University of Alberta

Albertans' Preferences for Social Distance from People With
Mental Illnesses or Problems

by

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A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment
of the requirements for the degree of

Master of Arts

Department of Sociology

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ABSTRACT

Researchers have noted that the level of contact respondents have with people who have a mental illness and how they attribute responsibility for these conditions contribute to their desire for social distance. Given that the literature suggests that increased contact is associated with reduced social distance and that social distance is highest when individuals are considered personally responsible for their situation, this thesis examines how much of the variation in the desire for social distance is accounted for by both the levels of contact and the attribution of personal responsibility. Ordinary least squares regression was used to analyze the 2007 Alberta Survey (N=1073). Results show that knowing someone, besides oneself, who has received treatment for a mental illness and attributing responsibility for a mental illness onto the individual explain some of the variation in the desire for social distance. The methodological limitations and suggestions for future research are also discussed.

ACKNOWLEDGEMENT

This thesis is dedicated to my parents, Dora and Gerry, for continually reminding me that I can achieve anything that I put my mind to, and to my sister, Kristy, for putting up with the thesis process and for teaching me that even when life presents us with what seems to be like insurmountable struggles, one's character is revealed when one perseveres. I am very lucky to have such a supportive family. I would also like to thank my dear friends Paula, Lisa M., and Sheelin for their unwavering support and steadfast encouragement. I treasure each of you for your individuality and the commonsense perspectives you have shared with me.

Furthermore, I would like to sincerely thank my supervisor Dr. Lisa Strohschein for challenging me to reach beyond what I thought I was capable of and for making me a better academic, and more importantly, a better person in the process. I would like to thank Dr. Erika Dyck for being a strong supporter my work and for being an instrumental and positive influence on my academic life. Finally, I would like to acknowledge Dr. Laurel Strain for her participation on my committee.

Finally, the data used in this study was generously made available by the Population Research Laboratory and the Department of Sociology. I would like to thank everyone in the Population Research Laboratory who works hard each year to give faculty and students the ability to meet their research goals. Participating in the 2007 Alberta Survey has given me a rich research opportunity that I will carry with me as I move on in my academic career.

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1.1. Introduction

Stigma is a complex social phenomenon that can have substantial negative influences on the lives of people who have mental illnesses (Link, 1982). Even though public perceptions of mental illness have improved since the 1950s, the social rejection of people deemed to have a mental illness still remains a well-entrenched social fact (Phelan, Link, Stueve, & Pescosolido, 2000). Researchers have found that the level of contact people have with persons they consider to have a mental illness or problem and how they attribute responsibility for mental illnesses contribute to their overall desire for social distance from individuals they perceive to have a mental illness. In light of the impact that stigma has for people who have a mental illness, it is essential to get a better understanding of how contact and the attribution of personal responsibility can account for the variation in the desire for social distance.

Given that the literature suggests that increased contact with people who have a mental illness can reduce social distance (Alexander & Link, 2003; Phelan & Link, 2004) and that the desire for social distance is highest among those who believe that people who have a psychiatric disorder are personally responsible for their condition (Dietrich, Beck, Bujantugs, Kenzine, Matschinger, & Angermeyer, 2004; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999), I will use the 2007 Alberta Survey to examine how much of the variation in the desire for social distance is explained by the level of contact respondents have with people who

they perceive to have a mental illness or problem and how they attribute

responsibility for these mental conditions.

Since much of the research that has been done on the relationship between

contact, the attribution of responsibility, and the desire for social distance has

primarily focused on schizophrenia, major depression, or serious mental illness

more generally, very few researchers have taken a step back to consider whether

the association between these three variables remains true for all people who are

considered by others to have a mental illness. It is possible that the general

public's desire for social distance is much more widespread than previously

considered. This thesis uses mental illness as a social category based upon the

assumption that people in the general public monitor the behaviour of others

based on people of a particular type, in this case people who allegedly have a

mental illness, rather than on a specific illness. People may not readily identify

someone as having a schizophrenic disorder, for example, but rather they may

simply note that the person appears to have a psychiatric illness in some way.

1.2. Deinstitutionalization and the Changing Climate of Mental Health Care

In order to appreciate the impact that stigma has for people with a mental

illness, some historical contextualization is warranted. "Mental illness" has been a

disputed concept throughout history (Aneshensel & Phelan, 1999; Corrigan &

Kleinlein, 2005; Pilgrim, 2005). Even though understandings about the nature of

mental illnesses have transformed from spiritual to more biological explanations

(Hinshaw, 2007), biological psychiatry began to establish its dominance over defining and treating mental illness in the nineteenth century.

Initially psychiatry was primarily an institutional discipline; however, several critiques of institutional psychiatry emerged in the 1960s and 1970s in both the popular press and among academic sociologists, such as Erving Goffman. In *Asylums* (1961), Goffman painted a vivid image of the dehumanizing and deteriorating conditions behind the walls of American psychiatric institutions. He argued that the confining nature of the institution isolated patients to such an extent that their personal identity became inextricably tied to the workings of the institution (Goffman, 1961).

A community mental health movement shifted psychiatric care away from institutions into more localized organizations because of the perceived inability of institutional psychiatry to "cure" mental illness (Dowdall, 1999). Coinciding with the public outcry over the deteriorating conditions within mental institutions, the cost of running large mental hospitals with a growing long-term patient population put a heavy economic burden on the state. Community care seemed to offer the promise of a more cost effective and humane treatment option for mentally disordered individuals (Scull, 1977). Furthermore, while hospital care for mental patients did not completely disappear, the development of psychiatric wards in general hospitals and outpatient clinics aided in the deinstitutionalization of people who have been diagnosed with a mental disorder (Dowdall, 1999).

However, some researchers maintain that it actually was the massive expansion of the pharmaceutical industry that was responsible for the acceleration

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of deinstitutionalization (Grob, 1991). Not only did anti-psychotic medication

provide a potential "cure" for mental illness, it also reinforced the claim of

biological psychiatry that mental conditions are not just biological in origin, but

that they were actually medical illnesses. As a result of the economic cost of

asylum care, the deteriorating and negative implications of institutional treatment,

and the apparent success of pharmaceutical treatments, deinstitutionalization

became a reality in many North American jurisdictions by the 1970s (Lamb &

Bachrach, 2001; Sealy & Whitehead, 2004; Grob, 1996).

1.3. What is Mental Illness?

The prominence of biological psychiatry and the emergence of

deinstitutionalization did not put to rest the debate over "what is mental illness?"

Two competing streams of thought have developed over the definition of mental

illness: the bio-medical model and the social constructivist model. According to

the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR

hereafter) a mental disorder is defined as a

> [c]linically significant behavioral or psychological
> syndrome or pattern that occurs in an individual and
> that is associated with present distress or disability
> or with a significant increased risk of suffering
> death, pain, disability, or an important loss of
> freedom. In addition, this syndrome or pattern must
> not be merely an expected and culturally sanctioned
> response to a particular event, for example, the
> death of a loved one. Whatever its original cause, it
> must currently be considered a manifestation of a
> behavioral, psychological, or biological dysfunction
> in the individual. Neither deviant behavior nor

conflicts that are primarily between the individual
and society are mental disorders unless the deviance
or conflict is a symptom of a dysfunction in the
individual described above (American Psychiatric
Association, 2000, p. xxxi).

Thus according to the medical model, mental disorders are biological
illnesses that come from within the individual not the social environment
(Aneshensel & Phelan, 1999). The medical model, as expressed in the DSM-IV-
TR, is guided by an underlying assumption that mental disorders are diseases that
can be treated through medical means, with psychopharmacological techniques
often being the preferred form of medical intervention. Therefore, in the case of
mental disorders, difficulties in thinking, emotional regulation, and mood are seen
as indicators of internal pathology caused by disturbances in the brain
(Aneshensel & Phelan, 1999).

While the medical model has gained acceptance inside and outside of
psychiatry, it has one glaring limitation. Despite the amount of research put into
finding a biological marker for mental illness, Aneshensel and Phelan (1999) have
pointed out that "most mental, emotional, and behavioral disorders … lack
identifiable brain abnormalities in anatomical structure or in chemical
composition or functioning" (p. 7). In fact, in response to a well publicized hunger
strike organized by a group of psychiatric survivors in 2003, the American
Psychiatric Association (APA) begrudgingly admitted that "brain science has not
advanced to the point where scientists or clinicians can point to readily
discernable pathologic lesions or genetic abnormalities that in and of themselves
serve as reliable or predictive bio-markers of a given mental disorder or mental

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disorders as a group" (APA in Coleman, 2008, p. 355). The lack of proof that

mental disorders are in fact biological disorders has prompted some critics of the

medical model to argue that mental disorders are not medical conditions.

Sociologists have long been critics of the medical model of mental illness.

For social constructionists, the essence of mental illness comes from how society

defines certain behaviours as normal or abnormal and reflects the social

judgments that are cast onto individuals when their behaviour is indicative of an

inability or unwillingness to conform to social norms (Scheff, 1999; Horwitz,

1999; Pilgrim, 2005). Therefore, mental illnesses are not medical conditions, but

rather, they are products of categorization that consistently identifies certain

clusters of behaviours as mental illness (Scheff, 1999). Mental illnesses,

according to social constructivists, are products of labelling not pathology.

Thomas Scheff (1999) argued that conceptions of mental illness are

derived from how the public reacts to deviance. When people behave in ways that

do not conform to social norms their deviant behaviour (primary deviance) can be

identified as "mental illness" (Scheff, 1999). For Scheff, mental illness labels are

internalized and eventually become stabilized by primary deviants causing a self-

fulfilling cycle of deviant behaviours (secondary deviance). As a result of this

reinforcing pattern of behaviour, these "deviants" are excluded from society and

are sanctioned for their behaviour (Scheff, 1999). For Scheff, people become

"mentally ill" because they live up to the labels given to their behaviour.

Pilgrim (2005) maintains that psychiatric diagnoses obscure the role that

value judgments play in deciding which behaviours are indicative of a mental

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disorder and which are not. According to Pilgrim, mental disorders symbolize transgressions made against the moral order and represent highly contested categorizations that lack a valid and meaningful understanding of the nature of mental health conditions (Pilgrim, 2005). He explains that "a person is deemed to be mentally disordered because their mind is disordered and the evidence that their mind is disordered is that they have acted in a mentally disordered way" (Pilgrim, 2005, p. 442). By showing that medical definitions of mental illness are tautological, Pilgrim reveals that definitions of mental illness are fundamentally social creations originating out of value judgments placed on an individual's behaviour. For social constructionists, these labels are social designations not medical diagnoses.

Even though the social constructionist approach seeks to understand how labelling a person with abhorrent behaviours as "mentally ill" will impact their ability to function in society, the very nature of how researchers measure the resultant distancing behaviour reinforces the medical model approach. In order to determine whether the general public is willing to associate with people they perceive to have a mental illness, the actual designated individual must be identifiable. Therefore, stigma researchers assume that people with a mental illness become identifiable once they have been in contact with and receive treatment for a mental condition (Link & Phelan, 2001).

The labels used to define deviant attitudes and behaviours as mental illness play a vital role in determining the trajectory of devaluation and discrimination and they set the course for the general public's persistent desire for

social distance (Link, 1987). An unwillingness to engage in social interaction is perceived as an indicator of a person's distancing behavioural orientation. While the goal of stigma research, my study included, is to identify the factors that enhance or impede socially distancing behaviour, the way that the desire for social distance is constructed reinforces the medical model by implying that that the individual who has a perceived mental illness does indeed have a medical condition and that the problem lies in the individual rather than the social structure.

There are several ways in which individuals with mental illnesses are referred to in the literature and in common language. Sometimes people with mental illnesses are labelled mentally ill, mental patients, former mental patients, people with mental health problems, or people with serious mental health problems (Alexander & Link, 2003; Link et al., 1999; Corrigan, Markowitz, Rowan, & Kubiak, 2003; Link, 1982; Link, 1987). While these terms are often used interchangeably, it is important to be recognize that each of them may have different connotations and meaning depending on how they are used. For instance, labelling people as mentally ill implies that they have a mental illness and that this illness is the dominant feature of their social identity. Similarly, identifying a person as a mental patient connotes a medicalized understanding of the person's condition which implies that the individual is currently undergoing formal medical treatment for a psychiatric illness. Moreover, labelling someone as a former mental patient implies that the person has received treatment for a recognizable mental disorder sometime in their past, regardless of their current

mental state. Finally, identifying individuals as people with mental health

problems may conjure up a different type of reaction in survey participants than

may be expressed if the individual was referred to as a person with a mental

illness. This may lead respondents to give different responses to survey questions

when mental health problems and mental illness are used interchangeably.

If we consider mental functioning to exist along a continuum from perfect

mental health at one end, meaning an individual has no emotional, psychological,

or behavioural symptoms related to a diagnosable mental disorder, and mental

illness at the other end of the spectrum, meaning the person has profound

emotional, psychological, or behavioural disturbances that are attributable to a

recognized psychiatric disorder, then a mental health problem would imply that

the individual may have some deficits in mental functioning that may not have

reached the level of an official diagnosis. A serious mental health problem would

raise the level of impairment closer to a mental illness, without medicalizing that

impairment as an illness. However, it is possible people may refer to individuals

they believe to have a mental illness as someone who has a mental health

problem, and conversely, they may understand someone who has a mental health

problem as someone who has a mental illness. While mental health and mental

illness may conceptually refer to different constructs, they both can also be used

to refer to people with a diagnosable disorder.

Even though this thesis will use more medicalized language, it is

important to recognize that language inspired by the medical model does not exist

in isolation. Conceptions of mental illness may also be derived from an

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individual's evaluation of deviance. It is equally possible that publicly labeling

an individual's behaviour can be conceptualized along a social continuum. At

one end, an individual can be considered a social conformist, meaning that they

abide by social norms and conventions without deviating from what is considered

socially acceptable, and a social deviant at the other end of the spectrum. Social

deviants are thought to be people who behave in ways that contrary to the social

conventions of a particular culture.

However, when a person's behaviour becomes deviant enough the lines

between the language of medical model and the social model begin to blur.

Considering that the medical model has become a dominant way of correlating

certain types of behaviour with labels of mental disorders, lay people may also

resort to using medicalized language without any evidence that the labelled

behaviour is a medical condition, especially when an individual's level of

deviance becomes extreme. Therefore, the ambiguities of language may make

discerning a clear understanding of the public's opinion about people who have a

mental illness more complex and it may limit researcher's ability to explain the

general public's desire for social distance. While the focus of this thesis is on the

predictors of the desire for social distance from people who are deemed to have a

mental illness or problem, it is important to acknowledge that the inconsistency

and ambiguities of language might also be considered in this study[1].

1.4. Defining Stigma

According to Erving Goffman (1963), the social context determines which characteristics are classified as ordinary and indicative of group membership. First impressions are essential for the evaluation of whether an individual belongs to the "in-group," and for Goffman, these initial evaluations form a person's social identity (Goffman, 1963). Therefore, how we are perceived and judged by others is a function of how we present ourselves in social settings. When an individual's social identity is contrary to what is acceptable for in-group membership, the deviant individual becomes discredited. Therefore, Goffman (1963) defines stigma as an "attribute that is deeply discrediting… [which] reduces people from a whole and usual person to a tainted, discredited one" (p. 3). Consequently, stigma is anticipated both by the stigmatizers and the stigmatized; therefore, Goffman maintains that the expectation of strained relations between "normals" and "deviants" can lead to social avoidance (Goffman, 1963). The desire to avoid social situations where in-group and out-group tensions can surface provides the groundwork for the discrimination against and prejudicial

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[1] For a more in depth discussion on how everyday behaviours can be classified as symptoms of mental illness see Rosenhan, D. (1973). On being sane in insane places. *Science*, 179, 250-258 and Spitzer, R. (1976). More on pseudoscience in science and the case for psychiatric diagnosis. *Archives of General Psychiatry*, 459-70.

attitudes toward individuals who are thought to have a mental illness (Goffman, 1963).

Many critics of Goffman's understanding of stigma argue that he focuses too narrowly on the effects of micro-level interactions between individuals without considering wider macro-sociological influences (Reidpath, Chan, Gifford & Allotey, 2005). Social scientists have argued that Goffman's conception of stigma is too vague to adequately assess the role that labelling has in producing stigma (Schulze & Angermeyer, 2003). The key problem with Goffman's definition of stigma is that he defines stigma as "predicament or dilemma" of the individual rather than a social problem (Link & Phelan, 2001).

As previously stated, classic labelling theorists maintain that people are sanctioned when their deviant behaviour is defined as mental illness (Scheff, 1999). However, critics of classic labelling theory, most notably Gove, posit that the reason people with mental illnesses are treated differently is because of their unusual behaviour not the labels attached to them (Gove, 1982). Link, Cullen, Struening, Shrout, and Dohrenwend (1989) adopted a modified labelling approach to bridge the gap between the hard line labelling theorists and behaviourists. Unlike Scheff, Link et al. (1989) argue that labels do not cause mental illnesses, but rather mental illness labels initiate a cascade of alternative social processes that significantly impact the lives of people thought to have a psychiatric condition and fundamentally shape their lived experiences.

According to the modified labelling approach, stigma begins with societal conceptions of what it means to have a mental illness. In order for a label of

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mental illness to have currency it must be embedded in a community that views

people who have a psychiatric illness as less valuable (Link et al., 1989). As part

of the modified labelling approach, Link and Phelan (2001) expanded Goffman's

conceptualization of stigma to describe stigma as a multifaceted concept that

involves intermingling of labelling, stereotyping, status loss, separation, and

discrimination within the power dynamics of cultures (Link & Phelan, 2001). The

stigmatization process, according to Link and Phelan (2001), follows the

following conceptualization:

> [i]n 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 fourth, labeled persons
> experience status loss and discrimination that lead
> to unequal outcomes. Finally, stigmatization is
> entirely contingent on access to social, economic,
> and political power that allows the identification
> of differentness, the construction of stereotypes, the
> separation of labeled persons into distinct
> categories, and the full execution of disapproval,
> rejection, exclusion and discrimination (p. 367)

Labelling involves the recognition and placement of individual differences

into categories based on socially relevant attributes. These categorizations are

often taken for granted as true reflections of reality and the oversimplification of

labels allows them to play an important role in developing the social hierarchy

(Link & Phelan, 2001). By correlating a label with undesirable characteristics,

society creates justifications for believing that labelled people are inherently

unlike mainstream society and thus creates a cognitive separation between "us"

and "them". A significant sense of "otherness" is produced by this separation.

Link and Phelan (2001) argue that the purpose of separation is to highlight that

the "them" is very different from "us" and that this difference makes "them" a

potential threat to the "us."

1.5. Defining Social Distance

While some stigma researchers use the desire for social distance as a

proxy measure for individual discrimination (Dietrich et al., 2004; Corrigan Backs

Edwards, Green, Lickey Diwan, & Penn, 2001), the desire for social distance does

not imply that an individual is actively engaging in discriminatory behaviour. The

desire for social distance reflects the level of social separation that individuals in

one group theoretically want to place between themselves and members of a

different group (Dietrich, et al., 2004). Therefore, in the case of mental illness, the

desire for social distance is defined as the willingness of people to socially

interact with people they consider to have a mental illness (Link et al., 1989;

Dietrich et al., 2004).

Social scientists evaluate the adequacy of their measures by assessing

reliability and validity. Reliability is defined as the consistency or repeatability of

the measures used in a study (Trochim, 2005). There are several different types of

reliability estimates used by researchers to measure the consistency and

dependability of a particular set of measures. Survey researchers are interested in

the consistency of their measures across a series of items within one single

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instrument. Estimates of internal consistency (Cronbach's alpha) are used to determine how well an instrument that examines the same construct can produce similar results across different studies (Trochim, 2005). When survey measures have high levels of internal consistency, researchers can have more confidence that their measurement instrument is reliable, it reduces the potential for introducing bias into the measurement arena, and it reduces the possibility of making critical errors when discussing the results of a study (Trochim, 2005).

Validity is defined as the ability of researchers to make accurate inferences from the measures used in a study (Trochim, 2005). It looks at the ability of a study to accurately measure what it intends to measure. While reliability is concerned with the ability of an instrument to produce similar results each time it is used, validity is concerned with the extent to which a measure actually measures what it is intended to measure (Jary & Jary, 2000). Validity is important because in order to make accurate inferences from the measures used, the measurement tool should ideally measure what it is intended to measure, otherwise, any conclusion drawn from a study may become irrelevant. Even though most stigma studies focus on reliability over validity, validity is essential. Just because a measurement instrument can produce similar results across different studies it is meaningless unless the instrument is actually measuring what it is supposed to measure. Researchers strive to make valid inferences about the results they obtain.

Researchers have operationalized the desire for social distance in several different ways. For instance, Link, Cullen, Frank, and Wozniak (1987) developed

a seven item scale using a four-point Likert format (definitely unwilling to definitely willing), based on a vignette character named Jim Johnson. Their survey questions asked respondents how willing they would be to rent a room in their house to Jim, to work with Jim, have Jim as their neighbour, to let Jim take care of their children, to allow their children to marry someone similar to Jim, to introduce Jim to their girlfriend, and to recommend Jim for a job in a friend's business (Link et al., 1987). Link et al. (1987) demonstrated that this scale was a reliable measure of social distance because of its high Cronbach's alpha of 0.92. Moreover, Angermeyer and Matschinger (2005) asked respondents on a scale of one to four (in any case to in no case at all) whether they would accept their vignette character as a "tenant, co-worker, a member of the same social circle, someone to be recommended for a job, in-law, and childcare provider" (p. 393) and produced a Cronbach's alpha of 0.90. Furthermore, even without reference to a specific vignette character, Corrigan et al. (2001) demonstrated that their version of Link et al.'s scale (1987) was an internally consistent measure (alpha = 0.75) of social distance.

George and Mallery (2003) provide a rule of thumb guideline for evaluating the reliability of a measurement instrument. According to George and Mallery (2003), if the Cronbach's alpha value is greater than 0.9 the measure has excellent reliability; if alpha is greater than 0.8 it has a good reliability; if alpha is greater than 0.7 it has an acceptable reliability; if alpha is greater than 0.6 it has a questionable reliability; if alpha is greater than 0.5 it has a poor reliability; and if the alpha value is less than 0.5 then it has an unacceptable level of reliability. It

appears that the reliability of the desire for social distance remains at an

acceptable level in most stigma studies. As noted above, the internal consistency

values range from 0.75 to 0.92. This suggests that even though there is variation

in how the specific social distance scales are created, previous stigma related

studies have consistently been able to demonstrate that their measurement

instruments are reliable.

However, researchers often place much more emphasis on the reliability

of their measures over the validity of their studies. There have been no studies

that have verified that the social distance measure is in fact valid because validity

is often inferred from the reliability estimates presented in each study. Therefore,

even though stigma researchers have consistently demonstrated that the desire for

social distance is a reliable measure, it remains unclear whether it is a valid

measure as well.

1.6.   Contact as a predictor of the desire for social distance

The contact hypothesis postulates that increased contact between in-group

and out-group members is associated with reduced prejudicial attitudes (Allport,

1979). As a result, researchers have identified contact as one way to improve the

general public's willingness to interact with people they understand to have

mental illnesses (Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004; Phelan &

Link, 2004; Dietrich et al., 2004).

Throughout the stigma literature, contact is conceptualized in three main ways. First, when contact is measured in terms of the total number of interactions that survey respondents have with individuals who they feel have a mental illness, there is an associated reduction in the desire for social distance from and improved attitudes toward people who have a mental illness. Alexander and Link (2003) used a vignette survey design to assess whether more contact of varying types predicted positive attitudes toward people who were homeless and toward homeless people who also have a mental illness. Contact was initially divided in four main ways: family contact, friend/spouse contact, frequency of seeing someone with a mental illness in public places, and work contact. All of the contact items were tallied into a single contact score. Alexander and Link (2003) maintain that as the amount of contact increases, respondents seem to desire less social distance from the vignette character. However, the fact that this study was primarily focussed on homelessness and homeless people who also have a mental illness, it calls into question whether the associations found in their study will be the same when mental illness is the sole focus.

Second, some researchers equate contact with familiarity (Corrigan et al., 2001; Angermeyer, Matschinger, & Corrigan, 2004). Familiarity is implied by the closeness of contacts. Corrigan et al. (2001) used the Levels of Contact Report to measure the intimacy of 12 situations where people could be in contact with individuals who have a mental illness. Participants were asked to check all of the situations on the 12 item list that they have had experience with during their lifetime. Corrigan et al. (2001) rank ordered their items from least to most

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intimate and a familiarity score was assigned to the participant based on the most intimate contact experience that was checked. Using path analysis, Corrigan et al. (2001) found that when people were more familiar with individuals who may have a mental illness, meaning they have more intimate interactions, the less social distance they appear to desire. While this study establishes an association between contact and social distance, the fact that the sample was small (208 participants) and it was comprised only of university students calls into question the generalizability of their results beyond the population from which that the sample was taken.

Moreover, Angermeyer et al. (2004) evaluated the personal experience that their survey respondents had with people they perceive to have a mental illness by constructing hierarchical contact categories that ranged from the most personal experience (they have had treatment) to the least personal experience (whether their family members had experience with people who are receiving psychiatric treatment at work or as a volunteer) and no experience with people who have mental disorders. These hierarchical categories were later dichotomized into those with personal experiences with individuals who are perceived to have a mental illness and those with no experience at all. Angermeyer et al. (2004) confirmed the results from Corrigan et al. (2001). Those who were familiar with people who have a mental illness, meaning they have more personal knowledge of and experience with people who are they consider to be living with a mental illness, had an associated decrease in their desired social distance.

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A third way that contact has been explored in the literature is through public education. In 1957 Cumming and Cumming conducted an experiment in two Canadian prairie communities. They wanted to assess whether contact with mental illness through an intensive educational program would improve average Canadian's attitudes toward mental illness. Their contact experiences were used as the treatments given to the experimental community. These experiences included all of the following: presentations to the local Parent-Teacher Association (P.T.A) on the role of education on personality development in children; a weekly radio broadcast that discussed problems of childhood, such as sibling rivalry and authority relationships; films presented about mental issues; buying editorial space in the local newspaper to discuss mental issues; and hosting public presentations on the state of psychiatric care in the province. Unlike typical contact studies, Cumming and Cumming (1957) did not use one identifiable measure of contact, but rather the accumulation of their educational interventions can be seen as an attempt to measure the impact that contact has on changes in attitudes toward mental illness in general. Attitudes toward mental illness were evaluated before and after the intervention program. To their surprise, they found that contact did not appear to have an impact on the overall attitudes of the experimental community.

Even though they acknowledge that their study had significant methodological flaws, including poor measures of attitude change, non-systematic educational interventions, and a short time span between the pre and post test surveys (Cumming and Cumming, 1957), this study made a valuable contribution

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to our understanding of the association between contact and attitude change more generally. A fundamental strength of this study was its experimental design. The pre and post test design used for both the experimental and the control groups gave Cumming and Cumming (1957) the opportunity to clearly assess the amount of attitude change that occurred over time as a result of their treatments. The fact that they were unable to find a significant change in the experimental community's attitudes toward mental illness highlights the importance of using reliable measures of contact and attitude change. Importantly, this study calls into question exactly how much influence contact has in producing attitude change and it shows that public education alone may not be sufficient enough to engender attitude change.

My study conceptualizes contact in terms of the levels of contact that a respondent has with people they believe have been treated for a mental illness, a mental health problem, or a serious mental health problem. Being sensitive to the potential limitations associated with the nuances of language, I am interested in assessing how much of the variation in the desire for social distance can be explained by the respondents' experience with people they believe have been treated for a mental condition, be it from personally being treated for a mental health problem, knowing someone else who has been treated for a mental illness, or from observations of people who appear to display symptoms of serious mental health problems in public places. Therefore, unlike Alexander and Link (2003) but similar to Corrigan et al. (2001) and Angermeyer et al. (2004), my personal contact measures (personal treatment and knowing others who have received

treatment) do not tally the number of actual personal contacts a respondent has, but rather, my survey questions ask respondents specifically whether they have personally been treated for a mental health problem and whether they more broadly know others who have been treated for a mental illness.

Furthermore, for the sake of comparability, I have included a public place measure of contact, similar to the one used by Alexander and Link (2003). This measure of contact is intended to assess the frequency of interaction that respondents have had with people they have deemed to have a serious mental health problem and is used as a measure of impersonal contact. This measure implies that respondents are making social judgments about people in public places based on their appearance alone, which is the foundation of the modified labelling theory's contention that the stigma of mental illness is perpetuated by the public's need to distinguish "us" from "them" (Link & Phelan, 2001; Link et al., 1987; Link et al., 1989).

This strategy is advantageous because I will be able to compare the two personal contact measures and the impersonal contact measure (public place) simultaneously to see whether the variation in the desire for social distance is accounted for by each of them independently. I maintain that those individuals who personally have been treated for a mental health problem will express a significantly lower desire for social distance relative to those who have not received treatment; those who know someone who has been treated for a mental illness will desire significantly less social distance than people who do not know someone who has been treated for a mental illness; and that the desire for social

distance will depend on the frequency that respondents observe people they feel appear to have a serious mental health problem in public places.

However, one limitation that may result from the separation of my personal and impersonal contact measures is my inability to make causal inferences. Since I am not tallying the number of personal and impersonal contacts my respondents report nor am I manipulating the number of said interactions, I can not infer that more personal or impersonal contact with the mentally ill is associated with lower desires for social distance. At best, all I will be able to comment on is whether each of them is correlated with the desire for social distance. These measures may not be rigorous enough to assert that personally receiving treatment for a mental health problem, knowing others who have been treated for a mental illness, and the frequency of public place observations reduce the desire for social distance.

1.7. Attribution of responsibility as a predictor of the desire for social distance

Attribution theory argues that the justification for prejudicial attitudes, in this case the desire for social distance, is derived from how people explain the cause of a particular situation (Weiner, 1995). There are two consistent findings in the stigma literature about the relationship between causal attributions, responsibility, and social distance. First, it is clear that when survey participants are given a choice of causal attributions, individual causal attributions are often

associated with increased desires for social distance. For example, Link et al. (1999) found that alcohol dependence and cocaine abuse were more likely to be associated with individual causal attributions, such as a vignette character's bad character. They also found that the desire for social distance was highest for those conditions that appear to be caused by the actions of the individual, rather than socially explained causes, such as stress (Link et al., 1999).

Martin et al. (2000) also conducted a vignette survey. They randomly assigned respondents to one of five different vignettes (schizophrenia, major depression, alcohol dependency, drug dependency, and a "troubled person"). Respondents were asked to identify whether the vignette character's condition was caused by his or her bad character, a chemical imbalance, how they were raised, stress, a genetic or inherited problem, or God's will. They illustrated that respondents desired more social distance from conditions that were perceived to have individual rather than biological or social causes. Moreover, van't Veer, Kraan, Drosseart, & Modde (2006) also found that when the cause of a mental illness was attributed to individual factors, such as drug abuse, survey respondents desired more social distance relative to those who attributed mental illnesses to causes beyond an individual's control and responsibility.

Second, when researchers look more specifically at individual causal attributions, some researchers maintain that responsibility for a condition comes from assessments of a condition's controllability (Weiner, 1995; Dietrich, et al., 2003; Corrigan et al., 2003). Weiner (1995) argues that when the cause of an event or condition is under an individual's control, that person is deemed

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responsible for their condition. Moreover, Dietrich et al. (2003) conducted a vignette study to assess the relationship between public causal attributions and the desire for social distance. They provided their respondents with four main causal attributions: psychosocial stress; biological causes; socialization; and causes the individual has control over, namely lack of will power and lifestyle choices. Dietrich et al. (2003) found that when the cause of a mental illness was considered to be under an individual's control and was attributed to an individual's lack of will power, there was a greater desire for social distance. Furthermore, Corrigan et al. (2003) found that when respondents thought that a vignette character's condition was under his control, they were more likely to see the vignette character as personally responsible for his condition and had higher levels of desired social distance.

However, while Dietrich et al. (2004) conclude that individual causal attributions, namely controllability, were associated with higher levels of desired social distance, and Corrigan et al. (2003) argue that assessments of controllability were associated with attributions of responsibility and higher levels of desired social distance, the lack of clear assessment of personal responsibility limits these researchers' ability to assert that there is an association between attributions of personal responsibility and higher desires for social distance. It is unclear whether their inference of responsibility from controllability would produce similar results when the attribution of personal responsibility is directly assessed.

Furthermore, what also remains unclear from all of these studies is whether the impact that individual causal attributions have on the desire for social distance exists outside of the vignette survey condition or whether the association between individual causal attributions and increased social distance is confined to the character depicted in a vignette. Since it appears that individual causes are associated with higher levels of social distance, I have chosen to focus specifically on the attribution of personal responsibility, as one type of individual causal attribution, to assess whether there is an association between individual responsibility and social distance, without using vignettes.

My study will expand upon previous stigma studies by examining how the attribution of personal responsibility for a mental illness is associated with the general public's desire for social distance from individuals they understand to have a mental illness. My attribution of responsibility measure does not infer responsibility, but rather, it directly asks respondents if they think people with a mental illness are responsible for their condition. This focus on personal responsibility clearly distinguishes my work from previous research in this area. While previous studies have found a significant association between individual causal attributions and increased social distance (Corrigan et al., 2001; Dietrich et al., 2004), I will be able to isolate a clearer understanding of the specific correlation between personal responsibility and social distance. This will be a valuable contribution to the stigma literature because it will provide a focused examination of the role that the attribution of personal responsibility has on the continued isolation of people who are perceived to have a mental illness.

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However, while focusing on the attribution of personal responsibility may be advantageous for clarifying the impact that personal responsibility has on a respondent's desire for social distance, there are some disadvantages to this strategy. It is possible that more respondents will choose a more affirmative response to the measure because there is no other option available. This may indicate that the impact that the attribution of personal responsibility has on the variation in the desire for social distance may be more inflated than would otherwise be determined when a more varied list of causes is presented.

1.8.   The Role of Socio-demographic Variables

When researchers are looking at social phenomenon it is important to recognize that there are other factors that may explain the relationships being discussed. In order to rule out the possibility of spurious associations between the levels of contact, the attribution of personal responsibility, and the desire for social distance, researchers have identified age, gender, marital status, education, household income, location of residence, and ethnicity as standard control variables (Link, 1982; Link, 1987; Link, Mirotznik, & Cullen, 1991; Dietrich et al., 2004; Angermeyer & Matschinger, 2005; Phelan, 2005; Lee, Chiu, Tsang, Chui, & Kleinman, 2006; Lee, Farrell, & Link, 2004; Song, Chang, Shih, Lin, & Yang, 2005; Horak Randall & Delbridge, 2005; Dixon & Rosenbaum, 2005; Phelan & Link, 2004). For the sake of comparability, I will also include them into my regression models.

Some studies have found that younger people tend to have more positive attitudes toward vignette characters who are thought to have a mental illness (Alexander & Link, 2003) and desire lower levels of social distance relative to older people (Song et al., 2005). Other researchers have found that older respondents desire more social distance from people they perceive to have mental disorders because they have less contact with people who may have a psychiatric illness (Martin, Pescosolido, Olafsdottir, & McLeod, 2007; Stuart & Aborleda-Florez, 2001). Moreover, females tend to be less socially distant from (Phelan & Barsow, 2007; Song et al., 2005) and have more contact with people who have mental illnesses (Stuart & Aboleda-Florez, 2001) than men, while men are more likely than women to view people with mental illnesses as responsible for their conditions (Corrigan et al., 2003). Lastly, Corrigan et al. (2003) found that married respondents tend to have more contact with individuals who have a mental illness and, thus, were less socially rejecting.

Studies have found that people with higher levels of education tend to desire less social distance (Lee et al., 2004; Alexander & Link, 2004) and have more positive attitudes toward people who have a mental illness (Song et al., 2005). However, Corrigan et al. (2003) reported that people with higher levels of education also believe people with psychiatric illnesses are responsible for their conditions. Furthermore, previous research has shown that people at lower levels of income tend to desire less social distance from people who have a mental illness (Alexander & Link, 2003).

There are inconsistent results in the literature about the impact that a respondent's location of residence and ethnicity have on their desire for social distance. Some researchers have shown that rural residents desire more social distance relative to urban dwellers (Stuart & Aborleda-Florez, 2001; Martin et al., 2007). However, Martin et al. (2000) found that when location of residence is added to regression models there is no correlation between place of residence and the desire for social distance. Studies in the United States have found that ethnic minorities have differing opinions about mental illness and have differing levels of desired social distance (Martin et al., 2007; Rao, Feinglass, & Corrigan, 2007). However, some researchers have found no racial or ethnic differences in the desire for social distance from the people who may have a mental illness (Martin et al., 2000).

Lastly, an unexpected period effect may have occurred during the data collection phase of the 2007 Alberta Survey. On April 17, 2007 a devastating school shooting occurred at Virginia Tech in Blacksburg, Virginia. The intense media coverage of the gunman's psychiatric history may have had an impact on how respondents answered my survey questions; therefore, I will control for this event in my regression models.

1.9. Projected Contributions

This thesis aims to explore the association between the levels of contact, the attribution of personal responsibility, and the desire for social distance from people considered to have a mental illness. This project is expected to make two contributions to the study of the stigma of mental illness. First, my study elaborates on the role that personal responsibility has on the desire for social distance by directly assessing personal responsibility. This is an important contribution because it will shed light on the specific association that this type of individual causal attribution has with the desire for social distance by placing the locus of responsibility onto individuals considered to have a mental illness rather than inferring responsibility from outside factors, such as controllability.

Second, since stigma related studies look at causal attributions and contact separately, my study will make a valuable contribution to stigma research by highlighting whether the levels of contact and the attribution of responsibility both explain the desire for social distance. The insights gleaned from the inclusion of both variables will help future policy makers devise more accurate anti-stigma programs that clearly address the social processes that can exacerbate and/or reduce the desire for social distance.

1.10.   Research Questions

Considering that the 2007 Alberta Survey is a cross-sectional study and does not use an experimental design, my goal is to evaluate how much variation in the desire for social distance can be attributed to my key variables, after adjusting for control variables. The statistical significance of the following models will give an indication of how these variables are related to the desire for social distance, rather than illustrating a causal relationship.

1.   The first research question is whether the level and frequency of contact that a respondent has with people they consider to have a mental illness or problem is associated with their desire for social distance from the people who are perceived to have a mental illness.

      a) The desire for social distance will depend on the frequency that respondents observe people who appear to have a serious mental health problem in public places. Compared to those who frequently observe people who appear to have a serious mental health problem in public places, those who occasionally, rarely, or never observe the these people in public places are expected to express a greater desire for social distance, adjusting for other levels of contact and control variables.

      b) Respondents who report that they know someone who has been treated for a mental illness will express a lower desire for social distance relative to respondents who do not know anyone who has been treated for a mental illness, adjusting for other contact and control variables.

      c) Respondents who report that they personally have been treated for a mental health problem will express a lower desire for social distance relative to respondents who have not personally received mental health treatment, adjusting for other contact and control variables.

Figure 1: The Association of Levels of Contact and Social Distance

| Public Place |
| Known Others | ──────────→ | Social Distance |
| Self |
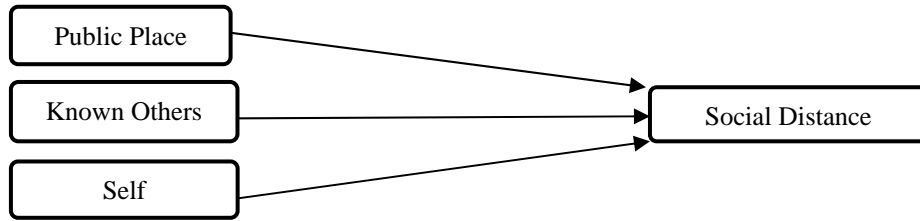
2.   The second research question looks at whether the desire for social

distance is greatest when individuals are viewed as personally responsible for

their mental illness. This model is also adjusted for control variables.

      a) Relative to those who strongly disagree with the statement that people
with a mental illness are responsible for their illness, those who
disagree, are neutral, agree or strongly agree with this statement will
desire significantly greater social distance from individuals they
perceive to have a mental illness.

**Figure 2: The Association of Attribution of Personal Responsibility and
        Social Distance**

| Attribution of Personal Responsibility | ──────────→ | Social Distance |
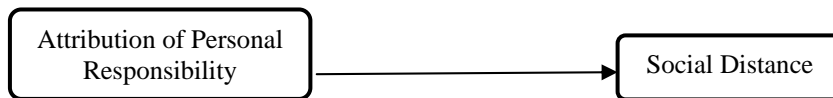
3. Considering that research measuring the association between contact and social

distance and the attribution of responsibility and the desire for social distance are

typically done independent of each other, my third research question evaluates the

relative contribution of both the levels of contact and the attribution of personal

responsibility when they are both added to a single model.

a) When both the levels of contact and the attribution of personal
   responsibility are added to a single model it is expected that they
   will each independently contribute to the desire for social distance.

Chapter 2: Methods

2.1. Sampling Procedure

The 2007 Alberta Survey is an annual multi-stage telephone survey that randomly selects households and one individual within each household to participate in the survey. A stratified sampling method was used to ensure geographic representativeness by dividing Alberta into 3 main areas: Metropolitan Edmonton, Metropolitan Calgary, and the rest of the province. Four hundred respondents were selected from each area (N = 1200). The survey targeted people over the age of 18 who were living in a dwelling unit (household) in Alberta and could be contacted by direct telephone calling (Alberta Survey Codebook, 2007). This means that people living in household dwellings but do not have a landline telephone number, those who do not live in household dwellings, and those who only have cell phones were excluded from the original sample. Random digit dialling was used to ensure that all participants had an equal chance of being selected, regardless of whether their phone number was listed or unlisted.

The Alberta Survey provides researchers with the opportunity to systematically measure how Albertans feel about a variety of different topics. Since the Alberta Survey is designed as a multi-purpose survey, government departments, academics, and community groups typically buy space on the survey. However, the Population Research Laboratory at the University of Alberta offers graduate students and continuing faculty from the Department of Sociology, in alternating years, the opportunity to add 12 questions onto the Alberta Survey free of charge. Faculty members and students must submit a

proposal, including their desired questions, to the Executive Director of the

Population Research Laboratory. As a result of the competition process, Dr. Lisa

Strohschein (and Ms. Amy Klassen) was awarded the 2007 Annual Alberta

Survey Faculty Award (see Appendix 1 for the 2007 Alberta Survey questions).

Before the survey began, respondents were informed that their

participation was completely voluntary, their responses would be held

confidential, they could stop the survey at anytime without penalty, and that the

information collected was in accordance with the *Alberta Freedom of Information*

and Protection of Privacy Act (Alberta Survey Codebook, 2007). Ethics approval

was obtained by the Population Research Laboratory.

2.2. Selection of Respondents

One person was selected as the respondent from each household. This

person was selected based on their gender to ensure that an equal balance of males

and females were in the final sample. The following selection guidelines were

used (Alberta Survey Codebook, 2007):

- He/she must be over the age of 18.
- If an adult male answered the phone and was willing to participate, he became the respondent.
- If an adult female answered the phone and there was an adult male who is willing to participate, the male was interviewed. If the male was not willing to participate and the female was willing, the female became the respondent.
- If an adult female answered the phone and there was no adult male present, she was to become the respondent.

These criteria were created to take into account that 60% of the time the first household contact tends of be a female (Alberta Survey Codebook, 2007).

A minimum of 10 call back attempts were made before a residential telephone number was classified as "no contact." The overall individual response rate for the 2007 Alberta Survey was 36.5% and was calculated using the following formula (Alberta Survey Codebook, 2007, p. 8):

$$= \frac{\text{completed interviews}}{\text{completed} + \text{incomplete} + \text{refusals} + \text{language problems}}$$

A total of 1207 Albertans were interviewed between April 11, 2007 and June 18, 2007. Using listwise deletion, the original sample was reduced to 1073 after adjusting for the missing cases on all variables except income.

2.3. Measures

2.3.1. Dependent Variable

The *desire for social distance* is the dependent variable for this study. It reflects the general public's willingness to socially interact with people they perceive to have a mental illness. My social distance measure not only incorporates typical social distance items, such as the willingness to hire, to be friends with, and to marry into a family with a history of mental illness, but it also

taps into some of the affective underpinnings of the desire for social distance, such as concerns over the potential contamination that comes from being associated with someone deemed to be mentally ill, the need for secrecy, the lack of social acceptance, and the sense of apprehension that is associated with mental diagnoses (Corrigan et al., 2003; Link et al., 1999; Link, 1987; Phelan, 2005).

I have chosen to incorporate a variety of sources into my social distance scale. The social distance scale includes items from Link's (1987) Devaluation and Discrimination Scale; Link et al.'s 1987 Social Distance Scale; Pescosolido, Long, Martin, & Smith's 2004 "Stigma & Mental Illness in Cross-National Perspective;" Link et al.'s 1999 study on public perceptions of mental illness; and Phelan's (2005) study on the geneticization of mental illness. Similar items have been used in different social distance measures throughout the stigma literature and have been replicated as reliable indicators of an individual's distancing orientation (Link, 1987; Phelan, 2005; Link et al., 1999; Corrigan et al., 2001; 2003). (See Appendix II for the specific differences between my social distance items and those used by other stigma researchers).

My social distance measure is an eight item scale that asks survey participants their level of agreement, on a scale of zero (strongly disagree) to four (strongly agree), on the following Likert style statements: "a person with mental illness would have little or no hope of being accepted within his/her community; most people would be willing to hire a former mental patient as an employee (reverse coded); being around a mentally ill person would make me feel nervous; even though former mental patients may seem fine it is foolish to forget that they

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are mentally ill; most people would be willing to be friends with a family

members of a mental patient (reverse coded); most people would be willing to

marry a person who came from a family with a history of mental illness (reverse

coded); most people believe that children of mental patients are destined to

become mentally ill in the future; and family members of a person with mental

illness would be better off if the mental illness was kept secret" (Alberta Survey

Codebook, 2007). Items were summed to produce a scale with higher scores

reflecting higher levels of desired social distance from people who are considered

to have a mental illness by the respondents. In order to maximize my sample size,

the final social distance scale included all respondents who had no more than two

missing values on the eight social distance items. The final scale had a

Cronbach's alpha value of 0.51.

2.3.2. Independent Variables

Two primary independent variables are included for analysis in this study.

The first independent variable is the *level of contact* people have with individuals

they consider to have been treated for a mental illness or problem. Contact refers

to the experience that respondents have had with people who have been treated

for a mental illness or problem, be it from personal experience with treatment for

a mental problem, knowing someone else who has been treated for a mental

illness, or from observations of people who appear to have a serious mental health

problem in public places. The contact measures are based on three survey

questions taken from the "Stigma and Mental Illness in Cross-National

Perspective Survey" (Pescosolido et al., 2004). The first question asked

respondents "have you ever personally received treatment for a mental health

problem," while the second item asked respondents, "leaving yourself aside, have

you personally ever known someone who has received treatment for a mental

illness." These two items measure a participant's personal contact with someone

who has been treated for a mental illness or problem. Both of these dichotomous

measures were recoded into dummy variables, with yes =1 and no=0.

The last contact question asked "how often do you see someone who

appears to have a serious mental health problem in a public place?" Using a four

point Likert scale (frequently, occasionally, rarely, and never), this item was

reverse coded so that higher values reflect more frequent observations. Each level

of the public place measure was re-coded into separate dummy variables which

compare those who occasionally, rarely, and never with those who frequently (the

omitted reference category) observe someone who appears to have a serious

mental health problem in a public place. The purpose of this item is to provide a

measure of impersonal contact because no known relationship needs to exist

between the observer and the observed. It reflects the least intimate of the contact

measures used in this study.

The second independent variable is the ***attribution of personal

responsibility***. This measure looks at whether respondents believe that people

who have a mental illness are personally responsible for their condition. It

assesses the endorsement of one type of individual causal attribution. Survey

participants were asked their level of agreement on a single Likert style statement

which asked whether "most people with mental illness are responsible for having

their illness" (Alberta Survey Codebook, 2007). I modified this item from

Corrigan et al. (2003). Corrigan et al. asked their participants "how responsible,

do you think, is Harry for his present condition? 1=not at all to 9 = very much"

(Corrigan et al., 2003, p. 174). I ask my responsibility question directly to the

participants by using a five point Likert agree/disagree format. The original Likert

measure was re-coded into a series of dummy variables that compare those who

disagree, are neutral, agree, and strongly agree with those who strongly disagree

(the omitted reference category) that people with a mental illness are responsible

for their condition. Due to low numbers at the upper range of the measure, the

strongly agree and agree categories were collapsed into a single agreement

response.

2.3.3.   Socio-demographic and Control Variables

I will include age, gender, level of education, marital status, location of

residence, ethnicity, household income, and after Virginia Tech as control

variables in my analysis. I have chosen these variables because they may be

associated with either the desire for social distance, the levels of contact, or the

attribution of personal responsibility. The control variables will be coded in the

following manner: **age** (in years); *gender* (dummy variable with male=1); *level of*

education (a series of dummy variables that compare individuals who have less

than a high school education, those who are high school graduates, those that have some post-secondary with those who have completed a post-secondary program [omitted reference category]); *marital status* (dummy variables that compare married individuals [omitted reference category] with those who are single, are in common law relationships, are separated/divorced, and are widowed); *location of residence* (a series of dummy variables that compare city dwellers [omitted reference category] with those who live in a town/village, those living in a rural area not on a farm, and those living in a rural area on farm); and *ethnicity* (a series of dummy variables comparing individuals who came from Western Europe, Eastern European, Asian, Aboriginal, other ethnic groups, more than one ethnicity, with those who self-identified as Canadian only [omitted reference category]). The Western and Eastern European groups were later combined into a single European category.

The original *household income* variable was coded into uneven categories with $2000 increments at the lowest end and $25,000 increments at the upper end of the scale. In light of the uneven distribution of these categories, I assigned the mid-point value in each category and divided by 1000 so that the units are in thousands of dollars. To retain cases where respondents did not provide their household income, I created a dummy variable for missing income values (coded 1 if missing and 0 otherwise).

An unexpected period effect may have occurred during the data collection phase of the 2007 Alberta Survey. On April 17, 2007 a devastating school shooting occurred at Virginia Tech in Blacksburg, Virginia. I will control for this

event by creating a dummy variable for ***Virginia Tech***, with after Virginia

Tech=1. The "after Virginia tech shooting" category will also include people

interviewed on the day of the shooting.

2.4. Analytic Strategy

Using SAS 9.1.3, I will begin my analysis with an analysis of variance to

determine whether the mean differences in social distance are significantly

different across the various measures in this study. Next, my regression analysis

will proceed in several stages. First, an ordinary least squares regression (OLS)

model will evaluate the association between the socio-demographic/control

variables (age, gender, marital status, location of residence, household income,

level of education, ethnicity, and Virginia Tech) and the desire for social distance.

Second, an OLS regression model will assess the association between the levels

of contact and the desire for social distance, controlling for the socio-demographic

and control variables. Third, I will run an OLS regression model to determine

how much of the variation in the desire for social distance is accounted for by the

attribution of personal responsibility, controlling for the socio-demographic and

control measures. Fourth, an OLS regression model will simultaneously evaluate

the effect that the levels of contact and the attribution of personal responsibility

have on the desire for social distance, controlling for the socio-demographic and

control variables. Considering that the final sample size was 1073, all coefficients

will be interpreted as statistically significant if $p<0.05$.

2.5. Sample Weights

Due to the complex nature of the sampling method used for the 2007 Alberta Survey, normalized sample weights were used to adjust the sample characteristics to coincide with actual population (Reitter, Zanutto & Hunter, 2005). The purpose of using sampling weights is to deflate the probability of a person being selected from an over-sampled group, which in this case was respondents in Edmonton and Calgary, while enhancing the probability that under-sampled groups, the rest of Alberta, will be selected (Reitter et al., 2005). Typically sampling weights are also to adjust for non-response and to fix problems in sampling design (Sturgis, 2004).

Chapter 3: Results

3.1. Sample Characteristics

Table 1: Sample Characteristics from the 2007 Alberta Survey (N=1073)

	Percentage	Mean	Standard Deviation
Social Distance Scale		10.9	4.0
Personal Treatment For A Mental Health Problem (yes =1)	16.5		
Know Others Treated For A Mental Illness (yes = 1)	81.6		
Public Observations of People With Serious Mental Health Problems			
Frequently	34.0		
Occasionally	35.7		
Rarely	26.3		
Never	4.0		
Attribution of Personal Responsibility for Mental Illness			
Strongly Disagree	66.0		
Disagree	25.7		
Neutral	4.5		
Agree/Strongly Agree	3.8		
Age (in years)		48.3	16.3
Gender (male =1)	50.9		
Marital Status			
Married	59.3		
Single	18.1		
Common law	6.7		
Separated/Divorced	9.8		
Widowed	6.2		
Level of Education			
Less Than High School	10.3		
High School Graduate	19.6		
Some Post-Secondary	38.2		
Completed Post-Secondary	32.0		

Table 1. Continued

Variable	Percentage	Mean	Standard Deviation
Household Income (in dollars)			
0-19,999	3.5		
20,000-39,999	8.8		
40,000-59,999	9.9		
60,000-79,999	11.3		
80,000-99,999	10.4		
100,000 and higher	30.6		
Income Missing	25.5		
Location of Residence			
City	69.3		
Town/Village	17.4		
Rural on Farms	7.1		
Rural not on Farms	6.2		
Ethnicity			
Western European	28.3		
Eastern European	7.2		
Asian	4.5		
Aboriginal	1.3		
Canadian Only	3.7		
Others	3.5		
More Than One Ethnicity Reported	51.5		

Table 1 outlines the sample characteristics for the 2007 Alberta Survey.

Albertans had an average score of 10.9 on the social distance scale, which ranged

between 0 and 32. 81.6% of Albertans know someone, besides themselves, who

has been treated for a mental illness and 16.5% disclosed that they have

personally received treatment for a mental health problem. 34.0% of respondents

indicated that they have frequently observed someone who appears to have a

serious mental health problem in a public place, while 35.7% occasionally, 26.3%

rarely, and 4.0% never have seen someone who appears to have a serious mental

health problem in a public place. 66.0% of respondents strongly disagreed that

people who have a mental illness are responsible for their condition, while 25.7%

disagreed, 4.5% neither agreed nor disagreed, and 3.8% agreed/strongly agreed.

Survey respondents were on average 48.3 years of age and males

represented 50.9% of the sample. Most Albertans were married (59.3%), 18.1 %

were single, 6.7% were in common law relationships, 9.8% were

separated/divorced, and 6.2% were widowed. 10.3% of the sample had less than a

high school education, 19.6% were high school graduates, 38.2% had some post-

secondary education, and 32.0% have completed a post-secondary program. 3.5%

of Albertans earned a household income of less than $19,999; 8.8% earned

between $20,000 and $39,999; 9.9% earned between $40,000 and $59,999; 11.3%

earned between $60,000 and $79,999; 10.4% earned between $80,000 and

$99,999; and 30.6% earned over $100,000. 25.5% of the sample did not report

any household income value.

A majority of the participants lived in cities (69.3%), 17.4% lived in

towns/villages, 7.1% lived in rural communities on farms, and 6.2% lived in rural

communities not on farms. Even though 28.3% of Albertans came from Western

European backgrounds, 7.2% were Eastern European, 4.5% were Asian, 1.3%

self-identified as Aboriginal, 3.7% only identified as Canadian, 3.5 % came from

other ethnic backgrounds not represented in the above categories, and 51.5%

reported more than one ethnic affiliation.

Table 2: Frequencies of the Social Distance Scale Items, 2007 Alberta Survey (N=1073)

	Percentage	N
Little Hope of Acceptance in Community		
Strongly Disagree	34.9	1064
Disagree	32.5	
Neutral	19.5	
Agree	10.2	
Strongly Agree	3.0	
Kids Destined To Become Mentally Ill		
Strongly Disagree		1044
Disagree	29.4	
Neutral	35.1	
Agree	19.4	
Strongly Agree	13.1	
	3.1	
Feel Nervous Around a Mentally Ill Person		
Strongly Disagree	37.4	
Disagree	34.2	1068
Neutral	15.5	
Agree	11.2	
Strongly Agree	1.7	
Foolish To Forget Former Mental Patients Are Mentally Ill		
Strongly Disagree	10.4	
Disagree	24.5	1050
Neutral	23.7	
Agree	31.6	
Strongly Agree	9.8	
Keep A Mental Illness Secret		
Strongly Disagree	56.5	
Disagree	31.5	1001
Neutral	5.5	
Agree	4.6	
Strongly Agree	2.0	

Table 2. Continued

Variable	Percentage	N
Willing to Marry Into a Family With		
Mental Illness History		1036
Strongly Disagree	9.7	
Disagree	36.2	
Neutral	31.6	
Agree	16.6	
Strongly Agree	6.0	
Willing to Hire A Former Mental Patient		
Strongly Disagree	4.6	1052
Disagree	21.9	
Neutral	36.7	
Agree	29.4	
Strongly Agree	7.5	
Be Friends With A Family Member of A		
Mental Patient		1064
Strongly Disagree	25.2	
Disagree	48.6	
Neutral	17.9	
Agree	5.6	
Strongly Agree	2.7	

Table 2 displays the frequency distribution for the eight social distance scale items. 34.9% of respondents strongly disagreed that a person with a mental illness would have little or no hope being accepted in his/her community, while 32.5% disagreed, 19.5% neither agreed nor disagreed, 10.2% agreed, and 3.0% strongly agreed that a person with a mental illness would have little or no hope being accepted in his/her community. 29.4% of respondents strongly disagreed that children of mental patients are themselves destined to become mentally ill, while 35.1% disagreed, 19.4% were neutral, 13.1% agreed, and 3.1% strongly agreed. 37.4% of respondents strongly disagreed that being around a mentally ill

person made them feel nervous, while 34.2% disagreed, 15.5% were neutral, 11.2% agreed, and 1.7% strongly agreed that being around a mentally ill person made them feel nervous. 10.4% of participants strongly disagreed that even though former mental patients may seem fine, it is foolish to forget that they are mentally ill, while 24.5% disagreed, 23.7% neither agreed nor disagreed, 31.6% agreed, and 9.8% strongly agreed. 56.5% of respondents strongly disagreed that family members of a person with a mental illness would be better off if the mental illness was kept secret, while 31.5% disagreed, 5.5% were neutral, 4.6% agreed, and 2.0% strongly agreed with the statement.

Moreover, 9.7% of respondents strongly disagreed that most people would be willing to marry into a family with a history of mental illness, while 36.2% disagreed, 31.6% neither agreed nor disagreed, 16.6% agreed, and 6.0% strongly agreed with the statement. 4.6% of the participants strongly disagreed that most people would be willing to hire a former mental patient, while 21.9% agreed, 36.7% were neutral, 29.4% agreed, and 7.5% strongly agreed with the statement. Finally, 25.2% of respondents strongly disagreed that most people would be willing to be friends with a family member of a mental patient, while 48.6% disagreed, 17.9% were neutral, 5.6% agreed, and 2.7% strongly agreed.

3.2. Analysis of Variance

Table 3: Analysis of Variance of Mean Differences in the Desire for Social Distance by Focal Variables, 2007 Alberta Survey (N=1073)

Variable	F	Mean of Social Distance
Personal Treatment For A Mental Health Problem	0.03	
Yes		10.9
No		10.9
Know Others Treated For A Mental Illness	13.58***	
Yes		10.7
No		11.9
Public Observations of People With Serious Mental Health Problems	2.32	
Frequently		10.6
Occasionally		11.0
Rarely		11.1
Never		12.0
Attribution of Personal Responsibility for Mental Illness	24.68***	
Strongly Disagree		10.3
Disagree		11.8
Neutral		12.9
Agree/Strongly Agree		13.9

Note: *p<0.05, **p<0.01, ***p<0.001 using one-way analysis of variance

Table 3 presents the analysis of variance and weighted mean comparisons for the focal variables in this study (see Appendix III for the analysis of variance for the non-focal variables). Knowing others who have received treatment for a mental illness and attributing responsibility for mental illnesses onto the individual were both significantly associated with the desire for social distance. First, those who know others who have been treated for a mental illness had a significantly lower mean social distance value relative to those who did not know anyone who has been treated for a mental illness. Second, there was a statistically

significant difference between the mean levels of social distance across the levels of the attribution of personal responsibility measure. There was no significant association between the desire for social distance and either personally receiving treatment for a mental health problem or the frequency of observing people who appear to have a serious mental health problem in public places.

3.3. Ordinary Least Squares Regression Analysis

Table 4 displays the multiple regression models that describe how much of the variation in the desire for social distance is explained by the socio-demographic and control measures, the levels of contact, and the attribution of personal responsibility. Model 1 shows the differences in social distance across the various socio-demographic and control variables. The observed $F_{(19,1058)}$ of 3.35 was statistically significant at the 0.0001 level of significance and the socio-demographic variables account for 4% of the variance in the desire for social distance. First, since the linear specification of the age variable provided the best functional form for the relationship between age and social distance, a one year increase in age was associated with a 0.03 unit increase in the desire for social distance. Second, considering that the linear specification of the income variable provided the best functional form for its association with social distance, every $1000 increment increase in household income was associated with a 0.01 unit

Table 4: Ordinary Least Squares Regression of Control Variables, Levels of Contact, and the Attribution of Personal Responsibility on the Desire for Social Distance, 2007 Alberta Survey (N=1073)

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
Age (in years)	0.03	(.01)***	0.03	(.01)***	0.03	(.01)***	0.03	(.01)***
Household Income (in 1000s of dollars)								
Household Income	-0.01	(.00)*	-0.01	(.00)	-0.01	(.00)	-0.00	(.00)
Income Missing	-0.38	(.40)	-0.29	(.41)	-0.31	(.39)	-0.26	(.39)
Levels of Education[a]								
Less Than High School	0.77	(.45)	0.75	(.45)	0.65	(.44)	0.63	(.44)
High School Grad	-0.43	(.35)	-0.50	(.35)	-0.58	(.34)	-0.65	(.34)
Some Post-Secondary	0.06	(.29)	0.03	(.29)	-0.04	(.29)	-0.07	(.29)
Gender (male=1)	0.78	(.25)**	0.74	(.25)**	0.74	(.24)**	0.69	(.24)**
Marital Status[b]								
Single	0.35	(.37)	0.37	(.37)	0.34	(.36)	0.39	(.36)
Common Law	0.14	(.50)	0.07	(.50)	0.29	(.49)	0.24	(.49)
Separated/Divorced	0.31	(.43)	0.32	(.43)	0.46	(.42)	0.50	(.42)
Widowed	-0.06	(.55)	-0.02	(.55)	-0.00	(.53)	0.04	(.53)
Location of Residence[c]								
Town/Village	0.21	(.32)	0.20	(.32)	0.07	(.31)	0.06	(.31)
Rural on Farms	-0.09	(.47)	-0.11	(.47)	-0.19	(.46)	-0.22	(.46)
Rural not on Farms	-0.03	(.50)	-0.06	(.50)	-0.04	(.49)	-0.06	(.49)
Ethnicity[d]								
European	0.54	(1.63)	0.79	(1.64)	0.27	(1.59)	0.48	(1.59)
Asian	1.67	(1.69)	1.55	(1.69)	0.76	(1.64)	0.62	(1.64)
Aboriginal	0.54	(1.95)	0.93	(1.95)	0.20	(1.89)	0.52	(1.90)
Others	2.95	(1.70)	2.99	(1.70)	2.56	(1.66)	2.57	(1.65)
More than One Ethnicity Reported	0.44	(1.64)	0.68	(1.64)	0.16	(1.59)	0.35	(1.59)
After Virginia Tech	0.24	(.36)	0.22	(.36)	0.18	(.35)	0.16	(.35)
Levels of Contact								
Personal Treatment			0.23	(.33)				
Know Others Treated For A Mental Illness			-0.91	(.34)**			-0.84	(.31)**
Public Observations								
Occasionally			0.20	(.29)				
Rarely			0.00	(.32)				
Never			0.37	(.65)				
Attribution of Personal Responsibility								
Disagree					1.37	(.27)***	1.34	(.27)***
Neutral					2.67	(.57)***	2.65	(.57)***
Agree/Strongly Agree					3.44	(.61)***	3.43	(.61)***
Constant	8.70		9.02		8.51		8.96	
R²	0.04		0.05		0.09		0.10	
F	3.35 ***		3.07***		5.88***		5.97***	

Note: [a] reference category is completed post-secondary. [b] reference category is married. [c] reference category is city. [d] reference category is Canadians. [e] reference category is frequent. [f] reference category is strongly disagree. * p<0.05 ** p<0.01 *** p<0.001

decrease in the desire for social distance. Last, males on average desired 0.78 units more social distance than females.

Model 2 displays the differences in social distance across the levels of contact controlling for the socio-demographic and control variables. Of the three contact measures assessed in Model 2, only knowing someone who has been treated for a mental illness was significantly associated with social distance. Respondents who know someone else who has been treated for a mental illness desired 0.91 units less social distance than individuals who do not know anyone who has been treated for a mental illness. After adding the levels of contact to the model, age and gender remained significant predictors of the desire for social distance; however, household income dropped to non-significance. The goodness of fit test showed that the observed $F_{(5, 1047)}$ of 1.87 failed to exceed the critical $F_{(5,1047,0.05)}$ of 2.21; therefore, this model was not a better fit for the data over the model containing only the control variables.

Model 3 displays the association between the attribution of personal responsibility and the desire for social distance, after adjusting for the socio-demographic and control measures. The goodness of fit test confirmed that the observed $F_{(3, 1049)}$ of 21.45 exceeded the critical $F_{(3,1049, 0.05)}$ of 2.61. Model 3 was a better fit for the data over Model 1 and Model 3 accounted for 9% of the variance in the desire for social distance. Compared to those who strongly disagree that people who have a mental illness are responsible for their condition, those who simply disagree desired 1.37 units more social distance, those who neither agree nor disagree desired 2.67 units more social distance, and those who

agree/strongly agree desired 3.44 units more social distance. After adding the attribution of personal responsibility to the model, age and gender remained statistically significant predictors of the desire for social distance, but household income dropped to non-significance.

Finally, after controlling for the socio-demographic and control measures, Model 4 displays the differences in the desire for social distance when the levels of contact and the attribution of personal responsibility were added into a single model. Because most of the contact measures were not significant, only the dummy variable for knowing others who have been treated for a mental illness was included in the final model. The goodness of fit test showed that the final model was a better fit than Model 3 ($F_{(1,1048)}= 7.15 >$ critical $F_{(1,1048, 0.05)} = 1.04$) and the final model accounted for approximately 10% of the variance in the desire for social distance.

When knowing someone who has been treated for a mental illness and the attribution of personal responsibility were adjusted for each other, they both remained statistically significant predictors for social distance. The results of Model 4 show that, first, participants who knew someone else who has been treated for a mental illness desired 0.84 units less social distance relative to those who do not know anyone treated for a mental illness. Second, relative to those who strongly disagree with the statement that the individuals with a mental illness are responsible for their illness, respondents who simply disagree desired 1.34 units more social distance, those who neither agree nor disagree desired 2.65 units more social distance, and individuals who agree/strongly agree desired 3.43 units

more social distance. There was a minimal change in the coefficients for knowing someone who has been treated for a mental illness and the attribution of personal responsibility when adjusted for each other. This suggests that they each independently account for the variation in the desire for social distance.

Chapter 4: Discussion and Conclusion

4.1. Outline of Discussion Section

Given that previous stigma studies have clearly demonstrated that people who have a mental illness are a socially disadvantaged segment of the population and despite efforts to improve public understanding about and sensitivity toward the struggles of living with a mental illness, the general public still remain socially distant. Individuals with psychiatric illnesses, because of their lower social position, are particularly disadvantaged in their ability to access good employment, education, housing, psychological well-being, and medical treatment (Link, 1982; Link, 1987). All of this makes people living with a mental illness more vulnerable to future health complications because of the added stress placed on their ability to effectively manage their illnesses in society (Link, Mirotznik & Cullen, 1991). Therefore, it is essential for researchers to have a better understanding of the factors that contribute to the desire for social distance.

In order to reduce the impact that the desire for social distance has on the lived experiences of those who have mental illnesses and to help policy makers work toward inclusion over exclusion, this study looks specifically at the levels of contact and the attribution of personal responsibility as two possible explanations for the variance in the desire for social distance from people who may have a mental illness. The results of this study show that knowing someone who has been treated for a mental illness and attributing responsibility for mental illnesses onto the individual are important predictors of social distance.

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Using the data from the 2007 Alberta Survey to evaluate predictors associated with the desire for social distance from people considered to have a mental illness, this study had three main goals. First, I evaluated whether the level of contact that respondents have with people they consider to have a mental illness or problem, operationalized into different levels of contact, was associated with respondents' desire for social distance from people who may have a mental illness. Second, I tested whether respondents' level of agreement with the statement that people with a mental illness are responsible for their illness was associated with their desire for social distance from people who may have a mental illness. Finally, I assessed the relative contribution that contact and the attribution of personal responsibility have on the desire for social distance from people who respondents think have a mental illness by testing them simultaneously in the same model. Each of these will be discussed in the following sections.

4.2.   Contact and Social Distance

One of the main goals of this study is to understand how the level of contact that respondents have with people they have deemed to have a mental illness or problem can explain some of the variation in the desire for social distance. I evaluated whether the level of contact respondents have with individuals they think have a mental illness or problem, operationalized into different levels of contact, was associated with respondents' desire for social

distance from people considered to have a mental illness. My results were quite unexpected.

I found that personally receiving treatment for a mental health problem was not associated with reduced social distance but knowing someone who has been treated for a mental illness was predictive of reduced social distance. These results are not completely in line with previous research on the association between contact and social distance. Most notably, both Corrigan et al. (2001) and Angermeyer et al. (2004) found that the more familiar people were with individuals who may have a mental illness, because of their close personal experiences, the less social distance they desired. One would expect that personally receiving treatment, as the most intimate form of personal contact, would produce a difference in the desire for social distance relative to those individuals who have not personally been treated for a mental health problem. Personally receiving treatment for a mental health problem had no effect on the desire for social distance.

Even though previous contact studies have clearly shown that people who have more personal experience with individuals they consider to have a mental illness have lower desires for social distance (Corrigan et al., 2001; Angermeyer et al., 2004), my study suggests that the only contact experience that has the ability to reduce the desire for social distance is knowing someone, other than oneself, that has been treated for a mental illness. Perhaps the fact that I chose to retain a separation between my personal contact measures rather than combining them into a composite score (Alexander & Link, 2003), or rank ordering them

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(Corrigan et al., 2001), or dichotomizing them into a single personal versus no personal experience measures (Angermeyer et al., 2004), may explain the divergence of my results from previous contact studies. Therefore, the differences in how the personal contact measures are coded and the differences in study design may explain why my personal contact results are not necessarily in line with previous contact related studies.

The last contact measure tested, the frequency of public place observations, was the most impersonal of the three contact measures. I maintained that the desire for social distance would depend on the frequency that respondents observe people who appear to have a serious mental health problem in public places. Contrary to my hypothesis, I found that the desire for social distance was not dependent upon the frequency of public observations of individuals who appear to have a serious mental health problem. This result is in line with Alexander and Link's (2003) finding that the frequency of public contact that survey respondents have deemed to have a serious mental health problem was not significantly associated with the desire social distance. Additionally, this finding is in line with Cumming and Cumming's (1957) results. Cumming and Cumming (1957) found that despite the number of contact experiences that they provided to their participants, these contact experiences had no effect on the overall attitudes of the experimental community. However, in light of the fact that our studies use different methods and have different measures of contact, it is difficult to adequately compare our results.

It remains unclear why personally receiving treatment and public place observations are not associated with reduced social distance, but knowing someone else who has received treatment for a mental illness is a significant predictor of lower social distance. If contact is thought to exist along a continuum from the closest contact (personal treatment) to the least close contact (public observations), then it is unusual that only the middle contact value (knowing others) is associated with a reduction in the desire for social distance. Perhaps the reason why personally receiving treatment is not predictive of lower social distance is because people who are treated for a mental health problem may not consider their problem to be a mental illness; therefore, personally seeking treatment may not have the same effect on social distance as explicitly knowing that someone has been treated for a mental illness. It is much easier to label someone else's behaviour as more indicative of a mental illness than to acknowledge the same problem in oneself.

Furthermore, when people are aware that someone has been treated for a mental illness there may be more willing to socially engage with other people who may have a mental illness. Knowing someone who has been treated for a mental illness may have sensitized the respondent to the struggles associated with having a mental illness; therefore, the overall effect of this knowledge can work to reduce the desire for social distance in a way that may be unattainable by personally receiving treatment or making public place observations.

However, unlike knowing someone else, public observations may be too random and not interactive enough to engender the same effect on the desire for

social distance. Perhaps the further removed and less personal the contact experience is from an individual, the less impact this type of contact has on the desire for social distance. Since for the most part mental illnesses are invisible conditions, random observations of people who appear to have a serious mental health problem in public places may not be sufficient enough to have the same impact on social distance as knowing someone who has been treated for a mental illness can have. Further research is needed to clarify this discrepancy.

4.3. Attribution of Personal Responsibility and Social Distance

The second main focus of this thesis was to determine whether attributing responsibility for a mental illness onto the individual is correlated with an increase in the desire for social distance. I found that respondents who disagreed, were neutral, and agreed or strongly agreed with the statement that people who have a mental illness are responsible for their illness had significantly higher levels of desired social distance relative to those who strongly disagreed with the statement. This result is somewhat in line with previous research on the association between individual causal attributions and the desire for social distance. For example, Link et al. (1999) found that when a vignette character's perceived mental illness is attributed to their bad character (typically reserved for alcohol and cocaine addictions) there was an increase in the desire for social distance. Similarly, Martin et al. (2000) and van't Veer et al. (2006) found that respondents desired higher levels of social distance from vignette characters

whose condition was deemed to be caused by the individual. However, unlike previous attribution studies, I do not use vignettes, I only assess the attribution of personal responsibility, and I do not provide any other causal attributions to compare it to. Therefore, I can concur at a general level that this type of individual causal attribution is associated with higher levels of social distance, but I can not claim that the attribution of personal responsibility is associated with increased social distance relative to other causal explanations. Perhaps using a more varied list of causal attributions may have provided previous researchers with a better understanding of the relative importance that individual causal attributions have on the desire for social distance.

Furthermore, what distinguishes my results from previous attribution studies is my focus on the attribution of personal responsibility. My study is clearly divergent from previous studies in this area because of my sole focus on personal responsibility. Typically, studies that claim that there is an association between the attribution of responsibility and social distance often infer responsibility from either the controllability or other individually caused actions (Dietrich et al., 2004; Corrigan et al., 2003). Both Dietrich et al. (2004) and Corrigan et al. (2003) found that the desire for social distance is highest when people believed that persons who have mental illnesses are responsible for their conditions. Unfortunately, the attribution of personal responsibility was not clearly assessed as one of the causal choices. Unlike other attribution studies, I did not infer responsibility, but rather my survey question asked participants directly whether they felt that individuals who have mental illnesses are

personally responsible for their conditions. My results clearly show that compared

to those respondents who strongly disagreed with the statement that people with

mental illnesses are responsible for their condition, those who disagreed, were

neutral, and agreed or strongly agreed with the statement all had higher associated

levels of social distance. Therefore, while my study is not completely in line with

other stigma studies, my focus on the attribution of personal responsibility

clarifies an important association that may exist between individual causal

attributions and the desire for social distance.

4.4. Testing the Relative Contribution of Contact and The Attribution of Personal Responsibility to the Desire for Social Distance

Considering that stigma studies assess contact and causal attributions

independent of each other (Alexander & Link, 2003; Dietrich et al., 2005) and no

other studies have jointly tested the relative influence that the levels of contact

and the attribution of personal responsibility have on desire for social distance, I

chose to assess the relative contribution of both contact and attribution of personal

responsibility to the desire for social distance from people thought to have a

mental illness or problem by testing them simultaneously in the same model.

When knowing someone who has been treated for a mental illness and the

attribution of personal responsibility were added to a single model, they both

remain significant predictors of the desire for social distance. Importantly, this

study provides evidence that the desire for social distance depends on a variety of

social process that independently work to determine an individual's desire for social distance from people who may have a mental illness. No one factor explains all of the variance in the desire for social distance. Considering that the final model was only able to explain about 10% of the variation in the desire for social distance, there are other unexplained variables that are responsible for the vast majority of the explainable variance in the desire for social distance.

However, since the overall effect that contact had on the desire for social distance was minimal, my results suggest that contact may not have as much influence on people's willingness to socially interact with individuals they consider to have a mental illness than previous studies have suggested. It appears from these results that the attribution of personal responsibility makes most of the contribution to the variance that was explained in the desire for social distance. Therefore, by adding both variables into a single regression model, this study suggests that the desire for social distance can be impacted by reducing and exacerbating factors at the same time. Since knowing someone who has been treated for a mental illness reduces social distance, but the attribution of responsibility increases social distance, there may be a push and pull effect between contact and the attribution of responsibility that accounts for the independent contribution that each of them make to the variation in the desire for social distance. Future researchers may want to closely examine other factors that may account for the variation in social distance in order to better understand why these variables appear to make independent contributions to social distance.

4.5. Implications

There are several implications that have arisen out of my findings. First, the fact that contact had little impact on the variation in the desire for social distance suggests that anti-stigma programs and policies that focus solely on increasing the amount of interaction between the general public and people who are thought to have a mental illness may not be effective enough to target the mechanism necessary to improve the public's willingness to interact with people considered to have a mental illness or problem. Simply increasing the amount of contact between the general public and people who have a mental disorder may have little effect on reducing the desire for social distance. However, considering that my contact measures may not have been powerful enough to capture the true association between contact and social distance, dismissing contact as an avenue for reducing the desire for social distance should not be completely endorsed.

Second, since only knowing someone else who has been treated for a mental illness was associated with reduced social distance, there is something particularly important about knowing someone, other than oneself, who has been treated for a mental illness that allows for this reduction in social distance. Perhaps, in order for contact to account for the variation in the desire for social distance, social interactions must be among known individuals and that this interaction comes with the recognition that an individual has received treatment for an identifiable psychiatric condition.

Third, my study suggests that one way that anti-stigma programs and policies can have a more effective impact on the desire for social distance is by

changing how the public attributes responsibility for mental illnesses. When both

knowing someone else who has had treatment for a mental illness and the

attribution of personal responsibility are jointly added together, it becomes even

clearer that contact has less of an impact on the desire for social distance relative

to the attribution of personal responsibility. Stigma may not be perpetuated by

simple social interactions alone, but rather, my study suggests that the stigma of

mental illness, as measured by the desire for social distance, may be reinforced by

attributions of personal responsibility. My findings clearly show that the

attribution of personal responsibility is associated with higher levels of social

distance. Anti-stigma programs and policies may want to consider focussing their

attention on reducing individual causal attributions, such as the attribution of

personal responsibility, as part of their ongoing efforts to socialize the general

public about the reality of living with a mental illness.

4.6. Limitations

Even though this study found a significant relative contribution of

knowing someone who has been treated for a mental illness and the attribution of

personal responsibility to the desire for social distance, it is not without serious

limitations. This section will first look at the limitations associated with this

particular study. I will then move to the methodological limitations of telephone

survey research and cross-sectional studies in general. Finally, this section closes

with some suggestions for future research that may help clarify the association

between contact, the attribution of personal responsibility, and the desire for social distance.

4.6.1. Measurement Limitations from the 2007 Alberta Survey

One of the fundamental limitations of the measures used on the 2007 Alberta Survey is the low internal consistency of my social distance scale. I am unable to assess whether the strict social distance items (will marry, be friends, will hire) or the affective underpinnings included in the final scale account for a clear measure of social distance. Furthermore, the low internal consistency of my scale restricts my ability to make accurate predictions about the association that my focal variables may have with the desire for social distance.

Not only does the social distance scale have a low level of internal consistency, but the language used to refer to people with a mental illness is also inconsistent. In some items the identified individual is referred to as a person with a mental illness, some are referred to as former mental patients or mental patients, and some are referred to as mentally ill. The lack of consistent language used in the items may have impacted the reliability of the social distance scale, and more importantly, it calls into question whether the respondents used a consistent frame of reference for answering the questions. Therefore, by not having a consistent frame of reference, I am unsure whether respondents provided answers that are different based on the identifying label used in the items. Considering that the responses given were based on the respondent's observations or

conceptualizations of people with a mental illness, I am unable to comment on who the respondents were thinking about when they answered the social distance items.

Moreover, considering that the social distance scale was inspired by but not identical to previous scales, it is very difficult to make an accurate comparison between my work and previous stigma studies. More specifically, as the target group identified in the social distance items becomes more removed from the standardized vignette description of someone displaying symptoms of schizophrenia and major depression used by Link et al. (1987), to the "serious mentally ill" used by Corrigan et al. (2001), and finally, to "former mental patients" or the "mentally ill" used in my study, there appears to be a subsequent drop in the internal consistency of the scales (0.92, 0.75, 0.51 respectively).

In addition to the language limitations for the social distance items, the lack of consistent language used to describe mental illness is also present in the levels of contact. Once again the inconsistent language may have impacted the responses given to the survey questions. For instance, in the levels of contact mental illness is referred to in three ways: mental health problem; mental illness; and serious mental health problem. Each of these variations may have different connotations for the respondent and, thus, the responses given may be slightly different than may have been produced if a consistent term, such as someone with a mental illness, was used in all of the items.

Therefore, perhaps one reason why I was unable to find significant results for the personal treatment and the public observation items was due to the

inconsistent terminology used in the items. For example, in the public place item, respondents were asked to identify how often they saw someone who appeared to have a serious mental health problem in a public place. By limiting their frame of reference to seeing someone who appears to have a serious problem, this may have limited the respondent to thinking of much more extreme cases; therefore, limiting the actual frequency that respondents could identify seeing these types of people in public places.

Additionally, while knowing someone else who has been treated for a mental illness is associated with lower social distance, I am unable to determine who that known someone was, how much contact the respondent actually had with this known individual, how intimate the relationship with the known other was, and how recent the interactions were. These may all be important factors that can explain the association between knowing someone who has been treated for a mental illness and the desire for social distance. The most this measure can tell us is that knowing someone, regardless of the closeness of the relationship, can explain some of the variation in the desire for social distance.

Moreover, even though this study found that the attribution of personal responsibility was associated with increased social distance, the fact that the only causal attribution that was available to my respondents was the attribution of personal responsibility may have inflated the actual statistical significance of the responsibility measure. If a more varied list of causal attributions were given, including personal responsibility, I would have been in a better position to conclude that personal responsibility is clearly associated with higher levels of

social distance. My study is only able to show that the attribution of personal responsibility may also be an important predictor of social distance.

Last, the structure of the Alberta Survey only allowed a very limited number of questions to be asked. Even though previous stigma studies have used vignettes to replicate experimental conditions, the structure and function of the 2007 Alberta Survey did not allow for the use of vignettes, nor did it allow enough space to adequately replicate the social distance scale initially created by Link et al. (1987).

I was also unable to assess other important variables that have been identified as factors that may explain the variation in the desire for social distance. There are two prominent variables that were not evaluated in this study: the role of the media and political conservatism. First, researchers have clearly shown that the way the media portrays people with a mental illness can have a profound effect on how attitudes toward people who live with mental disorders are shaped. For example, Granello and Pauley (2000) and Angermeyer, Dietrich, Pott and Matschinger (2005) found that respondents desire more social distance from people who they perceive to have a mental illness as the amount of television they consume increases. Perhaps media portrayals of mental illness play a more important role in determining the desire for social distance than any of the contact and responsibility measures used in this study. Even though I controlled for the Virginia Tech shooting, I am unable to determine how much influence the media had in shaping the responses given to the 2007 Alberta Survey.

Second, researchers have also noted that a respondent's political orientation can have an important impact on their desire for social distance. Alexander and Link (2003) found that people who endorsed more liberally slanted political views tend to desire less social distance from their vignette character who displayed symptoms associated with mental disorders. It is possible that the conservative social climate in Alberta may explain why there is a significant association between knowing others who have been treated for a mental illness, the attribution of personal responsibility, and the desire for social distance. However, there were no measures on the 2007 Alberta Survey that could be used to approximate political conservatism.

4.6.2. Limitations Associated with Telephone Survey Research

Another key limitation of the 2007 Alberta Survey was its low response rate. However, it is not uncommon for telephone surveys to have dwindling response rates. In fact, Roeske (2007) tracked the response rates for the Alberta Survey since the 1990s and found that there has been a steady decline telephone survey participation in Alberta. This may be due to the influx of telemarketing, the growing dependence on cell phones over traditional landline telephones, and the adoption of call display (Kempf & Remington, 2007). While new technologies, such as random digit dialling, have helped academic survey researchers reach a more representative sample of respondents (Kempf & Remington, 2007; Link, Battagua, Frankel, Osborn, & Mokdad, 2007), changes in

the conditions surrounding telephone surveys caused by the increased presence of telemarketers, the increased use of cell phones, and the decline in the number of available landline phone numbers have increased the potential of producing non-reliable estimates from non-representative samples (Link et al., 2007; Fowler, 2002; Kempf & Remington, 2007).

Importantly, many sub-groups of the population may not be included in samples that are drawn under the current configuration of telephone surveys. In fact, Roeske (2007) found that the sampling method used for the Alberta Survey is biased in favour of people with higher levels of education and higher levels of personal income. With this in mind, even though statistically significant results were produced in my study, they may not truly reflect the actual attitudinal orientations of average Albertans. The conclusions derived from this study should be considered with caution because the low response rate may have compromised the overall representativeness, and as a consequence, the generalizability of 2007 Alberta Survey.

Finally, the Alberta survey is fundamentally a public opinion survey. The responses given only reflect respondents' attitudes toward people they think may have a mental illness and their potential corresponding behavioural orientations, they do not assess actual socially distancing behaviour. Any association between contact, the attribution of personal responsibility, and social distance must be tempered with the recognition that people often respond to surveys in socially desirable ways (Angermeyer et al., 2004). It is possible that the impact that stigma

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has on the lives of people who have a mental illness may be far greater than is expressed on public opinion surveys.

4.6.3. Limitations of Cross-Sectional Studies

Considering that my study is a cross-sectional survey, these results only provide a snap shot view of what the association between contact, the attribution of personal responsibility, and social distance may look like. I can not conclude that any of the associations are in fact causal. One of the notable limitations of cross-sectional surveys is the reliance on correlation over causal conclusions. Future researchers should consider examining the factors that may explain the desire for social distance by doing a longitudinal study with an experimental research design.

One of the main strengths of Cumming and Cumming's (1957) study was its experimental design. They created two groups what were similar in demographic make up, one acted as a control and the other acted as the experimental community. Using a pre-post test approach, they were able to identify the impact that their contact interventions had on the experimental community over a six month period of time. Therefore, in order to improve a researcher's ability to claim a causal association between either contact or attribution of personal responsibility and social distance, three conditions need to be met: random selection of participants to a treatment and a control group;

manipulation of only one independent variable; and an assessment of the treatment effect on the desire for social distance.

For example, one way researchers could assess the impact that contact with people who have a mental illness has on the desire for social distance is to use a pre-post test design. Respondents would be given a pre-test survey that evaluates their initial attitudes toward people who have mental illnesses, how they attribute the causes of mental illnesses, which would include personal responsibility, and their overall desire for social distance. Following the pre-test, survey respondents would be randomly assigned to two groups: contact with individuals experiencing symptoms of serious mental disorders and a no mental illness contact group (control group). Each of these groups would attend six one hour seminars over a six month period of time. The mental illness group would be given information about mental disorders, what causes them, how mental illnesses are managed in the community, and would include interactions with individuals who actually deal with these conditions in the real world. The control group would be given seminars on healthy nutrition. At the end of the six month period, both groups would be given a post-test survey that would assess their causal attributions, attitudes toward people who have a mental illness, and their desire for social distance. Participants would be asked whether they would be willing to be re-interviewed at the one year and two year interval in order to evaluate whether the impact that these contact experiences had on the desire for social distance changed over time. Longitudinal analysis of this sort would help

researchers identify factors that impede or promote social interaction with people considered to have a mental illness over time.

4.7. Suggestions for Future Research

There are several unanswered questions that have arisen as a result of this study. The first set of unanswered questions surrounds the attribution of personal responsibility. Specifically, what is it about mental illness that allows the attribution of personal responsibility to exist? How do people determine responsibility? Are there behaviours or characteristics of people who may have a mental illness that are more likely to elicit determinations of responsibility? Under what conditions are individuals considered more or less responsible for their mental illness? Is there a difference in the level of responsibility attached to psychiatric conditions if they are referred to as a mental illnesses or mental health problems?

Even though I found a significant association between the attribution of personal responsibility and the desire for social distance, future studies should closely examine the attribution of personal responsibility relative to other causal explanations. Perhaps a closer examination of the attribution process may help researchers find better ways to reduce the attribution of personal responsibility, which, in turn, may have a larger impact on reducing the desire for social distance.

The second set of unanswered questions is related to the levels of contact. Specifically, what is it about knowing someone who has been treated for a mental illness that reduces the desire for social distance but personally receiving treatment and observing people in public places does not? Does the type or volume of contact that people have with individuals who have a mental illness influence their desire for social distance? Why is it important to know that an individual has been treated for a mental illness before social distance can be reduced?

Finally, the last unanswered question relates to the association between public opinion and the daily lives of people who have a mental illness. At a general level, how much influence do public perceptions and distancing behavioural orientations actually have on the mentally ill? Even though this study provides a cursory look at the desire for social distance in the general public, future researchers may want to consider looking at whether the trends found in the general public are actually internalized by those who have been diagnosed with a mental disorder. It would be helpful for future researchers to compare the socially distant behavioural orientations of the general public and the impact that these attitudes have on the lived experiences of people who have a mental illness. It remains unclear just how powerful public perceptions are on how people with mental illnesses see themselves and their place in the social world.

4.8. Conclusions

Despite these limitations, this study still found a significant association between knowing someone who has been treated for a mental illness, the attribution of personal responsibility, and the desire for social distance. Since mental illness remains a stigmatizing label, this study provides some preliminary evidence that knowing someone who has been treated for a mental illness and reducing the attribution of personal responsibility may be valuable ways to reduce the desire for social distance. This thesis makes a valuable contribution to the stigma literature by focussing on the specific correlation between the levels of contact, the attribution of personal responsibility, and the desire for social distance.

This study also contributes to our understanding about the role that the levels of contact and the attribution of personal responsibility have on the desire for social distance. First, by not using vignettes specific to schizophrenia and major depression, I have been able to provide some evidence that the desire for social distance is present outside of vignette survey conditions. My results indicate that the desire for social distance may also be triggered in the general public without reference to a specific type of disorder. Even when people are considered to be "mentally ill", former mental patients, mental patients, or persons with a mental illness, I have been able to demonstrate that knowing someone who has been treated for a mental illness and the attribution of personal responsibility are significant predictors of the desire for social distance.

Therefore, my study provides some evidence that the desire for social distance

may be more diffuse than originally considered.

Furthermore, by testing both the levels of contact and the attribution of

personal responsibility in a single model, this study provides some insight into the

relative contribution that they both make to the desire for social distance. Finally,

by focussing on the attribution of personal responsibility, this study clearly shows

that this type of individual causal attribution may play an important role in the

desire for social distance over and above the effect of knowing others who have

been treated for a mental illness.

Bibliography

Alexander, L.A., & Link, B.G. (2003). The impact of contact on stigmatizing attitudes toward people with mental illness. *Journal of Mental Health*, 12, 3, 271-289.

Allport, G.W. (1979). *The nature of prejudice.* New York: Basic Books.

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders: Text revision (4th ed.)* Washington DC: Author.

Aneshensel, C.S., & Phelan, J.C. (eds.) (1999). *Handbook of the sociology of mental health*. New York: Springer.

Angermeyer, M.C., Dietrich, S., Pott, D., & Matschinger, H. (2005) Media consumption and desire for social distance towards people with schizophrenia. *European Psychiatry*, 20, 246-250.

Angermeyer, M.C., & Matschinger, H. (2005). Labeling-stereotype-discrimination: An investigation of the stigma process. *Social Psychiatry & Psychiatric Epidemiology*, 40, 391-395.

Angermeyer, M.C., Matschinger, H., & Corrigan, P.W. (2004). Familiarity with mental illness and social distance from people with schizophrenia and major depression: Testing a model using data from a representative population survey. S*chizophrenia Research*. 69, 175-182.

Coleman, E. G. (2008). The politics of rationality: Psychiatric survivor's challenge to psychiatry**.** In *Tactical Biopolitics.* Kavita Phillip and Beatriz de Costa (eds). Cambridge: MIT Press.

Corrigan, P.W., & Kleinlein, P. (2005). Impact of mental illness stigma. In Patrick Corrigan (Ed.), *On the Stigma of Mental Illness: Practical Strategies for Research and Social Change* (pp. 11-44).Washington, DC: American Psychological Association.

Corrigan, P.W., Backs Edwards, A., Green, A., Lickey, S.E., & Penn, D.L. (2001). Prejudice, social distance, and familiarity with severe mental illness. *Schizophrenia Bulletin*, 27, 2, 219- 225.

Corrigan, P.W., Markowitz, F.E., Watson, A., Rowan, D., & Kubiak, M.A. (2003). An attribution model of public discrimination toward persons with mental illness. *Journal of Health and Social Behavior*, 44, 162-179.

Cumming, E., & Cumming, J. (1957). *Closed ranks: An experiment in mental health education*. Cambridge, MA: Harvard University Press.

Dietrich, S., Beck, M., Bujantugs, B., Kenzine, D., Matschinger, H., & Angermeyer, M.C. (2004). The relationship between public causal attributions and social distance from the mentally ill. *Australian and New Zealand Journal of Psychiatry*, 38, 348-54.

Dixon, J.C., & Rosenbaum, M.S. (2004). Nice to know you? Testing contact, cultural, and group threat theories of anti-Black and anti-Hispanic stereotypes. *Social Science Quarterly*, 85, 2, 257-208.

Dowdall, G.W. (1999). Mental hospitals and deinstitutionalization. In Aneshensel, C.S. & Phelan, J.C. (eds.) *Handbook of the sociology of mental health*. New York: Springer.

Fowler, F.J. (2002). *Survey Research Methods*. Thousand Oaks: Sage Publications.

George, G., & Mallery, P. (2003). *SPSS for windows step by step: A simple guide and reference.* 11.0 update (4th Edition). Boston: Allyn & Bacon.

Goffman, E. (1961). *Asylums: Essays on the social situation of mental patients and other inmates*. New York: Anchor Books.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. New York: Simon & Schuster, Inc.

Granello, D. H., & Pauley, P.S. (2000) Television viewing habits and their relationship to tolerance toward people with mental illness. *Journal of Mental Health Counseling*, 22, 162-175.

Grob, G. (1991). *From asylum to community: Mental health policy in modern America.* Princeton, NJ: Princeton University Press.

Grob, G.N. (1996). American psychiatry: From hospital to community in modern America. *Caduceus*, 12, 3, 49-54.

Gove, W. (1982). The current status of the labeling theory of mental illness. In *Deviance and mental illness*, edited by Walter Gove. Beverly Hills: Sage.

Hinshaw, S.P. (2007). *The mark of shame: Stigma of mental illness and an agenda for change*. New York: Oxford University Press.

Holmes, E.P., & River, L.P. (1998). Individual strategies for coping with the stigma of severe mental illness. *Cognitive and Behavioral Practice*, 52, 231-239

Horak Randall, N., & Delbridge, S. (2005). Perceptions of social distance in an ethnically fluid community. *Sociological Spectrum*, 25, 103-122.

Horwitz, A.V. (1999). The sociological study of mental illness. In Aneshensel, C.S. & Phelan, J.C. (eds.) *Handbook of the sociology of mental health*. New York: Springer.

Jary, D., & Jary, J. (2000). *Collins dictionary of sociology*. Glasgow: HarperCollins Publishers.

Kempf, A. M., & Remington, P.L. (2007). New challenges for telephone survey research in the twenty-first century. *Annual Review of Public Health*, 28, 113-126.

Lamb, H.R., & Bachrach, L.L. (2001). Some perspectives on deinstitutionalization. *Psychiatric Services*, 52, 8, 1039-1045.

Lee, B.A., Farrell, C.R., & Link, B.G. (2004). Revisiting the contact hypothesis: The case of public exposure to homelessness. *American Sociological Review*, 69, 1, 40-63.

Lee, S., Chiu, M.Y.L., Tsang, A., Chui, H., & Kleinman, A. (2006). Stigmatizing experience and structural discrimination associated with the treatment of schizophrenia in Hong Kong. *Social Science & Medicine*, 62, 1685-1696.

Link, B.G. (1982). Mental patient status, work, and income: An examination of the effects of a psychiatric label. *American Sociological Review*, 47, 2, 202-215.

Link, B.G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review*, 52, 96-112.

Link, B.G., Cullen, F.T., Frank, J., & Wozniak, J.F. (1987). The social rejection of former mental patients: Understanding why labels matter. *American Journal of Sociology*, 92, 6, 1461-1500.

Link, B.G., Cullen, F.T., Struening, E., Shrout, P.E., & Dohrenwend, B.P. (1989). A modified labelling theory approach to mental disorders: An empirical assessment. *American Sociological Review*, 54, 3, 400-423.

Link, B.G., Mirotznik, J., & Cullen, F.T. (1991). The effectiveness of stigma coping orientations: Can negative consequences of mental illness labeling be avoided? *Journal of Health and Social Behavior*, 32, 3, 302-320.

Link, B.G., & Phelan, J.C. (2001). Conceptualizing stigma. *Annual Reviews Sociology*, 27, 363-385.

Link, B.G., Phelan, J.C., Bresnahan, M., Stueve, A., & Pescosolido, B.A. (1999). Public conceptions of mental illness. Labels, causes, dangerousness, and social distance. *American Journal of Public Health*, 89(9), 1328-1333.

Link, M.W., Battaglia, M.P., Frankel, M.R., Osborn, L., & Mokdad, A.H. (2007). Researching the U.S. cell phone generation: Comparison of cell phone survey results with an ongoing landline telephone survey. *Public Opinion Quarterly*, 71, 5, 814-839.

Martin, J.K., Pescosolido, B.A., Olafsdottir, S., & McLeod, J.D. (2007). The construction of fear: Americans' preferences for social distance from children and adolescents with mental health problems. *Journal of health and Social Behavior*, 48, 50-67.

Martin, J.K., Pescosolido, B.A., & Tuch, S.A. (2000). Of fear and loathing: The role of 'disturbing behavior', labels and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior*, 41, 2, 208-223.

Pescosolido, B.A., Long, J.S., Martin, J.K., & Smith, T. (2004) Stigma and mental illness in cross-national perspective: The SGC-MHS Interview Schedule. Indiana University.

Phelan, J.C. (2005). Geneticization of deviant behavior and consequences for stigma: The case of mental illness. *Journal of Health and Social Behavior*, 46, 307-322.

Phelan, J.C., & Link, B.G. (2004). Fear of people with mental illnesses: The role personal and impersonal contact and exposure to threat or harm. *Journal of Health and Social Behavior*, 45, 1, 68-80.

Phelan, J.C., Link, B.G., Stueve, A., & Pescosolido, B.A. (2000). Public conceptions of mental illness in 1950 and 1996: What is mental illness and is it to be feared? *Journal of Health and Social Behavior*, 41, 2, 188-207.

Phelan, J.E., & Barsow, S.A. (2007). College students' attitudes toward mental illness: An examination of the stigma process. *Journal of Applied Social Psychology*, 37, 12, 2877-2902.

Pilgrim, D. (2005). Defining mental disorder: Tautology in the service of sanity in British mental health legislation. *Journal of Mental Health*, 14, 5, 435-443.

Population Research Laboratory. (2007). Alberta Survey Codebook. University of Alberta.

Rao, D., Feinglass, J., & Corrigan, P. (2007). Racial and ethnic disparities in mental illness stigma. *The Journal of Nervous and Mental Disease*, 195, 12, 1020-1023.

Reidpath, D.D., Chan, K.Y., Gifford, S.M., & Allotey, P. (2005). He hath the French pox: Stigma, social value and social exclusion. *Sociology of Health & Illness*, 27, 4, 468-489.

Reinke, R.R., Corrigan, P.W., Leonhard, C., Lundin, R.K., & Kubiak, M. (2004). Examining two aspects of contact on the stigma of mental illness. *Journal of Social and Clinical Psychology*, 23, 3, 377-389.

Reitter, J.P., Zanutto, E.L., & Hunter, L.W. (2005). Analytical modeling in complex surveys of work practices. *Industrial and Labor Review*, 59, 1, 82-100.

Roeske, T.L. (2007). *The phenomenon of non-response in household telephone surveys: Trends and implications*. Unpublished master's thesis, University of Alberta, Edmonton, Canada.

Rosenhan, D. (1973). On being sane in insane places. *Science*, 179, 250-258.

Sealy, P., & Whitehead, P.C. (2004). Forty Years of Deinstitutionalization of Psychiatric Services in Canada: An Empirical Assessment. *Canadian Journal of Psychiatry*, 49, 4, 249-257.

Scheff, T. (1999). *Being mentally ill: A sociological theory*. Chicago, IL: Aldine.

Schulze, B., & Angermeyer, M.C. (2003). Subjective experience of stigma. A focus group study of schizophrenic patients, their relatives and mental health professionals. *Social Science & Medicine*, 56, 299-312.

Scull, A. (1977). *Decarceration: Community Treatment and the deviant: A radical view.* Englewood Cliffs, New Jersey: Prentice-Hall.

Song, L-U., Chang, L-Y., Shih, C-Y., Lin, C-Y., & Yang, M-J. (2005). Community attitudes towards the mentally ill: The results of a national survey of the Taiwanese population. *International Journal of Social Psychiatry*, 51, 2, 162-176.

Spitzer, R. (1976). More on pseudoscience in science and the case for psychiatric diagnosis. *Archives of General Psychiatry*, 459-70.

Stuart, H., & Aborleda-Florez, J. (2001). Community attitudes toward people with schizophrenia. *Canadian Journal of Psychiatry*, 46, 245-252.

Sturgis, P. (2004). Analyzing complex survey data: Clustering, stratification and weights. *Social Research Update*, 43, 1-4.

Trochim, W.M.K. (2005). *Research Methods: The concise knowledge base.* Cincinnati, Ohio: Atomic Dog Publishing.

Weiner, B. (1995). *Judgements of responsibility: A foundation for a theory of social conduct*. New York: Guilford Press.

van't Veer, J.T.B., Kraan, H.F., Drosseart, S.H.C., & Modde, J.M. (2006). Determinants that shape public attitudes towards the mentally ill: A Dutch public study. *Social Psychiatry & Psychiatric Epidemiology*, 41, 310-317.

Appendices

Appendix 1: 2007 Alberta Survey Questions

The next few questions are about attitudes toward how people respond to problems of day-to-day living and other issues of concern to members of your community. There are no right or wrong answers: we are just trying to learn how people feel about things.

For each of the following statements, you will be asked to give an answer on a scale of 1 to 5. A rating of 1 means that you do not agree with the statement at all, while a rating of 5 means that you fully agree with the statement. Neutral responses mean that you neither agree nor disagree with the statement.

1. A person with a mental illness would have little or no hope of being accepted within his/her community.

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

2. Most people would be willing to hire a former mental patient as an employee.

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

3. Most people would be willing to be friends with a family member of a mental patient.

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

4. Most people would be willing to marry a person who came from a family with a history of mental illness.

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

5. Most people with a mental illness are responsible for having their illness.

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

6. Most people believe that children of mental patients are themselves destined to become mentally ill in the future

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

7. Family members of a person with mental illness would be better off if the mental illness was kept secret.

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

8. Being around a mentally ill person would make me feel nervous.

    1   Strongly Disagree
    2   Disagree
    3   Neutral
    4   Agree
    5   Strongly Agree

9.   Even though former mental patients may seem fine, it is foolish to forget that they are mentally ill.

        1   Strongly Disagree
        2   Disagree
        3   Neutral
        4   Agree
        5   Strongly Agree

10.   Leaving yourself aside, have you personally ever known someone who has received treatment for a mental illness?

        1   Yes
        2   No

11.   Have you personally received treatment for a mental health problem?

        1   Yes
        2   No

12.   Do you frequently, occasionally, rarely or never see someone who appears to have a serious mental health problem in a public place?

        1.   Frequently
        2.   Occasionally
        3.   Rarely
        4.   Never

Appendix II: Comparison of My Social distance Items to Those Used in Previous Stigma Studies

Item 1 (see Appendix 1 question 1) came from Pescosolido et al.'s 2004 "Stigma & Mental Illness in Cross-National Perspective." They asked respondents to answer this social distance item based on a presented vignette. The original statement read "a person like NAME has little or no hope of being accepted as a member of his/her community" (Pescosolido et al., 2004, p. 6). Responses to this item were on a 4 point strongly agree to strongly disagree scale. Our item is slightly different because it is not presented in the context of a vignette. We ask Albertans whether "a person with mental illness would have little or no hope of being accepted within his/her community" and response categories were on a 5 point Likert strongly disagree to strongly agree scale (Alberta Survey Codebook, 2007, p. G4).

Item 2 (see Appendix 1 question 2) came from the Link's (1987) Devaluation/Discrimination Scale. Initially, item 2 read "most employers will hire a former mental patient if he or she is qualified for the job." This item was scored on a 6 point Likert scale which ranged from strongly agree to strongly disagree (Link, 1987, p. 111). This statement was modified for the 2007 Alberta Survey to state "most people would be wiling to hire a former mental patient as an employee" (Alberta Survey Codebook, 2007, p. G4). Unlike the Link (1987) scale, our Likert scale was a 5 point scale ranging from strongly disagree to strongly agree.

Item 3 (see Appendix 1 question 3) was altered from Phelan's 2005 study on the geneticization of mental illness. Originally the Phelan's respondents were

asked "how willing would you be to make friends with Anne's sister" (Phelan, 2005, p. 313). Anne was the name of the vignette character used as the anchor for Phelan's comparison between attribution theory and genetic essentialism. This question was scored on a 4 point scale with responses ranging from definitely willing to definitely unwilling. However, our question of the 2007 Alberta Survey asked respondents more broadly whether "most people would be willing to be friends with a family member of a mental patient" (Alberta Survey Codebook, 2007, p. G4). Our item is on a 5 point Likert scale which ranges from strongly disagree to strongly agree.

Item 4 (see Appendix 1 question 4) was modified from Link et al.'s 1999 study on public perceptions of mental illness. Link et al. asked their respondents a series of social distance questions based on a vignette character description. One of these questions asked "how willing respondents would be to have the person (vignette character) marry into the family" (Link et al., 1999, p. 1331). Their item had responses that ranged from 1 (definitely willing) to 4 (definitely unwilling). Since we did not have a vignette to anchor our questions, we modified this item slightly to read "most people would be willing to marry a person from a family with a history of mental illness" (Alberta Survey Codebook, 2007, p. G4). Our item had responses ranging from 1 to 5 on a strongly disagree to strongly agree scale.

Item 5 (see Appendix 1 question 6) was also modified from Phelan (2005). The original question asked respondents "in your opinion, how likely is it that a child of Anne would develop a problem like she has?" (Phelan, 2005, p. 313).

Response options included "very likely, somewhat likely, not very likely, not likely at all" (Phelan, 2005, p. 313). Once again, since we did not use the vignette design, our item was changed. Our item read "most people believe that children of mental patients are themselves destined to become mentally ill in the future" (Alberta Survey Codebook, 2007, p. 5). This item also had different scoring options. Instead of very likely to not likely at all, our items were on a 5 point strongly disagree to strongly agree scale.

Item 6 and 7 (see Appendix 1 questions 7 and 8) were modified from Pescosolido et al.'s 2004 "Stigma & Mental Illness in Cross-National Perspective" survey instrument. Both of these items were asked in conjunction with a vignette description. Item 6 originally asked respondents "members of NAME's family would be better off of NAME's situation was kept secret" (Pescosolido et al., 2004, p. 6). Respondents were given response options on a 4 point strongly agree to strongly disagree scale. Our question is very similar in that we ask respondents on a 5 point strongly disagree to strongly agree scale whether "family members of a person with mental illness would be better off if the mental illness was kept secret" (Alberta Survey Codebook, 2007, p. G6). Item 7 originally asked respondents their agreement on a 4 point scale that ranged from strongly agree to strongly disagree Likert scale to the following statement: "Being around NAME would make me feel nervous" (Pescosolido et al., 2004, p. 5). Our item on the 2007 Alberta Survey was very similar. We asked respondents whether "being around a mentally ill person would make me feel nervous" (Alberta Survey Codebook, 2007, p. G5). Unlike the Pescosolido et al. (2004)

response options, we used a 5 point strongly disagree to strongly agree Likert scale.

Finally item 8 (see Appendix 1 question 9) was modified from Link et al.'s, 1987 study on the social rejection of former mental patients. Link et al. (1987) asked survey participants their agreement, using a 6 point (strongly agree to strongly disagree) scale, to the following statement: "although some mental patients seem alright, it is dangerous to forget for a moment that they are mentally ill" (Link et al., 1987, p. 1495). Our item is slightly different. We ask respondents their agreement on a 5 point (strongly disagree to strongly agree) scale on the following statement: "even though mental patients may seem fine, it is foolish to forget that they are mentally ill" (Alberta Survey Codebook, 2007, p. 5).

Appendix III: ANOVA for Non-Focal Variables

Table 5: Analysis of Variance of Mean Differences in the Desire for Social Distance by Non-Focal Variables (N=1073)

Variable	F	Mean of Social Distance
Age (in years)	3.41**	
18-27		10.1
28-37		10.5
38-47		10.7
48-57		11.5
58-67		10.9
68-77		11.6
78 +		12.0
Gender	10.24**	
Male		11.3
Female		10.5
Marital Status	0.97	
Single		11.0
Married		10.8
Common law		10.5
Divorced/Separated		11.4
Widowed		11.5
Education	4.11**	
Less than High School		12.0
High School Grad		10.4
Some Post-Secondary		10.9
Post-Secondary Graduate		11.0
Household Income (in Dollars)	4.89***	
0-19,999		12.3
20-39,999		11.1
40-59,999		12.2
60-79,999		10.7
80-99,999		10.0
100,000 and higher		10.4
Income Missing		11.2
Location of Residence	0.25	
City		11.0
Town/Village		11.0
Rural on Farms		10.6
Rural not on Farms		10.7
Ethnicity	3.30**	
Europeans		11.0
Asian		11.9
Aboriginal		11.2
Others		13.0
Mixed Ethnicity		10.1
Canadian Only		10.7

Note: *p<0.05, **p<0.01, ***p<0.001 using one-way analysis of variance