47.2% of teachers reported to be either moderately knowledgeable or very knowledgeable about the signs and symptoms of mental health challenges, 36.7% of teachers reported to be either moderately or very knowledgeable about what actions to take when dealing with mental health challenges, 31.6% of teachers reported to be either moderately knowledgeable or very knowledgeable about resources to access when dealing with students' mental health challenges, and 48.3% of teachers reported being moderately or very knowledgeable about overall mental health challenges. In regards to comfort levels, 57% of teachers were moderately or very comfortable in talking to students about mental health challenges whereas, 34.2% of teachers were moderately or very comfortable in talking to parents about students' mental health challenges. Forty-eight percent of teachers self-reported being moderately or very comfortable supporting students with mental health challenges, 43% of teachers endorsed being moderately or very comfortable accessing resources for students with mental health challenges, and 43% of teachers reported to be moderately or very comfortable in dealing with mental health challenges overall. Mean scores revealed that, on the knowledge questions asked, teachers reported having the least amount of knowledge in accessing resources to help student's with mental health concerns ( $M=3.00$ ,  $SD=1.07$ ) and the most knowledge in their overall mental health knowledge ( $M=3.41$ ,  $SD=0.98$ ). With regard to the comfort questions, teachers reported being the least comfortable in talking with parents about students' mental health challenges ( $M=2.91$ ;  $SD=1.26$ ). Interestingly, teachers reported being most comfortable in talking to students about mental health challenges ( $M=3.64$ ;  $SD=1.18$ ).

Table 3

*Percentage Rating Comparisons, Means, and Standard Deviations on Teachers' Knowledge and Comfort in Dealing with Students' Mental Health Challenges*

Questions	Teachers' Knowledge and Comfort Ratings					<i>M</i>	<i>SD</i>
	Low levels ----- High Levels						
	1	2	3	4	5		
Knowledge of Signs							
Frequency ( <i>n</i> =232)	3	41	75	89	24	3.39	.94
Percent	1.3	17.7	32.3	38.4	10.3		
Knowledge of Actions							
Frequency ( <i>n</i> =233)	7	58	77	70	21	3.17	1.00
Percent	3	24.9	33.0	30	9.0		
Knowledge of Resources							
Frequency ( <i>n</i> =233)	17	61	80	55	20	3.00	1.07
Percent	7.3	26.2	34.3	23.6	8.6		
Overall Mental Health Knowledge							
Frequency ( <i>n</i> =229)	5	37	75	83	29	3.41	.98
Percent	2.2	16.2	32.8	36.2	12.7		
Comfort in Talking with Students							
Frequency ( <i>n</i> =232)	6	39	52	71	64	3.64	1.13
Percent	2.6	16.8	22.4	30.6	27.6		
Comfort in Talking with Parents							
Frequency ( <i>n</i> =233)	42	45	65	55	26	2.90	1.26
Percent	18.0	19.3	27.9	23.6	11.2		
Comfort in Supporting Students							
Frequency ( <i>n</i> =233)	18	43	59	74	39	3.31	1.18
Percent	7.7	18.5	25.3	31.8	16.8		
Comfort in Accessing Resources							
Frequency ( <i>n</i> =234)	22	47	63	69	33	3.19	1.19
Percent	9.4	20.1	26.9	29.5	14.1		
Overall Mental Health Comfort							
Frequency ( <i>n</i> = 234)	9	56	67	68	34	3.27	1.10
Percent	3.8	23.9	28.6	29.1	14.5		

Note: 1= not knowledgeable/not comfortable; 2=slightly knowledgeable/comfortable; 3=somewhat knowledgeable/comfortable; 4=moderately knowledgeable/comfortable; 5=very knowledgeable/comfortable.

### **Reliability Analysis of Scales and Subscales**

Table 4 displays ranges, means, standard deviations, and internal consistencies ( $\alpha$ ) for all scales and subscales used in statistical analyses. Strong internal consistency estimates were noted for the CAMI-R scale and subscales (all alphas were greater than, or equal to, .73) with a Cronbach's alpha of 0.92 on the CAMI-R total scale. The SDS and MHC-SF scales also revealed high internal consistency ratings where Cronbach's alphas were found to be 0.87 and 0.94, respectively. Internal consistency for the MHLO scale was found to be low ( $\alpha = .57$ ). It was determined that the lower internal consistency reported with this scale is logical because the scale is categorically measuring two different variables: endogenous beliefs and interactional causal beliefs regarding mental illness. To run the analyses that will explore whether biological causal beliefs impact stigmatizing attitudes toward mental illness, a separate scale measuring biological causal beliefs was required. The MHLO contains separate items that reflect biological causal beliefs and items that reflect interactional causal beliefs toward mental illness. As a result, two separate subscales were computed to reflect the endogenous causal beliefs and the interactional causal beliefs. This significantly improved internal consistency results for the Endogenous measure ( $\alpha = .78$ ) but the Interactional measure's internal consistency remained low ( $\alpha = .54$ ). The Social Desirability Scale (DES) was used as a validity measure in gauging the respondents' level of concern for social approval. Scores on this scale will need to be considered because explicit attitude self-report measures are subject to social desirability responding bias. The Cronbach's alpha for the scale was 0.78 with this sample.

### **Primary Hypotheses Results**

Question 1: *Is there a relationship between teachers' attitudes toward mental illness and the level of contact they have had with individuals who have a mental illness?*

Table 4

*Ranges, Means, Standard Deviations, and Cronbach's Alpha on Scales and Subscales*

Scales and Subscales	Possible Range	Actual Range	<i>M</i>	<i>SD</i>	$\alpha$
CAMI-R ( <i>n</i> =189)	1.00 – 5.00	1.18 – 3.50	2.01	.42	.92
CAMI-R A( <i>n</i> =209)	1.00 – 5.00	1.00 – 3.60	2.06	.49	.73
CAMI-R B( <i>n</i> =208)	1.00 – 5.00	1.00 – 4.30	1.92	.50	.81
CAMI-R C( <i>n</i> =202)	1.00 – 5.00	1.78 – 3.50	2.13	.51	.78
CAMI-R SR( <i>n</i> =212)	1.00 – 5.00	1.00 – 4.00	2.12	.50	.81
SDS ( <i>n</i> =200)	7.00 – 28.00	7.00 – 24.00	13.11	3.42	.87
LCR ( <i>n</i> =210)	1.00 - 12.00	3.00 - 12.00	9.00	1.60	n/a
MHLO ( <i>n</i> =175)	20.00 – 120.00	40.00 - 97.00	65.48	7.46	.57
Endogenous ( <i>n</i> =180)	12.00 – 72.00	17.00 – 66.00	39.86	7.40	.78
Interactional ( <i>n</i> =181)	7.00 – 42.00	11.00 – 38.00	25.66	4.38	.54
MHC-SF Total ( <i>n</i> =201)	1.00 – 6.00	3.65 - 5.29	4.56	.21	.94
DES ( <i>n</i> =194)	0.00 – 33.00	4.00 - 31.00	16.61	5.18	.78

Note: CAMI-R = Community Attitudes toward Mental Illness-Revised; CAMI-R A= Community Attitudes toward Mental Illness-Revised Authoritarian Subscale; CAMI-R B = Community Attitudes toward Mental Illness-Revised Benevolence Subscale; CAMI-R C = Community Attitudes toward Mental Illness-Revised Community Involvement Subscale; CAMI-R SR = Community Attitudes toward Mental Illness-Revised Social Restrictiveness Subscale; SDS = Social Distance Scale; LCR = Level of Contact Scale; MHLO = Mental Health Locus of Origin Scale; Endogenous = Endogenous Beliefs Scale; Interactional = Interactional Causal Beliefs Subscale; MHC-SF Total = Mental Health Continuum – Short Form; DES = Social Desirability Scale.

It was hypothesized that teachers with more personal experiences with individuals perceived to have mental illness would evidence less stigmatizing beliefs than teachers with fewer personal experiences. Separate correlational analyses were run using the two stigmatizing beliefs scales (i.e., CAMI-R and SDS). First, the level of contact scale was correlated with the CAMI-R scale and subscales using the Spearman's rank order correlation. A small significant inverse correlation was found between the CAMI-R total score and the level of contact score ( $r_s=-.16, p<.01$ ). Table 5 illustrates a similar result was obtained for all CAMI-R subscales. Next, the level of contact scale was correlated using the Spearman's rank order correlation with the social distance scale. A small significant inverse relationship was found between level of contact and the social distance scale ( $r_s=-.23, p<.01$ ). These results support the hypothesis. Teachers who reported more contact and personal experiences with people who were perceived to have mental illness held less stigmatizing attitudes and preferred less social distance toward those with mental illness.

*Questions 2: Is there a relationship between teachers' attitudes toward mental illness and their causal beliefs about mental illness?*

Teachers' causal beliefs about mental illness were also hypothesized to be related to stigmatizing attitudes toward mental illness. It was postulated that more extreme biologically oriented beliefs about mental illness were associated with more stigmatizing attitudes toward mental illness. Using Pearson product moment correlation the Mental Health Locus of Origins (MHLO) subscales (Endogenous and Interactional) were correlated with the CAMI-R scale and subscales and then separately for the preferred social distance measure. The MHLO Endogenous beliefs scale indicated a positive significant relationship with the CAMI-R scale ( $r=.26, p<.01$ ).

Table 5

*Primary Hypotheses Correlation Table: Stigmatizing Attitudes and Predictor Variables*

Predictor Variables	Stigmatizing Attitude Scales and Subscales					
	Total	CAMI-R A	CAMI-R B	CAMI-R C	CAMI-R SR	SDS
LCR	-.16** (n=177)	-.14* (n=195)	-.24** (n=194)	-.16* (n=189)	-.19** (n=197)	-.23** (n=195)
MHLO Endogenous	.26** (n=177)	.31** (n=175)	.11 (n=174)	.25** (n=171)	.27** (n=177)	.27*** (n=177)
MHLO Interactional	-.25** (n=161)	-.22* (n=176)	-.19* (n=176)	-.25** (n=172)	-.24* (n=179)	-.22** (n=161)
Previous Training	.01 (n=169)	.02 (n=187)	.08 (n=186)	.12 (n=181)	.07 (n=189)	.12 (n=187)
Training hours	-.09 (n=139)	-.12 (n=154)	-.01 (n=151)	-.06 (n=148)	-.10 (n=155)	-.03 (n=153)

Note: CAMI-R = Community Attitudes toward Mental Illness-Revised; CAMI-R A= Community Attitudes toward Mental Illness-Revised Authoritarian Subscale; CAMI-R B = Community Attitudes toward Mental Illness-Revised Benevolence Subscale; CAMI-R C = Community Attitudes toward Mental Illness-Revised Community Involvement Subscale; CAMI-R SR = Community Attitudes toward Mental Illness-Revised Social Restrictiveness Subscale; SDS = Social Distance Scale; LCR = Level of Contact Scale; MHLO Endogenous = Mental Health Locus of Origin Endogenous Beliefs Scale; MHLO Interactional = Mental Health Locus of Origin Interactional Causal Beliefs Subscale; Previous Training about Mental Illness = Dichotomous Training variable; Training Hours = Continuous Education variable.

\* p<.05. \*\*p<.01. \*\*\*p<.001.

The result suggests that teachers with stronger biological causal beliefs about mental illness held more stigmatizing attitudes toward mental illness. When the endogenous scale was correlated with the SDS, a similar significant positive correlation was found ( $r=.27, p<.001$ ). Table 5 illustrates how the CAMI-R Authoritarian subscale, the CAMI-R Community Involvement subscale, and the CAMI-R Social Restrictiveness subscale resulted in significant positive relationships with the MHLO Endogenous causal beliefs scale. These results suggest teachers who held stronger biologically-oriented beliefs about mental illness preferred greater social distance and held more stigmatizing attitudes toward those with mental illness. When the MHLO Interactional causal beliefs measure was used with the CAMI-R, a significant inverse relationship was found ( $r=-.25, p<.01$ ). The social distance stigma (SDS) measure revealed a similar relationship ( $r=-.22, p<.01$ ). This significant inverse relationship was also found for all CAMI-R subscale results as displayed in Table 5. These results suggest that teachers who held more social and interactional causal beliefs about mental illness held less stigmatizing attitudes and preferred less social distance toward those with mental illness. Accordingly, this hypothesis was also supported.

*Questions 3: Is there a relationship between teachers' attitudes toward mental illness and receiving previous mental health training?*

Previous training about mental illness was also hypothesized to correlate with stigmatizing attitudes toward mental illness. Specifically, it was predicted that previous training about mental illness would result in less stigmatizing attitudes and less preferred social distance toward those with mental illness. The training variable was constructed by asking participants if they had received training about mental illness. Training was defined by any previous formal education opportunity provided through university coursework, in-service opportunities, or other

professional or personal development experiences. Participants were then asked to estimate the number of hours of training they received on mental illness. These responses created two training variables: a dichotomous variable (previous training versus no previous training) and a continuous training variable (the number of hours of training about mental illness received). Out of the teachers who responded to the question ( $n=193$ ), 61% indicated they had not received any training about mental illness as compared to 39% of teachers who indicated they had received training about mental illness. Both the dichotomous training and the continuous training variables were used to explore their relationships with stigmatizing attitudes and preferred social distance through correlational analyses and independent samples  $t$ -test. Results revealed no significant relationships between the training variables and the stigmatizing attitude scales or subscales (see Table 5). These results suggest the hypothesis was not supported. A post-hoc power analysis was calculated for the independent samples  $t$ -test analysis using the dichotomous training variable and the CAMI-R (effect size=.22,  $\alpha=.05$ ,  $n=169$ ) and then the SDS (effect size=.26,  $\alpha = .05$ ,  $n=187$ ). The actual power was found to be .29 for the CAMI-R and .42 for the SDS analyses, suggesting these analyses were considerably underpowered. The post-hoc power analyses for the correlational findings were also underpowered, as the actual power was .18 and .06 for the CAMI-R and SDS, respectively. With this in mind, there is a high possibility of a type II error and therefore, a definitive conclusion regarding this particular hypothesis cannot be drawn.

*Hypothesis #4: Will a significant amount of variance in teachers' stigmatizing beliefs about mental illness be statistically accounted for by the three main predictors in this study?*

Table 6 displays the result of the multiple regression analyses. The main variables that were hypothesized to be significant predictors of stigmatizing attitudes included the level of

Table 6

*Regression using predictor variables with CAMI-R and SDS*

Variables	CAMI-R			SDS		
	<i>b</i>	<i>SE</i>	<b><math>\beta</math></b>	<i>b</i>	<i>SE</i>	<b><math>\beta</math></b>
LCR	-.051	.019	-.208**	-.587	.151	-.281***
Endogenous	.011	.004	.196*	.086	.034	.187*
Interactional	-.020	.008	-.204**	-.165	.058	-.207**
Training	.060	.068	.071	.333	.514	.047
<i>R</i>	.387			.429		
<i>R</i> <sup>2</sup>	.150			.184		
<i>F</i>	6.556***			9.512***		
<i>Actual Power</i>	.99			.99		

Note: CAMI-R = Community Attitudes toward Mental Illness-Revised; SDS = Social Distance Scale; LCR=Level of Contact Scale; Endogenous = Endogenous causal beliefs; Interactional= Interactional Causal beliefs; *b*=unstandardized beta; *SE* = Standard Error of beta;  **$\beta$** = standardized beta; *R*= correlation coefficient; *R*<sup>2</sup> = Coefficient of determination; *F* = F statistic, variation between sample means. CAMI-R df = 4, 153; SDS df = 4, 173.

\**p*<.05. \*\**p*<.01. \*\*\**p*<.001.

personal experiences with those who have mental illness, causal beliefs about mental illness (endogenous and interactional), and previous training about mental illness. These four predictor variables were entered simultaneously into the regression model to determine the potential to predict stigmatizing attitudes toward mental illness. Separate regression models were computed for each of the criterion measures (i.e., CAMI-R and SDS). The CAMI-R was used as the dependent variable in the first analysis and then the social distance measure was used as the dependent variable in the second analysis. Using the CAMI-R as the dependent variable, the results of the analysis indicated a moderate relationship ( $R=.39, p<.01$ ). Significance testing revealed the model was significant ( $F_{4, 153} = 6.56, p<.001$ ) to account for 15% of the variance ( $R^2 = .15$ ) of the CAMI-R. Three of the four variables significantly predicted stigmatizing attitudes toward mental illness, those being the MHLO interactional scale ( $\beta = -.20, t_{154} = -2.59, p<.01$ ), the MHLO endogenous scale ( $\beta = .19, t_{154} = 2.47, p<.05$ ) and the level of contact ( $\beta = -.21, t_{154} = -2.65, p<.01$ ). Level of contact was the strongest predictor of the CAMI-R, followed by the interactional causal belief scale. The interactional causal beliefs scale and the level of contact were negatively associated with the CAMI-R, which indicates an inverse relationship: the more mental illness was believed to have its origins in social and individual causes, the fewer negative attitudes toward those with mental illness. Similarly, results on the level of contact scale suggest that the more personal experiences teachers have had with mental illness, the less stigmatizing their attitudes toward mental illness. In a complimentary fashion, the results for the endogenous scale revealed a positive relationship, in which more biologically-oriented causal beliefs about mental illness were associated with more stigmatizing attitudes toward mental illness. The effect size of this analysis, based on Cohen's (1988) guidelines, was medium ( $R^2 = .15$ ), and the actual power was .99, suggesting very little chance of a type 1 error.

The predictor variables were then entered into a simultaneous regression model using the Social Distance Scale as the outcome variable. The same four predictor variables were used (i.e., level of contact, endogenous beliefs, interactional beliefs, and previous training about mental illness). The results of the regression indicated a moderate relationship to the model ( $R=.43$ ,  $p<.01$ ). Significance testing revealed the model was significant ( $F_{4, 173}=9.51$ ,  $p<.001$ ) to account for about 18% of the variance ( $R^2=.18$ ) of dependent variable. Three of the four predictors were significant to preferred social distance: the MHLO interactional scale ( $t_{174} = -2.85$ ,  $\beta = -.21$ ,  $p<.01$ ), the level of contact ( $t_{174} = -3.87$ ,  $\beta = -.28$ ,  $p<.01$ ), and the MLHO endogenous scale ( $t_{174} = 2.53$ ,  $\beta = .19$ ,  $p<.05$ ). With SDS as the dependent variable, the level of contact was the strongest predictor, followed by interactional causal beliefs. Again the relationship between the interactional causal beliefs scale and the level of contact scale are inversely related to the social distance measure. The more teachers believed the origins of mental illness were explained by social or interactional causes and the more personal experiences they had with people who had mental illness, the less they preferred social distance from others with mental illness. The endogenous results revealed a positive relationship. Specifically, teachers with more extreme beliefs about the biological origins of mental illness held more stigmatizing attitudes. With an observed medium effect size, power was estimated to be .99 for this analysis.

Overall, significant results were obtained for three of the four predictors (i.e., level of contact, endogenous causal beliefs, and interactional causal beliefs). However, previous training about mental illness was not a significant predictor of stigmatizing attitudes in analyses using both criterion measures. Therefore, the hypothesis that indicated all predictor variables would significantly account for stigmatizing beliefs toward mental illness was only partially supported.

## Secondary Hypotheses

Secondary hypothesis questions explored the relationship between demographic variables, such as the age of participants, the level of formal education of participants, and the gender of participants, with stigmatizing attitudes.

*Question 5: Is there a relationship between teachers' ages and their attitudes toward mental illness?*

It was hypothesized that younger teachers would have less stigmatizing attitudes toward mental illness and prefer less social distance. Using Pearson product moment correlation, analyses were run using the two stigmatizing beliefs scales (i.e., CAMI-R and SDS). There was no significant relationship identified between the CAMI-R scale and the age of participants ( $r=.10$ , n.s.). The same result was revealed for all CAMI-R subscales as illustrated in table 7. When the social distance scale was correlated with the age of participants, no significant relationship was found ( $r=.06$ , n.s.).

*Questions 6: Is there a relationship between teachers' attitudes toward mental illness and their gender?*

The gender of participants was correlated with both stigmatizing attitude scales using the point-biserial correlation method. It was postulated that female teachers would have less stigmatizing attitudes toward mental illness and prefer less social distance. Results indicated a significant relationship between gender and the CAMI-R total scale ( $r_{pb}=.22$ ,  $p<.01$ ), the CAMI-R Authoritarian scale ( $r_{pb}=.27$ ,  $p<.01$ ), the CAMI-R Benevolence scale ( $r_{pb}=.29$ ,  $p<.01$ ), the CAMI-R Community scale ( $r_{pb}=.16$ ,  $p<.05$ ), and the CAMI-R Social Restrictiveness scale ( $r_{pb}=.20$ ,  $p<.01$ ). Interestingly, there was no significant association revealed between gender and the Social Distance Scale ( $r_{pb}=.100$ , n.s.). To further explore the difference between males and

females with stigmatizing attitudes associated with the CAMI-R scale, a *t*-test was used to analyze the mean difference between the two groups. There was a significant difference found between males ( $M=2.23$ ,  $SD=.46$ ) and females ( $M=2.01$ ,  $SD=.40$ ) in regards to stigmatizing attitudes toward

mental illness ( $t_{187}=-3.02$ ,  $p<.05$ ). Overall, females reported less stigmatizing attitudes toward mental illness thus, the hypothesis was confirmed.

*Question 7: Is there a relationship between teachers' explicit attitudes toward mental illness and the level of academic attainment?*

It was hypothesized that teachers with more formal academic education would have less stigmatizing attitudes toward mental illness. Using a Spearman's rank order correlation, education levels (measured on a 5-point scale by indicating the completion of one undergraduate degree up to the completion of a doctorate degree) were correlated with both stigmatizing attitude scales and the CAMI-R subscales. There were no significant results found using the CAMI-R ( $r_s=-.05$ , n.s.) or the SDS ( $r_s=-.077$ , n.s.). Similarly, insignificant results were observed for all CAMI-R subscales, as illustrated in Table 7.

### **Post-hoc Supplementary Analyses**

**Demographic variables.** Post-hoc supplementary correlational analyses were conducted with demographic variables (e.g., participants' SES; years teaching; school setting; see Table 7). Several of the demographic variables could not be transformed and used for statistical analyses (i.e., number of students taught experiencing mental health challenges, grade levels previously taught). Similarly, participants' race could not be used for statistical analysis because of extremely small sample size numbers within certain categories.

As illustrated in Table 7, when the relationship between teachers' level of personal

Table 7

*Results of Correlational Analyses between Scales and Demographic Variables*

	Association between Scales and Demographic Variables							
	CAMI-R Total	CAMI-R A	CAMI-R B	CAMI-R C	CAMI-R SR	SDS	MHC-SF	LCR
Demographic Variables								
Age	.096 (n=188)	.045 (n=207)	.040 (n=207)	.049 (n=200)	.108 (n=210)	.058 (n=198)	.096 (n=199)	.207** (n=199)
Gender	.216** (n=189)	.269*** (n=209)	.294*** (n=208)	.160* (n=202)	.201** (n=212)	.094 (n=200)	-.003 (n=201)	.072 (n=201)
Education level	-.048 (n=189)	-.009 (n=209)	-.055 (n=208)	-.032 (n=202)	-.038 (n=212)	-.077 (n=200)	-.066 (n=201)	.013 (n=201)
Participant's SES Background	-.027 (n=189)	-.045 (n=209)	-.027 (n=208)	.013 (n=202)	-.072 (n=212)	.012 (n=200)	.026 (n=199)	-.167* (n=199)
School Setting	-.007 (n=187)	-.032 (n=207)	-.036 (n=206)	.070 (n=200)	-.036 (n=210)	.036 (n=198)	.038 (n=199)	-.056 (n=199)
Students' SES	.087 (n=188)	.045 (n=207)	.047 (n=207)	.117 (n=200)	.064 (n=210)	.033 (n=198)	.030 (n=199)	-.100 (n=199)
Years Teaching	.060 (n=183)	-.027 (n=201)	.018 (n=200)	.051 (n=194)	.065 (n=204)	.061 (n=191)	.175* (n=192)	.156* (n=193)

Note: CAMI-R = Community Attitudes toward Mental Illness-Revised; CAMI-R A= Community Attitudes toward Mental Illness-Revised Authoritarian Subscale; CAMI-R B = Community Attitudes toward Mental Illness Benevolence-Revised Subscale; CAMI-R C = Community Attitudes toward Mental Illness-Revised Community Involvement Subscale; CAMI-R SR = Community Attitudes toward Mental Illness-Revised Social Restrictiveness Subscale; SDS = Social Distance Scale; LCR = Level of Contact Scale; MHLO Endogenous = Mental Health Locus of Origin Endogenous Beliefs Scale; MHLO Interactional = Mental Health Locus of Origin Interactional Causal Beliefs Subscale; MHC-SF = Mental Health Continuum Scale Short Form.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

experience (LCR) with those who have mental illness and the demographic variables were explored, a few significant results were revealed. The amount of personal experience with mental illness was positively correlated with the teachers' age ( $r_s=.21, p<.01$ ). Not surprisingly, the younger the teacher, the less personal experience was reported with mental illness. Teachers' socioeconomic background (SES) was found to be inversely correlated with the level of personal experience with mental illness ( $r_s=-.17, p<.05$ ). Specifically, lower levels of SES were linked to higher levels of personal experiences with mental illness. Finally, the number of years teaching teachers had accrued in their careers was positively correlated with personal experience with mental illness ( $r_s=.16, p<.05$ ), meaning that more teaching experience was associated with higher levels of contact with those with mental illness.

**Teachers' Self-Reported Knowledge and Comfort Analyses.** The relationships between stigmatizing attitudes and a) teachers' ratings of self-reported knowledge about mental health and b) teachers' self-reported comfort in dealing with various issues related to students' mental health were examined. Table 8 illustrates these results.

***Self-reported knowledge and stigmatizing attitudes.*** A significant inverse relationship was found between all aspects of teachers' knowledge and comfort in dealing with mental health issues and both stigmatizing attitude measures. For example, knowledge about the signs and symptoms of students' mental health problems inversely correlated with the CAMI-R scale ( $r=-.20, p<.01$ ) and the preferred social distance (SDS) rating ( $r=-.15, p<.05$ ). Knowledge about what actions to take to help students with mental health challenges was inversely correlated with both the CAMI-R ( $r=-.18, p<.05$ ) and the SDS ( $r=-.20, p<.01$ ). Knowledge about resources for helping students experiencing mental health concerns was also inversely correlated with the CAMI-R ( $r=-.25, p<.001$ ) and the SDS ( $r=-.26, p<.001$ ). Finally, the overall knowledge about

Table 8

<i>Relationships between Teachers' Knowledge and Comfort and the CAMI-R, SDS and MHS-SF</i>			
	CAMI-R	SDS	MHC-SF
Knowledge of Signs	-.202** (n=187)	-.149* (n=198)	.194** (n=199)
Knowledge of Actions	-.183* (n=188)	-.203** (n=199)	.158* (n=200)
Knowledge of Resources	-.254*** (n=188)	-.262*** (n=199)	.180* (n=200)
Overall of Mental Health Knowledge	-.311*** (n=186)	-.385*** (n=200)	.143* (n=197)
Comfort Talking with Students	-.351*** (n=188)	-.385** (n=200)	.156* (n=201)
Comfort Talking with Parents	-.282*** (n=188)	-.362*** (n=199)	.253*** (n=201)
Comforting Supporting Students	-.250** (n=188)	-.323*** (n=199)	.146* (n=200)
Comfort Accessing Resources	-.326*** (n=189)	-.297*** (n=200)	.135 (n=201)
Overall Mental Health Comfort	-.330*** (n=189)	-.407*** (n=200)	.158* (n=202)

Note: CAMI-R = Community Attitudes toward Mental Illness; SDS = Social Distance Scale; MHC-SF = Mental Health Continuum Scale Short Form.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

students' mental health was inversely correlated with the CAMI-R ( $r=-.31, p<.001$ ) and SDS ( $r=-.39, p<.001$ ).

Findings support the premise that higher levels of teachers' self-reported knowledge about students' mental health challenges are related to less stigmatizing attitudes toward mental illness. Similarly, teachers who endorsed higher levels of knowledge and comfort in dealing with mental health challenges in the classroom preferred lower levels of social distance toward people with mental illness.

***Teachers' self-reported comfort and stigmatizing attitudes:*** Teachers' comfort in talking to students about mental health challenges was found to be inversely related to the CAMI-R ( $r=-.35, p<.001$ ) and the SDS ( $r=-.39, p<.01$ ) as was teachers' comfort in talking with parents about students' mental health challenges (see table 8). Teachers' comfort in supporting students experiencing mental health challenges was found to be inversely related to the CAMI-R scale ( $r=-.25, p<.01$ ) and the SDS scale ( $r=-.32, p<.001$ ) as was teachers' comfort in accessing resources for students with mental health challenges. Lastly, teachers' overall comfort in working with students with mental health challenges was inversely correlated with the CAMI-R ( $r=-.33, p<.001$ ) and the SDS ( $r=-.41, p<.001$ ). Findings support the premise that higher levels of comfort in dealing with students' mental health challenges are associated with fewer stigmatizing attitudes toward mental illness. Similarly, teachers who reported higher levels of comfort in dealing with mental health challenges in the classroom preferred lower levels of social distance toward people with mental illness.

***Self-reported knowledge and previous training:*** An interesting result was obtained when teachers' self-reported knowledge about dealing with students' mental health status was compared to their previous training regarding mental illness. As reported, there was no

Table 9

*Relationship and Mean Differences in Training Groups and Teachers' Knowledge/Comfort with Mental Health Challenges*

Scales		Point-Biserial Correlational Result	T-test Results			
Training			r	M	SD	df
Knowledge of Signs	Yes	-.36**		3.82	.881	189
	No			3.14	.880	
Knowledge of Actions	Yes	-.40**		3.68	.887	190
	No			2.86	.927	
Knowledge of Resources	Yes	-.35**		3.49	1.00	190
	No			2.74	1.01	
Overall MH Knowledge	Yes	-.37**		3.89	.849	186
	No			3.16	.923	
Comfort Talking to Students about MH	Yes	-.24**		4.03	.958	190
	No			3.49	1.14	
Comfort Talking to Parents about MH	Yes	-.28**		3.48	1.41	190
	No			3.38	1.14	
Comfort Supporting Students' MH	Yes	-.36**		3.85	1.04	190
	No			2.98	1.13	
Comfort Accessing Resources	Yes	-.30**		3.65	1.04	191
	No			2.92	1.20	
Overall MH Comfort	Yes	-.31**		3.72	1.07	191
	No			3.02	1.02	

\*\*p&lt;.01. \*\*\*p&lt;.001.

relationship found between previous mental illness training and the stigmatizing scales used in the study. However, as illustrated in Table 9, the relationship between previous training about mental illness and teachers' knowledge and comfort in dealing with students' mental health revealed a significant inverse relationship in all areas. For example, previous training was correlated with teachers' knowledge about the signs and symptoms of students' mental health challenges ( $r_{pb}=-.36, p<.001$ ), teachers' knowledge about what actions to take to help students with mental health challenges ( $r_{pb}=-.40, p<.001$ ) and teachers' knowledge about resources for helping students with mental health concerns ( $r_{pb}=-.35, p<.001$ ). Furthermore, teachers' overall knowledge about mental health was correlated with reporting to have received prior training about mental illness ( $r_{pb}=-.37, p<.001$ ).

***Teachers' comfort and previous mental illness training.*** Teachers' comfort in talking to students about mental health challenges was correlated with training ( $r_{pb}=-.24, p<.01$ ) as was their comfort in talking with parents about students' mental health challenges ( $r_{pb}=-.28, p<.001$ ). Teachers' comfort in supporting students with mental health challenges was also correlated with training ( $r_{pb}=-.36, p<.001$ ) and their comfort in accessing resources for students with mental health challenges ( $r_{pb}=-.30, p<.001$ ). Finally, teachers' overall comfort in working with students with mental health challenges was correlated with training ( $r_{pb}=-.31, p<.001$ ).

***Differences between training groups.*** Overall, results revealed a relationship between receiving training about mental illness and teachers' self-reported knowledge and comfort in dealing with students' mental health concerns. To better understand the difference between those who did, and did not, receive previous education about mental health, *t*-tests were used to analyze the difference between the two training groups in variables that assessed self-reported knowledge and comfort in dealing with students' mental health concerns. Table 9 displays the

results of these analyses. Teachers who received training about mental illness reported higher levels in the following areas when compared to those who did not receive prior training: a) knowledge about the signs and symptoms of mental health concerns ( $t_{189} = -3.79$ ,  $p < .001$ ); b) teachers' knowledge of what actions to take to help students with mental health concerns ( $t_{190} = 6.05$ ,  $p < .001$ ); c) teachers' knowledge of resources to access for students' with mental health concerns ( $t_{190} = 5.08$ ,  $p < .001$ ), d) teachers' overall mental health knowledge, ( $t_{182} = 5.40$ ,  $p < .001$ ); e) teachers' comfort in talking to students about mental health concerns ( $t_{190} = 3.40$ ,  $p < .01$ ); f) teachers' comfort in talking with parents about students' mental health concerns ( $t_{190} = 4.06$ ,  $p < .001$ ); g) teachers' comfort in supporting students with mental health challenges ( $t_{190} = 5.31$ ,  $p < .001$ ); h) teachers' comfort in accessing resources to help students with mental health challenges ( $t_{191} = 4.31$ ,  $p < .001$ ); i) in teachers' overall comfort in dealing with students' mental health challenges ( $t_{191} = 4.51$ ,  $p < .001$ ). All results support that teachers who indicated they had received previous training about mental illness expressed more knowledge and comfort in dealing with various aspects related to students' mental health challenges than those who reported having no training about mental illness.

### **Teachers' Self-Reported Mental Health**

Information regarding the general mental health of teachers was also gathered using the Mental Health Continuum Short-Form (MHC-SF) questionnaire. This scale was not used to identify or classify mental illness but rather to simply estimate general overall mental health. Based on scores, teachers were grouped into one of three following categories: flourishing mental health, languishing mental health, and moderate mental health. The measure also provided a continuous mental health score, where higher scores indicated more flourishing mental health. Table 10 illustrates that out of the teachers who responded ( $n=229$ ), the majority

reported flourishing mental health (71.2%), compared to 26.6% of teachers reporting moderate mental health and 2.2% reporting languishing mental health. To explore the relationship between teachers' overall mental health and stigmatizing attitudes, Pearson product moment correlations were conducted. Only the CAMI-R scale revealed a significant inverse relationship ( $r=-.22$ ,  $p<.01$ ). In a general sense, teachers who indicated more positive mental health held less stigmatizing attitudes: no significant relationship was evident between teachers' general mental health and preferred social distance toward those with mental illness ( $r=-.11$ , n.s.).

Table 10

<i>Categories of Participants' Mental Health</i>	<i>n</i>	<i>Percent</i>
MHC-SF Total	229	100
Flourishing Mental Health	163	71.2
Moderate Mental Health	61	26.6
Languishing Mental Health	5	2.2

When teachers' overall mental health was compared with teachers' self-reports on their knowledge and comfort in dealing with students' mental health challenges, a significant relationship was found between teachers' knowledge about the signs and symptoms of mental health challenges ( $r=.19$ ,  $p<.01$ ), knowledge about what actions to take to support students' mental health ( $r=.16$ ,  $p<.05$ ), knowledge about what resources to access to support students' mental health ( $r=.18$ ,  $p<.01$ ), comfort in talking to students about mental health ( $r=.16$ ,  $p<.05$ ), comfort in talking to parents about mental health ( $r=.25$ ,  $p<.001$ ), comfort in supporting students with mental health challenges ( $r=.14$ ,  $p<.05$ ), and overall comfort in dealing with students' mental health ( $r=.16$ ,  $p<.05$ ). These results are further illustrated in Table 8 and generally suggest that teachers' higher levels of personal mental health were associated with higher levels of comfort and knowledge in dealing with students' mental health.

Interestingly, only one of the demographic variables was found to have a significant positive relationship with teachers' mental health. A significant positive association was found between the number of years teaching and teachers' mental health ( $r=.18, p<.01$ ). This finding suggests a relationship between more teaching experience and higher levels of mental health.

### **Secondary Regression Analyses**

Based on the aforementioned significant correlations that were found in the current data, regression analyses were completed using the two stigmatizing attitude scales, the CAMI-R and the SDS, as the outcome variables. The predictor variables entered into the regression using the CAMI-R as the dependent variable included the level of contact, endogenous causal beliefs, interactional causal beliefs, participants' gender, teachers' self-reported knowledge and comfort questions that correlated with the CAMI-R, and teachers' overall mental health. These predictor variables were entered into the multiple regression analysis using the stepwise method to determine which variables were significant at predicting stigmatizing attitudes toward mental illness. Table 11 summarizes this stepwise regression analysis.

Using the CAMI-R as the dependent variable, the results of the stepwise regression indicated a moderate association between the model and stigmatizing attitudes ( $R=.55, p<.01$ ) and the predictors accounted for 30% ( $R^2=.30$ ) of the variance in the dependent variable. The overall model was significant ( $F_{6,158}=11.98, p<.001$ ) and out of the 14 possible predictors, only 6 were significant to the model. Teachers' comfort in talking to students about mental illness ( $\beta = -.27, t_{158}=-3.94, p<.001$ ), teachers' gender ( $\beta = .19, t_{158}=2.72, p<.01$ ), teachers' endogenous causal beliefs ( $\beta = .15, t_{158}=2.04, p<.05$ ), teachers' mental health ( $\beta = -.18, t_{158}=-2.53, p<.05$ ), teachers' interactional beliefs ( $\beta = -.20, t_{158}=-2.83, p<.01$ ) and the level of contact ( $\beta = -.18, t_{158}=-2.56, p<.05$ ) were significant in predicting stigmatizing attitudes as measured by the CAMI-R.

Table 11

*Supplementary Regression: Stepwise Multiple Regression using Significant Correlated Variables as Predictors for the CAMI-R*

Stepwise Method			
Predictors Variables	b	SE	$\beta$
SudentTalk	-.12	.03	-.27***
Gender	.18	.07	.19**
Endogenous	.01	.01	.15*
Interactional	-.02	.01	-.20**
MHC-SF	-.08	.03	-.18*
LCR	-.05	.02	-.18*
<i>R</i>		.55	
<i>R</i> <sup>2</sup>		.30	
<i>F</i>		10.88***	
<i>Actual Power</i>		.99	

Note: df = 6, 158

\*p<.05. \*\*p<.01. \*\*\*p<.001.

Teachers' comfort in taking to students' about mental health, teachers' interactional beliefs, and teachers' gender were the strongest predictors, respectively.

A regression analysis was also computed using the preferred social distance scale with variables that correlated in the data. Table 12 summarizes these results. The variables entered into the regression using the SDS as the dependent variable were those that correlated with the SDS. Namely, the level of contact, endogenous causal beliefs, interactional causal beliefs, and teachers' self-reported knowledge and comfort areas. With the SDS as the dependent variable, the results of the stepwise regression indicated a moderate positive relationship between the predictor variables and social distance ( $R=.54, p<.001$ ) and overall accounted for 29% ( $R^2=.29$ ) of the variance in the dependent variable. The overall model was significant ( $F_{4, 173} = 17.26, p<.001$ ), however, only 4 out of the 12 of the variables were significant to the model. Teachers' overall comfort in dealing with students' mental health ( $\beta = -.35, t_{173} = -5.25, p<.001$ ), teachers' endogenous causal beliefs ( $\beta = .19, t_{173} = 2.779, p<.01$ ), level of contact ( $\beta = -.22, t_{173} = 3.28, p<.01$ ), and teachers' interactional beliefs ( $\beta = -.17, t_{173} = -2.48, p<.05$ ) were significant to predicting preferred social distance toward those with mental illness. The level of contact and teachers' causal interactional beliefs were inversely related to preferred social distance, suggesting that more contact and personal experiences with mental illness and more causal social and interactional beliefs about mental illness were associated with lower levels of social distance toward those with mental illness. In a complementary fashion, endogenous beliefs resulted in a significant relationship to predict preferred social distance toward those with mental illness, signifying that more biologically-oriented beliefs about the causes of mental illness are associated with greater desire for social distance from those who have mental illness.

Table 12

*Supplementary Regression: Stepwise Multiple Regression using Significant Correlated Variables as Predictors for the SDS*

Stepwise Method			
Predictors Variables	b	SE	$\beta$
Overall MH Comfort	-1.09	.03	-.35***
Endogenous	.09	.03	.19**
Level of Contact	-.47	.14	-.22**
Interactional	-.11	.05	-.17*
<i>R</i>		.54	
<i>R</i> <sup>2</sup>		.29	
<i>F</i>		17.26***	
<i>Actual Power</i>		.99	

Note: df = 4, 173

\*p<.05. \*\*p<.01. \*\*\*p<.001.

**Stigmatizing Attitude Scale Item Analyses**

Overall, the lower mean scores on the various attitude scales (i.e., CAMI-R and SDS; see Table 4) suggest that the majority of teachers held positive rather than negative attitudes toward mental illness. To determine the extent and context of the observed negative attitudes descriptive statistics were computed for individual scale items on the CAMI-R and SDS. Appendix L illustrates percentages, frequencies, mean scores, and standard deviation for individual items associated with the CAMI-R.

A closer look at specific items revealed that more negative attitudes were endorsed on certain items. For instance, 28% of teachers agreed or strongly agreed that students with mental health problems are a burden to teachers and 11% agreed or strongly agreed with the statement that teachers have a good reason to resist students with mental health challenges in their classroom. However, on another statement, 85% of teachers disagreed or strongly disagreed that the best way to handle students with mental illness is to separate them from the regular program and only 8% disagreed or strongly disagreed that the best therapy for many students with mental illness is to be a part of the regular classroom and school. Related to this, 71% of teachers agreed or strongly agreed with the statement no one has a right to exclude students with mental health problems from classrooms. Interestingly, 24% of teachers agreed or strongly agreed that involvement in inclusive classrooms for students with mental illness might be good for them but the risks to other students are often too great. Thirteen percent of teachers disagreed or strongly disagreed that people with mental illness are far less of a danger than people think, 20% of teachers agreed or strongly agreed that people with mental illness should be excluded from becoming a pilot, and 22% of teachers disagreed or strongly disagreed that mental hospitals were an outdated means to deal with mental illness. A few other statements that resulted in a higher

overall mean scores (where more negative attitudes were endorsed) included believing that most people who were treated for mental illness can not be trusted as a teacher or baby-sitter (12% agreed or strongly agreed) and that people with mental illness need the same discipline as a young child (18% agreed or strongly agreed).

Percentages, frequencies, means and standard deviations of individual items on the second stigmatizing attitudes scale, the SDS are presented in Appendix M. Again, overall mean scores suggest more positive attitudes are present. The items that had the highest ratings of unwillingness to have social contact included: having someone with mental illness as a caretaker for their children (52% were probably or definitely unwilling), renting a room to someone with mental illness (35% were probably or definitely unwilling), and having their children marry someone with a mental illness (30% were probably or definitely unwilling).

### **Social Desirability Responding**

Participants' scores on the Social Desirability Scale fell into one of three categories (Crowne & Marlowe, 1960; Mossavar-Rahmani et al., 2013). The first group (Group 1) is categorized as more willing than most people to respond to tests completely truthfully, even when their answers were met with social disapproval. The second group (Group 2) resulted in the average responder, which means that participants' responses tended to show a moderate degree of concern for the social desirability of their responses. Generally, this group reflected an average degree of conformity to social rules and conventions. The third group (Group 3) indicated participants that are highly concerned about social approval and as a result, tended to respond to test items in such a way as to avoid the disapproval of others. Table 13 displays these categorical results. Results indicate that 65.5% of teachers in the study were answering with an average concern for social desirability, 5.7% of teachers indicated a low concern for social

acceptance but 28.9% of teachers were answering with a high degree of concern for social approval.

Table 13

*Social Desirability Categories (n=194)*

Categories	frequency	percent
Group 1	11	5.7
Group 2	127	65.5
Group 3	56	28.9

### Written Comments

Open-ended questions were provided in the survey to allow teachers an opportunity for unrestricted expression and to help clarify some of the quantitative information. Further, the section was designed to allow teachers an opportunity to provide additional information on areas they believed were important to students' mental health. The following will descriptively report and summarize the feedback in these areas.

**Definitions of mental illness:** When asked about defining mental illness, several teachers described mental illness to be a chemical imbalance in the brain or the result of a biological or medical condition. A few examples of this include:

Mental illness, like many other illnesses, is a disease...(37-year-old female teacher).

It is a medical condition that needs to be recognized that treated appropriately by a doctor.

A chemical imbalance in the brain (30-year-old male teacher).

It the same as a physical illness. If you have diabetes, you take insulin. If you have depression, you take serotonin (28-year-old female teacher).

Mental illness is a neurological disorder (56-year-old male teacher).

Many teachers responded by suggesting the name of a disorder found in the DSM, "depression, uncontrollable ADHD, ODD, any diagnosis under the spectrum..." (49-year-old male teacher).

Other common responses stated sentiments suggesting that mental illness “impedes normal functioning in daily activities” (34-year-old male teacher) or “interferes with daily life functioning” (38 year-old female teacher). Comments defining mental health challenges as non-discriminatory and impacting “people of all ages, races, and genders” (39-year-old male teacher) were evident. There were also responses that defined mental illness beyond biological or physiological causes but these were rare. Examples of these types of responses are:

Some I would understand as cognitive others I would see as biological (39-year-old female teacher).

Mental illness is any psychological or physiological problem of the brain and mind that interferes significantly with a healthy and productive life (32-year-old male teacher).

Mental illness can be related to trauma experienced, and the mind’s ability to cope or an inherited brain chemical imbalance (34-year-old female teacher).

There were very few comments that identified mental illness to be “unique” and “crazy” (reported by a 39-year-old female teacher). In summary, the most frequent comments about the nature of mental illness included a biological, genetic, or physiological explanation or simply the naming of particular disorders. In contrast, there were relatively fewer comments that went further and included social and psychological causes.

**Teachers' Knowledge and Comfort:** Opportunity was provided for participants to expand on ideas or offer comments regarding their knowledge and comfort in dealing with students with mental health challenges. Many comments described where teachers had acquired mental health knowledge, and specifically, indicated that personal experience with mental health was a central source of gaining information on mental illness. Examples of these types of comments included:

Family members with mental illnesses have impacted my approach to students with mental illness (32-year-old female teacher).

I live with someone who suffers from depression and anxiety. We have known each other for 25 years and he has only been seeking help for the last 5 years after he tried to commit suicide. Because of this, I have attended counselling and been trained in ASIST (40-year-old female teacher).

Taken some training, as well as family members have experienced this (45-year-old male teacher).

I have an undergraduate degree in psychology, which allowed me to learn more extensively about various mental illnesses. I also have family and friends with mental illness so I have done my own research and educated myself in certain areas (37-year-old female).

Teachers' written comments supported the quantitative findings that suggested a lack of knowledge and comfort in dealing with various aspects of students' mental health. The desire for teachers to help was consistently indicated but teachers were not confident what to do or how to do it. A few representative responses that indicate this include:

Wish there was a course in university to help out with this for elementary students (52-year-old female teacher).

I know it exists and try to look out for it but I have no idea how to help and what to do. I don't want to say something wrong and I am also scared because I am not a counsellor and don't want to get into trouble for doing or saying something wrong...(31-year-old female teacher).

I would like to know more signs and what to look for and how to help students. Also, how to express concerns to parents (27-year-old female teacher).

I do not feel qualified to deal with students with mental health challenges. I am eager to help but struggle to know how to approach students (Male teacher, age not identified).

It is the unwritten rule that teachers know what to do and what the procedures are. I truly believe that mental health issues with our students are a major cause of stress. It is expected from parents that we know about the details of mental health, yet have no formal training (32-year-old male teacher).

In addition to a lack of knowledge, many teachers reported being concerned with saying the wrong thing and not fully understanding their role in dealing with mental health challenges. Having large classrooms and several students struggling with mental illness in those large

classrooms left many teachers uncertain about what they should or could do to help. Commonly identified barriers to helping students with mental illness included a lack of resources, work-load pressures and a lack of adequate support for students with mental health challenges. Teachers indicated that more professional development opportunities, supports, and resources, were required.

**Teachers' current mental health efforts:** In reporting on what is being done to support students' mental health, teachers described several initiatives that have been implemented. A few statements mentioned that, in the Wellness 10 Curriculum, a mental health unit for students has now been implemented. As well, some teachers spoke about receiving the *Mental Health First Aid Certification* course, which reportedly helped teachers gain knowledge about students who have mental health challenges. Teachers indicated they used a number of strategies in the classroom such as mindfulness, self-regulation, breathing techniques, visualization, self-talk and verbalizing feelings. Some teachers also spoke of the *Zones of Regulation* curriculum, a well-known self-regulation program, being used throughout the school. Some other initiatives include adding mental health awareness information in the school newsletter. It was also clear that many teachers were making accommodations for students with mental health concerns. Examples of these types of comments included:

Differentiating learning strategies for students who struggle with mental health. That may include those with a diagnosis or may just be students dealing with a personal issue (stressors from home) that impede learning (26-year-old female teacher).

Flexible learning, helping design a plan when the situation is stressful (50-year-old female teacher).

Explicit instruction, modeling, supporting, adapting work and expectations (33-year-old female teacher).

Simple yet powerful ideas such as being welcoming, being inclusive, being affectionate, being available to talk, and the ability to create a safe and secure classroom, were also expressed. Other in-school supports were also described as being helpful. Most teachers indicated widespread agreement that their principals were very supportive of students' mental health. Comments such as 'very helpful' and 'super supportive' were routinely noted in the participants' responses. However, a few teachers stated that they were concerned about what was not occurring with respect to supporting students with mental health. Examples of this included:

I have zero help or support. I can adapt things for the child but if a child tells me they want to come to school for a killing spree I can tell the parent/guardian and admin. The RCMP say *they are a young offender we can't do much for you*. If the counselor only comes a few times a month, you need to work with the child and teach them what you can without them going off the handle and throwing things around (44-year-old female teacher).

Sadly, I don't know if I am doing anything (23-year-old, male teacher).

There were other comments indicating that training about mental illness may be beneficial at all administrative levels within the school system. For example:

All administrators I have worked with have been very supportive but some have not been very knowledgeable on mental illness and violent or unpredictable behaviour (51-year-old male teacher).

Administrators tend to be better with those diagnosed brain based conditions such as autism/FASD. Students with self-harm behaviours, cutting, etc. are often seen as attention seekers – not as having mental health issues (30-year-old female teacher).

My principal viewed the problems of the student to be character flaws or bad choices rather than medical issues (47-year-old female teacher).

**Barriers to mental health initiatives:** When asked to comment on barriers to increasing mental health in schools, there were several responses that described a lack in funding and the high costs involved in supporting school-based mental health. Representative of this, a 51-year-old male teacher indicated, "financial costs would be the foremost barrier (training, ongoing

professional development, supports and material costs in the form of books, etc.)" There were also responses that cited excessive budget cuts and being understaffed as barriers. Similarly, many comments acknowledged the pressures that teachers endure in the context of things like large class sizes and being under-resourced. Further, these pressures were linked to mental health problems among teachers. Responses that capture the struggles that teachers endure as they manage these pressures include:

We focus on so many issues, bullying and accountability with regards to standardized testing and technology. It seems that there is so much to be an expert in, some things get neglected and not out of concern but out of the simple fact – we can't do it all (44-year-old female teacher).

Some teachers believe that they are not social workers and they refuse to make allowances for students with mental health problems (52-year-old female teacher).

Not enough time and too much on teachers' plates (38-year-old female teacher).

The idea that teachers have the tools to "fix" students... We are front line but when the problem goes past our purview, people who know what they are doing must be called in (49-year-old male teacher).

Further, several responses described the belief that managing mental health issues is not the responsibility of the schools. As reported by a 39-year-old, female teacher, "the education system can only do so much to help with mental health, students and families need access to outside agencies." Several comments suggested that for many students, negative parental influences and unfavorable conditions at home (e.g., lack of parental support) had a big impact on mental health. These comments suggested that better parenting at home was needed. A comment that represented this sentiment was provided by a 35-year-old, male teacher who wrote, "[a] student's family is a barrier. Teachers can only do so much if the parents are not willing to support their own child." Teachers tended to believe that they could only play minor role in influencing their students' mental health. "Parents [are the barrier for the students' mental health]... I'm not being

short or snide, it is simply the only answer" was the response indicated by a 50-year-old female teacher.

Another widespread barrier that was consistently indicated in the responses was the reference to the stigma of mental illness. Examples of teachers' responses that mentioned this barrier were:

Parents are unwilling to acknowledge their children's mental health needs due to stigma (29-year-old male teacher).

Some parents don't want their kids to see the school counselor due to stigma (50-year-old male teacher).

Stigma and unwillingness to talk. Especially from parent groups and senior staff (28-year-old female teacher).

Biases or stereotypes are barriers (31-year-old female teacher).

Stigma students feel ashamed so they don't get help (39-year-old female teacher).

There are some people who still think of mental health as a taboo subject (31-year-old female teacher).

Overall, these written comments help to qualify and expand upon the quantitative responses and provide additional context in an attempt to better understand the barriers that influence students' mental health.

## Chapter V: Discussion

The primary purpose of the study was to explore teachers' stigmatizing attitudes toward mental illness and to examine the ability of three main factors (i.e., level of personal contact with someone with mental illness, previous education about mental illness, and causal beliefs about mental illness) to predict stigmatizing attitudes among teachers. Social learning theory and ecological models suggest that teachers have the potential to exert a significant influence on a developing child, by shaping their attitudes and contributing to their overall mental health (Bronfenbrenner & Morris, 2007; Grusec, 1992; Jackson, 2011). Teachers communicate messages in direct and indirect ways, and while explicit mental health initiatives have been introduced in schools, the messages that are transmitted by teachers may also be communicated implicitly through their attitudes on a day-to-day basis (Ajzen, 2011; Eagly & Chaiken, 1998; Maio & Haddock, 2010). Other professionals (e.g., mental health counsellors) have benefitted from examining their attitudes toward mental illness but unfortunately teachers have not been a population targeted in past research (Schafer, Wood, & Williams, 2011; Schultz, 2007; Smith & Cashwell, 2011). As such, there is very little known about stigmatizing attitudes toward mental health challenges among teachers. Therefore, the present study was designed to expand stigma research and to contribute to the broad area of school-based mental health literature. To reduce the development of stigmatizing attitudes in children, the examination of teachers' attitudes toward mental health difficulties is an important area to explore.

Based on previous mental health stigma research, it was hypothesized that three main factors would be related to stigmatizing attitudes. More specifically, it was hypothesized that less stigmatizing attitudes would be found among teachers who had more personal contact with persons who have mental health challenges, fewer biological casual beliefs about mental illness,

and more previous training in mental health issues. It was further hypothesized that teachers who were female, younger, and more educated at the post-secondary level would also report less stigmatizing attitudes. While some hypotheses were supported in the present study, other hypotheses were not.

### **Main Factors: Causal beliefs, Level of Contact, and Previous Training**

**Causal beliefs.** The results from this study suggest that endogenous causal beliefs are linked to stigmatizing attitudes and preferred social distance toward those with mental illness. This finding is consistent with the majority of the literature that examines factors related to attitudes and beliefs regarding mental illness (Lauber et al., 2004; McKecknie & Harper, 2011; Read & Harre, 2001; Read & Law, 1999; Schomerus et al., 2012). As such, most research in this area has indicated support for the notion that biologically-oriented causal beliefs about mental illness are linked to higher levels of stigmatizing attitudes and preferences for greater social distance. This study suggests that this relationship also exists among teachers. Thus, using a population that has not been examined in previous research, the results of the present study support the majority of research findings in that teachers who endorsed high levels of medical or biological beliefs on the causes of mental illness had higher stigmatizing attitudes and preferred greater social distance to those with mental illness.

Less consistent results have been found in research with respect to the role of social or individual causal beliefs and stigmatizing attitudes. Previous research findings have been inconclusive regarding the impact of social, psychological or interactional beliefs explaining mental illness (Corrigan, 2005; McKechnie & Harper, 2011; Read & Harre, 2001). The present study differs from these results in that teachers' beliefs about individual and social causes of mental illness were found to be a significant predictor of stigmatizing attitudes and preferred

social distance from those with mental illness. Accordingly, social and individual causal beliefs about mental illness were associated with less stigmatizing attitudes. The study by Van't Veer and associates (2006) found similar results, in which higher social or individual causal belief scores (i.e., sexual abuse and substance abuse) predicted greater levels of social acceptance toward those with mental illness. Further, these social and individual beliefs were stronger predictors of social acceptance of those with mental illness when compared with genetic and biological causal beliefs about mental illness. Van't Veer et al. (2006) concluded that the belief that mental illness was a result of social or individual causes resulted in lower levels of the social rejection toward those with mental illness. Results from the current study contribute to clarifying the relationship between causal beliefs and stigmatizing attitudes, providing support for the idea of educating teachers and students about the causes of mental illness that extend beyond biological origins.

These results have important implications for teachers. As summarized in the literature review, Stanovich and Jordan (1998; 2003) investigated teachers' beliefs and resulting behaviours about the causes of students' learning and behavioural problems. Teachers who believed students' difficulties to be consistent with a medical model explanation were more likely to engage in less effective and more negative teaching practices. It is concerning that these extreme biological beliefs could be impacting teachers effectiveness with students that have various challenges. Of further concern is that these negative attitudes and corresponding behavioural responses of teachers with strict biological beliefs may be communicated and even internalized by other students observing this. This is an example of an unintentional interaction that could potentially teach stigmatizing attitudes to students who may be strongly influenced by their teachers' responses. In this way, uncovering teachers' attitudes about the origins of mental

illness may be useful in shaping interventions that will be helpful in reducing the development of stigmatizing attitudes.

Even more broadly, these results have considerable and far reaching implications for educational efforts about mental illness and even anti-stigma campaigns. Historically, biological explanations for mental illness have been the dominant belief (Alloy et al., 1999; Barlow et al., 2006; Weyandt, 2006). Education is a part of most anti-stigma campaigns and works by challenging inaccurate stereotypes, which is thought to provide more realistic and factual information about mental illness (Corrigan & Shapiro, 2010; Franze & Paulus, 2009; Rusch et al., 2005; Smith & Cashwell, 2010). As indicated, research regarding stigmatizing attitudes revealed that the public thought mental illness was caused by bad character or demonic possession in early times (Barlow et al., 2006; Willerman & Cohen, 1990). Understandably, it was believed that providing education about the causes (i.e., biological, genetic) of mental illness would reduce stigmatizing attitudes (Corrigan & Shapiro, 2010). This was evidenced in the various anti-stigma initiatives that disseminated the "*An illness like any other*" campaign (Cheek, 2012; National Alliance on Mental Illness, 2015; Pescosolidio, Martin, Lange, Medina, Phelan & Link, 2010). As the Canadian Health Services Research Foundation (Cheek, 2012) points out, in the late 1990's both the Canadian Mental Health Association (CAMH) and the National Alliance on Mental Illness (NAMI) conceptualized mental illnesses as biological conditions in their anti-stigma campaigns (Cheek, 2012). Campaigns such as these have made the "*An illness like any other*" campaign a very common and well-known phrase relating to mental illness. This phrase, or some sort of variation of it, was one of the most common written phrases when teachers in the current study were asked to comment about the definition of mental illness.

Research examining attitudes toward mental illness over time have indicated that the public's knowledge about the causes of mental illness has improved but this has not necessarily led to improved attitudes toward mental illness (Angermeyer & Matschinger, 2005). For example, Pescosolido et al. (2010) compared attitudes in 1996 and then in 2006 and found that the public did espouse a more biological understanding of mental illness but there were no changes found in stigmatizing attitudes. A similar result was also found in a study by Schomerus et al. (2012), where several studies were reviewed and the results indicated that mental health knowledge had increased but acceptance of people with mental illness had not changed since 1990. These research studies suggest that while information on the genetic and biological causes of mental illness has increased people's understanding of mental illness, tolerance and acceptance of those with mental illness has not significantly improved (Cheek, 2012; Pescosolidio et al., 2010; Schomerus et al., 2012).

Ironically, education initiatives about mental illness that emphasized biological explanations intended to alleviate perceptions that a person who has mental illness is responsible for their illness (Corrigan & Shapiro, 2010; Rusch et al., 2005). Yet, not all mental illnesses can be traced to biological origins and there are strong psychological and social factors involved in mental health difficulties. As indicated in Chapter I, the definition of mental illness is complex and involves intricately woven factors that require continued understanding (Alloy et al., 1999; Barlow et al., 2006; Beutler & Malik, 2002). Further, it is possible that by not emphasizing psychological and social factors, de-stigmatizing educational efforts have been negatively impacted. Since much of the research supports the notion that strict biological causal beliefs are associated with, and explain a significant amount of variance in stigmatizing attitudes toward mental illness, it is unclear as to why de-stigmatizing efforts would continue to educate and

reinforce strict biological origins of mental illness. It is reasonable to question whether the historical discourse that assumed medical and biological dominance over mental illness in the past was also an indirect influence in the messaging of the “*An illness like any other*” campaign. There continues to be a widespread belief that mental illness is associated with biological causes, and this was further evidenced in the majority of teachers’ written comments.

Clearly, implications of this research suggest that solely focusing on biological origins of mental illness in educational efforts will not be successful at challenging stigmatizing attitudes. Efforts to further understand this remain. It is possible that a strict biological explanation of mental illness has resulted in the perception of an unchangeable etiology, which may reduce treatment optimism for mental illness (Thachuk, 2011). The present study supports the practice of including information about social and interactional causes of mental illness to decrease stigmatizing attitudes in educational efforts. It is recommended that an interactional model (bio-psycho-social model, vulnerability-stress models) be used to explain mental illness in any educational efforts (Cheek, 2012). It is, however, reasonable to assume that there will be challenges in changing the current narrative as the “*mental illness is like any other illness*” theme remains a commonly used way to define mental illness and has been the dominant perspective used to explain mental illness for a very long time.

**Level of Contact.** Another central finding was the significant relationship between prior experience with someone with mental health challenges and stigmatizing attitudes. The current study found that more previous personal experiences with someone who had mental illness was associated with less stigmatizing attitudes. There have been numerous studies that have found similar results (Alexander & Link, 2003; Corrigan et al., 2001; Covarrubias & Han, 2011; Eack, Newhill, & Watson, 2012; Korzun et al., 2012). Also consistent with past research, the level of

personal experience with those who had mental illness was found to be a significant predictor of stigmatizing attitudes (Alexander & Link, 2003). Further, results of the present study corroborated Read and Law's (1999) research that found the strongest influence on an individual's attitude toward mental illness to be the level of contact as indexed by the number of people the respondent knew with a psychiatric history. Out of the main factors investigated in the current study, the level of contact was the strongest predictor of both stigmatizing attitude measures.

Findings in this study point to the importance of including the opportunity for some type of contact or experience with those who have mental illness in initiatives where the focus is about decreasing stigmatizing attitudes. Anti-stigma campaigns have taken advantage of research findings in this area, where public figures are often used to talk about their experience with mental illness. For example, the "*Bell Let's Talk*" campaign started in 2010 and is a current, very well known mental health initiative. Generally, the initiative encourages conversations about mental health. One of the central approaches to this initiative involves having well-known public figures share their stories of mental health difficulties. Clara Hughes, an Olympic medalist, is the spokesperson associated with this campaign and has shared her story and struggle with depression (Bell Let's Talk, 2010). Another public figure associated with this initiative is Howie Mandel who openly acknowledges his personal mental health challenges with Obsessive Compulsive Disorder and Attention-Deficit Hyperactivity Disorder (Bell Let's Talk, 2010). Using well-known public figures to talk about mental illness provides viewers with a type of contact and experience with someone with mental illness. An advantage of the level of contact measure in the current study was that it provided opportunities to compare differing experiences with contact (e.g., seeing a public figure on TV or having an immediate family member or close

friend with a mental illness) by ranking twelve different types of contact experiences. Results in this study indicate that the more personal the contact with someone with mental illness, the less stigmatizing the attitudes. This may mean more direct, personal experiences with those who have mental health problems would further work to decrease stigmatizing attitudes. It seems that within the teaching population this could be achieved by including experiential learning opportunities in teacher training and education. For example, teachers could volunteer or work in areas where they are exposed to those with mental health problems for a period of time as part of their teacher education training. Perhaps, incorporating these specific experiential opportunities in university educational courses would be effective. Teachers in this study did not report the opportunity for this type of learning and several comments suggested that this would have increased comfort in dealing with students with mental health struggles.

The level of contact with those who have mental illness was also significantly associated with age, the number of years teaching, and participants' socio-economic background. These results revealed that older teachers and those with more teaching experience also reported having more personal experiences with those with mental illness. These results may not seem surprising since, theoretically, it is logical that older individuals and teachers who have been teaching for many years would also be exposed to more individuals, including more students, who experience mental health challenges. However, of continued concern is that participants' socio-economic background was also significantly correlated with level of contact, indicating that teachers who reported growing up in households with lower levels of socio-economic status (i.e., poverty and lower middle class) had higher levels of personal experiences with mental illness. This is rather consistent with literature from epidemiological studies reporting that personal experiences with mental illness is more evident in marginalized groups (Hollingshead & Redlick, 2007; Hudson,

2005; Kessler et. al, 1994; U'ren, 2011). Unfortunately analyses comparing the racial backgrounds of participants could not be computed in the present study because of the extremely small sample sizes in many of the minority racial categories. Other demographic categories such as gender, formal education level, and rural versus urban teachers, did not reveal any significant differences with the level of personal experience with mental illness. The significant results here provide further support for the importance of the social explanations in understanding the complexity of mental health problems.

**Previous Education About Mental Illness.** Perhaps the most surprising result of the current study was the insignificant impact of previous training about mental illness on stigmatizing attitudes toward mental illness. There are numerous studies that suggest that training and knowledge about mental illness is associated with stigmatizing attitudes (Feldman & Crandall, 2007; Franze & Paulus, 2009; O'Mara et al., 2009; Overton & Medina, 2008; Rusch et al., 2005; Smith & Cashwell, 2010; Wahl & Aroesty-Cohen, 2009; Watson et al., 2004). However, the current study found no relationship between previous mental illness training and stigmatizing attitudes. It should be noted that the percentage of teachers in the current sample who indicated they had not received any previous education about mental illness was quite high at 61 per cent.<sup>1</sup> The continuous variable used in the present study was created by asking teachers who had received training in the area of mental illness to simply estimate the number of hours of training they had received. The post hoc power investigation indicated the analysis was underpowered, which further suggests the results to be inconclusive. It is possible that the sample size used to create the continuous variable was too low for the analyses. Additionally, there were

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<sup>1</sup> The high percentage indicating a lack of training for teachers in regards to dealing with students' mental health appears to be consistent with other survey research (Froese-Germain & Riel, 2012).

no known tools available to the researcher that measured knowledge about mental illness, and therefore, the measure used to establish the variable in the current study may be somewhat unsophisticated.

Interestingly, a statistically significant result was found when the dichotomous previous training variable on mental illness was entered into analyses with teachers' self-rated knowledge and comfort in dealing with various issues related to students' mental health. There was a significant difference in teachers' knowledge and comfort in dealing with students' mental health problems between teachers that had indicated they received previous mental health education and those teachers that did not. Specifically, teachers that indicated they had previous education about mental illness endorsed greater levels of mental health knowledge and greater comfort in dealing with such issues. Thus, based on the self-report of teachers in the current study, prior training in mental health issues does seem to have an impact on the knowledge levels and feelings of comfort for teachers when dealing with mental health challenges in the classroom.

Moreover, prior mental health training was not related to any of the measures used to assess stigmatizing attitudes toward mental illness. Since the analysis was found to be underpowered, implications of this suggest further research is necessary. As indicated, it is possible that the insignificant result could be due, in part, to the way in which previous training was measured in this study. The measurement of previous training in this study was not specific about the nature of the participants' previous training. The measure may have been too broad and general to reliably and validly assess the length, context, and type of educational effort as well as the impact of such efforts on stigmatizing attitudes toward mental illness. Future research studies may incorporate the use of more rigorous assessments of mental health training, such as measuring stigmatizing attitudes before and after attending a mental health workshop, on

stigmatizing attitudes in teachers. However, as these results suggest, it does seem as though broad education about mental illness has helped teachers feel more knowledgeable and more comfortable in dealing with mental health challenges. Consideration on how to measure previous education about mental illness in a reliable and valid way is important for further research. Assessing more specific topics or types of educational experiences about mental illness will further contribute to learning what may impact stigmatizing attitudes toward mental illness.

### **Demographic and Descriptive Factors**

**Gender difference finding.** Consistent with past research (Hogberg et al., 2010; Phelan & Basow, 2007; Smith & Cashwell, 2010), females in the present study reported less stigmatizing attitudes (as measured by the CAMI-R) when compared to males. Gender did not have a significant effect on preferred social distance toward those with mental illness. However, the significant results found have implications when the literature on gender differences in mental health attitudes is reviewed.

It has been recommended that gender differences be addressed when providing education to reduce stigmatizing attitudes (Shimmin, 2009). The premise behind this gender difference suggests traditional gender role socialization as the cause, where men and women have been socialized in different ways that have resulted in different attitudes toward mental illness (Latalova, Kamaradova & Prasko, 2014). For example, through socialization, symptoms of some mental illnesses (e.g., symptoms related to depression or anxiety including sadness, fear, worry, etc.) may come to be viewed as a weakness for males, resulting in stigmatizing attitudes that connect symptoms of mental illness to weakness in men (Shimmen, 2009). Related to this, men have also been found to have higher levels of self-stigma. Research has further found that higher levels of self-stigma are associated with reduced help seeking behaviour (Latalova et al., 2014;

Shimmen, 2009). Similarly, the belief that people who are challenged with mental health problems should be able to cope on their own is higher in men (Latalova et al., 2014). These beliefs also put men at risk if they are experiencing a mental health problem. Since the highest rate of suicide is in middle-aged men, coupled with the fact that men die by suicide 3.5 times more than women, this gender difference is an area of concern (American Foundation for Suicide Prevention; AFSP, 2017; Canadian Mental Health Association: CMHA, 2017). Moreover, the gender difference finding in the current study, along with findings from past research, supports the importance of giving attention to these gender differences in educational efforts focused at reducing stigmatizing attitudes toward those with mental illness.

**Age and post-secondary educational attainment.** A surprising finding in the present study was that age and level of formal education were not associated with stigmatizing attitudes. Several previous studies found that younger people and those with more formal education were found to report less stigmatizing attitudes (Hogberg et al., 2012; Van't Veer et al., 2006). Since the present study explored stigmatizing attitudes in a sample of teachers, all participants held at least one university degree. Furthermore, many participants reported having two undergraduate degrees and some had completed post-graduate coursework. The sample in the present study was, therefore, highly-educated and potentially different than the samples used in previous research. Perhaps there was not enough variance in the area of formal education in the present sample. Descriptive statistics indicated there was a good variance of age in the current sample with participants ranging from 21 years of age to 66 years of age. Since age and formal education were not found to significantly correlate with stigmatizing attitudes, contrary to previous research, results are inconclusive and future research will be necessary to clarify these relationships. As previous research has not examined this relationship within the population of

teachers, it may also suggest that, in teachers, age and level of education are simply insignificant to stigmatizing attitudes.

**Teachers' mental health finding.** Teachers' self-rated level of mental health was found to be associated with stigmatizing attitudes, as measured by the CAMI-R, and was found to be a significant predictor of these attitudes in the regression analysis. Moreover, higher levels of positive mental health were linked to less stigmatizing attitudes in teachers. This is the first study known to examine teachers' self-reported mental health related to stigmatizing beliefs. Hsiang (2016) investigated teachers' psychological health in relation to teachers' burn out and found psychological health, measured by enjoyment and meaning in life, to be a significant predictor of teachers' burnout. Additionally, in the present study, teachers' mental health was found to be significantly associated with teachers' knowledge and comfort in dealing with various issues related to students' mental health, where higher levels of self-reported mental health were found to relate to higher levels of knowledge and comfort in dealing with students' mental health. Replicating results of this research will be essential but these findings do suggest that it is reasonable to further explore the mental health of teachers in future research efforts that target stigmatizing attitudes. Moreover, while more investigation is necessary for conclusions to be drawn, teachers' mental health seems to be a promising area to explore in relation to aspects associated with stigmatizing attitudes toward mental health challenges.

### **Teachers' Knowledge and Comfort in Dealing with Students' Mental Health**

Mean ratings on each of the teachers' self-reported comfort and knowledge in dealing with students' mental health questions are within the mid range. These overall results of teachers' comfort and knowledge in dealing with students' mental health were similar when compared to Daniszewski's (2013) study, in which teachers in Ontario responded to similar

questions. These results suggest that, generally, teachers have some knowledge and comfort to address mental health concerns in the classroom. On the other hand, this also means that over half of teachers reported very low levels of knowledge and comfort in dealing with aspects related to students' mental health. Teachers are continually working with students that are experiencing mental health problems and it is reasonable to question whether this lack of reported knowledge and comfort is acceptable in a group that could play such an important role in students' mental health.

It is apparent that, even though the teachers in this study reported some knowledge and comfort with students' mental health, there seems to be some intervention or training missing that would help them feel more prepared. This message also resonated in the current study through teachers' written comments and is consistent with a national survey where 87% of teachers surveyed agreed that a lack of adequate training in dealing with children's mental illness was a barrier to providing mental health services for students (Froese-Germain & Riel, 2012). The significant inverse correlational results between the knowledge and comfort ratings with both stigmatizing attitude measures suggests a relationship between higher levels of knowledge and comfort and lower levels of stigmatizing attitudes towards mental illness. Additionally, the significant finding that teachers with previous training about mental illness have higher self-reported knowledge and comfort with students' mental health might imply that training may be a successful intervention for this. What the current study is unable to determine, however, is the type and extent of training that is necessary to achieve greater knowledge and comfort in dealing with mental health issues, result in less stigmatizing attitudes. Furthermore, the present study is also unable to determine whether prior training resulted in less stigmatizing attitudes, as it is also possible that those who were already more knowledgeable and comfortable held less

stigmatizing attitudes and then sought out further training in this area. Nonetheless, these findings suggest that the impact of training is related to teachers' increased knowledge and comfort in dealing with mental health. As such, this is an area of future research that warrants further attention.

**Comfort with students' mental health.** Self-reported comfort questions (i.e., being comfortable with aspects of students' mental health problems) were found to be significant predictors of both outcome stigma measures. It could be suggested that teachers' self-reported comfort in dealing with students' mental health problems were more influential in contributing to stigmatizing attitudes as compared to teachers' self-reported knowledge, as no self-reported knowledge questions were indicated to be significant predictors in any of the regression analyses. Additional research is necessary to clarify this finding. However, this may imply that focusing on teachers' comfort with students' mental health challenges, rather than self-reported knowledge, might possibly be more favourable in efforts to reduce stigmatizing beliefs.

**Talking to Parents.** Consistent with previous research (Daniszweski, 2013), teachers in the present study indicated that, out of all knowledge and comfort questions, they are least comfortable talking to parents about students' mental health concerns. Related to this, many teachers in this study indicated parents as being a barrier to increasing students' mental health, a finding that is consistent with previous research (Daniszweski, 2013; Reinke, Herman, & Stormont, 2013; Williams, Horvath, Wei, VanDorn, Jonson-Reid, 2007). This finding is concerning for various reasons and may be understood in the context of the ecological model (Bronfenbrenner & Morris, 2007) that situates teachers and parents in the students' microsystem and mesosystem. This model promotes the significance of both the home and school environment on a developing child. Williams et al. (2007) found that a teacher's perceptions of

parental support influenced their decision to refer a student for mental health services, in that lower levels of perceived parental support was related to the teacher being less willing to make the referral. Since strong communication between teachers and parents is central to academic success and sound mental health among students, the results of this research imply it is critical that training programs emphasize the importance of strong communication and collaboration with parents (Daniszweski, 2013). Given all of the other responsibilities that teachers are tasked with, it is possible that teachers do not feel like they have the skills or the time for parental collaboration. This will require further consideration as teachers' comfort in working with parents to address a student's mental health concern is essential for early intervention and a positive outcome.

**General supports.** Teachers indicated a desire for more support, greater access to resources, and clarification in their role and responsibilities regarding students' mental health challenges. Recently, the Canadian Broadcasting Corporation (CBC) reported a story that was being posted and shared on various social media sites, highlighting in bold letters a quote stating that "teachers are not social workers" (Cooke, 2017). A focus on clarifying a teachers' role in dealing with students' mental health seems necessary since there appears to be a rising concern that dealing with students' mental health is not within a teachers scope of practice (Cooke, 2017; Froese-Germain & Riel, 2012). Yet, teachers will be confronted with students' mental health issues on a daily basis. And, although teachers' written comments in the present study indicated that principals were providing high levels of support, participants also queried whether school administration had the knowledge required to effectively help. Froese-Germain and Riel (2012) completed a national survey with teachers and their results revealed that administration and resource allocation-related factors were the most frequently reported barriers to mental health

service provision in schools. These research results point to more supports being required for teachers in dealing with their demanding classrooms and particularly in regards to students' mental health. Consideration at systemic and policy levels as well as in university academic training programs might be further recommended as the implications from the research suggest a far more expansive concern. It is clear that for teachers to be more effective, comfortable, and knowledgeable in dealing with students with mental health concerns, support at varying levels will need to be provided.

### **The Presence of Stigmatizing Attitudes in Teachers**

Specific item analysis revealed that, overall, most teachers reported fairly positive attitudes toward those identified as having a mental illness. Reviewing how specific stigmatizing attitude items were rated helped to identify and target certain areas that may present problems. Generally, teachers agreed that inclusion for students with mental health challenges was important. For example, only 3% of teachers agreed that a student with mental health problems should be separated from other students and only 2% agreed that the best way to handle students with these problems is to remove them from their regular school program. However, 59% of teachers agreed that the best learning for many students with mental health problems is to be part of an inclusive classroom. This might be an area to target as 32% of teachers chose the neutral option and 9% disagreed. In other words, 41% of the sample disagreed or were neutral to the idea that the best learning for students with mental health problems was to be in an inclusive classroom. Other specific items revealed that 28% of teachers agreed that students with mental health challenges were a burden in the classroom and that 24% of teachers agreed that having students with mental health challenges in their classroom might pose too great a risk to other students. These findings are also areas that ought to be further explored and possibly targeted in

anti-stigma trainings. It may be that these results suggest that teachers believe students with mental illness require more attention and effort and therefore, despite feeling that these students should be involved in an inclusive way, they feel burdened or concerned about the responsibility and workload. Certainly the written comments from teachers further suggest this possibility as concerns about workload pressures and being under-resourced were described throughout the open-ended statements. Low levels of comfort and knowledge reported by teachers in dealing with students' mental health challenges might also relate to the endorsement of items about feeling burdened or uncertain about students with mental health in the classroom. Clearly, further research is required to gain a greater understanding of what factors and obstacles are related to the perceived burden of students with mental health difficulties. Interventions to target these areas might be important and practical considerations for teachers in their efforts to support inclusive education.

The high level of agreement in the attitude item indicating "Inclusion might be best for those students with mental health challenges but the risk to other students may be too great" is another finding that requires further consideration. It is possible that this reflects the stereotype of fear or the belief in the potential of those with mental illness to be dangerous. This expression of fear and dangerousness was also endorsed in statements suggesting that students needed to be protected from those with mental illness and more generally that the public required protection from those with mental illness. Higher stigmatizing attitudes were also indicated on a statement suggesting that a history of mental illness should exclude a person from some career choices (i.e., pilot). This would be similar to the meta-analyses findings that suggested that people continue to endorse fear in those with mental illness (Phelan et al., 2000; Schomerus et al.,

2012). The implications of this finding point to the need for continued de-stigmatizing efforts as there still may be a great deal of work necessary to overcome such deep-rooted stereotypes.

The result that was most concerning relating to stigmatizing attitudes was in reference to the item that assessed attitudes about having someone with mental illness in close proximity to family members. Only 43% of the sample agreed that people who were previously treated for a mental illness could be trusted as a teacher or baby-sitter, with 44% of the sample being unsure or neutral about this statement and an additional 12% disagreeing that they would trust someone with a mental illness to be a teacher or baby-sitter. This result was corroborated on the social distance measure where (a) 56% of teachers indicated unwillingness to have someone with mental illness care take for their children, (b) 30% of teachers indicated unwillingness to have their children marry someone with mental illness, and (c) 35% of teachers were unwilling to rent a room out in their home to someone with a mental illness. In their meta-analysis, Schomerus et al. (2012) revealed that even though some attitudes about mental illness had shifted in a positive direction in the general public, social acceptance for those with mental illness being colleagues, neighbors, or roommates remained unchanged or at low levels. It should be noted that in the current study, teachers indicated overwhelming willingness to work with someone struggling with mental health or live beside someone with mental illness. This seems promising compared the results of Schomerus et al. (2012), that suggested unchanging attitudes in the social acceptance of people with mental illness as colleagues or friends. However, it seems that despite years of efforts to reduce the stigma of mental illness, the preferred level of social distance to those closest to family members remains a concern.

### **Strengths and Limitations**

There are many strengths inherent in the current study. Only a limited number of studies have examined stigmatizing attitudes towards mental illness in teachers. Uncovering these stigmatizing attitudes helps to target professional development and holds implications for teacher training programs. As well, results that confirm previous research findings on the association of biological causal beliefs and stigmatizing attitudes provide implications for the way education about mental illness is provided. Also promising is the finding that higher levels of personal experience predicted lower stigmatizing attitudes and this contributes to the understanding of the importance of incorporating different types of experiential learning into academic and teaching training programs that provide contact with those who have mental health challenges. Despite these strengths and contributions, there are a number of limitations in the current study.

One such limitation was the length of the survey. A fairly large number of participants (about 19%) completely quit responding to survey items at various points throughout the survey. One possible reason for this was that the survey was too long and the participants were experiencing survey fatigue. Other missing data were explored and determined to be missing at random. Nonetheless, it is possible the results were impacted by the high dropout rate and future research should seek to replicate the results of the present study while using more concise surveys.

With respect to the generalizability of the present findings, teachers in Saskatchewan were used as participants for the current study, therefore, the results are only generalizable to this particular population, and others like it. It is important to note that different geographical locations may experience unique challenges, particularly when it comes to students with mental health challenges. Similar to this, the generalizability of the results might further be limited since

the teachers who responded to the survey and indicated they were working in *rural* areas may not have had the same experiences. Unfortunately, a comparison of rural areas (i.e., teachers working in federally funded schools versus provincially funded schools) was not possible because of the small sample size reported in one of the groups. More specifically, teachers in isolated northern Saskatchewan communities might be dealing with very different types of mental health concerns with their students. The recent rash of adolescent suicides and suicide attempts in these northern communities has highlighted the unique realities of these extremely under resourced communities (Heroux, 2016; Markewich, 2016). As such, mental health challenges experienced in schools located in more remote communities may require very different types of interventions (Bothorel, 2016). Similarly, the lack of racial and gender diversity in the sample is very limiting. For example, 92% of the sample identified as White and the majority of the sample identified as female. As well, a convenient and voluntary sampling technique was used. With this technique, it is quite possible that the title and description of the study attracted those teachers that were already interested in reducing the stigma of mental illness, and they may, consequently, hold less stigmatizing attitudes than the general population. These factors may reduce generalizability of the results and therefore, are limitations of the current study.

The data gathered in this study were based on self-reported information and therefore subject to distortions and inaccuracies that may arise when respondents provide information about themselves, whether intentionally or unintentionally. There was not an opportunity to independently verify the responses of participants. The study was designed to encourage honest and truthful responding by emphasizing that participation was anonymous and that no one from the participants' places of employment would be aware whether they participated or how they responded. Based on this limitation, a well-researched and standardized social desirability scale

was used to gauge whether respondents were answering in a truthful manner or were excessively concerned about responding in a socially desirable manner. As results indicated, about 29% of respondents were overly concerned about social approval and were potentially responding to the survey in a socially desirable way. Based on this, it is possible that the stigmatizing attitude findings are under reported. Furthermore, an implicit stigmatizing attitude measure would be important to consider in future research.<sup>2</sup> Since implicit measures help identify attitudes that occur without conscious awareness, attitudes occurring at a visceral level can be identified through their use (Fiske et al., 2010; Greenwald, McGhee, & Schwartz, 1998; Maio & Haddock, 2010). In this way, both explicit and implicit attitudes require investigation. This is important to point out since a gap will remain in our understanding of stigmatizing attitudes toward mental illness in teachers without the investigation of implicit attitudes toward mental health challenges.

It should also be noted that the presence or absence of stigmatizing attitudes does not directly map onto the way that teachers may intervene with their students. Based on the fact that teachers' actual behaviours were not observed or measured, causal relationships may not be offered about the way that stigmatizing attitudes relate to teachers' behaviours. Yet, research has concluded that attitudes are important determinants of behaviour (Demirkiran & Eskin, 2005; Maio & Haddock, 2010; Peris, Teachman & Nosek, 2008). While some researchers have investigated the influence of teachers' attitudes on their behaviours (Stanovich & Jordan, 1998; 2003), further research about teachers' stigmatizing attitudes and their resulting behaviours could be valuable in advancing our understanding of this relationship.

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<sup>2</sup> An implicit stigmatizing attitude measure was initially conceptualized but there were various obstacles that could not be overcome for the researcher to implement in the present study. A large obstacle was that all data and analysis would be computed and stored separately and the researcher would have no role in analyzing or protecting the data. Practically, it was a lengthy survey without the implicit measure and it was also cost-prohibitive.

Finally, there were no specific standardized measures available for evaluating stigmatizing attitudes toward problems with mental health in teachers. The measures of stigma were chosen based on their previous performance in research with various populations including mental health counsellors, mental health trainees, social workers, nurses and doctors (Schafer et al., 2011; Schultz, 2007; Smith & Cashwell; 2010; 2011; Song et al., 2005; Wahl & Aroesty-Cohen). As a result of this, the measures chosen in the present study were slightly adapted in order to make them more appropriate and applicable for teachers. Internal consistency estimates on the CAMI-R scales and subscales were found to be strong. This result might suggest that the use of this measure with teachers is promising. Slight item adaptations were also made to the social distance measure and a strong internal consistency estimate was also found. Overall, Cronbach alphas were fairly consistent or slightly better as compared to internal consistency results indicated in previous research (Alexander & Link, 2003; Anagnostopoulos & Hantzi, 2011; Lauber et al., 2004; Link et al., 1987; Link et al. 2004; Schafer et al., 2011). All other scales and subscales indicated good internal consistency estimates with the exception of the MHLO interactional causal beliefs scale. This scale reported low internal consistency and further item analysis of this measure is recommended if used in future research. It is possible that social and interactional causal beliefs are separate items and combining them into one scale resulted in the lower internal consistency. Again, further research regarding this particular scale is suggested.

As with most cross-sectional studies, the present findings are subject to cohort effects (i.e., this study only offers a snapshot of what is occurring at the time the data is collected). What is evident and relevant in the present study may not be so in the future, even the near future. Currently, there are ongoing anti-stigma campaigns promoting greater awareness on the stigma

of mental illness. Given the media attention related to decreasing stigmatizing attitudes toward mental illness, changes are very likely. Yet, with the limited research on teachers' attitudes toward stigmatizing attitudes, this study provides a base line for stigmatizing attitudes toward mental illness in teachers. It will be important to continue to research these attitudes, comparing similarities and changes over time.

### **Final Implications and Future Research**

This study corroborated many of the findings of previous mental illness stigma research, thus lending support to past findings, but it also expanded the topic area, particularly as it examined such attitudes in a unique sample. This study will serve as a foundation for examining teachers' stigmatizing attitudes toward problems with mental health. The identification and extent of certain stigmatizing attitudes provides focus for future comparison and current intervention efforts.

Perhaps one of the most noteworthy implications concerns the relationship identified in this study between causal beliefs toward mental health problems and stigmatizing attitudes. Findings in the present and past research provide further support that teaching biological or genetic origins of mental illness may not be the most effective way to reduce stigmatizing beliefs and attitudes. Reasons for this need to be further elucidated but it is possible to speculate. Given that biological origins have not been indicated for all mental illnesses, perhaps it is the notion that mental illness cannot be cured which leads to stigmatizing attitudes (Read & Harre, 2001; Read & Law, 1999; McKechnie & Harper, 2011; Rusch et al., 2005; Van't Veer et al., 2006). Further when causes that are viewed as external (i.e., genetic, biological) rather than internal (i.e., one's own character) people may infer that one has no control over their illness, therefore, further suggests a level of unpredictability and uncontrollability (Read & Harre, 2001; Read &

Law, 1999; McKechnie & Harper, 2011; Rusch et al., 2005; Thachuk, 2011; Van't Veer et al., 2006). The view that mental illness is not stable and unable to be controlled may also relate to stigmatizing attitudes (Cheek, 2012; Corrigan & Shapiro, 2010; Rusch et al., 2005, Van't Veer et al., 2006). Moreover, a strict biological explanation of mental illness might imply an unchangeable etiology and reduce one's optimism for treatment because not all mental illnesses currently have biological indicators (Corrigan et al., 2005; Dietrich et al., 2006; McKechnie & Harper, 2011; Read & Law, 1999; Read & Harre, 2001; Thachuk, 2011). Furthermore, the perception that treatment will not assist those with mental illness might fuel the stigmatizing attitude of fear that has been noted in research (Rusch et al., 2005; Schomerus, 2012). Perhaps the lack of clarity in the definition of mental illness adds to the confusion and might also help to explain these findings. Consequentially, these results suggest that anti-stigma campaigns and other educational efforts to reduce stigmatizing attitudes toward mental illness may not be achieving the desired result by focusing on the biological and genetic attribution of mental illness and conceivably suggest there might be more effective ways of educating the public about mental illness. The social and interactional causal beliefs toward mental illness were associated with lower levels of stigmatizing attitudes. Therefore, results of this study imply that educational efforts about the origins of mental illness should include integrative conceptualizations of mental illness that encompass social and interactional explanations for mental illness. Evaluation studies, employing a pre-post design with follow-up, are also necessary to further examine and explore these educational initiatives.

The high percentage of teachers reporting no previous education or training about mental illness is alarming and, while no significant relationship between receiving previous education and stigmatizing attitudes was apparent, the small sample, low power, and broad measure may be

the reason. There were significant results found between previous training and increased teachers' knowledge and comfort in dealing with students' mental health. It is clear that professional development opportunities are necessary in the area of mental health and open-ended comments from teachers further supported this need. Implications for teacher training in areas of mental health were clear, in which it would be important to include experiential learning opportunities for teachers that provide direct contact and experience with students with mental health challenges. Other important areas to target in academic or teacher training educational opportunities are communication with parents of students with mental health challenges, how to access to mental health resources, how to support students with mental health challenges and increasing knowledge of the signs and symptoms of students' mental health problems. Perhaps future research should focus on gaining a better understanding of what educational and training opportunities in the area of mental health teachers have available to them. Many teachers indicated that there were very few to no training opportunities. Assessing the impact of any training opportunities should also be areas addressed in future research.

While a baseline for teachers' explicit attitudes towards mental health problems was established in this study, the inclusion of an implicit attitudinal measure was not possible. This is a necessary and important area for future research efforts. As well, the direct investigation of teachers' attitudes toward mental illness and resulting behaviours to students will help to clarify the attitude-behaviour connection and evaluate the causal relationship. This will provide real-world research that will add extraordinary meaning to the results.

### **Conclusions**

The rationale for schools to focus on mental health is strong as teachers will inevitably be dealing with students who experience challenges with their mental health. It has been argued that

children, most likely, spend more awake time in the classroom than they do at home or in recreational activities (Kirby & Keon, 2006). Furthermore, social learning theory and ecological models support the importance of a teacher's role in a child's development (Brofenbrenner & Morris, 2007; Jackson, 2011). As such, teachers are recognizably in a position to be dealing with students' mental health challenges and with minimal training in mental health, it is questionable how it is possible for teachers to be effective in this position (Daniszweski, 2013; Koller & Bertel, 2006).

The stigma of mental illness has devastating consequences and reducing the development of stigmatizing attitudes is an important area for all mental health initiatives, including school-based efforts (Bathje & Pryor, 2011; Corrigan, 2005; Froese-Germain & Riel, 2012; Overton & Medina, 2008; Wahl, 1999). Stigma is represented in attitudes and research has concluded that attitudes are an important influence on behaviours (Ajzen, 2011; Eagly & Chaiken, 1998; Maio & Haddock, 2010). Teachers can communicate attitudes unintentionally and implicitly, in which messages to children may be conveyed through attitudes (Brown, 2010; Eagly & Chaiken, 1998; Grusec, 1992; Jackson, 2011; Maio & Haddock, 2010). In this way, teachers' attitudes toward mental illness are an important area to examine in efforts to reduce the development of stigmatizing attitudes in children. The results of the present study found that while teachers' attitudes toward those with mental illness were positive overall, there were stigmatizing attitudes present and particular attitudes were identified that might be targeted for further exploration and intervention.

This study corroborated previous research and found biological causal beliefs of mental illness to be a predictor of stigmatizing attitudes along with levels of personal contact with those who have mental illness. Additionally, interactional and social causal beliefs were also indicated

as a significant predictor. While more research on the latter predictor is still necessary, results provide important considerations for teacher training as well as academic and professional development opportunities. Implications of the current study findings suggest education using integrative approaches to discuss the etiology of mental illness and providing experiential opportunities with those who have mental illness are important in de-stigmatizing attitude efforts with teachers. Without a doubt there is a need to work to increase teachers' knowledge and comfort in dealing with students' mental health and previous mental illness training was associated with higher levels of knowledge and comfort. The examination of stigmatizing attitudes toward mental illness in teachers is an important aspect to overall school-based mental health efforts as well as in reducing stigma development in children. Overall, by examining factors related to stigmatizing attitudes, the findings provide important considerations for teacher training programs and professional development.

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## Appendix A

### Recruitment Letter to Directors of Education

March 8<sup>th</sup>, 2016

Dear Directors of Education,

Hello! My name is Bree Fiessel and I am a PhD student with the Faculty of Education at the University of Regina. My research is on teachers' perspectives of mental health and I am requesting participation from teachers in Saskatchewan to complete a 25 to 40 minute survey. The purpose of the study is to examine teachers' perspectives of mental illness and factors that influence them. One of the objectives is to identify what is required to support teachers in encouraging their students' positive mental health. This project has received ethics approval from the University of Regina's Research Ethics Board.

I ask that this email be forwarded to teachers practising in Saskatchewan. Teachers must have a Bachelor of Education degree and be working in either a private, federal, or public school system. Participation is entirely voluntary. If you have received this e-mail and are willing to participate in this survey, please click on the link below. When you complete the survey, you can enter to win a \$100.00 gift certificate. I thank-you for your time and attention to this. If you have any questions or would like the results of this study, please find the contact information below.

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**Advisor:** Dr. Ron Martin, Faculty of Education  
[ron.martin@uregina.ca](mailto:ron.martin@uregina.ca)

## Appendix B

### Recruitment Saskatchewan Teachers Federation Bulletin

#### Teachers Requested to Participate

Bree Fiessel (PhD student) and Dr. Ron Martin (Advisor) from the Faculty of Education, University of Regina, have requested participation from teachers to complete a 25-40 minute questionnaire on their perspectives of mental illness for a dissertation project. Upon completion of the survey, you can **enter to win a \$100 gift certificate**. Just enter **[www.surveymonkey.com/r/stigma\\_mentalillness](http://www.surveymonkey.com/r/stigma_mentalillness)** in your web browser to participate.

## Appendix C

## Ethics Approval

**University of Regina***Research Ethics Board  
Certificate of Approval*

REB #

2016-039

Investigator(s) Bree Fiessel  
Department Faculty of Education  
Funder: Unfunded  
Supervisor: Dr. Ron Martin

Title: Teachers' Perspectives toward Mental Illness: Relationships and Contributing Factors

APPROVED ON: March 16, 2016

RENEWAL DATE: March 16, 2017

## APPROVAL OF:

Application For Behavioural Research

Ethics Review Email to School Board

Chairs and Director

Letter of Initial Contact

Consent Form

Survey Questionnaire

FULL BOARD MEETING

DELEGATED REVIEW

The University of Regina Research Ethics Board has reviewed the above-named research project.

The proposal was found to be acceptable on ethical grounds.

The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol, consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

## ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion.

Please refer to the following website for further instructions:

<http://www.uregina.ca/research/for-faculty-staff/ethics-compliance/human/forms1/ethics-forms.html>

**Dr. Larena Hoeber, Chair**  
University of Regina Research Ethics Board

Please send all correspondence to: Research Office

University of Regina  
Research and Innovation Centre 109  
Regina, SK S4S 0A2  
Telephone (306) 585-4775  
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## Appendix D

### Informed Consent



University of Regina  
Bree Fiessel, fiisselb@uregina.ca

#### FACULTY OF EDUCATION

OFFICE OF RESEARCH & GRADUATE PROGRAMS  
Regina, Saskatchewan, Canada S4S 0A2  
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#### Participant Consent Form

Project Title: Teachers' Perceptions of Mental Illness

Research Personnel: This research is being conducted by Bree Fiessel, MEd (Bree Fiessel, fiisselb@uregina.ca).

Supervisor: Dr. Ron Martin, Faculty of Education, ron.martin@uregina.ca, (306) 585-4515

Purpose and Objective of the Research:

This research is being conducted as a doctoral dissertation. The purpose is to examine teachers' perspectives of mental illness and factors that influence them. Ultimately, the results of this study may be used to identify potential supports (e.g. additional training) that may be offered to teachers to help facilitate their students' positive mental health.

Procedures:

You will be asked to complete a 25 to 40 minute survey. The survey will be used to gather information about: your demographic/background information; what you think is necessary to work with students' with mental health challenges; your attitudes about mental illness; the amount of personal contact you have had with people with mental illness; your previous education about mental illness; and your beliefs on the causes of mental illness.

Potential Risks:

There are no known or anticipated risks to you resulting from your participating in this research, apart from the time required to complete the survey.

Potential Benefits:

Understanding teachers' perspectives about mental illness could have beneficial implications for teacher and school-based professional development. Additionally, the study may have implications for the types of opportunities required to assist teachers in reducing the development of stigmatizing attitudes in their students.

**Confidentiality:**

The information that you provide in your survey responses will be kept confidential by the researchers. No IP addresses are recorded with the survey. Further, your information will be kept in password-protected electronic files that are only accessible by Ms. Bree Fiessel and Dr. Ron Martin. If you would like to enter to win a \$100.00 gift card, your name and contact number will be requested on the survey. It will be up to you if you would like to enter. The researcher will separate your name and contact number from the survey results once the survey has been submitted. Your data will be kept for a period of five years. After this time period has elapsed, your data will be permanently deleted.

**Right to Withdraw:**

Your participation is voluntary and you can chose to answer only those questions that you are comfortable with. You may withdraw from the research project for any reason, at any time without penalty of any sort. Whether you choose to participate or not will have no effect on your position (e.g. employment) or how you will be treated. If you wish to withdraw prior to completion of the survey, do not send your information. Once you complete the survey and send it, there will be no way to identify your survey results and withdraw the data.

**Communication of the Results of the Study/Follow-up:**

Participants who wish to receive a brief summary of the study results will be asked to provide an e-mail or mailing address.

**Questions or Concerns:**

If you have any questions or concerns, please do not hesitate to contact the researcher using information provided at the top of this consent form. This project has been approved on ethical grounds by the University of Regina Research Ethics Board on (March 16, 2016). Any questions regarding your rights as a participant may be addressed to the committee at (585-4775 or [research.ethics@uregina.ca](mailto:research.ethics@uregina.ca)).

**Consent: Implied Consent for Surveys**

By completing and submitting the questionnaire, your free and informed consent is implied and indicates that you understand the above conditions of participation in this study.

If you agree, please click on the next button to continue filling out the questionnaire.

NEXT

## Appendix E

## Community Attitudes Towards Mental Illness Scale-Revised (CAMI-R)

The following statements express various opinions about mental illness and people who have mental illness. Mental Illness is a condition that disrupts a person's thinking, feeling, mood, ability to relate to others and daily functioning. Please circle the response that most accurately describes your reaction to each statement. Don't be concerned if some statements seem similar to ones you have previously answered. All statements are rated:

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

a. As soon as a person with mental illness shows signs of mental disturbance, he or she should be hospitalized.
b. More tax money should be spent on the care and treatment of persons with mental illness.
c. A student with mental illness should be separated from other students.
d. The best therapy or learning for many students with mental illness is to be part of a regular classroom and school.
e. Mental Illness is an illness like any other.
f. Students with mental illness are a burden for many teachers.
g. People with mental illness are far less of a danger than most people think.
h. Locating mental health services in a residential area downgrades the neighbourhood.
i. There is something about people with mental illness that makes it easy to tell them from other people.
j. People with mental illness have far too long been the subject of ridicule.
k. A person would be foolish to marry a person who has suffered from mental illness, even though the person seems fully recovered.
l. As much as possible mental health services should be provided through community based facilities.
m. Less emphasis should be placed on protecting the public or other students from

those with mental illness.
n. Increased spending on mental health services is a waste of tax dollars.
o. No one has the right to exclude students with mental illness from their classroom.
p. Having students with mental illness in inclusive classrooms might be good for them, but the risks to other students can be too great.
q. Most people with mental illness need the same kind of control and discipline as a young child.
r. We need to adopt a far more tolerant attitude toward people with mental illness in our society.
s. I would not want to live next door to someone who has a mental illness.
t. Teachers should accept students with mental illness in their classrooms, working to serve the needs of all students.
u. Students with mental illness should not be isolated from the regular school classroom and programs.
v. There are sufficient existing services for people with mental illness.
w. Students with mental illness should be encouraged to assume the responsibilities of life.
x. Teachers have good reason to resist students with mental illness in their classroom.
y. The best way to handle students with mental illness is to separate them from the regular program.
z. Our mental illness facilities seem more like prisons than like places where children and adults with mental illness can be cared for.
aa. Anyone with a history of mental illness should be excluded from becoming a pilot.
bb. Locating mental health services in residential neighborhoods does not endanger local residents.
cc. Hospitals for those with mental illness are an outdated means of treatment for people with mental illness.
dd. People or students with mental illness do not deserve our sympathy.

- |   |
|---|
| ee. People or students with mental illness should not be denied their individual rights.                            |
| ff. Mental health facilities should be kept out of residential neighborhoods.                                       |
| gg. One of the main causes of mental illness is self-discipline and will power.                                     |
| hh. We have the responsibility to provide the best possible care for adults with mental illness.                    |
| ii. People with mental illness should not be given any responsibility.  |
| jj. Residents have nothing to fear from people coming into their neighborhood to obtain mental health services.     |
| kk. Virtually anyone can have a mental illness.   |
| ll. It is best to avoid anyone who has mental health problems.  |
| mm. Most people who were once patients in a mental hospital can be trusted as a teacher or baby-sitter.             |
| nn. It is frightening to think of those with mental illness being involved with regular programming in our schools. |

## Appendix F

## Social Distance Scale

Mental Illness disrupts a person's thinking, feeling, mood, ability to relate to others and their daily functioning. Please read each of the following statements carefully and place a check by the rating that most accurately describes your reaction.

	1 Definitely unwilling	2 Probably unwilling	3 Probably willing	4 Definitely willing
1. How would you feel about renting a room in your home to someone with a mental illness?				
2. How would you feel about working with someone with a mental illness?				
3. How would you feel about having someone with a mental illness as your neighbour?				
4. How would you feel about having someone with a mental illness as the caretaker of your children?				
5. How would you feel about having your children marry someone with a mental illness?				
6. How would you feel about teaching someone with a mental illness in an inclusive classroom?				
7. How would you feel about recommending someone with mental illness for employment?				

## Appendix G

## Level of Contact Report (LCR)

Mental Illness disrupts a person's thinking, feeling, mood, ability to relate to others and their daily functioning. Please read each of the following statements carefully and place a check by each statement that is true for you.

	YES	NO
1. I have watched a movie or television show in which a character depicted a person with mental illness. (3)		
2. My job involves providing services/treatment for persons with a mental illness. (8)		
3. I have observed, in passing, a person I believe may have a mental illness. (2)		
4. I have observed persons with a mental illness on a frequent basis. (5)		
5. I have a mental illness. (12)		
6. I have worked with a person who had a mental illness at my place of employment. (6)		
7. I have never observed a person that I was aware had a mental illness. (1)		
8. My job includes providing services to persons with a severe mental illness. (7)		
9. A friend of the family has a mental illness. (9)		
10. I have a relative who has a mental illness. (10)		
11. I have watched a documentary on the television about mental illness. (4)		
12. I live with a person who has a mental illness. (11)		

## Appendix H

## Mental Health Locus of Origin Scale (MHLO)

The following items are aimed to gather your opinion about each statement. There are no correct or incorrect responses. Please evaluate your agreement to each item on the following rating scale:

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

1. Eventually medical science will discover a cure for psychosis.
2. The cause of most psychological problems is to be found in the brain.
3. If the children of schizophrenics were raised by parents without mental illness they would probably grow up to be mentally healthy.
4. Mental illness is usually caused by some disease of the nervous system.
5. Some people are born mentally unstable and are almost certain to spend some part of their lives in a mental hospital.
6. Most people suffering from mental illness were born with some kind of psychological deficit.
7. Some people are born depressed and stay that way.
8. Everybody's system has a breaking point and those of mental patients are probably weaker.
9. The mental illness of some people is caused by some type of trauma during childhood.
10. Being hot-blooded is the cause of mental illness in some people.
11. More money should be spent on discovering healthy methods of child rearing than on determining the biological basis of mental illness.
12. Some people are born with the kind of nervous system that makes it easy for them to become emotionally disturbed.
13. Your choice of friends can have a lot to do with becoming mentally ill.
14. Although they usually aren't aware of it, many people become mentally ill to avoid the

difficult problems of everyday life.
15. Some people are born with a slightly greater capacity than others to commit suicide later in life.
16. Many normal people would become mentally ill if they had to live in a very stressful situation.
17. Mental health professionals probably underestimate the extent to which brain damage is responsible for mental illness.
18. When a group of people are forced to live under extremely stressful conditions the ones who crack under the strain are likely to be the one's who inherited a psychologically weak disposition.
19. The kind of nervous system you are born with has little to do with whether you become psychotic.
20. The cause of many psychological problems is bad nerves.

## Appendix I

### Training Variable

Have you received training about mental illness?      Yes      No

If yes, please indicate where you received this training?    University      In-Service      Other

If other, please describe:

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Please estimate the total number of hours of training about mental illness you have received. \_\_\_\_\_

Please specify the nature of this training (e.g. what were the topics covered?):

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## Appendix J

## Marlowe-Crowne Social Desirability Scale

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

True or False
1. Before voting I thoroughly investigate the qualities of all the candidates.
2. I never hesitate to go out of my way to help someone in trouble.
3. It is sometimes hard for me to go on with my work if I am not encouraged.
4. I have never intensely disliked someone.
5. On occasion I have had doubts about my ability to succeed in life.
6. I sometimes feel resentful when I don't get my way.
7. I am always careful about my manner of dress.
8. My table manners at home are as good as when I eat in a restaurant.
9. If I could get into a movie without paying and be sure I was not seen I would probably do it .
10. On a few occasions, I have given up doing something because I thought too little of my ability.
11. I like to gossip.
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
13. No matter who I'm talking to, I'm always a good listener.
14. I can remember "playing sick" to get out of something.
15. There have been occasions when I took advantage of someone.
16. I'm always willing to admit it when I make a mistake.
17. I always try to practice what I preach.
18. I don't find it particularly difficult to get along with loud mouthed obnoxious people.
19. I sometimes try to get even rather than forgive and forget.
20. When I don't know something I don't at all mind admitting it.
21. I am always courteous, even to people who are disagreeable.
22. At times I have really insisted on having things my own way.
23. There have been occasions when I felt like smashing things.
24. I would never think of letting someone else be punished for my wrong-doings.
25. I never resented being asked to return a favor.
26. I have never been irked when people expressed ideas very different from my own.
27. I never make a long trip without checking the safety of my car.
28. There have been times when I was quite jealous of the good fortune of others.
29. I have almost never felt the urge to tell someone off.
30. I am sometimes irritated by people who ask favors of me.
31. I have never felt that I was punished without cause.
32. I sometimes think when people have a misfortune they only got what they deserved.
33. I have never deliberately said something that hurt someone's feelings.

## Appendix K

### Demographic Section

This study is looking for information on your perceptions of mental illness. Thank-you for your participation.

#### Section A

##### Background Information:

- |                         |      |        |                       |
|-------------------------|------|--------|-----------------------|
| 1. What is your gender: | Male | Female | Do not wish to answer |
|-------------------------|------|--------|-----------------------|
2. What is your age? \_\_\_\_\_
3. Please describe your race.
- Asian
  - Aboriginal
  - Black
  - White
  - Other
4. Please pick what best describes your childhood home environment.
- Poverty
  - Lower middle class
  - Middle class
  - Upper middle class
  - Wealthy
5. What is the highest level of education you have completed?
- One undergraduate degree
  - Two or more undergraduate degrees
  - Some Graduate training
  - Completed Graduate Studies (Masters)
  - Enrolled or Completed Post Graduate Study (Doctoral Studies)
6. Where is the setting of the school that you are currently teaching in.
- Rural
  - Urban
- a) If rural, please indicate where the school is:
- Federally funded or
  - Provincially funded
7. What is the racial identity of the majority of students you teach?
- Asian
  - Aboriginal
  - Black
  - White
  - Other
8. What is the SES of the majority of your students?
- Poverty
  - Lower middle class
  - Middle class
  - Upper middle class
  - Wealthy
7. How many years have you been teaching (including this year)? \_\_\_\_\_
8. Which grade levels have you taught? \_\_\_\_\_
9. What subject areas have you taught? \_\_\_\_\_
10. In your career as a teacher, how many students have you worked with that you would say have mental health concerns? (please estimate) \_\_\_\_\_

**Section B**

Using a 5-point scale, please rate your knowledge about each of the following:

Not knowledgeable	Somewhat Knowledgeable	Very Knowledgeable
1	2	3
4	5	

1. Signs and symptoms of student mental health concerns.
2. Appropriate actions to take to support students' mental health.
3. About resources for helping students with mental health concerns.
4. Your overall knowledge about mental health.

Please provide any additional comments on your knowledge about mental health.

Using a similar 5-point scale, how would you rate your comfort level with each of the following:

5. Talking with students about mental health.
6. Talking with parents about their child's mental health.
7. Providing support to students with mental health issues.
8. Accessing resources for students with mental health issues.
9. Your overall comfort in dealing with mental health concerns.

Please indicate how you would define mental illness.

Please indicate what you are currently doing in your classroom or school to support students with mental health challenges.

Please indicate how supportive your principal is in helping teachers who work with students with mental health challenges.

Please indicate what is needed to support or address children's mental health and well being in schools.

Please indicate any potential barriers that may exist to increasing mental health in schools.

**Section C:**  
Mental Health Continuum – Short Form

Use the 6-point scale:

Every day   Almost Every Day   About 2 or 3 times a week   About once a week   Once or twice a month  
Never

How often in the past month did you feel...	
1.	Happy?
2.	Interested in Life?
3.	Satisfied with your life?
4.	That you had something important to contribute to society?
5.	That you belonged to a community (social group, your city, your school)?
6.	That our society is becoming a better place for people like you?
7.	That people are basically good?
8.	That the way our society works makes sense to you?
9.	That you like most parts of your personality?
10.	Good at managing the responsibilities of your daily life?
11.	That you had warm and trusting relationships with others?
12.	That you had experiences that challenged you to grow and become a better person?
13.	Confident to think or express your own ideas and opinions?
14.	That your life has a sense of direction or meaning to it?

## Appendix L

## CAMI-R: Individual Item Analysis

## Individual Question Analysis:

Questions		SA	A	N	D	SD	<i>Higher means = more negative attitudes</i>
a. As soon as a person with mental illness shows signs of mental disturbance, he or she should be hospitalized. (n=217)	F %	2 .9	4 1.8	21 9.7	113 52.1	77 35.5	<i>M</i> 1.81 <i>SD</i> 0.76
b. More tax money should be spent on the care and treatment of persons with mental illness. (n=218)	F %	88 40.4	89 40.8	33 15.1	6 2.8	2 .9	<i>M</i> 1.83 <i>SD</i> 0.85
c. A student with mental illness should be separated from other students. (n= 218)	F %	1 .5	5 2.3	29 13.3	106 48.6	77 35.3	<i>M</i> 1.84 <i>SD</i> 0.77
<b>d. The best therapy or learning for many students with mental illness is to be part of a regular classroom and school. (n=217)</b>	F %	3 13.8	99 45.6	70 32.3	14 6.5	4 1.8	<i>M</i> 2.37 <i>SD</i> 0.88
e. Mental Illness is an illness like any other. (n= 217)	F %	77 35.5	80 36.9	18 8.3	28 12.9	14 6.5	<i>M</i> 2.18 <i>SD</i> 1.23
<b>f. Students with mental illness are a burden for many teachers. (n= 218)</b>	F %	<b>6</b> <b>2.8</b>	<b>56</b> <b>25.7</b>	56 25.7	69 31.7	31 14.2	<i>M</i> <b>2.71</b> <i>SD</i> 1.08
g. People with mental illness are far less of a danger than most people think. (n= 218)	F %	40 18.3	93 42.7	55 25.2	<b>25</b> <b>11.5</b>	<b>5</b> <b>2.3</b>	<i>M</i> 2.37 <i>SD</i> 0.99
h. Locating mental health services in a residential area downgrades the neighbourhood. (n=214)	F %	2 .9	11 5.1	38 17.8	115 53.7	48 22.4	<i>M</i> 2.08 <i>SD</i> 0.83
i. There is something about people with mental illness that makes it easy to tell them from normal people. (n=218)	F %	1 .5	4 1.8	24 11.0	94 43.1	95 43.6	<i>M</i> 1.73 <i>SD</i> 0.77
j. People with mental illness have far too long been the subject of ridicule. (n= 216)	F %	92 42.6	93 43.1	22 10.2	8 3.7	1 .5	<i>M</i> 1.76 <i>SD</i> 0.86
k. A person would be foolish to marry a person who has suffered from mental illness, even though he seems fully recovered. (n=218)	F %	3 1.3	6 2.5	26 11.9	92 42.2	91 41.7	<i>M</i> 1.80 <i>SD</i> 0.86
l. As much as possible mental health services should be provided through community based facilities. (n=218)	F %	75 34.4	114 52.3	20 9.2	6 2.8	3 1.4	<i>M</i> 1.84 <i>SD</i> 0.81

	F	26	93	69	25	4	M	<b>2.48</b>
	%	12.0	42.9	31.8	11.5	1.8	SD	0.91
n. Increased spending on mental health services is a waste of tax dollars. (n=216)	F	1	2	12	88	113	M	1.56
	%	.5	.9	5.6	40.7	52.3	SD	0.69
<b>o. No one has the right to exclude students' with mental illness from their classroom. (n=217)</b>	F	69	87	30	29	2	M	2.16
	%	31.8	40.1	13.8	13.4	.9	SD	1.03
<b>p. While having students with mental illness in inclusive classrooms might be good for them, the risks to other students can be too great. (n=215)</b>	F	7	45	52	87	24	M	<b>2.65</b>
	%	3.3	20.9	24.2	40.5	11.2	SD	1.03
<b>q. Most people with mental illness need the same kind of control and discipline as a young child. (n=215)</b>	F	3	38	45	95	34	M	<b>2.45</b>
	%	1.4	17.7	20.9	44.2	15.8	SD	1.00
r. We need to adopt a far more tolerant attitude toward people with mental illness in our society. (n=215)	F	84	100	25	5	1	M	1.79
	%	38.1	46.5	11.6	2.3	.5	SD	0.77
s. I would not want to live next door to someone who has a mental illness. (n=216)	F	3	3	38	114	58	M	1.98
	%	1.4	1.4	17.6	52.8	26.9	SD	0.79
<b>t. Teachers should accept students with mental illness in their classrooms, working to serve the needs of all students. (n=215)</b>	F	79	113	19	4	0	M	1.76
	%	36.7	52.6	8.8	1.9	0.0	SD	0.69
<b>u. Students with mental illness should not be isolated from the regular school classroom and programs. (n=216)</b>	F	56	115	27	15	3	M	2.05
	%	25.9	53.2	12.5	6.9	1.4	SD	0.89
<b>v. There are sufficient existing services for people with mental illness. (n=217)</b>	F	4	5	36	93	79	M	1.90
	%	1.8	2.3	16.6	42.9	36.4	SD	0.88
<b>w.. Students with mental illness should be encouraged to assume the responsibilities of normal life. (n=216)</b>	F	36	113	52	13	2	M	2.22
	%	16.7	52.3	24.1	6.0	.9	SD	0.83
<b>x. Teachers have good reason to resist students with mental illness in their classroom. (n=215)</b>	F	2	22	44	108	39	M	<b>2.26</b>
	%	.9	10.2	20.5	50.2	18.1	SD	0.90
<b>y. The best way to handle students with mental illness is to separate them from the regular program. (n=215)</b>	F	0		24	126	60	M	1.88
	%	0.0	2.1	11.2	58.6	27.9	SD	0.69
<b>z. Our mental illness facilities seem more like prisons than like places where children and adults with mental illness can be cared for. (n=214)</b>	F	17	51	114	28	4	M	<b>2.77</b>
	%	7.9	23.8	53.3	13.1	1.9	SD	0.84
<b>aa. Anyone with a history of mental illness should be excluded from</b>	F	14	68	87	32	13	M	<b>2.82</b>

<b>becoming a pilot. (n=214)</b>	%	6.5	31.8	40.7	<b>15.0</b>	<b>6.1</b>	<i>SD</i>	0.97
bb. Locating mental health services in residential neighborhoods does not endanger local residents. (n=216)	F %	33 15.3	132 61.1	45 20.8	6 2.8	0 0.0	<i>M</i>	2.11
<b>cc. Hospitals for those with mental illness are an outdated means of treatment for people with mental illness. (n=216)</b>	F %	11 5.1	54 25.0	100 46.3	<b>47</b> <b>21.8</b>	<b>4</b> <b>1.9</b>	<i>M</i>	<b>2.90</b>
dd. People or students with mental illness do not deserve our sympathy. (n=213)	F %	2 .9	2 .9	20 9.4	97 45.5	92 43.2	<i>M</i>	1.71
ee. People or students with mental illness should not be denied their individual rights. (n=216)	F %	90 41.7	96 44.4	12 5.6	9 4.2	9 4.2	<i>M</i>	1.85
ff. Mental health facilities should be kept out of residential neighborhoods. (n=215)	F %	4 1.9	12 5.6	56 26.0	108 50.2	35 16.3	<i>M</i>	2.27
gg. One of the main causes of mental illness is self-discipline and will power. (n=214)	F %	1 .5	4 1.9	22 10.3	85 39.7	102 47.7	<i>M</i>	1.68
hh. We have the responsibility to provide the best possible care for adults with mental illness. (n=215)	F %	111 51.6	85 39.5	13 6.0	3 1.4	3 1.4	<i>M</i>	1.61
ii. People with mental illness should not be given any responsibility. (n=217)	F %	0 0.0	2 .9	17 7.8	155 71.4	43 19.8	<i>SD</i>	0.55
jj. Residents have nothing to fear from people coming into their neighborhood to obtain mental health services. (n=212)	F %	38 17.9	108 50.9	50 23.6	16 7.5	0 0	<i>M</i>	2.21
kk. Virtually anyone can become mentally ill. (n=217)	F %	123 56.7	87 40.1	6 2.8	0 0.0	1 .5	<i>M</i>	1.47
ll. It is best to avoid anyone who has mental problems. (n=217)	F %	0 0.0	1 .4	10 4.6	111 51.2	95 43.8	<i>SD</i>	0.60
<b>mm. Most people who were once patients in a mental hospital can be trusted as a teacher or baby-sitter. (n=215)</b>	F %	20 9.3	74 34.4	95 44.2	<b>24</b> <b>11.2</b>	<b>2</b> <b>.9</b>	<i>M</i>	<b>2.60</b>
nn. It is frightening to think of those with mental illness being involved with regular programming in our schools (n=216)	F %	1 .5	7 3.2	35 16.2	118 54.6	55 25.5	<i>M</i>	1.99
							<i>SD</i>	0.77

## Appendix M

## SDS: Individual Item Analysis

*Frequency, Percentages, Means and SD for Items on the Social Distance Scale*

Question		Definitely Willing	Probably Willing	Probably Unwilling	Definitely Unwilling		
1. How would you feel about renting a room in your home to someone with a mental illness?	Frequency (n=206)	16	119	63	10	M	2.33
	Percent	7.8	56.8	30.6	4.9	SD	.69
2. How would you feel about working with someone with a mental illness?	Frequency (n=207)	93	109	4	1	M	1.58
	Percent	44.9	52.7	1.9	.5	SD	.56
3. How would you feel about having someone with a mental illness as your neighbor?	Frequency (n=205)	85	111	7	2	M	1.64
	Percent	41.5	54.1	3.4	1.0	SD	.60
4. How would you feel about having someone with a mental illness as the caretaker of your children?	Frequency (n=204)	18	79	86	21	M	2.54
	Percent	8.8	38.7	42.2	10.3	SD	.81
5. How would you feel about having your children marry someone with a mental illness?	Frequency (n=205)	23	121	50	11	M	2.24
	Percent	11.2	59.0	24.4	5.4	SD	.72
6. How would you feel about teaching someone with a mental illness in a typical classroom?	Frequency (n=206)	141	60	3	2	M	1.35
	Percent	68.4	29.1	1.5	1.0	SD	.56
7. How would you feel about	Frequency (n=207)	111	91	4	1	M	1.50

recommending someone with a mental illness for employment?	Percent	53.6	44.0	1.9	.5	<i>SD</i>	.56
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