SOCIAL CAPITAL AND MENTAL HEALTH: PUBLIC PERCEPTIONS OF MENTAL ILLNESS AND THE ACCRUAL OF SOCIAL CAPITAL

by

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Abstract

As much as the psychosocial nature of mental illness cannot be ignored, it is generally agreed that social ties play a beneficial role in the maintenance of psychological well-being. Small social networks, few close relationships, and low perceived adequacy of social support and quality of life have all been linked to depressive symptoms. Conversely, the challenges of establishing a causal relationship to social ties are generally greater for mental health than they are for other health outcomes.

The purpose of the present study was to identify the association between social capital and overall psychological well-being among Canadian citizens aged 12 and older, by conducting a secondary analysis of microdata using the 2009/2010 cross-sectional Canadian Community Health Survey.

The present study included a weighted sample of 124,188 individuals aged 12 years or older who participated in the Canadian Community Health Survey from 2009-2010. Ordinal regression was used to examine the association between self-perceived mental health and social capital in the context of community involvement and sense of belonging in the community.

Respondents who felt a sense of belonging in their local community reported mental health superior to individuals who did not have a community-based sense of belonging. This association was explained by respondent’s age, sex, marital status and was mediated by voluntary organization membership and immigration status.
Results provided evidence of a relationship between elements of social capital and mental health. Positive social relationships and civic engagement are relevant to positive mental health.
# Table of Contents

Abstract ........................................................................................................................................ ii

List of Tables .................................................................................................................................. vi

Acknowledgements ....................................................................................................................... vii

Chapter 1 Introduction ...................................................................................................................... 1

Chapter 2 Literature Review ............................................................................................................. 8

  2.1 Mental Illness as a Social Problem ......................................................................................... 8

  2.2 Etiology of Mental Illness ......................................................................................................... 13

  2.3 The Role of Individual Level Factors ..................................................................................... 19

  2.4 The Role of Social Relationships ............................................................................................... 21

Chapter 3 Social Capital and Mental Health ...................................................................................... 27

  3.1 Introduction ................................................................................................................................. 27

  3.2 History of the Concept ............................................................................................................... 28

  3.3 What is Social Capital? .............................................................................................................. 34

      3.3.1 Components of Social Capital .......................................................................................... 34

  3.4 The Role of Social Capital .......................................................................................................... 37

      3.4.1 In Political Participation ..................................................................................................... 38

      3.4.2 Information Channels ......................................................................................................... 39

      3.4.3 Crime ................................................................................................................................ 39

      3.4.4 Health ................................................................................................................................. 42

  3.5 Social Capital and Mental Health ............................................................................................... 43

Chapter 4 Methodology and Analysis ................................................................................................. 47

  4.1 The Data ...................................................................................................................................... 47

  4.2 Target Population ....................................................................................................................... 48

  4.3 Instrument Design ...................................................................................................................... 49

  4.4 Sampling ..................................................................................................................................... 50

  4.5 Dependent Variable .................................................................................................................... 53

  4.6 Independent Variables ............................................................................................................... 54

  4.7 Statistical Models ....................................................................................................................... 57

  4.8 Descriptive Statistics ................................................................................................................. 58

  4.9 Analyses and Results ................................................................................................................... 59
Chapter 5 Discussion and Conclusion ................................................................. 68

5.1 Discussion ........................................................................................................... 68
5.2 What We Know .................................................................................................. 68
5.3 What about immigration? .................................................................................. 70
5.4 Limitations ........................................................................................................ 71
5.5 Future Directions ............................................................................................. 72
5.6 Conclusion ......................................................................................................... 73

References ................................................................................................................. 75

Appendix A ................................................................................................................ 90
List of Tables

Table 1. Descriptive Statistics of the Variables used from the 2009/2010 Canadian Community Health Survey
Table 2. Ordinal Regression of Self-Perceived Mental Health by Sex
Table 3. Ordinal Regression of Self-Perceived Mental Health by Age
Table 4. Ordinal Regression of Self-Perceived Mental Health by Immigrant
Table 5. Ordinal Regression of Self-Perceived Mental Health by Marital Status
Table 6. Ordinal Regression of Self-Perceived Mental Health by Member of a Voluntary Organization
Table 7. Ordinal Regression of Self-Perceived Mental Health by Sense of Belonging in the Community
Table 8. Ordinal Regression of Self-Perceived Mental Health by Age, Sex, Marital Status, Immigration Status, Sense of Belonging in the Community, and Member of a Voluntary Organization
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Chapter 1

Introduction

The concepts of mental health and mental illness reflect our tendency in theory, research and public policy to dichotomize healthy and sick, normal and abnormal, and sane and insane. However, mental health is not simply the absence of disease or disorder. Mental health involves self-worth and the ability to develop and maintain meaningful relationships with others. David Mechanic (2006) has argued that the term “mental health” has no clear or consistent meaning, and in the sociological literature, this argument is generally true. Key social science questions relate to the etiology of mental illness; however, psychology has dominated attempts to answer these questions.

Although most of us fall short of achieving optimal well-being or happiness, those who experience mental health problems or psychological distress have been the focus of most sociological research. However, for sociologists definitions of mental health problems, or illnesses, or disorders are also not so straightforward. For decades, the definition of mental health has been changed and/or modified on countless occasions. A serious obstacle in the area of mental illness and mental health lies in the absence of a clear definition (Scott 1958). The term ‘mental illness’ has been utilized by numerous researchers to refer to such diverse indicators as schizophrenia, juvenile delinquency, suicide, unhappiness, social disorganization at an individual level, and passive tolerance of an intolerable environment (Scott 1958).

The concept of mental health is better developed in the psychology rather than the
sociological literature. Psychology has tended to focus on individual-level characteristics (i.e., personality) and on psychoanalytic theory. Theories that describe the nature and antecedents of one sort of disturbance rarely relate it to another and there is a paucity of research evidence indicating the extent to which such manifestations are empirically related (Scott 1958). Therefore, in the face of such ambiguity, it would be beneficial to attempt an organized review of the various definitions of mental illness.

At the beginning of the nineteenth century, when psychiatry and modern medicine were ‘born’, physicians attributed ‘madness’ to digestive disorders and the inhalation of stale air (Sueur 1997). French psychiatrists of this period also considered the role of alcohol poisoning as a cause of mental illness (Sueur 1977). Psychiatrists generalized that because withdrawal from alcohol was a cause of the ‘shakes’ and that these ‘shakes’ were a form of madness, that alcohol must be one of the causes of all forms of madness. This supports the idea that these alienists considered ‘madness’ as an appropriately coherent morbid entity to admit a single pathological factor (Sueur 1997). Some also argued that the ingestion of corrupted breast milk could cause madness. According to Belhomme (1824, as cited in Sueur 1997), a mother who was considered to be ‘mad’ could give her child a substance that would cause insanity. He believed that mental impressions left a physical trace in maternal milk (Sueur 1997). From alcoholism and malfunctioning organs, to a woman’s sexuality, determinants of ‘madness’ in the nineteenth century became quite diverse.

Psychiatry was established with the fundamental goal of defining, explaining, and treating states of madness by applying the modern medical model (Anckarsater, Radovic,
Svennerlind, Hoglund, and Radovic 2009). Essential to its praxis is medical terminology; defining conditions, syndromes and hypotheses regarding etiological mechanisms (which have varied from brain pathology to virulent agents, from infantile sexual fantasies and drives to genes and ‘chemical imbalances’ but always corresponded to the models of causation and predictability essential to the modern medical paradigm) (Anckarsater et al. 2009). From its infancy, psychiatry did not restrict itself to insanity but attempted to rationalize human behavior more generally thereby utilizing knowledge from the “mad” persons confined to asylums to explain ordinary life phenomena, such as anxiety or shyness, sexuality, norm indiscretions, and crime in particular (Anckarsater et al. 2009).

Throughout the history of human thought, the origins of mental illness have shifted from a medical view to a social perspective. For example, the DSM-III and the DSM-IV have been commended for their seminal contributions to patient care and to the scientific study of psychiatric disorders by providing rigorous and diagnostic criteria for a multitude of conditions and disorders. However, The DSM-III and DSM-IV have also been criticized for creating too many diagnostic categories (Praag, 2000) as well as for allowing a distinction between psychological and social phenomena to be eroded (e.g., the feeling of sadness after a major stressful event or shyness in social situations) (Horwitz & Wakefield 2007). That is, it is sometimes unclear whether a person is experiencing particular symptoms due to a psychological disorder or whether they are a result of a major life event. Even within a particular view (i.e., medical/psychological perspective), we find uncertainty. The DSM-IV notes, “…although this manual provides a classification of mental disorders, it must be admitted that no definition adequately
specifies precise boundaries for the concept of mental disorder”. The concept of mental disorder or mental illness, like many other social and medical concepts, lacks a consistent operational definition that covers all situations (Stein, Phillips, Bolton, Fulford, Sadler, & Kendler 2010).

Thus, the definition of mental disorder is not only unclear in the DSM but also amongst scholars. According to Horwitz (2002), “mental diseases” reflect underlying internal dysfunctions that have universal features (e.g., schizophrenia and to a lesser degree bipolar disorder). Moreover, Jahoda (1958) states that, mental health is an individual and personal matter. She argued that mental health involves a living human organism or the condition of a singular human mind. Therefore, this definition places the concept of mental health at the individual level. Jahoda argues that a social environment may be conductive either to sickness or health, but that the characteristic produced is representative of only a person; and therefore, it is inappropriate to speak of a ‘sick society or community’ (1958).

Thomas J. Scheff proposed a theory that questions the objective reality of mental illness and identified mental illness as both a social construction and a social role in society (Scheff 1967). This is the violation of norms for which the consensus is so comprehensive that people regard non-conformity as abnormal and therefore a manifestation of mental illness. This view conflict with one, which stresses that “mental illness”, is the reason why individuals get labeled as mentally ill. Scheff’s theory of mental illness therefore focuses on the social factors of mental health rather than solely individual level pathology. In fact, he argues that mental illness does not exist in some
Conceptualizing mental disorder in terms of social factors extends beyond Scheff’s idea of social construction. The link between fewer social ties and poor psychological well-being has demonstrated that fewer close relationships and lower perceived adequacy of social support have been linked to reduced mental health (Kawachi and Berkman 2001). With that being said, the challenges of determining the causal nature of social ties are generally greater for mental health than they are for other health outcomes. For example, a well-defined threat to validity in cross-sectional studies is the potential bias in the retrospective recall of social ties among distressed individuals (Kawachi and Berkman 2001). Even in more longitudinal research, it may be challenging to differentiate between lack of social ties as a precursor to or as a concomitant of psychological distress (Kawachi and Berkman 2001). It is possible that certain personality traits such as introversion are correlated with both the lack of social network membership and the existence of depressive symptoms (Cohen and Wills 1985). These difficulties are deepened by the sparseness of research on genuinely premorbid groups of individuals. As the absence of social bonds can be a consequence of depressive symptoms, the distribution of social ties in a population may be reflective of reverse causation at baseline (i.e., depressive symptoms may be greater than or equal to social isolation) (Kawachi and Berkman 2001). In one sense, the effect may occur before its cause.
Scholars now agree that social ties have a beneficial effect on psychological well-being (Duberstein, Conwell, Conner, Eberly, Evinger and Cain 2004; Sayce 2001; Thoits 1985; Turner 1981). The purpose of my study is not to draw an absolute causal relationship between social capital and mental health, nor is it to challenge existing contemporary analyses in the fields of life associations and mental illness. Much of the research to date has shown a relationship between the lack of social ties and poor psychological well-being. However, I think it is of great importance to investigate the relationship between civic engagement (i.e., activities ranging from blowing in leagues to watching political television shows, writing check to political advocacy groups, and participating in religious or political groups) (Putnam 2000) and positive mental health (i.e., overly positive self-evaluations, exaggerated perceptions of control or mastery, and unrealistic optimism that appear to promote the ability to care about others, to be happy or contented, and the ability to engage in productive and creative work) (Taylor and Brown 1988).

The current research looks at how variables relating to social capital (i.e., social ties) are related to positive mental health, and how other demographic factors influence this relationship. I hypothesize that the individuals who report higher levels of civic engagement will also report more positive mental health. Similarly, I hypothesize that individuals with a higher sense of community belonging will also report higher levels of mental health. Third, I hypothesized that individuals who were married would also report higher levels of mental health. Fourth, I hypothesized that immigration status would have an effect on mental health, and lastly, that respondent sex would also have an effect on
mental health. Firstly, I will examine historical analyses of mental illness as an individual pathology. I will also delve into the issue of social stigma in the third chapter. These perspectives are developed by Erving Goffman. The discussion of stigma in the third chapter attempts to clarify the relationship between social capital and mental illness. After discussing the discourse on mental illness and social stigma, I will examine the concept of social capital (see Chapter 3). I will explore the history of the concept (i.e., Bourdieu, Coleman, etc.). Afterward I will examine social capital in relation to mental health. In so doing, I investigate whether or not individuals who are involved in their communities, or have positive relations to their communities, have more positive mental health. To address these questions, I analyze data from the 2009/2010 Canadian Community Health Survey. More specifically, I will examine whether social capital may be said to have a positive or negative influence on Canadian’s self-perceptions of mental health and well-being. I will also look at how these factors vary between groups defined by their gender, age, marital status, immigration status, and overall household income. In the final chapter, I will discuss some of the limitations of my study. And finally, I will also consider some possible avenues of future research.
Chapter 2

Literature Review

2.1 Mental Illness as a Social Problem

Several classic studies in social psychiatry have attempted to illuminate the crucial role that cultural beliefs play in shaping societal responses to people with mental illnesses. Hollingshead and Redlich (1958) introduced the concept of “lay appraisal” to indicate that prior to seeking professional help or coming into contact with mental health professionals, individuals such as family, friends, and coworkers, confront the early onsets of neuroses/psychoses and make decisions in regards to what should be done. Scholars have provided evidence regarding cultural stereotypes. For example, in Nunally’s (1981) semantic differential study, respondents typified a mentally ill man as dangerous, dirty, unpredictable, and worthless. These views are not uncommon, for example, people often report more comfort with individuals who are deaf or have facial disfigurement than people with mental disorders (Hinshaw 2007). Hinshaw’s study utilized functional magnetic resonance imaging (FMRI) to demonstrate brains stimulations in 10 of the participants observing 48 photographs of social groups and of the 12 participants viewing objects. Harris and Fiske (2006) utilized a stereotype content model (SCM) that establishes separate stereotype dimensions of warmth (low-high) and competence (low-high), recognizing four distinct out-group clusters. The analyses revealed stimulation to all social groups except extreme (low-low) out groups, who especially activated the insula and amygdala, a pattern consistent with disgust, the
emotion predicted by the SCM (Harris and Fiske 2006). Moreover, people experience and express disgust when confronted with images of people who are homelessness or substance abuse, behaviors that at times correspond with the active symptoms of mental disorder (Harris and Fiske 2006). Further, upon exposure to such individuals, the medial prefrontal cortex, a neural structure involved in processing social information about the self and others, fails to activate, suggesting that perceivers may not think of these targets as belonging to the same human category.

Mental health has long been neglected in health and public health practice just as persons with mental illnesses have been isolated and viewed as different, dangerous, and incurable (Ustun 1999). Moreover, health care professionals have trivialized the issue of mental disorders. In 1996, results from the Global Burden of Disease study indicated that mental disorders should be dealt with seriously rather than relegated to the margin of public health concerns (Murray and Lopez 1996). Mental illness has never been classified in the top 10 priority lists of public health significance when mortality indicators alone have been involved (Ustun 1999). However, the World Health Organization’s Global Burden of Disease report incorporated the term ‘disability’ in the calculation of an individual’s “Disability Adjusted Life Years” (DALY). This calculation refers to the sum of years of life lost because of premature death and years of life lived with disability. One DALY is one year of life lost. In doing so, mental disorders ranked nearly as high as cardiovascular diseases and exceeded all forms of cancer and HIV (Ustun 1999). For example, in the Global Burden of Disease report, disability caused by major depression was found to be equivalent to that caused by blindness and paraplegia, therefore revealing
the true magnitude of the underestimated impact of mental health problems (Ustun 1999).

These findings offer new challenges for policy, predominantly because future projections for global DALYs in the year 2020 show a substantial growth in the impact of non-communicable diseases worldwide (Murray and Lopez 1997). Mental illnesses are expected to increase to 15% of the global disease burden and unipolar major depression could become the second leading factor in this disease burden. Due to demographic transformations and epidemiologic transitions, as well as changes in family structures and growing rates of urban development, migration, mobility and drug use, the risks for mental disorders will undoubtedly increase (Ustun 1999). Therefore, it is essential that researchers and public health professional collectively work to ‘mainstream’ mental health and its impact on the social world.

Mental illness has long been viewed by many as an individual pathology (Rosenfield, 1997). That is, there is a common underlying assumption that the deviant behaviors of individuals can be partly or entirely explained by a particular physical or psychological trait that identifies them as different from ‘normal’ citizens (Thornicroft and Maingay 2002). Over the past decade, it has been estimated that 450 million people have been affected by mental illness worldwide (Thornicroft and Maingay 2002). The World Health Organization (WHO) reported that in 2001, mental illness represented 10% of all global diseases, with depression at the forefront (Herrman 2001). In Canada, these statistics translate to an average of 1 in 5 Canadians suffering from a mental illness. Unfortunately, of that group of adolescents, 80% will not seek professional care due to the stigma attached to their illness, and in particular – in their community (Watters,
As Goffman (1963) argues, stigma is defined in and enacted through social interaction. However, because stigma is socially constructed in and through social relationships, its core lies in the “rules” which guide behavior at particular points in time and place by defining it as acceptable, customary, “normal,” or expected (Merton 1957; Nisbet and Perrin 1977). As such, the foundations for “differences” that become solidified in stigma are normative.

While social interactions take place at the individual level, theoretical advances over the last two decades have emphasized the multitude of forces exerted on communities. Individuals do not come to social interaction devoid of affect, values and motivation. They exist in larger political, cultural and social contexts, which shape their expectations on all of these issues (Coleman 1990; Pescosolido 1992). Moreover, social interactions take place in a context where organizations and institutions structure norms that create the possibility of creating and sharing notions of “difference” (Pescosolido 1992).

According to the National Institute of Mental Health in England (2005), the negative attitudes generated towards people with mental illness have an overwhelming effect on both an individual and social level. As previously mentioned, 1 in 5 Canadians will be affected by mental illness at one point in their life. Less than 20% of these individuals will seek help (Herrman 2001; Reid, Cunningham, Tobob, Evans, Stewart, Brown, Lent, Neufeld, Wingilis, Zaric and Shanley 2011; Rickwood, Deane, Wilson and Ciarrochi 2005). A major reason for not seeking professional help is the stigma that is
attached to the label of mental illness. Psychiatric stigma affects those suffering from a mental illness in two particular ways: (1) how they are treated by others, and (2) feelings of anxiety towards seeking help (Watters, Hogan, Kitchen and Lummiss 2007). This form of stigma has been found to be the most significant barrier in the treatment of mental disorders (Watters et al. 2007). That is to say, there is a positive relation between stigma and the apprehension about seeking professional help for a mental disorder.

Negative help-seeking behaviors can lead to devastating results. For example, 1 in 5 adolescent mortalities are due to suicide (Government of Canada 2006). Individuals who oppose treatment opportunities are also at risk for the underdevelopment of personal skills, self-confidence, and the independence necessary for adequate day to day living (Government of Canada 2006). In addition, stigma can affect people through mechanisms of direct discrimination, such as a denial of employment or structural discrimination (such as the availability of fewer resources for research and treatment) and through social psychological processes that involve the stigmatized person’s perceptions of themselves and the world around them (Link, Elmer, Neese-Todd, Asmussen and Phelan 2001). A fear of rejection may have serious negative consequences. It is undoubtedly threatening and personally disheartening to believe that one has developed an illness that others fear. Expecting and fearing rejection, people who have been hospitalized for a mental illness may act less confidently or more defensively, or they may simply avoid contact altogether. The result may be strained and uncomfortable social interactions with potential stigmatizers (Farina 1997), limited social networks (Link, Cullen and Struening 1989), lower life satisfaction (Rosenfield 1997), unemployment, and loss of income (Link...
1982; 1987). Therefore, mental illness or disorder is a problem at both the individual and community levels.

2.2 Etiology of Mental Illness

For more than two decades, both biological and psychological advances to the understanding and treatment of psychiatric problems have developed rapidly and in parallel. In terms of treatment, biological-pharmacological and cognitive behavioral approaches have generally opposed one another (Lam, Salkovskis, and Warwick 2005). Mental health, in terms of biological causes, involves the biological nature of psychiatric conditions and gives the impression that individuals with mental illness are “fundamentally flawed and defective” (Lam et al. 2005, p. 455). This is because the biological practitioner (i.e., physician) looks at the origins of a particular health problem in terms of biochemical imbalances, genetic contributions, and pathophysiology of the brain (Lam et al. 2005). Conversely, the psychological practitioner views mental health in terms of stressors, beliefs and meanings, as well as through information processing and the mind. Although there have been numerous attempts by theoreticians to integrate both models (i.e., biopsychosocial), these hybrids have tended to be wide-ranging and descriptive rather than centered around theory (Bentall, Kinderman, and Kaney 1994; Lam, Salkovskis, and Warwick 2005; Phelan 2000). As such, integrative theories make it difficult to predict and test particular hypotheses. There is a tension between biological and psychological approaches. They have produced competing hypotheses that are open to evaluation (Lam et al. 2005).

However, the implications associated with the strain between biological and
psychological paradigms go far beyond the scientific level. Adherence to a particular approach by clinicians tends to influence the ways in which patients’ problems are perceived and defined (Lam et al. 2005). For example, the biological practitioner (i.e., psychiatrist) may help patients to understand the nature and origin of their disorder in terms of biochemical imbalances, genetic factors and pathophysiology of the brain. Paradigms govern the ways in which we understand phenomena and as such, patients generally have no difficulty in assuming the practitioners’ beliefs in terms of brain disease vs. psychological reactions. Similarly, the media tends to seek ‘either/or’ depictions of psychoses and neuroses (Lam et al. 2005).

For example, in the 1950s, the public defined mental illness in much narrower and more extreme terms than did psychiatry, and commonly expressed fear and rejection of people with mental illnesses (Phelan, Link, Stueve and Pescosolido, 2000). Several indicators suggest definitions of mental illness may have broadened and that rejection and negative stereotypes may have decreased since that time. However, the lack of comparable data over time prevents us from drawing firm conclusions (Phelan et al. 2000). To address this problem, the Mental Health Module of the 1996 General Social Survey asked questions about the meaning of mental illness. This meaning has broadened somewhat over time to include a greater proportion of non-psychotic disorders. However, perceptions that mentally ill people are violent or frightening have increased, rather than decreased (Phelan et al. 2000). This increase was limited to respondents who viewed mental illness in terms of psychosis. Among such respondents, the proportion who
described a mentally ill person as being violent increased by nearly 1 ½ times between the years of 1950 and 1996 (Phelan et al. 2000).

The way in which mental illness is conceptualized tends to influence the beliefs of patients and non-patients alike in regards to stigmatization, beliefs about the outcome of treatment(s), motivation, hesitation, and trust/distrust. These beliefs may also influence prejudice toward and discrimination against those suffering from mental health problems. Since the 1970s, psychiatry’s ruling psychodynamic paradigm has viewed mental disorders as intra-individual characteristics or conflicts of personality and intra-psychic conflict (Mayes and Horwitz 2005). The first (1952) legitimate manual of the American Psychiatric Association (i.e., The Diagnostic and Statistical Manual of Mental Disorders) conceived of symptoms as reflections of broad underlying dynamic conditions or as reactions to difficult life problems (Horwitz 2002). This was the first shift away from a traditional psychiatric/individualistic method of diagnoses and toward a psychosocial understanding of mental illness. New dynamic explanations suggested that symptoms were symbolic indicators that could be understood through the personal history of each individual. Increasingly explanations and treatments were centered on the personality of the individual as well as their life experiences (Horwitz 2002).

Psychiatrist Karl Menninger (1963) suggested that separating specific mental disorders into particular categories with individual symptom characteristics offered inaccurate explanations. Consequently, Menninger viewed all mental disorders “as reducible to one basic psychosocial process: the failure of the suffering individual to adapt to his or her environment...Adaptive failure can range from minor (neurotic) to
major (psychotic) severity, but the process is not discontinuous and the illness, therefore, are not discrete” (Wilson 1993, p. 400). Thus, rather than directly assessing the symptoms of a mental disorder, Menninger argued that psychiatrists should attempt to explain how an individual’s failure to adapt came about and its meaning to the patient. His goal was to explore the symptoms (Menninger, Mayman and Pruyser 1963). Between 1900 and 1970, the focus of psychiatry expanded to more generalized maladaptive patterns of behavior, character, and personal problems. There was a shift from neuroses to a psychosocial understanding of the etiology of mental illness (Menninger, Mayman and Pruyser 1963).

There have been dramatic advances in the understanding and treatment of, attitudes towards and services for individuals suffering from mental illness. The most revolutionary shifts have been found in the field of psychosocial diagnoses and rehabilitation. Although psychologists have generally adhered to a biopsychosocial model, it is reductionist to think that any human function can be reduced to its bio-, psycho-, or social components alone (Coursey, Alford and Safarjan 1997). For example, schizophrenia cannot be reduced uniquely to its biology because it is a human experience and occasionally distorts the ways in which a person perceives and apprehends the world. The major symptoms (i.e., hallucinations and delusions) may be fluctuations in human sensing and understanding; however, they are still significant human experiences for the individual (Coursey, Alford and Safarjan 1997).

Corrigan and Penn’s (1997) discuss several paradigms that govern the way in which severe and persistent psychiatric disorders are understood. They argue that the
impact of a severe mental illness such as schizophrenia or bipolar disorder is described very differently, depending on the paradigm. The disease paradigm views psychiatric illness as an external agent that must be identified and alleviated, whereas the alternative (i.e., discrimination paradigm) acknowledges the intrusive nature of the disorder, stigma and social prejudice intensify the impact of psychiatric symptoms exponentially (Corrigan and Penn 1997). The resulting discrimination is as disabling as the illness itself.

As previously mentioned, paradigms govern the way in which we understand particular phenomena. The disease paradigm, noted by Corrigan and Penn (1997), has evolved from psychiatry and clinical psychology. The World Health Organization (1992) and the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association 1994), view the process of defining mental illness as one of classification; that is, describing particular disorders by clusters of symptoms and dysfunctions. For example, severe mental illnesses are recognized in terms of the multifactorial symptoms that distinguish them from other, less dysfunctional syndromes. The symptoms associated with severe mental illnesses affect individuals in several ways. Perhaps most prominent is the effect on social functioning. Corrigan, Schade, and Liberman (1992) argue that people with severe mental illness have weakened interpersonal skills and as such, will likely alienate themselves from family members and friends. A large body of research suggests that these individuals have smaller and less satisfactory support networks (Holmes-Eber and Riger 1990; Meeks and Murrell 1994). As a result, people who lack social skills and relational supports are less able to benefit from the opportunities that are
presented to those who are not suffering from a severe mental illness. Moreover, these individuals are less likely to obtain and maintain competitive employment, agreeable housing, and likeable recreation (Corrigan and Penn 1997).

The discrimination paradigm suggests that the loss of social opportunities (e.g., lack of employment or recreation) is not the sole contributor to mental illness. Individuals suffering from severe mental illness are often viewed as minorities suffering discrimination by the majority (Hahn 1985; Nagler 1994; Vash 1981). Like members of ethnic minorities and those suffering from physical disabilities, people with severe mental disorders are subject to stigmatization. This stigma, as previously mentioned, leads to substantial social and economic disadvantages (Fisher 1994; Link et al. 1989; Rigger 1994), often portrayed through disrespectful and demeaning images in the media, including movies, television, and advertising.

Proponents of the discrimination model (Corrigan and Penn 1997) suggest an additional way to address stigma. Individuals suffering from severe mental illness should recognize that the majority of their psychiatric symptoms and social deficits are not remedied with the use of medication. Corrigan and Penn (1997) suggest that these individuals should not feel as though they should hide the behavioral aspects of their disorder (i.e., symptoms). Moreover, these individuals should accept their limitations and should therefore learn to build an independent and meaningful life (Corrigan and Penn 1997). It is argued that this can be achieved by the use of client-centered psychotherapies (Mosher and Burti 1992). Thus, proponents of the discrimination model emphasize the recovery from a disorder rather than a progressively downhill course. This view is

2.3 The Role of Individual Level Factors

Sociological perspectives on mental illness have also tended to emphasize the role of individual level factors such as strain and stress. As Schwartz (2002) demonstrates, sociologists of mental health and illness have generally relied on individual-level, subjective states, and not on macro-level measures of the dysfunctional consequences of social life. Sociologists of mental health have traditionally relied on individual-level outcomes to evaluate the psychological consequences of social arrangements (Dohrenwend and Dohrenwend 1982). Moreover, mental health researchers focus almost exclusively on single, discrete conditions such as the study of single entities (i.e., depression, alcohol abuse, or anorexia) (Wilson 1993). The study of single outcomes may disadvantage sociologists, who often compare the psychological consequences of social arrangements among distinctive groups. For example, diverse ethnic, social class, age, and gender groups, might respond to stressors differently (Horwitz, White, and Howell-White 1996). The notion that a mental health outcome in one group is comparable (i.e., similarly understood) to a different outcome in another group must be empirically established and not simply assumed. Yet, at present, sociologists have not developed strong methods that can show when different outcomes across social groups are functionally equivalent.

Finally, Schwartz (2002) argues that the stress paradigm that has generally dominated the sociological literature regarding mental health has almost exclusively focused on subjective, individual-level outcomes and as such, sociologists have neglected
macro-level, social consequences of stressors (i.e., aggregate rates of violent crimes, lack of participation in social activities, marital issues, etc.). These issues may be addressed if a dichotomy of social as well as psychological outcomes becomes the explicit focus of the sociology of mental health (Horwitz 2002).

Sociological interest in stressful life conditions originated to explain relations between markers of social placement such as class, gender, and minority group status and rates of mental and emotional disorder (Aneshensel, Rutter, and Lachenbruch 1991). Initial social causation perspectives argued that low-status social groups demonstrated high rates of disorder because members of these groups disproportionately faced challenging, harsh, or distressing life conditions (Anenshensel, Rutter, and Lachenbruch 1991). Greater rates of disorder were also reflected in restricted group access to social, economic, or personal resources – resources that combat challenging life circumstances and when absent weaken their mental health (Dohrenwend and Dohrenwend 1969).

Sociological theory illuminates how normative social arrangements produce conditions detrimental to the emotional interiors of people’s lives (Pearlin and Lieberman 1978). Higher rates of disorder amongst particular social groups are perceived as the inescapable by-product of ordinary facets of social life, that are habitually beneficial to other social groups (Pearli and Lieberman 1978). In contrast, the sociomedical paradigm depicts disorders as uncommon or abnormal and looks for abnormal elements of individuals’ lives to explain this disorder.

Therefore, stress is portrayed as an independent variable and social characteristics are depicted as confounding variables (Pearlin and Liberman 1978). The sociological
paradigm therefore conceptualizes stress as a systematic consequence of social organization or disorganization. Although the sociomedical model is appropriate in identifying etiological factors for certain disorders, it is fundamentally inadequate for ascertaining the mental health consequences of social organization (Aneshensel, Rutter and Lachenbruch 1991). That is, the effect of stress for any one particular mental health disorder is generally mistaken for the effect of stress of mental health in general. Social stress theory argues that the results of stress are non-inclusive with respect to any particular disorder (Anenshensel, Rutter, and Lachebruch 1991). This premise is based on pragmatic research that establishes an association between the exposure to stress and a combination of physical and psychological disorders (Thoits 1983).

2.4 The Role of Social Relationships

As much as the psychosocial nature of mental illness cannot be ignored, it is generally agreed that social ties play a beneficial role in the maintenance of psychological well-being. The link between social isolation and reduced psychological well-being is well established in sociology, dating back to Durkheim’s (1897) study on suicide. According to Barnett and Gotlib (1988), smaller social networks, fewer close relationships, and lower perceived adequacy of social support and quality of life have all been linked to depressive symptoms. Conversely, the challenges of establishing a causal relationship to social ties are generally greater for mental health than they are for other health outcomes. For example, it can be extremely difficult to maintain validity when distinguishing between lack of social ties as an antecedent to, a concomitant of, or outcome of, a spurious relationship due to psychological distress (Kawachi and Berkman...
2001). In the current example, it is likely that particular personality traits (i.e., introversion) may be correlated with both lack of social network participation and the occurrence of depressive symptoms (Barnett and Gotlib 1988).

The majority of epidemiological investigations of social ties and health have approached the measurement of social ties from an egocentric perspective. That is, sociologists have generally focused on the structure and function of networks that immediately surround the individual. However, social networks and social support are typically embedded within a broader set of macro social exchanges. According to Lin, Ye, and Ensel (1999), human relations consists of multiple layers that extend beyond the ego. These layers extend from the most intimate relationships (i.e., marital relationships), to social networks (i.e., connections to family and friends), to “weak” ties, which consist of one’s involvement in the community and more distant relationships (i.e., voluntary work, organizations, etc.). These ties provide a sense of belonging and general social identity, which is connected to psychological well-being (Durkheim 1951; Granovetter 1983; Kawachi and Berkman 2001; Sayce 2001).

The importance of social networks in concurrence with social functioning, self-esteem and quality of life has previously been indicated. As such, a superior social network may also lead to greater access to services, leisure activities, employments, and personal autonomy (Strathdee 2005). Moreover, supportive networks have also been shown to safeguard against certain life stresses (Duck 1991). Therefore, the inverse can be said for lack of social ties and poor social support. According to Duberstein, Conwell, Conner, Eberly, Evinger, and Cain (2004), unsupportive networks have been linked to
loneliness, mental illness, and suicide. Moreover, Duberstein and colleagues (2004) found that 84% of individuals suffering from a mental illness felt socially isolated in comparison with 29% of the general population (p. 3).

Therefore, a large body of research emphasizes the role of conflictual relationships and the manner in which the decline or absence of social relationships have a negative effect on psychological well-being. For example, labeling theorists have long argued that there is a relation between negative stereotypes (stigma) and the lack of social ties. Labeling theorists examine mental illness as a form of deviance: the label rather than the behavior *per se* shapes the fate of mentally ill persons, by creating chronic mental illness or by compromising the life chances of those so labeled (Link 1982, 1987; Link et al. 1987, 1989). From a labeling perspective, the stigma associated with mental illness is of concern. A psychiatric label sets into action cultural stereotypes and negative images regarding mental illness that are applied to the person by others and by the person to themselves (Link 1987; Link et al. 1987, Thoits 1985). These images devalue those with mental illness and result in discrimination – persons who have mental illnesses are evaluated as “not quite human” (Goffman 1963, p.5). Originally, labeling theory held that the expectations attached to the label perpetuate the mental illness (Scheff 1966, 1974). The theory was later modified to claim that the devaluation and discrimination created by the label interfere with a broad range of life areas including access to social and economic resources and general feelings of well-being (Link 1982, 1987; Link et al. 1987, 1989).

In a recent modified version of labeling theory, the strong claim that labeling causes
“careers in residual deviance” has been replaced by a subtle approach to how stigma affects the course of illness. In this version, stereotypical attitudes about the mentally ill (i.e., the individual in unpredictable, incapable, and dangerous) become personally relevant to the individual (Link 1987, 1989). As a result, those labeled expect to be devalued and to experience discrimination. These beliefs act as self-fulfilling prophecies, leading to lowered esteem and demoralization. In order to avoid rejection or to distance themselves from demoralization, those who are labeled cope by engaging in secrecy, disclosure, or social withdrawal, which may constrict social networks and lower quality of life (Link et al. 1989; Markowitz 1998). Furthermore, stress research suggests that a low sense of self and reduced social and material resource increases stress, placing persons at greater risk for continued symptoms and sustained illness (Turner 1981).

Mechanic, McAlpine, Rosenfield, and Davis (1994) add to the research regarding the effects of illness attribution and quality of life by suggesting that mental health designations are consequential for self-esteem. For example, stigma may be incorporated into one’s sense of self, such that individuals define themselves more in terms of discrediting characteristics than potential assets (Link 1987; Rosenfield 1990; Wahl and Harman 1989). Thus, both high degrees of stigma and self-esteem would be expected to diminish individuals’ comfort in social relations and interactions – diminishing overall quality of life (Link et al. 1989).

The evidence that social support is beneficial to overall well-being and that social isolation leads to ill health is now well established. Social support has a positive effect on
many different aspects of both physical and mental health. Yet, the exact nature of the positive influence of social support on health remains elusive and definitions of support vary widely across the literature. Durkheim was amongst the first to suggest that the structure of society had a strong bearing on psychological health (Link et al. 1989). More recently, ‘social capital’ has been embraced as a possible explanation for differences in health that are found between places or between groups of people.

In sum, public attitudes toward persons with mental illness have improved substantially over the years (Bhugra 1989; Servais and Saunders 2007). However, research reveals that members of the public continue to fear persons with mental illness, hold them accountable for their disorders, believe that mental illness is an individual pathology, and underestimate their chances of recovery (Corrigan et al. 2000). These attitudes are very common in the public sphere and contribute to the self-stigma and shame that is experienced by persons with mental illness. Said stigma discourages individuals with mental disorders from seeking mental health care (Corrigan 2004). Moreover, clinical psychologists play a crucial role in correcting public misconceptions of mental illness and the mentally ill. As previously mentioned, adherence to a particular approach (i.e., biopsychosocial) by clinicians tends to influence the ways in which patients’ problems are perceived and defined. A psychiatrist may help a patient to understand the nature of a disorder in terms of biochemical imbalances, genetic factors and pathophysiology of the brain, whereas the psychologically inclined practitioner may refer to psychological reactions to stressors, negative beliefs and meanings, and may be focused on information processing and the mind (Lam et al. 2005). Further, clinical
psychologists and psychiatrists play an important role in correcting public misconceptions by promoting informed attitudes of acceptance and understanding. Therefore, they must be aware of their own attitudes and behaviors (Corrigan 2004). The attitudes of both the clinician and individual living with a mental illness are highly complex and influence a wide range of factors (i.e., influences and beliefs regarding treatment outcomes, successes, motivations, hesitation, and quality of life) (Corrigan 2000). Another factor that plays an important role in quality of life is social capital. There has been an emphasis on the role of conflictual relationships and the manner in which the decline or absence of social relationships have a negative effect on psychological well-being. For example, labeling theorists have long argued that there is a relation between negative stereotypes (stigma) and the lack of social ties.
Chapter 3

Social Capital and Mental Health

3.1 Introduction

Recently, the concept of social capital has become a topic of interest everywhere from sociological theory to everyday language. Like other sociological concepts, the original meanings of the term and its heuristic value have been challenged by increasingly diverse applications (Portes 1998). The contemporary interest in social capital has led to an abundance of research and interpretation on its desirable political and social effects (John and Morris 2004). However, a common understanding of the concept is that involvement and participation in groups can have positive consequences for the individual and the community. Despite its current popularity, the ideas inherent in social capital are not new. The idea that engagement and participation in society may have a positive effect on both individuals and the community is a venerable notion (Portes 1998). It dates back to Durkheim’s (1897) emphasis on group life as an antidote to anomie and self-destruction and to Marx’s distinction between an atomized class-in-itself and a mobilized and effective class-for-itself (Portes 1998). This chapter looks at social capital by focusing on the history of the concept, and key theoreticians such as De Toqueville, Durkheim, Bourdieu, Coleman, and Putnam. Next, the concept of social capital is discussed in terms of its structure and fundamental components.
3.2 History of the Concept

Theoretical precursors to social capital can be found in the research and work of many of the founding fathers of the contemporary sciences including Adam Smith, de Tocqueville, and Durkheim (Halpern 2005). Present-day interest in the role that associational existence plays in society was foretold in the observations of Alexis de Tocqueville. His work focused on the intellectual and moral associations in America. He argued that “an association unites the energies of divergent minds and vigorously directs them toward a clearly indicated goal” (de Tocqueville 1969, p. 190). This social collaboration facilitated the solution of collective action problems and such associational life also acted as a counterbalance to the dangers of individuals that might otherwise eventually degenerate into an “exaggerated love of self which leads a man to think of all of the things in terms of himself and prefer himself to all” (de Tocqueville 1969, p. 190). He argued that throughout associational life, “feelings and ideas are renewed, the heart enlarged, and the understanding developed only by the reciprocal action of men upon one another” (de Tocqueville 1969, p.515). What de Tocqueville argued was that Americans are more likely to be involved in voluntary associations than are citizens of most other nations (Putnam 2000). An increasing amount of Americans are involved in educational groups, recreational groups, work related associations, religious groups, youth groups, fraternal clubs, and other benevolent associations (de Tocqueville 1969; Putnam 2000). Tocqueville’s approach has had a crucial impact on the development of research on associations and interest groups in the twentieth century. He argued that because of the freely chosen interaction with other group members, citizens acquire democratic norms
and gain the necessary skills to engage in discourse with one another, to reach concession, and to join forces (Castiglione, Van Deth and Wolleb 2008). Therefore, regardless of whether each association seeks to pursue individualistic or specific group goals, the collective result would continuously be integrated membership into the political system and these groups are instilled with democratic norms (Castiglione, Van Deth and Wolleb 2008). This Tocquevillian approach is an important intellectual strand in social capital theorizing that has generated great discourse on associations and civic engagements in relation to public policy, economical development, political institutions, and health.

In the literature surrounding the foundations of social capital, we can distinguish society-centered from institutionally based explanations. The former is associated with a bottom-up approach to social capital that refers to the production of capital through civil society and voluntary organizations, whereas the latter focuses on the top-down approach and looks at how social capital is rooted in and formed by political institutions (Castiglione, Van Deth and Wolleb 2008). In the society-based approach, it is argued that social capital originates from organic historical processes – also known as the ‘Durkheimian’ way. While political scientists most often quote De Tocqueville, parallels can also be found in the work of Emile Durkheim. He argued that “A nation can be maintained only if, between the state and the individual, there is interposed a whole series of secondary groups near enough to the individuals to attract them strongly in their sphere of action and drag them in this way, into the general torrent of social life” (Durkheim [1897] 1964, p.28). It was observed that the behavior of individuals could not be
understood separate from the characteristics of the community and the relationships in which there are rooted, even for the most individualistic of acts (Halpern 2005). This is most famously illustrated in Durkheim’s empirical analysis on suicide. He found that although suicide was perceived as an entirely individualistic act, suicide rates were best explained by social forces external to the individual. For example, Durkheim demonstrated that suicide was most common in societies and groups characterized by social disruption and loose social bonds (Halpern 2005). Therefore, groups characterized by high levels of social solidarity seemed capable of protecting individual members from suicide through “mutual moral support, which instead of throwing the individual on his own resources, leads him to share in the collective energy and supports his own when exhausted” (Durkheim 1897, p. 210).

One of the initial contemporary analyses of social capital was undertaken by Pierre Bourdieu (1985, p. 248), who defined the concept as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition.” Bourdieu’s analysis is instrumental, focusing on the benefits accruing to individuals in relation to their participation in groups and on the deliberate construction of sociability for the purpose of creating this resource. Social networks are not a given and must be constructed through investment strategies oriented to the institutionalization of group relations, usable as a reliable source of other benefits. Bourdieu’s definition clearly outlines that social capital can be separated into two elements: (1) the social relationship
itself that allows individuals to claim access to resources possessed by their associates, and (2) the volume and value of those resources. Thus, Bourdieu’s concept is associated with his theoretical ideas on class. He identifies three dimensions of capital each with its own relationship to class: economic, cultural and social capital. These three resources become socially efficient, and their ownership is legitimized through the intercession of symbolic capital (1986, p. 13). Bourdieu’s concept of social capital underlines conflict and power functions (i.e., the social relationships that increase the ability of an individual to advance their own welfare). Societal positions and the division of economic, cultural and social resources in general are legitimized with the help of symbolic capital (Bourdieu, 1986).

Bourdieu also noted that economists overlooked the significance of vast areas of social and economic life (1986). He suggested that the economic orthodoxy was synthetically limiting itself to the study of a limited band of ‘practices’ that were socially recognized as ‘economic’, and in doing so was losing sight of the fact that capital includes four fundamental parts: economic capital, cultural capital, symbolic capital, and social capital (Bourdieu 1986). Bourdieu’s emphasis on the fungibility of different forms of capital and on the error of reducing all forms to economic capital is defined as accrued human labor. Consequently, the procurement of social capital necessitates methodical investment in both economic and cultural resources. Though Bourdieu maintained that the outcomes of ownership of social or cultural capital are based on economic capital, the processes that bring about these alternate forms (i.e., cultural, social, etc.) are not. They
each possess their own dynamics and are illustrated by less transparency and more uncertainty (Bourdieu 1986; Portes 1998). Therefore social capital is,

The sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition. Acknowledging that capital can take a variety of forms is indispensable to explain the structure and dynamics of differentiated societies (Bourdieu and Wacquant 1992, p. 119).

Additionally, Coleman’s (1988) research on social capital suggests that varying levels of capital are transferred from parents and peers and maintain themselves over time. Coleman defined social capital by its function as a multitude of entities that are composed of two similar factors; they all consist of some aspect of social structures and they facilitate certain action(s) of actors. Coleman’s analysis parallels Schiff’s (1992, p. 161) definition of the term, as “the set of elements of the social structure that affect relations among people are inputs or arguments of the production and/or utility function”.

Parallel to Bourdieu, Coleman’s work offered a very broad conception of social capital that was not substantiated in a narrow area of study (Coleman 1988; Halpern 2005):

Social Capital is defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors – whether persons or corporate actors – within that structure, Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would not be possible (Coleman 1988, p. 96).
Coleman discusses two comprehensive intellectual streams of social action (1988). First, is the depiction of actors as socialized and actions as governed by social norms, guidelines and duties. The features of this intellectual stream are demonstrated in its ability to explain action in social context and to explain the way action is designed, constrained, and conveyed by social context (Coleman 1988). The second intellectual stream describes the actor as an independent character, who acts independently and has his/her own self-interests. Its principle feature is found in developing a principle of action, that of maximizing efficacy (Coleman 1988). However, there have been criticisms of both these streams. Coleman (1988) claims that in the sociological stream, the actor does not have an ‘engine of action’. This means that the environment shapes the actor, but that the actor has no internal mechanisms of action that allow them a purpose or a direction. Moreover, the very idea that action is entirely a product of the environment, has led sociologists to criticize this avenue (Coleman 1988; Wong 1961). Consequently, the economic stream has flown in the face of pragmatic representativeness. That is, an individual’s actions and decisions are “shaped, redirected, and constrained” by social circumstances (e.g., social norms, networks, and organizations that are fundamental in the functioning of both society and the economy) (Coleman 1988, p. 96).

Thus, Coleman defines social capital as a multitude of bodies that have two particular characteristics in common. First, they are comprised of some feature of a social and second, they enable particular actions of individuals who are within the organization (Coleman 1990). Although Coleman has been said to be one of the most influential sociologists in regards to the concept of social capital, he has been criticized for the
relative incoherence of his forms of capital (e.g., obligations and expectations, information potential, norms and sanctions, authority relations, social organizations, and intentional organization). It is argued that Coleman suggested interpersonal explanations of norms, commitments, and comparable phenomena (Tilly 1998). According to Tilly (1998, p. 19), Coleman’s “verbal accounts mentioned many agents, monitors, and authorities who influenced individual actions, his mathematical formulations tellingly portrayed a single actor’s computations rather than interactions among persons.” Nonetheless, Coleman has been an influential actor in the development of social capital. Like Bourdieu, he highlights the ways in which tangible social interactions permit individual access to critical resources that may not be available regardless of sufficient endowments of human or financial capital (Coleman 1990). Therefore, social capital is discussed as ‘social-structural resources’ that are accessible in and through social networks and structures (Coleman 1990).

3.3 What is Social Capital?

3.3.1 Components of Social Capital

Most forms of social capital, whether they are based on kinship, work, or interest, all have three basic components; they consist of a network, of a cluster of norms, of values and expectancies, and of sanctions (Halpern 2005). This triage of components can be identified and recognized in any forms of social association; however, for the purpose of this section, they will be illustrated in reference to the traditional ‘community’ of social capital. Oftentimes, the community, and the network that partly comprises it, may be defined geographically or formally, such as a small rural village. In other cases, its
boundaries may not be clearly demarcated. The network can further be illustrated by its concentration (i.e., the percentage of the population who are interconnected) and closure (i.e., the multitude of intra- versus inter-community links) (Halpern 2005).

The second element is the ‘social norm’. These are the systems, values, and procedures that distinguish the community or network members. The relationships that we form with potential neighbors, for instance are characterized by particular rules or ‘social norms’ (Halpern 2005). Many of these norms are tacit while others have a behavioral constituent (i.e., requiring that we do certain things). Social norms may also be more affective in nature (i.e., in regards to how we feel about the community or group). For example, in a community or neighborhood, these norms include helping our neighbors where possible, avoiding making loud noise at night, keeping the paths in front of our property so that others do not slip, etc. These norms may also include more specific habits of reciprocity such as keeping an eye on other another’s property when we are away or keeping a watchful eye over each other’s children (Halpern 2005).

Lastly, social capital is comprised of sanctions - formal (punishment for breaking the law) and informal (a disapproving glance or angry exchange of words). The latter is more often indirect and subtle such as through gossip or status but may also be positive, such as through different forms of tribute (Halpern 2005). Networks, norms, and sanctions can have both formal (unequivocal, institutionally codified) and informal (implicit and inferred) aspects. Neighborhoods may be formally defined in terms of statutes and executive units, or may be an informally understood ‘social representation’ (Lynch 1960). Oftentimes, researchers tend to assume that social capital only generally
refers to the informal social customs and processes, but in practice, it is often very
difficult to draw the line between the two (Halpern 2005).

The concept of social capital may also be broken down into ‘structural’ and
‘cognitive’ forms of capital where structural components refer to roles, rules, precedents,
behaviors, networks and institutions that may bond individuals in groups to each other,
bridge societal groups or vertically integrate groups with different levels of power and
influence in a single society (McKenzie, Whitley and Weich 2002). Cognitive social
capital describes the values, attitudes and beliefs that generate compliant behaviors
(Colletta and Cullen 2000). The associations between cognitive and structure social
capital are intricate and multidirectional. As with many descriptors of communities, the
theories supporting these constructs depend on the prevailing philosophy and
conceptualization of societies, politics and theory of mind (McKenzie, Whitley and
Weich 2002).

According to McKenzie, the theory of social capital attempts to describe the
forces that shape the quality of social interactions and social institutions. Social capital
has been characterized as the glue that holds societies together. Putnam (1996) depicts
social capital as the features of social life (i.e., networks, norms, and trust) that allow
people to act together more effectively to pursue shared objectives. He argues that the
most important factor of social capital is that is belongs to groups rather than individuals
– moving from individual level factors to social property. Therefore, according to Putnam
(1995), social capital refers to the social connections and the norms and trust that are
therefore associated with these connections. The theory of social capital thus presumes
that the more we bond or connect with other individuals, the more we trust them and vice versa – social trust and civic engagement are concurrent (Putnam 1995). In his 1995 and 1996 studies on social capital, Putnam (1995, 1996) strongly suggests that America’s stock of social capital has been shrinking for more than a quarter century. For example, membership records (i.e., PTA, Red Cross, Labor Unions, etc.) have declined by approximately 25%-50% in the past 20-30 years (Putnam 1995, 1996). Moreover, evidence shows that many measures of collective participation have declined significantly (Putnam 1996). Scholars in this area describe the rise of a technological era as a causal factor in the deterioration of social capital. De Sola Pool’s technological determinism (1990) suggests that revolutions in communications technologies have detrimentally affected social life and culture – that there is a profound decentralizing and fragmenting effect on society and culture. In summation, this perspective allows us to consider how technology is privatizing our lives (Pool 1990; Putnam 1995).

3.4 The Role of Social Capital

Sociologists have long been interested in the role that positive social relationships and resources play in the well-being of individuals. Moreover, the significance of the relationship between social relations and the availability of resources has been promoted throughout the history of sociology (Bourdieu 1986; Coleman 1990; Nakhaie and Sacco 2009; Putnam 2000). There has been a conceptualization of social relations and networks as forms of social capital and it has been argued that it plays a large role in addressing many issues across a wide range of disciplines (Nakhaie and Sacco 2009). The body of literature surrounding social capital discusses its relevance within the domains of
“economy, politics, social structure, education, social control, intergroup relations, social mobility, lifestyles, and crime” (Nakhaie and Sacco 2009, p. 392).

3.4.1 In Political Participation

According to La Due Lake and Huckfeldt (1998), social capital is formed through different networks of relationships. They argue that social capital in relation to political capital is formed through the consequence of political action throughout these networks (La Due Lake and Huckfeldt 1998). The particular dimensions of social capital that allow potential political relevance are made possible through the volume of individual relationships in one particular social network, the degree of political knowledge throughout this network, and the frequency of interaction amongst members of this network (La Due Lake and Huckfeldt 1998). According to Downs and Coleman (1988), politically relevant social capital should increase the likelihood of social engagement in politics.

Huckfeldt and Sprague (1995) suggest that politically relevant social capital is produced in individual networks. It is a product of the interactions between groups of persons and that the more frequently individuals engage in politically relevant social capital, the more likely that their will partake in politically relevant activities (La Due Lake and Huckfeldt 1998; Huckfeldt 1995; Sprague 1995). We find these results regardless of a person’s “individual characteristics and organizational involvement” (p. 582).
3.4.2 Information Channels

A fundamental aspect of social capital is the exchange of information that potential occurs in social relations (Coleman 1988). Katz and Lazarsfeld (1955) described the acquisition of new information as being costly and that this information is acquired through the use of social relations that are maintained for alternative purposes. For example, Katz and Lazarsfeld (1955) showed that one particular woman (a study that operated a midwestern city in the 1950’s) had multiple interests in fashion but had no interest in seeking out popular trends herself. Rather, she used her network of friends whom kept up with fashion as sources of information. Similar trends can be seen when individuals do not particularly care for current events but enjoy being educated in important developments – these individuals can avoid reading the newspaper by simply discussing these matters with their friends or family (Karz and Lazarsfeld 1955). These are both examples of particular social relations in social capital that offer information that enables action (Coleman 1988). These social relations are valuable for the information they offer.

3.4.3 Crime

It is evident that there are multiple causes and theories of crime; however, the theory of social capital is relatively new to the world of criminology. According to Halpern (2005), “social capital emphasizes the political influence of social relationships, co-operative norms and informal sanctions on offending behavior” (p. 115). It connects fundamental explanations across prevailing theories, and theoretically bonds a long-standing division in criminology amongst micro and macro methodologies (Halpern
2005). Crime and its associational fear are amongst some of the most important factors related to individual welfare and their engagement in economic activities (Buonanno, Montolio, and Vanin 2009).

Buonanno, Montolio and Vanin (2009) examined the consequences of social norms and associational networks on crime rates. The authors argue that social norms associate guilt and shame with deviant behavior, which in turn increases the opportunity cost of crime. Moreover, these networks may encourage the reoccurrence of non-criminal activities and increase the likelihood of detection. However, they may also function as channels of communication for criminals and may offer legitimate refuge from criminal activities (Buonanno, Montolio and Vanin 2009). These patterns can also be seen amongst children and their parents, offering an explanation as to why young people offend more often than their elderly counterparts.

This explanation is founded in the development of social capital and the theory of social control. Leffert and Petersen (1995) discuss the weakening bonds between children and their parents during their teenage years:

There is generally a period of instability before the young person settles into a job and forms a new family…During the transitional period, the young person is moving away from the restraining influence of his or her parents, and has not yet invested in reciprocal adult relationships that may in future be a restraining influence. On this account, adolescents are unruly because they slip between the mechanisms of informal social control that are effective for children and for adults…This field of research is currently very active, but it now seems that the formation of social bonds may turn out to be the central explanation for desistance from crime after adolescence (Smith 1995, pp. 428-30).
This theory is supported by Sampson and Laub’s (1993) analysis of the life-history of 500 convicted offenders in their teenage years and 500 non-offenders from the 1940 to the 1950s. Results indicated that stable employment, attachment to education and occupation, and positive marital relationships were predictors of desisting from criminal activity (Laub 1993). They established that “social ties…create interdependent systems of obligation and restraint that impose significant costs for translating criminal propensities into action” (p. 141).

Both social control and social capital hypotheses in relation to crime are supported by empirical evidence. For example, in the U.S., a study on the 1958 Birth Cohort revealed that an individual’s social capital has an effect on both preferences and retributions. The study demonstrated how strong social bonds increase the costs and consequences of deviant behavior, thus making criminality less probable (Williams 1997). Additionally, a study by Lindstrom (1993) of 800 15-year old students demonstrated how involvement by a parent at both individual and collective school level, decreased the likelihood of a wide range of deviant and criminal behaviors. This was also supported by Hagan, Merkens and Boehnke’s (1995), who concluded that parents’ involvement plays a crucial role in suppressing delinquent behavior, particularly in the context of anomie. Therefore, the presence or absence of intimate social relationships is critical in the involvement and continuation of criminal behavior (Halpern 2005).
3.4.4 Health

Over the past few decades, social scientists have established that individuals with poor health are found to have fewer social networks; those reporting chronic illnesses and deteriorating overall health seem to have fewer intimate and social relationships (Sarason, Sarason, and Pierce 1990). These individuals have reported a lower quality of life and support (Sarason, Sarason and Pierce 1990). There has been a large body of research that has reported a strong relationship between the magnitude and quality of social networks and individual health (Veenstra 2000). For example, Wolf and Bruhn (1993) illustrate the effect of cultural and social cohesion on civic rates of cardiovascular disease. These authors emphasize on individual level factors and health. They discuss how a large body of research has focused on behaviors such as exercise, poor eating habits, smoking, drinking, etc., where attention should be paid to social influences in close social networks (i.e., family and community). It is maintained that, “while it is the individual who gets sick…the fact that there are striking differences in the prevalence of many diseases from time to time in the same country…suggests inquiry into the social environment” (Wolf and Bruhn 1993, p. 3). This means that public health practitioners focus the majority of their attention on medicinal causes of health, or on immunization, or life-style changes (Wolf and Bruhn 1993). There is an imbalance: efforts by both health care practitioners and epidemiologists focus less on individual level factors and more on the social systems that impact health. For example, each year millions of dollars are spent to support individual health. Consequently, we tend to ignore the social experiences (i.e., our sense of belonging in our close social relationships, in our community, our degree of trust in
these networks.) that may influence our overall well-being (Kawachi and Kennedy 1997). For example, Cohen and colleagues (1997) concluded that an individual’s resistance to the common cold virus is highly contingent on the cohesiveness of our social network. Correspondingly, Ahern and colleagues (1996) revealed that social use contentment with our health care services are also dependent on social cohesion within out most intimate networks. It is thus important for both epidemiological research and public health policy and practice to recognize the significance of social systems, networks, and social cohesion in relation to our overall health.

3.5 Social Capital and Mental Health

The construct of social capital offers a way of thinking about potentially important but difficult to quantify aspects of community that may be associated with health – mental health in particular. Although high levels of social capital may be beneficial to community members, minorities may feel the impact differently (McKenzie, Whitley and Weich 2002). Generally, homogenous societies that often score highly on existing measures of social capital are sometimes characterized by an intolerance of ‘deviant’ behavior, lack of autonomy and an unwritten demand for obedience to norms. Minorities, whether defined by ethnicity, religious beliefs, sexuality or particularly by mental ill health, may experience marginalization, exclusion or persecution unless they conform (McKenzie, Whitley and Weich 2002). This is where we find the linkage between social support and the prevalence of mental illness.

Research regarding the relationship between social capital and mental health is a relatively new phenomenon. The most recent comprehensive review of the relationship
between social capital and mental illness offered a complex valuation of the state of the art (De Silva, McKenzie, Harpham and Huttly 2005). When studies that considered social capital to be an individual level variable were reviewed, there was strong substantiation of an inverse relationship between the level of cognitive social capital and common adult mental disorders (e.g., anxiety and depression) – with greater levels of social capital, come lower risks of such disorders (McKenzie 2008). The evidence has been ill-defined for ecological studies due to the variation in methodologies, populations examined and mental illness outcomes, producing difficult comparisons. The review of studies by De Silva and colleagues (2005) concluded that “the strength of the current evidence, in particular from studies measuring ecological social capital, is inadequate to inform the need for or development of specific social capital interventions to combat mental illness. A program of further research is urgently required” (De Silva et al. 2005, p. 626).

Associations are necessary; however, it is important to have a plausible hypothesis of the mechanisms at play when considering possible causes of mental illness. As such, there have been a number of hypotheses postulated to explicate how social capital could affect the rate of mental illness and three have been considered viable at an ecological level (Drukker, Buka, Kaplan, McKenzie and Os 2005; McKenzie 2008):

1. Regions with greater levels of social capital are associated with social milieus fostering lower risks for mental health;

2. Social capital reproduces facilitative residential behavior which produces social supports and safety nets that shield the effects of life events on mental health; and,
3. Neighborhoods with higher levels of particular forms of capital (i.e., collective efficacy) are better able to obtain and maintain educational, health and housing resources that are associated with mental health.

Moreover, there are many other mechanisms with more specific groundings. For example, McKenzie and Harpham (2006) argue that the level of mental illness may be linked to the amount of informal social control (e.g., adult monitoring and intervention in regards to disruptive teenage behavior) in an area. In areas where individuals are more bonded and bridged (i.e., bonding social capital is derived from relationships between similar persons with respect to socio-demographic and socioeconomic characteristics, and bridging social capital derives from dissimilar persons at the same level of hierarchy), they are more likely to know one another, which increases the probability of surveillance in public places. This form of social control reduces the likelihood of deviant behavior in adolescents (i.e., drug use and teenage pregnancy), which are directly linked to the development of mental health problems and increased rates of mental illness (McKenzie and Harpham 2006).

There have also been other attempts to link the concept of mental illness to the social support and social networks literature. Kawachi and Berkman (2001) have examined the topographic layout of mental health to provide support for theoretical expansion. The consequences of social capital on mental illness are prospectively complex, and it is likely fallacious to assume that different types of psychiatric disorders share a common pattern of association with this exposure (McKenzie, Whitley and Weich 2002). Despite the surplus of illness in urban compared with rural and semi-rural areas
(Lewis and Booth 1994), there has been an accruing body of literature that suggests that the geographical variation in rates of schizophrenia are larger than those observed for the common mental disorders. Undoubtedly, the relation between regional income inequality and the prevalence of the common mental disorders was found to be relatively weak (McKenzie, Whitley and Weich 2002). However, there may be an interaction between social capital, social drift and environmental effects that has an impact on mental health.

The relationships between social support and psychological well-being have also been examined in elderly populations (Larson 1978). A study by Revicki and Mitchell (1990), examined the role of different avenues of social support and mental health status in elderly individuals. The results of this study suggested that there was a relationship between social isolation and physical/psychological distress. The study suggested that social support and strong social networks “have direct effects on general measures of well-being, such as psychological distress and life satisfaction” (Revicki and Mitchell 1990, p. S273). The findings demonstrated that the existence or absence of strain may predict individual psychological well-being than particular stress-inducing life events in elderly individuals (Revicki and Mitchell 1990).

It is important to draw attention to the significance of developing research, not only to enrich the current literature, but also to develop new concepts and results that will enhance our knowledge of mental health through social discourse. The following chapter will look at the Canadian Community Health Survey and the methodology behind the current study.
Chapter 4

Methodology and Analysis

As previously mentioned, there has been an attempt to develop the literature surrounding the concept of social capital in relation to mental illness. The purpose of this study is to examine whether social capital is a precursor to overall psychological well-being. That is, I aim to test that social engagement and the development and maintenance of social relationships are positively related to an individual’s mental health. My initial interest in the relationship between mental health and social capital began while examining the literature on both areas of research. In doing so, it became evident that in order to gain access to the appropriate data in a time appropriate fashion, it would be beneficial to analyze a pre-existing data set. However, to conduct a study and gather the appropriate data through my own surveying and collection would offer a greater opportunity to operationalize the variables and would provide a more thorough examination of social capital and mental health.

4.1 The Data

Therefore, data were drawn from the 2009-2010 Annual Component of the Canadian Community Health Survey. The CCHS is a longitudinal survey that collects information related to health status, health care utilization and health determinants for the Canadian population. It relies upon a large sample of respondents and is designed to provide reliable estimates that the health region level. The CCHS provides a single data
source for health research on small populations and rare characteristics. The CCHS produces an annual microdata file and a file combining two years of data. The primary use of this data is for population health research. Federal and provincial departments of health and human resources, social service agencies, and other government agencies use the information collected from respondents to monitor, plan, implement, and evaluate programs to improve the health of Canadians. More focused subjects include disease and health conditions, health, lifestyle and social conditions, and prevention and detection of disease. For the purpose of this study, I analyzed the data to explore the relation of social capital factors to mental health.

The CCHS offers a large variety of variables that reflect the theoretical concepts of interest. However, a complication of using a large database is that the data collected are obtained through a survey method rather than through experiment or qualitative interviewing where the concepts being analyzed have a conceptual definition. The variables that were used in this study were predetermined survey questions with no specific theoretical underpinnings. The questions were not designed with my concept of social capital in mind.

4.2 Target Population

The CCHS covers the population 12 years of age and over living in ten provinces and the three territories. Excluded from the survey’s coverage are: persons living on reserves and other Aboriginal settlements in the provinces; full-time members of the Canadian Forces; the institutionalized population and persons living in the Quebec health regions of Région du Nunavik and Région des Terres-Cries-de-la-Baie-James. In
Nunavut, the coverage is limited to the ten largest communities, which represents about 70% of the Nunavut population. Altogether, these exclusions represent less than 3% of the target population.

4.3 Instrument Design

Each component of the CCHS questionnaire is developed in collaboration with specialists from Statistics Canada, other federal and provincial departments, and academic fields. The CCHS questions are designed for computer-assisted interviewing (CAI), meaning that, as the questions were developed, the associated logical flow into and out of the questions was programmed. This includes specifying the type of answer required, the minimum and maximum values, on-line edits associated with the question and what to do in case of item non-response.

The CCHS has three content components: the common content, the optional content and the rapid response content. The common content is collected from all survey respondents. Some modules are collected every year and remain relatively unchanged over several years (Statistics Canada 2011). Other common modules are collected for one or two years and rotate every two or four years. The optional content fulfills the need for data at the health region level. This content, while often harmonized across the province, is unique to each region or province and may vary from year to year (Statistics Canada 2011). The rapid response component is offered to organizations interested in national estimates on an emerging or specific issue related to the population's health. The rapid response content may be included in the survey in each collection period, that is, in every two-month period (Statistics Canada 2011).
New modules and revisions to existing CCHS content are tested using different methods. Qualitative tests using individual cognitive interviews or, more rarely, focus groups are used to ensure that questions and concepts are appropriately worded. Field-testing can also be conducted to test new modules or significant revisions of the collection instrument. This kind of test was conducted before CCHS began. The test involved Statistics Canada's Regional Offices (Statistics Canada 2011). The main objectives of the test were to observe respondent reaction to the survey, to obtain estimates of time for the various sections, to study the response rates, and to test feedback questions. Field operations and procedures, interviewer training and the data collection computer application were also tested (Statistics Canada 2011). In addition to the field test, the computer application for data collection was extensively tested in-house each time changes were made. The objective of these tests is to identify any errors in the program flow and text before the start of the main survey.

4.4 Sampling

This is a sample survey with a cross-sectional design. In order to provide reliable estimates to the 110 health regions (HRs), a sample of 65,000 respondents is required on an annual basis. A multi-stage sample allocation strategy gives relatively equal importance to the HRs and the provinces (Statistics Canada 2011).

In the first step, the sample is allocated among the provinces according to the size of their respective populations and the number of HRs they contained. Each province's sample is then allocated among its HRs proportionally to the square root of the
population in each HR. The CCHS used three sampling frames to select the sample of households: 40.5% of the sample of households came from an area frame, 58.5% came from a list frame of telephone numbers and the remaining 1% came from a Random Digit Dialing (RDD) sampling frame (Statistics Canada 2011). In the Northern Quebec and Prairie North health regions, only the RDD frame is used.

In Nunavut, only the area frame is used. In the Yukon and Northwest Territories, most of the sample comes from the area frame but a small RDD sample is also selected in the territorial capitals. The CCHS uses the area frame designed for the Labor Force Survey (LFS) as its area frame (Statistics Canada 2011). Thus, the sampling plan of the LFS must be considered in selecting the CCHS dwelling sample. The LFS plan is a complex two stage-stratified design in which each stratum is formed of clusters. The LFS first selects clusters using a sampling method with a probability proportional to size (PPS), and then the final sample is chosen using a systematic sampling of dwellings in the cluster (Statistics Canada 2011).

The CCHS uses the LFS clusters, which it then stratifies by HRs. Lastly, it selects a sample of clusters and dwellings in each HR. The list frame of telephone numbers is used in all but five HRs to complement the area frame (Statistics Canada 2011). The list frame is an external administrative frame of telephone numbers updated every six months. It is stratified by HR by means of a postal code conversion file in order to match the HRs to the telephone numbers (Statistics Canada 2011). Telephone numbers are selected using a random sampling process in each HR. Lastly, in four HRs, a random
digit dialing (RDD) sampling frame of telephone numbers is used in accordance with the working banks technique, whereby only 100-number banks with at least one valid residential telephone number are retained (Statistics Canada 2011). The banks are grouped in RDD strata to encompass, as closely as possible, the HR areas. Within each stratum, a 100-number bank is randomly chosen and a number between 00 and 99 is generated at random to create a complete, ten-digit telephone number (Statistics Canada 2011). This procedure is repeated until the required sample size is reached. The size of the sample is enlarged during the selection process to account for non-responses and units outside the coverage (for example, vacant dwellings, institutions, and telephone numbers not in use) (Statistics Canada 2011).

Once the dwelling or telephone number sample has been chosen, the next step was to select a member in each household. This decision was made at the time of contact for data collection (Statistics Canada 2011). All members of the household are listed and people aged 12 years or over were automatically selected using various selection probabilities based on age and household composition (Canadian Community Health Survey 2011). The 2009/2010 Canadian Community Health Survey was used for this study with 124,188 respondents. This data set was useful as it asked respondents questions regarding their self-perceived mental health and incorporated questions regarding the topic of civic engagement and sense of belonging in the community (Statistics Canada 2011). These variables have been related to social capital.
4.5 Dependent Variable

My analysis focused on the variable, ‘Self-Perceived Mental Health’ for which respondents were asked to report their mental health on a 5-point Likert scale from excellent to poor mental health, with excellent originally coded as 1, very good coded as 2, good coded as 3, fair coded as 4, poor coded as 5, and 6 through 9 as missing data. This particular question was asked of all respondents with 121508 valid cases and 2680 missing cases. This variable was reverse coded (0=missing, 1=poor, 2=fair, 3=good, 4=very good, and 5=excellent). As SPSS utilizes the highest numeric value in a variable as a reference category, respondents reporting ‘excellent’ mental health were used as reference. You can make this decision if there is a zero, SPSS will read as an interval variable with six categories. Ordinal regression was used to examine this variable. This form of regression was used to incorporate the ordinal nature of my dependent variable. Essentially, ordinal regression is another extension of logistic regression, which is based on the proportional odds model. This model turns the ordinal scale into a number of binary cut-off points. The number of cut-off points is always one less than the number of categories (Healey and Prus 2010). In using this model, I am able to estimate separate binary regression models. The proportional odds model assumes that the true coefficients are the same in all three models (i.e., probability (score of 1), probability (score greater than 1), probability (score of 1 or 2), probability (score greater than 2), and probability (score of 1, 2, or 3)/ probability (score greater than 3) (Healey and Prus 2010). This assumption means that the estimates from three binary models can be pooled to provide a
singular set of coefficients (Healey and Prus 2010). The precise questions used in the CCHS are presented in Appendix A.

4.6 Independent Variables

The independent variables that were selected for analysis included general demographic factors that have theoretical foundations in the literature surrounding mental health and well-being (i.e., age and sex). Respondents were asked to report their age in years, where 1=12 to 14 years, 2=15 to 7 years, 3=18 to 19 years, 4=20 to 24 years, 5=25 to 29 years, 6=30 to 34 years, 7=35 to 39 years, 8=40 to 44 years, 9=45 to 49 years, 10=50 to 54 years, 11=55 to 59 years, 12=60 to 64 years, 13=65 to 69 years, 14=70 to 74 years, 15=75 to 79 years, and 16=80 years or more. Summary statistics reported 124,188 valid cases and no missing cases; all respondents answered this question. This variable was recoded into ‘Age’ and the categories were collapsed into fewer categories where 0=12 to 17 years, 1=18 to 24 years, 2=25 to 39 years, 3=40 to 59 years, 4=60 to 74 years, and 5=75 years + (reference category). This category was chosen as the reference category to look at the level of self-perceived mental health amongst the elderly.

Respondents were also asked to disclose their sex, whether they were male or female. Male was coded as 1 and female as 2, with 6 to 9 as missing data. This question was asked of all respondents with no missing cases. This variable was recoded so that males=0 and females=1. This variable was included because it has been shown that men and women experience different forms of mental health problems (Kessler, Berglund, Demler, Jon, Koretz, Merinkangas, Rush, Walters and Wang 2003). It is said that while women tend to internalize mental disorders such as depression and anxiety, we see trends
of externalizing disorders such as substance abuse and antisocial behaviors amongst men (Kessler et al. 2003). Research suggests that social formations of maleness and femaleness are fundamental in adopting and expressing mental health issues (Kessler et al. 2003). Therefore, it was instrumental in the current analysis to include respondent sex as a variable.

Respondents were also asked to report their marital status where 1=married, 2=common-law, 3=widowed/separated/divorced, and 6 to 9=missing. Summary statistics report 123,928 valid cases with 260 missing cases. This variable was recoded into “MaritalStatus” where 0=not married, 1=married, and missing variables were recoded into system missing (sysmis). This variable was chosen as part of the analysis because most contemporary studies in the areas of mental health and social relations suggest that social integration at every level is positively related to overall well-being (Horwitz 2002). For example, individuals who have constant or frequent communication with their intimate networks (e.g., family, friends, place of works, neighbors, voluntary organizations, etc.), report better mental health that those with fewer networks. Therefore, it can be said that married persons report more positive mental health because they have more supportive relationships and social ties (Horwitz 2002). Consequently, it can be argued that the deterioration of social relationships caused by the separation from a loved one (by all avenues) can result in growing levels of distress and negative mental health (Umberson 1987).

I also utilized the variable, immigration status. Respondents were asked to identify themselves as immigrant or not, where 1=yes, 2=no and 6 to 9=missing.
Summary statistics report that 121,472 cases were valid with 2,716 missing. This variable was recoded in SPSS into Immigrant where 0=no, 1=yes, and the remaining cases were coded as missing. This variable was of interest as newly immigrant individuals may experience more social isolation and exclusion than non-immigrants. For example, Pernice and Brook (2010) suggest that “post-immigration, not having close friends, being unemployed, and spending the majority of one’s time with their own ethnic group affected anxiety and depression” (p.512).

Next, I used variables associated with social capital. Social capital was conceptualized as social relations that have productive benefits. Therefore, I utilized the variable, sense of belonging in one’s local community where 1=very strong, 2=somewhat strong, 3=somewhat weak, 4=very weak, and 6 to 9=missing. This question was asked of all respondents with 120,149 valid cases and 4,039 missing. This variable was recoded in SPSS into SenseCommBelonging where 0=missing, 1=very weak, 2=somewhat weak, 3=somewhat strong, and 4=very strong. The next variable associated with social capital was whether or not respondents were members of a voluntary organization. This variable mimics ideals of social inclusion and civic engagement. Respondents were asked whether or not they were part of any voluntary organization or association such as school groups, church social groups, community centers, ethnic associations, or social, civic, or fraternal clubs. This variable was coded as 1=yes, 2=no, and 6 to 9=missing. This variable was recoded where 0=no, 2=yes, and the remaining cases were coded as missing. This particular question was asked of all respondents with 14,650 valid cases and 109,538 missing cases.
4.7 Statistical Models

As these data are clustered on the national level, the data set was analyzed taking into account this multilevel structure. Odds ratios and their 95% confidence intervals for perceived mental health were obtained using an ordinal regression model of social capital and other socio-demographic variables. A second and third model were estimated excluding total overall health scores; however, the results did not prove to be significant. The ordered logistic regression is based on the assumption of independence of observations. This method minimizes the sum of the squared residuals (Mertler and Vannatta 2005). Advantages of the ordinal regression are that estimates are unbiased and that coefficients are centered around true population values. Moreover, there is minimum variance and ordinal regression estimates are consistent and normally distributed (Mertler and Vannatta 2005).

With that being said, there are also several assumptions and limitations to the ordinal regression model. One of the most important assumptions is that there is a constant correlation between several measurements within a particular subject (Ugrinowitsch, Fellingham, and Rocard 2004). This form of correlation structure is probable in human performance situations. Therefore, the notion of constant correlation for measurements within a subject may be inconsistent in many cases (Ugrinowitsch et al. 2004). Another limitation of ordinal regression is that of missing values. That is, “algorithms for the computation of variance components using ordinal regression are not optimal when data are missing, even if the assumptions about the covariance structure are correct” (Ugrinowitsch et al. 2004, p. 2145).
4.8 Descriptive Statistics

Table 1 presents the descriptive statistics associated with the current model. In a sample size of 124,188 respondents, 1.1% reported their perceived mental health as poor, 4.8% as fair, 22% as good, 36% as very good, and 34% reported having excellent perceived mental health. In regards to their general life satisfaction, 0.7% of respondents were very dissatisfied, 2.3% were dissatisfied, 5.7% were neither satisfied nor dissatisfied, 50.6% reported being satisfied, and 37.8% reported being very satisfied.

Further, 7.6% of respondents reported a very weak sense of community belonging, 22.2% reported a slight (somewhat) sense of community belonging, 47.1% reported somewhat strong, and 19.8% of respondents reported a very strong sense of community belonging. Moreover, 4.6% respondents reported being members of a voluntary organization while the majority (7.2%) was not.

In regards to total income reported, 10% of respondents reported their income bracket as less than $20,000, 17.9% within the $20,000 to $39,999 income bracket, 15.4% within the $40,000 to $59,999 income bracket, 12.5% within the $60,000 to $79,999 income bracket, and 27% reported grossing over $80,000. Also, the majority of respondents in this model were non-immigrants (83.6%), while 14.2% reported they were immigrants. 19.7% of respondents reported being either widowed or divorced, 29.4% reported being single or never married, and the majority of respondents were either married or in a common law relationship (50.7%).
Lastly, with a large sample of 124,188 respondents, the mean age was nested between 40 and 59 years of age (SD=1.47), and 54.5% of respondents were female and 45.5% were male.

Table 1. Descriptive Statistics of the Variables used from the 2009/2010 Canadian Community Health Survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. D</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Perceived Mental Health</td>
<td>121,508</td>
<td>3.99</td>
<td>.93169</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Age of Respondent</td>
<td>124,188</td>
<td>2.68</td>
<td>1.47184</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Sex of Respondent</td>
<td>124,188</td>
<td>0.545</td>
<td>.49794</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Marital Status</td>
<td>123,928</td>
<td>2.31</td>
<td>.78014</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sense of Community Belonging</td>
<td>120,149</td>
<td>2.82</td>
<td>.84573</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Member of a Voluntary Organization</td>
<td>14,650</td>
<td>1.61</td>
<td>.48736</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

4.9 Analyses and Results

The ordinal regression method was used to model the relationship between the ordinal outcome variable, e.g., different levels of perceived mental health, and the explanatory variables concerning demographics, life satisfaction, and civic engagement (i.e., whether recipients were members of a voluntary organization and whether they felt a sense of belonging in their community). The outcome variable was measured on an ordered, categorical, and five-point Likert scale – ‘poor’, ‘fair’, ‘good’, ‘very good’, and ‘excellent’. Explanatory variables included five demographics, e.g., sex, age, marital status, and immigration status. Lastly, two variables were used to measure civic engagement, e.g., sense of community belonging, and member of a voluntary
organization. The major decisions involved in the model building for ordinal regression concerned which explanatory variables should be included in the model and choosing the link function (e.g., logit link or complementary log-log link) that demonstrated the model appropriateness. The complementary log-log link function was used for this analysis as these links approach the asymptotes of 0 and 1 asymmetrically (Fox 2008). The complementary log-log link function is used for this analysis as these links approach the asymptotes of 0 and 1 asymmetrically (Fox 2008). The complementary log-log link function is an appropriate model when the cumulative probabilities gradually increase from 0 to 1 and then progress quickly to 1 (Pallant 2010). This link function describes the probability of an event occurring. The research findings indicated that all explanatory variables were statistically significant at the 95% confidence interval. This may very well be the result of sample size in that the Canadian Community Health Survey is a large body of data.

Table 2. Ordinal Regression of Self-Perceived Mental Health by Sex

|          | Coefficient | Standard Error | p>|z|   | 95% Confidence Interval |
|----------|-------------|----------------|------|-------------------------|
| Sex      |             |                |      |                         |
| Female   | -.012       | .007           | 0.087| -.026 -.002             |

N=124,188

Male respondents were more likely than their female counterparts (reference category) to report excellent self-perceived mental health. These results are interesting as both males and females internalize and externalize mental disorders rather differently. According to previous research, it has been unclear whether or not men or women experience more common mental health problems such as stress overall, seeing as both
males and females experience and react differently to types of stressors (Hatch and Dohrenwend 2007).

Table 3. Ordinal Regression of Self-Perceived Mental Health by Age

| Age          | Coefficient | Standard Error | p>|z|  | 95% Confidence Interval |
|--------------|-------------|----------------|-----|------------------------------|
| 12-17 years  | .443        | .024           | 0.000 | .396                      .489 |
| 18-24 years  | .505        | .021           | 0.000 | .464                      .546 |
| 25-39 years  | .387        | .020           | 0.000 | .349                      .426 |
| 40-59 years  | .197        | .019           | 0.000 | .159                      .234 |
| 60-74 years  | .331        | .019           | 0.000 | .293                      .369 |

N= 124188

Compared with older respondents in the reference category (individuals aged 75 years or more), respondents aged 12 to 17, 18-24, 25-39, 25-59, and 60-74 years of age were more likely to report excellent self-perceived mental health. These results coincide with current research that suggests fewer social networks and diminishing mental health amongst the elderly. These findings are not surprising, as we tend to find a larger number of older individuals with mental disorders or deteriorating mental health. Robins and colleagues (2001) demonstrated that age is related to depressive symptoms, particularly due to the deterioration of overall health.
Table 4. Ordinal Regression of Self-Perceived Mental Health by Immigrant

| Immigrant | Coefficient | Standard Error | p>|z|  | 95% Confidence Interval |
|-----------|-------------|----------------|-------|---------------------------|
| Yes       | .039        | .010           | 0.000 | .019 .059                 |

N= 121,472

Compared with the reference category (respondents who are non-immigrants) immigrant respondents are less likely to report excellent self-perceived mental health. Being an immigrant generally coincides with lack of employment and fewer social ties, both, which have been associated with poor mental health. Both the social selection theory and the social causation theory suggest that the predisposition of an individual to poor mental health and social stress experiences both contribute to an increase in mental health problems, such as high anxiety and depression (Pernice and Brook 1996).

Research indicates that a large number of refugees experience several clinical depression, anxiety symptoms, and posttraumatic stress syndromes, which are attributable to pre-immigration trauma, and post-emigration factors in the host society (Allodi 1991; Mollica and Lavelle 1986; Nguyen 1989).
Table 5. Ordinal Regression of Self-Perceived Mental Health by Marital Status

| Marital Status | Coefficient | Standard Error | p>|z| | 95% Confidence Interval |
|----------------|-------------|----------------|-----|--------------------------|
| Married        | .144        | .007           | 0.000 | .130   .158              |

N= 123,928

Compared to the reference group (respondents who reported being married or in a common law relationship), respondents who were not married were less likely to report excellent self-perceived mental health. This confirms existing research that individuals who are involved in long-term intimate relationships are less likely to develop issues with health and mental health. For over a century, sociologists have argued that marriage (a particular social relationship) connects individuals to their communities and to larger bodies of networks (public and intimate) in ways that promote positive mental health and overall well-being (Durkheim 1951). One of the most dominant explanations for the positive benefits of marriage on mental health looks at marital union as a form of economic and psychosocial resource (Oppenheimer 2000). This means that individuals who are single, widowed or divorced would have poorer mental health than individuals who are married because of the nonexistence of the health-enhancing benefits and resources that are provided by marriage (Oppenheimer 2000).
Table 6. Ordinal Regression of Self-Perceived Mental Health by Member of a Voluntary Organization

| MemberOrganization | Coefficient | Standard Error | p>|z| | 95% Confidence Interval |
|---------------------|-------------|----------------|-----|------------------------|
| Yes                 | .130        | .031           | 0.000 | .089 .172 |

N=14,613

Respondents who were members of a voluntary organization were more likely to report having excellent self-perceived mental health. This also confirms pre-existing research that suggests social relations and involvement in community groups positively affects an individual’s mental health. There is an extremely large body of research that suggests the significance of social support for mental health and well-being (Berkman and Glass 2000; Cohen et al. 2000; Kawachi and Berkman 2001; Sarason and Sarason 1985; Sarason, Sarason and Pierce 1990). Moreover a large focus has been on the relationship between low levels of social support and higher prevalence of depressive symptoms (Henderson 1992). It is evident that positive social bonds, social integration, and social group relations coincide with more better cognitive and emotional states (see Chapter 3).
Table 7. Ordinal Regression of Self-Perceived Mental Health by Sense of Belonging in the Community

| SenseCommBelonging | Coefficient | Standard Error | p>|z| | 95% Confidence Interval |
|--------------------|-------------|----------------|-------|-------------------------|
| Very Weak          | -1.028      | .022           | 0.000 | -1.072 - .984           |
| Somewhat Weak      | -0.669      | .016           | 0.000 | -0.700 - .637           |
| Somewhat Strong    | -0.300      | .014           | 0.000 | -0.327 - .272           |

N=119,963

Compared to the reference category (very strong) those who felt very weak, somewhat weak, and somewhat strong community belonging were less likely to respond to having excellent self-perceived mental health. This confirms previous research that civic engagement and feelings of inclusion are associated with more positive mental health. This variable also goes hand in hand with the previous variable of civic engagement.

The overall model was statistically significant, meaning that the model was improved by including the explanatory variables within it. The goodness of fit was tested where the question of whether observed data were consistent with the model we fitted to it, which did not prove to be significant. That is, the null hypothesis is that the data does not fit the model. Therefore, we reject the null hypothesis and conclude that the model does fit the model quite well. Next is the Nagelkerke Pseudo R-Square suggested that 5.2% of the variance is explained by our variables. Although there is a large percentage that remains to be explained, this is still substantial.
According to this multivariate model, immigrant respondents were more likely than their non-immigrant counterparts to respond to ‘excellent’ when answering for their self-perceived mental health. Moreover, individuals who were members of a voluntary organization were more likely than individuals who were not members of a voluntary organization to have excellent self-perceived mental health. Respondents with very weak, somewhat weak, and somewhat strong sense of community belonging were less likely than those with very strong sense of community belonging to rate their self-perceived mental health as ‘excellent’. Further, widowed/divorced and single/never married respondents were less likely than their married/common law counterparts to rate their self-perceived mental health as ‘excellent’. Lastly, respondents 74 years and younger were more likely than individuals 75 years and older to rate their self-perceived mental health as ‘excellent’. Sex did not prove to be significant in this model.
Table 8. Ordinal Regression of Self-Perceived Mental Health by Age, Sex, Marital Status, Immigration Status, Sense of Belonging in the Community, and Member of a Voluntary Organization

|                              | Coefficient | Standard Error | p>|z| | 95% Confidence Interval |
|------------------------------|-------------|----------------|-----|-------------------------|
| **Age**                      |             |                |     |                         |
| 12-17 years                  | .598        | .084           | 0.000 | .432 .763               |
| 18-24 years                  | .675        | .072           | 0.000 | .533 .816               |
| 25-39 years                  | .294        | .062           | 0.000 | .173 .415               |
| 45-59 years                  | .124        | .058           | 0.032 | .011 .237               |
| 60-74 years                  | .313        | .058           | 0.000 | .200 .425               |
| **Sex**                      |             |                |     |                         |
| Female                       | -.017       | .021           | 0.429 | -.058 .025              |
| **Marital Status**           |             |                |     |                         |
| Married                      | .227        | .023           | 0.000 | .183 .272               |
| **Immigration Status**       |             |                |     |                         |
| Yes                          | .079        | .025           | 0.003 | .030 .128               |
| **SenseCommBelonging**       |             |                |     |                         |
| Very Weak                    | -1.319      | .071           | 0.000 | -1.459 -1.180           |
| Somewhat Weak                | -.704       | .050           | 0.000 | -.803 -.606             |
| Somewhat Strong              | -.423       | .042           | 0.000 | -.505 -.341             |
| **MemberOrganization**       |             |                |     |                         |
| Yes                          | .046        | .022           | 0.000 | .002 .090               |

N= 124188
Chapter 5

Discussion and Conclusion

5.1 Discussion

Using an ordered logistic regression for the analysis of social capital and mental health from the 2009/2010 Canadian Community Health Survey, this study demonstrated that there are statistically significant patterns self-perceived mental health and areas of civic engagement among certain Canadian demographic groups such as age, sex, marital status and immigration status. The current chapter will examine the implications of the results in relation to the overall theme of social capital and mental health. Lastly, I will conclude by discussing the influence and contributions that this research offers to existing research on social capital and mental health and I will discuss directions for future research. In doing so, I hope to highlight some of the major limitations of this study and how future research could be improved.

5.2 What We Know

There is substantial evidence suggesting that individuals living in well-integrated communities with stable social relationships fall ill less frequently than those without immediate or extended social support (Sartorius 2003). This notion is true for both physical and mental illness. The concept of a well-integrated community is close to the concept of social capital, both refer to the public good that results from mutually supportive relationships in a stable group of humans (used in juxtaposition with both
economic capital (i.e., which refers to material goods belonging to the members of society) and human capital (i.e., which refers to the productivity of human beings) (Sartorius 2003).

It is on this basis that I developed the hypotheses surrounding self-perceived mental health and social capital. I hypothesized that individuals who found themselves more integrated within their communities (i.e., were members of voluntary organizations) would report higher ratings of positive mental health (see hypothesis 1). Moreover, I hypothesized that individuals with a greater sense of community belonging would similarly report higher levels of mental health (see hypothesis 2). Results indicated that those who were well integrated in their communities were more likely than those who were not, to report more positive mental health. Unfortunately, this variable is rather non-specific and lacks a form of subtlety. As the data used were retrieved from a national database, further advancements in the research surrounding social capital and mental health should cultivate measures of social capital that do not rely solely on individual observations. Examples of this are other sources of data that include rates of registrations with Boy Scouts, mosques, camps, community halls, bridge clubs, and other community-centered engagement. The construct offers a way of thinking about potentially important but difficult to quantify aspects of community that may be associated with health (McKenzie, Whitley and Scott 2002). In the current analysis a relation was made between positive perceived mental health and sense of belonging in one’s community.

The overall model revealed statistically significant findings for each of the variables, excluding sex of the respondent in the multivariate analysis (see hypothesis 5).
In regards to the demographic variables, higher years in age were reported to correspond with lower rates of mental health. These findings were to be expected. As discussed in Chapters 3 and 4, mental health disorders are generally more prevalent amongst the older populations. Another predicted outcome occurred in our hypothesis surrounding marital status and mental health, where married or common law respondents were more likely than single, widowed or divorced respondents to report better mental health. Marriage is in itself a social relation, therefore, these results were somewhat expected.

5.3 What about immigration?

Also, an interesting finding occurred with the analysis of immigration status and self-perceived mental health where immigrant respondents were more likely than non-immigrant respondents to report excellent self-perceived mental health (see hypothesis 4). Past research has suggested that immigrants tend to experience higher levels of depression, anxiety and stress upon transitioning from their native country to their new place of residence. To me this seemed as though it made absolute sense as immigrants may experience forms of social isolation, lack of employment, and even discrimination from native citizens and government. However, as previously discussed in Chapter 4, Vega et al., (1986) suggested that place of birth had a greater effect on the prevalence of mental health disorders amongst immigrants. What this means is that regardless of any formal or informal consequences that occur upon immigration, the overall positive well-being of these individuals in their native country outweighs some or many negative occurrences in their future.
5.4 Limitations

Although the current study proved to be statistically significant in its findings, there are many limitations and recommendations that can be made. One of the main limitations concerns the measurement of concepts in the data set. Since the beginning of social inquiry on the subject of social capital and independently, mental health, it has been difficult for past researchers to come to a mutual agreement on the meaning of both concepts. Large bodies of research suggest multiple definitions. In relation, the variable on ‘self-perceived mental health’ had no clear operational definition. That is, respondents were asked to rate their self-perceived mental health. This is problematic in that there is no way to be certain of their responses. For example, respondent ‘A’ may report good mental health when in fact he or she have poor mental health, or likewise. Future studies aiming to explore this aspect should employ qualitative methods such as interviewing to gain a more detailed account of an individual’s mental health and overall well-being. If looking at mental health from a clinical perspective, it would be important to use the scales or questionnaires outlined by the Diagnostics and Statistical Manual of Mental Disorders such as the multi-axial system, or the Global Assessment of Functioning Scale (GAF).

Furthermore, the current analysis tends to generalize mental health. That is, there are various degrees of mental health, some of which may not have been considered when creating the questionnaires. It would also be beneficial for future research to consider including individuals who have been institutionalized for their disorders in their study.
5.5 Future Directions

The examination of social capital in regards to mental health not only has a fundamental value but it may also help to report some significant, unresolved clinical and epidemiological questions regarding the explanations of geographical and socioeconomic inequalities in mental health (McKenzie, Whitley and Scott, 2002). Much more research is needed on mental health and social capital. There are clear relationships between the development of social capital and access to mental health programs. Not only is the care of those suffering from mental health problems significantly associated to the social relationships they share with their communities, but strongly linked communities are more likely to seek out resources for the development of health services (Sartorius 2003). This is extremely important to the research on social capital and mental health because these individuals need to have access to treatment and services. There is already a serious stigma associated with having a mental illness and it is difficult for individuals to seek out mental health care on their own. It is also crucial that mentally ill members of society feel connected to their communities. The reason being is that regardless if treatment options are available, they may not be sought out if the individuals do no receive support form a multitude of their social surroundings (e.g., their employers, family, friends, and neighbors). Not only is this important prior to and during treatment, but also afterwards.

According to Sartorius (2003, p. 103), a central component of social capital is that:

It can serve as an antidote to one of the most pernicious consequences of mental illness, namely the loss of self-esteem and self-confidence seen so often in people with chronic disorders of this kind, and later also in their careers.
Loss of self-esteem contributes to the stigmatization of people with mental illness. The use of social capital to restore or preserve patients’ self-esteem is this on of the way in which social capital counteracts stigma…It is also evident that social capital can be used in launching and maintaining programs of primary prevention of both mental illness and psychosocial problems.

Therefore, the progression of research on social capital in relation to mental health is essential not only on an individual level but also at a collective level. Moreover, future research is also necessary to gain a better understanding of the ways in which community involvement could aid in the treatment of and rehabilitation from mental disorders.

5.6 Conclusion

In conclusion, this thesis has attempted to look into the subjects of social capital and mental health. Mental illness has long been viewed by many as an individual pathology (Rosenfield, 1997). There is a common underlying assumption that the deviant behaviors of individuals can be partly or entirely explained by a particular physical or psychological trait that identifies them as different from ‘normal’ law-abiding citizens (Thornicroft and Maingay 2002). Moreover, the way in which mental illness is conceptualized tends to influence the beliefs of patients and non-patients alike in regards to stigmatization, beliefs about the outcome of treatment(s), motivation, hesitation, and trust/distrust. These beliefs may allude to the possibility of prejudice towards and discrimination against those suffering from mental health problems. With that being said, the concept of social capital is also in its infancy and offers a way of analyzing theoretically important yet difficult to quantify aspects of community that are associated
with health and mental health outcomes (McKenzie, Whitley and Weich 2002). The issue lies in operationally defining the concept of social capital. This is a major obstacle in the development of empirical evidence surrounding the effect of social networks/relations to different health outcomes (McKenzie, Whitley and Weich 2002). Thus, future research into the effects of social capital on mental illness requires more “stringent conceptual clarity, operational definitions and validated contextual measure of communities that are not based exclusively on the aggregated characteristics of individual members” (McKenzie et al. 2002, p. 282).

Exploration of the effects of social capital on mental health not only holds a fundamental value, but also allows better understanding of the nature and causes of social capital and its relationship with both physical and mental health (Kawachi and Berkman 2001). Research in the association between social ties and mental health should illuminate the mechanisms by which particular aspects of capital allow the continuing development of psychological well-being (Kawachi and Berkman 2001).
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Appendix A

The Canadian Community Health Survey

**QUESTION**

What is your age?

<table>
<thead>
<tr>
<th></th>
<th>Age Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12 TO 14 YEARS</td>
</tr>
<tr>
<td>2</td>
<td>15 TO 17 YEARS</td>
</tr>
<tr>
<td>3</td>
<td>18 TO 19 YEARS</td>
</tr>
<tr>
<td>4</td>
<td>20 TO 24 YEARS</td>
</tr>
<tr>
<td>5</td>
<td>25 TO 29 YEARS</td>
</tr>
<tr>
<td>6</td>
<td>30 TO 34 YEARS</td>
</tr>
<tr>
<td>7</td>
<td>35 TO 39 YEARS</td>
</tr>
<tr>
<td>8</td>
<td>40 TO 44 YEARS</td>
</tr>
<tr>
<td>9</td>
<td>45 TO 49 YEARS</td>
</tr>
<tr>
<td>10</td>
<td>50 TO 54 YEARS</td>
</tr>
<tr>
<td>11</td>
<td>55 TO 59 YEARS</td>
</tr>
<tr>
<td>12</td>
<td>60 TO 64 YEARS</td>
</tr>
<tr>
<td>13</td>
<td>65 TO 69 YEARS</td>
</tr>
<tr>
<td>14</td>
<td>70 TO 74 YEARS</td>
</tr>
<tr>
<td>15</td>
<td>75 TO 79 YEARS</td>
</tr>
<tr>
<td>16</td>
<td>80 YEARS OR OLDER</td>
</tr>
</tbody>
</table>

**LITERAL QUESTION**
Enter the respondent's sex. If necessary, ask: Is respondent male or female?

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MALE</td>
</tr>
<tr>
<td>2</td>
<td>FEMALE</td>
</tr>
<tr>
<td>6</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>7</td>
<td>DON'T KNOW</td>
</tr>
<tr>
<td>8</td>
<td>REFUSAL</td>
</tr>
<tr>
<td>9</td>
<td>NOT STATED</td>
</tr>
</tbody>
</table>

**LITERAL QUESTION**

What is your marital status? Are you married, living common-law, widowed, separated, divorced, or single, never married?

<table>
<thead>
<tr>
<th></th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MARRIED</td>
</tr>
<tr>
<td>2</td>
<td>COMMON-LAW</td>
</tr>
<tr>
<td>3</td>
<td>WIDOW/SEP/DIV</td>
</tr>
<tr>
<td>4</td>
<td>SINGLE/NEVER MAR</td>
</tr>
<tr>
<td>6</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>7</td>
<td>DON'T KNOW</td>
</tr>
<tr>
<td>8</td>
<td>REFUSAL</td>
</tr>
<tr>
<td>9</td>
<td>NOT STATED</td>
</tr>
</tbody>
</table>
LITERAL QUESTION
In general, would you say your mental health is: (excellent, very good, good, fair, or poor)?

1  EXCELLENT
2  VERY GOOD
3  GOOD
4  FAIR
5  POOR
6  NOT APPLICABLE
7  DON'T KNOW
8  REFUSAL
9  NOT STATED

LITERAL QUESTION
How would you describe your sense of belonging to your local community? Would you say it is: (very strong, somewhat strong, somewhat weak, or very weak)?

1  VERY STRONG
2  SOMEWHAT STRONG
3  SOMEWHAT WEAK
4  VERY WEAK
6  NOT APPLICABLE
7  DON'T KNOW
8  REFUSAL
9  NOT STATED

LITERAL QUESTION
Are you a member of any voluntary organizations or associations such as school groups, church social groups, community centres, ethnic associations or social, civic or fraternal clubs?

1  YES
2  NO
6  NOT APPLICABLE
7  DON'T KNOW
8  REFUSAL
9  NOT STATED

IMMIGRANT

1  YES
2  NO
6  NOT APPLICABLE
7  DON'T KNOW
8  REFUSAL
9  NOT STATED