

**EVALUATING THE EFFICACY OF AN INTERVENTION
TO REDUCE THE IMPACT OF STIGMA IN ADULTS
WITH MOOD AND/OR ANXIETY DISORDERS**

by

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Abstract

Objectives. To evaluate the efficacy of a group-based, psychoeducational and behavioural modification intervention, Overcoming Stigma in Mood and Anxiety Disorders, to reduce the impact of mental-illness-related stigma.

Methods. This pretest-posttest design measured changes to various psychosocial impacts of stigma for participants with Mood and/or Anxiety Disorders using a modified 12-item Stigma Impact Scale from the Inventory of Stigma Experiences.

Results. Participants of the Overcoming Stigma in Mood and Anxiety Disorders intervention reported a significant decrease to five of the twelve stigma impact items, including self-esteem, social contacts, personal goals, family relationships and physical health.

Conclusion. The results of this study are encouraging. A multicentre, three-armed randomized control trial is recommended to test the efficacy of the intervention with control groups. This is another important step towards developing evidence-based interventions to overcome self-stigma and manage social stigma to have a full and meaningful life.

Keywords: impact of stigma, anti-stigma intervention, stigma associated with mental illness, self-stigma, Inventory of Stigma Experiences, psychoeducation.

Co-Authorship

Dr. Roumen Milev and Dr. Heather Stuart at Queen's University contributed to the development of the intervention and this study. Dr. Terry Krupa and Dr. Casimiro Cabrera-Abreu contributed to study design and methodology, and Dr. Krupa also assisted with the preparation of this document.

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List of Abbreviations and Special Terms

	Description
Assessment	An observation made on a variable involving a subjective judgement.
BAI	Beck’s Anxiety Inventory measures change in the severity of symptoms.
BDI-II	Beck’s Depression Inventory measures change in the severity of symptoms.
DSM-IV	Diagnostic and Statistics Manual of Mental Disorders - Fourth Edition.
EMP	The Empowerment scale measures self-efficacy and empowerment. Empowerment should increase as stigma-management skills improve.
ISE	The Inventory of Stigma Experiences measures the psychosocial impact of stigma. This scale measures both the breadth and the impact of stigma experiences.
Measurement	An observation made on a variable using a measurement device
MINI	Mini-International Neuropsychiatric Interview (6.0) is a brief diagnostic interview for psychiatric disorders according to DSM-IV
PDD	Link’s Perceived Devaluation and Discrimination Scale measures the amount of stigma expressed by the local culture.
QOLS	Quality of Life Scale measures the perceived quality of an individual's daily life including emotional, social and physical aspects.
REB	Research Ethics Board at Queen’s University, Kingston, Ontario.
SIS	The Stigma Impact Scale is a sub-scale of the ISE, measuring only the impact of stigma experiences.

Chapter 1

Introduction

Mental illnesses are medical conditions that can disrupt thinking, feeling, mood, ability to relate to others and daily functioning (World Health Organization, 2002). Psychological treatments help to care for the symptoms of these disorders (Hunsley, Elliott, & Therrien, 2014), but the prejudice and discrimination is often worse than the effects of the illness (Everett, 2006; Hinshaw, 2007; Link et al., 1997). Stigma develops when a lack of knowledge endorses negative stereotypes about a group, creating excluding or discriminatory behaviours (Corrigan, Larson, & Rüsch, 2009; Corrigan & Watson, 2002b; Thornicroft, Rose, Kassam, & Sartorius, 2007). Stigma can exclude people from social relationships (Everett et al., 2006; Yanos, Roe, Markus, & Lysaker, 2008), housing, employment and medical treatment (Canadian Medical Association, 2008; Corrigan, 1998; Stuart, 2006). Because those who suffer mental health challenges are widely discriminated against in our society (Corrigan & Rao, 2012; Link et al., 1997), examining and combating stigma is a public health priority (Manderscheid et al., 2010)

Changing negative public perceptions of mental illnesses is important to reduce discrimination (Thornicroft et al., 2007). Stigma of mental illnesses is pervasive in our society (Lazowski, Koller, Stuart, & Milev, 2012). The media often use derogatory language such as ‘lunatic’ and ‘crazy,’ and report on people with a mental illness with an emphasis on crime and violence (Corrigan, Powell, & Michaels, 2013; Wahl, Wood, & Richards, 2002; Whitley & Berry, 2013). Resources are being used internationally to create initiatives for changing social attitudes and ensuring equal opportunities for people living with mental disorders. For example, in Canada, the ‘Opening Minds’ anti-stigma initiative aims to change both behaviours and attitudes towards

individuals with a mental illness that result in unfair and inequitable treatment, but this systemic problem is a difficult and long-term undertaking.

The harm caused by stigma is not just a direct result of the discrimination by others, but also by the internalization of the public attitudes by the stigmatized person (Lauber, 2008). The prejudice of our society is a source of self-stigma (Bathje & Pryor, 2011; Corrigan & Watson, 2002a; Dunn, 1999; Vogel, Bitman, Hammer, & Wade, 2013). This internal stigma is caused when people becomes aware of negative beliefs surrounding their illness, agree with the judgments, and then apply the negative labels to themselves (Corrigan et al., 2009). An extensive survey of people with a mental illness found that 41% met criteria for elevated internalized stigma (Brohan, Slade, Clement, & Thornicroft, 2010).

Research suggests that internalized stigma can negatively impact self-worth, self-confidence, social participation, treatment adherence (Corrigan, Rafacz, & Rüsche, 2011; Perlick et al., 2001), willingness to seek help (Vogel, Wade, & Hackler, 2007) and hope for the future (Corrigan, 1998). Research to date has focused on an understanding of stigma and its consequences. Self-stigma negatively impacts the sense that one's life has meaning, a core component of recovery from mental illness (Ehrlich-Ben Or et al., 2013).

The targets of stigma are left with feelings of shame and isolation (Goffman, 1963; Link, Struening, Neese-todd, Asmussen, & Phelan, 2002; Manderscheid et al., 2010). The frequency of stigmatizing experiences is a predictor of the psychosocial impact of stigma, so learning to interrupt this process may reduce its negative effects (Lazowski et al., 2012). Yet there is a gap of empirical data evaluating interventions that empower people with a mental illness to overcome the negative impact of stigma (Corrigan & Rao, 2012; Dalky, 2012; Everett et al., 2006; Ilic et al., 2012; Mittal, Sullivan, Chekuri, Allee, & Corrigan, 2012; Otey & Fenton, 2004;

Roe et al., 2014). Some stigmatized individuals have acquired skills and behaviours that help to overcome the harmful consequences of stigma (Shih, 2004). The aim of this study is to evaluate outcomes of an existing intervention to help participants manage and overcome stigma.

Strategies to manage stigmatizing experiences differ depending on the psychiatric diagnosis (Dinos, Stevens, Serfaty, Weich, & King, 2004; Stuart, 2005), so this study focuses on the most prevalent diagnoses, Mood and Anxiety Disorders, accounting for approximately 70% of all mental disorders in Canada (O'Donnell et al., 2015).

1.1 The Overcoming Stigma in Mood and Anxiety Disorders Intervention

The intervention, titled “Overcoming Stigma in Mood and Anxiety Disorders,” is intended to reduce the stigma directly experienced by those affected by Mood and Anxiety Disorders in an effort to reduce the psychosocial impact of stigma. Psychoeducation and behaviour therapy have shown effectiveness in reducing internalized stigma (Lucksted et al., 2011; MacInnes & Lewis, 2008; Mittal et al., 2012). For her masters project, Ashley Beaudoin (2012) designed this group-based, psychoeducational and behavioural modification course to help individuals with Mood and Anxiety Disorders who are directly affected by mental health stigma. The course has four specific therapeutic objectives:

- increase awareness of stigma and its consequences,
- reduce the psychosocial impact of stigma,
- improve feelings of self-efficacy and empowerment, and
- promote recovery.

This intervention is unique. There are no known anti-stigma, group-based interventions tailored for individuals with Mood and/or Anxiety Disorders to learn to reduce the psychological and social impacts of stigma. This strategy is also one of the few that has incorporated people with

Mood and/or Anxiety Disorders in the intervention design and delivery. The anti-stigma strategies are delivered using two effective approaches for stigma reduction: altering beliefs and enhancing coping skills (Mittal et al., 2012).

1.1.1 Content

The information contained in the Overcoming Stigma in Mood and Anxiety Disorders intervention is based on published literature, first-hand experiences from people who have mental illnesses and professional advice from world experts in mental health stigma (Beaudoin, 2012). The intervention aims to help participants understand four important areas:

- the nature of depression and anxiety;
- the recovery process;
- the nature of stigma and discrimination and the way they affect recovery; and
- strategies for managing and overcoming stigmatizing experiences.

The content of the intervention allows participants to challenge the perceived legitimacy of social stigmas and manage them in positive and self-affirming ways. This group intervention is run for seven, 2-hour sessions followed three months later with a 2-hour booster session. The eight sessions each have a specific focus, as follows:

- Session 1: Orientation and introduction to stigma
- Session 2: Depression, anxiety, and recovery
- Session 3: Self-stigma
- Session 4: Stigma from family and friends
- Session 5: Stigma in housing, education, and the workplace
- Session 6: Disclosure
- Session 7: Course review
- Session 8: Booster session (three months later)

Each session the facilitators provide basic information about the topic to be covered, elicits experiences and questions from group members, and discusses ideas and approaches that may be used to reduce the effects of stigma in day-to-day life. The goal of the eighth and concluding session is to provide a brief review of each session and reiterate all the key points.

1.1.2 Facilitation

The facilitators' tasks are to present the material as clearly as possible, ensure that participants understand the material and the implications for their day-to-day activities, and encourage all group members to participate and share their views. Teaching approaches include presenting information, leading group activities, and facilitating group discussions related to weekly topics. As well, participants are asked to complete home practice assignments. To successfully incorporate all these approaches, each session in this course is designed to be led by two facilitators. To reflect the importance of a peer-support model, an ideal primary facilitator is a consumer who has had personal experience in dealing with mental health stigma (Lloyd-Evans et al., 2014). The second facilitator may be another consumer, a student, a peer support worker or other individual with special knowledge of stigma, recovery, and with experience of group processes. Facilitators lead the course in a spirit of self-help and peer support by encouraging interaction and supporting the active participation of all group members. At some times, the facilitators are directive and function didactically; at other times, they engage the class in discussion. At all times, it is important that class members feel they can ask questions and share experiences; they need to feel safe and know that all activities are optional.

1.1.3 Outcomes

The purpose of this study is to find efficacious intervention that help people with Mood and/or Anxiety Disorders reduce the impact of mental illness-related stigma on their lives. Five key aspects of health-related stigma are frequently assessed: the impact of discrimination on the stigmatized person, socially stigmatizing attitudes, perceived stigma, self-stigma and structural discrimination in health services, legislation, media and educational materials. Beaudoin's (2012) Overcoming Stigma in Mood and Anxiety Disorders intervention was selected for this study to see if it can empower people with a mental illness to overcome the impact of stigma. We hypothesize that people with Mood and/or Anxiety Disorders who complete the Overcoming Stigma in Mood and Anxiety Disorders intervention will experience a reduction in the psychosocial impact of stigma.

Chapter 2

Literature Review

This review presents information relating to current understandings of mental illnesses, social and internalized stigma, and strategies useful for overcoming the stigma of Mood and Anxiety Disorders.

1.2 Mental Illness

Mental illnesses are believed to be a manifestation of a complex interaction between biological, psychological and social factors (DSM-IV, 2000; Canadian Health Services Research Foundation, 2013). When biological causes of mental illnesses are provided as explanations to the general public, then there are fewer perceptions of personal responsibility for a mental illness, which may significantly reduce the associated prejudice. Unfortunately, this attribution to defect or dysfunction reduces the hope that a person with a mental illness can improve with treatment and this contributes to stigma (Corrigan, Watson, Byrne, & Davis, 2005; Phelan, Cruz-Rojas, & Reiff, 2002). Biological explanations for mental illnesses have also caused an attribution that parents contributed to mental illnesses (Phelan et al., 2002). It has increased fear in family members that they may develop the same illnesses (DSM-IV, 2000; Canadian Health Services Research Foundation, 2013).

The attribution of mental disorders to psychological factors is quite common. Mental illness has been attributed to personal experience and personality traits, even been considered the result of personal failure (Goffman, 1963). Attributing mental illnesses to personal traits can reduce others' sympathy and inclination to help (Wirth & Bodenhausen, 2009). Psychological traumas such as emotional, physical, or sexual abuse are all risks to good mental health.

Social factors may put individuals at a higher risk for developing a mental illness (Ungar, 2013). Canadians in low-income groups are more likely to report poor mental health (Statistics Canada, 2012). Sociocultural conditions such as the quality of relationships, housing situation, and employment status all influence mental well-being (Bhui & Dinos, 2011; Harrison et al., 2001). Negative social beliefs about mental illnesses have disturbing effects, and people with mental disorders face discrimination in many forms (Thorncroft et al., 2007). One's perceived responsibility for one's own illness can trigger feelings of guilt and shame (Rüsch, Todd, Bodenhausen, & Corrigan, 2010). Although physical illnesses etiologies are better understood, mental illnesses are still mysterious. Socially deviant behaviours were once labelled as mental illnesses (Goffman, 1963). The lack of knowledge about mental illness has created fear and perceptions in the general public about dangers surrounding mental illnesses (MacInnes & Lewis, 2008).

1.2.1 Prevalence

Mental illnesses are universal, found in all regions, all countries and all cultures (World Health Organization, 2002). Mental disorders are present at any point in time in about 10% of the adult population of the world (World Health Organization, 2002). Prevalence is the proportion of a population who have (or have had) a specific disorder in a given time period. Epidemiological information is making researchers aware of the high risk of mental disorders, commonly occurring and widely distributed in the general population. The prevalence of mental disorders will differ depending on whether it refers to a mental illness at a point in time or throughout a lifetime. A recent study of lifetime prevalence in the United States revealed that 21.1% of adults develop one or more Mood Disorders and 33.7% acquire Anxiety Disorders (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012). Currently, an estimated 20% of the adult population of

Canada is living with a mental illness (Smentanin et al., 2011), with 10.1% of sampled Canadians reporting symptoms of a mental disorder within the previous year (Statistics Canada, 2012). Patten et al. (2015) reviewed the 2012 survey and determined that the prevalence of Major Depressive Disorders in Canada was 3.9%, while Bipolar Disorders I and II prevalence were 0.87% and 0.57%, respectively (McDonald et al., 2015). Anxiety Disorders are present in over 12% of Canadians (Anxiety Disorder Association of Canada, 2007). The number of people living with mental illnesses in Canada is expected to increase by 31% over the next 30 years (Smentanin et al., 2011).

1.2.2 Mood Disorders

There are many distinct mood disorders, but the most common are Major Depressive Disorder (unipolar depression) and Bipolar Disorders. The Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria are used as a standard diagnostic tool for Mood Disorders with disturbance in mood as the main feature (DSM-IV, 2000). Major Depressive Disorders are characterized by depressed mood and/or loss of interest or pleasure, which may cause severe impairments to functioning (DSM-IV, 2000). Depressive episodes may be acute or chronic, and are associated with feelings of despair, hopelessness, guilt, anxiety, and suicidal ideation. Symptoms of Major Depressive Disorder can cause significant burden on the individual, resulting in suffering, family distress and conflict (Knapp, 2003; Park & Park, 2014).

Bipolar disorders are categorized into several types with the most common named Bipolar I Disorder and Bipolar II Disorder. Bipolar disorders all feature recurrent, dramatic mood changes (DSM-IV, 2000). Whereas individuals with Major Depressive Disorders experience 'lows,' Bipolar disorders also cycle to intense feelings of 'highs.' Bipolar I Disorder is characterized by one or more depressive episodes accompanied by the occurrence of one or more manic episodes,

exemplified by feelings of elation, grandiosity, impulsiveness, hyperactivity, distractibility, irritability, or excessive libido (DSM-IV, 2000). Bipolar II Disorder has similar symptoms except with a milder form of mania, hypomania, which is marked by elevated, expansive, or irritable mood (DSM-IV, 2000). Bipolar disorders are especially challenging due to their reoccurrence and their negative effects on both relationships and functioning.

1.2.3 Anxiety Disorders

Anxiety Disorders create unexpected or unhelpful anxiety that affect thoughts, feelings, and behaviours, seriously impacting daily functioning. Anxiety Disorders are characterized by excessive anxiety and worry. The focus of these anxieties could include Panic Disorder, public embarrassment (Social Phobia), being contaminated (Obsessive-Compulsive Disorder), previous exposure to a traumatic event (Posttraumatic Stress Disorder), and the worry may shift from one concern to another (DSM-IV, 2000). Physical symptoms may include muscle tension, somatic symptoms and an exaggerated startle response. Individuals with Anxiety Disorders often have multiple medical comorbidities and comorbidity with other Anxiety Disorders; these comorbidities further increase the disability experienced by sufferers (Lecrubier, 2001).

1.3 Economic Burden of Mental illness

Mental Illnesses worldwide are among the most disabling conditions, affecting both males and females (Hampton & Sharp, 2014). The measurable costs of mental illnesses include the provision of care, reduced productivity, impact on families and caregivers, and issues of crime and safety (World Health Organization, 2002). In Canada, mental illness is estimated to cost \$42.3 billion in direct costs to the economy and \$6.3 billion in indirect costs (Smentanin et al., 2011). These indirect costs include absenteeism and reduced productivity at work (Kessler et al.,

2001). Depressive disorders are expected to become the second leading cause of death or injury in the world by 2017 (World Health Organization, 2002). Untreated mental disorders have substantial economic and social costs (Knapp, 2003).

1.4 Managing a Mental Illness

The management of a mental illness consists of interventions in the areas of prevention, treatment and recovery, with the goal of helping individuals meet their life goals undermined by a mental health issue (Corrigan, Druss, & Perlick, 2014). Mental health promotion and prevention early in life can reduce demand for services in the mental health system as well as the criminal justice system (MHCC, 2012). Public health organizations typically focus on the prevention of mental illness by educating people to make healthier and informed choices about their health (Bhui & Dinos, 2011). Mental health literacy aims to increase public knowledge about mental disorders. These important mental health education strategies might be incorporated into school curricula or as aspects of parenting and youth programmes to increase the likelihood of a positive start in life. Prevention messages promote individual responsibilities and resilience as well as solutions to wider issues of power, participation, and social and economic justice (Bhui & Dinos, 2011; Carpenter & Raj, 2012).

Mental health care treatments have been developed to significantly reduce the challenges caused by mental disorders. Treatments are designed to help people recover from a mental illness and live healthy and productive lives in their own communities. Treatments can include pharmacological, psychological or social interventions. The greatest challenge to successful treatment of mental illness is determining which individuals would benefit from the different kinds of treatment (Andrade et al., 2014). Understanding the barriers to treatment can facilitate the development of successful treatments and interventions to prevent symptoms from interfering

with one's quality of life (Andrade et al., 2014). The challenges of mental illnesses are not limited to the treatment of symptoms (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001). Managing a mental illness also involves developing social roles, skills and supports related to an individual's life goals (Anthony, 1993). Recovery from a mental illness can be described as both an outcome state and an ongoing process.

1.5 Origins of Stigma

Understanding the development of stigma has both practical and theoretical implications. Stigma is a socially constructed concept acquired through socio-cultural processes (Krajewski, Burazeri, & Brand, 2013). Stigma can be described by its nature and consequences, and by exploring its origins. Evolutionary theories propose that humans possess cognitive adaptations that cause avoidance of poor 'social exchange partners' (Kurzban & Leary, 2001). Genetic research proposed that humans have evolved a discriminatory reaction in order to avoid perceived threats (Phelan et al., 2002). Researchers have shown that negative attributes of mental illnesses are learned early in life (Thoits, 2011).

Differences from social norms are often paired with negative stereotypes. Stereotypes are negative beliefs about groups of people that serve as templates influencing subsequent experiences. Erving Goffman (1963) argued that social life includes the sharing of unconscious expectations and norms by all participants that influence all social encounters. Social psychologists use social cognitive approaches to examine how labeling becomes linked to stereotyped beliefs (Corrigan & Penn, 1999). Traditional labeling theory suggests that social devaluation will result in self-devaluation (Goffman, 1963; Link, Mirotznik, & Cullen, 1991). When people encounter a group member for which a stereotype exists, acceptance of these

stereotypes can be triggered by the encounter (Macrae, Bodenhausen, Milne, & Jetten, 1994). These stereotypes may be intensified when they benefit self-interest (Haghighat, 2001).

Corrigan and Watson (2002b) define three distinct types of mental-illness-related stigma: structural stigma, public stigma, and self-stigma. Their research separates the external public stigma from the internalized self-stigma (Corrigan & Watson, 2002b).

1.5.1 Structural Stigma

Structural level laws and policies may intentionally or unintentionally restrict an individual's opportunities. Livingston and Boyd (2010) describe this as institutional stigma. Structural stigma appears in rules, policies and practices that limit and control labeled groups (Corrigan, Markowitz, & Watson, 2004). Disparities of social, economic, and political power are required elements of social stigmatization (Link & Phelan, 2001). Historically, many groundless theories in psychiatry have contributed to inaccurate representations of mental illnesses. Doubts about the quality and effectiveness of specialized psychiatric care are reinforced when individuals do not always receive appropriate treatment (ten Have et al., 2010). Distrust in the health care system can also be connected to general distrust of social institutions (Cooper-Patrick et al., 1997). Unfortunately, these beliefs have contributed to public mental health care strategies. Policy changes are necessary to overcome the structural stigma that undermines mental health care (Corrigan & Rao, 2012).

1.5.2 Social Stigma

Social stigma (public stigma) stems from the way in which the general public conceives of and reacts to individuals with a mental illness. Prejudice and discrimination occur when people agree with the negative stereotypes and develop negative emotional reactions (Corrigan & Rao, 2012).

A large international stigma study measured discrimination and health-related embarrassment to assess perceived stigma, and found a high prevalence of health-related stigma (Alonso et al., 2008). Social stigma has been extensively studied because it reflects the beliefs of large populations. Livingston and Boyd (2010) describe this as interpersonal stigma. Social stigma occurs when a specific human characteristic are perceived as undesirable and a power discrepancy causes the labeled individual to experiences a loss in social status (Corrigan & Watson, 2002b). In the past, people with illnesses such as cancer have also been stigmatized, but current accurate information has encouraged people to acknowledge and treat the illness, thereby reducing the social stigma (Corbière, Samson, Villotti, & Pelletier, 2012; Kauffman, 2003; Rosman, 2004).

Psychiatric-related social stigma is influenced by a range of attributes associated with diagnoses. Stereotypes commonly associated with mental illnesses include perception of social incompetence (Norman, Windell, & Manchanda, 2012) and increased dangerousness (Corrigan & Rao, 2012; Phelan, Link, Stueve, & Pescosolido, 2000; Putman, 2008). Once an individual has been labeled with a mental illness, there is an associative stigma, even when symptoms have improved (Alonso et al., 2008; Link et al., 1997; Phelan et al., 2002). Most people agree regarding who is and is not stigmatized despite being unable to differentiate between mental disorders (Kurzban & Leary, 2001), suggesting a cultural transmission of stigmas (Putman, 2008). Media can contribute significantly to transmitting the stereotypes of mental illnesses (Wahl et al., 2002).

1.5.3 Self-stigma

Self-stigma results from a person accepting the negative stereotypes that society attributes to mental illnesses (Corrigan & Watson, 2002b; Vogel et al., 2013; Yanos et al., 2008). Three

stages have been identified in the development of self-stigma and its consequences: awareness, agreement and application (Corrigan et al., 2009, 2011). Awareness of the negative social stereotypes of mental illnesses is the first stage. The World Mental Health Surveys determined that perceived stigma is strongly associated with mental disorders; this association is twofold when a mood or anxiety disorder is present (Alonso et al., 2008). The agreement stage is the internalizing of the negative beliefs by those with mental disorders (Corrigan & Watson, 2002b; Holmes & River, 1998; Yanos et al., 2008). As social beings, people assess themselves from the standpoint of their community. Internalized stigma is characterized by the social stereotypes that people with a mental illness often adopt (Livingston & Boyd, 2010). Challenging the agreement stage of the self-stigmatizing process is an important intervention for overcoming stigma (Corrigan et al., 2011; Holmes & River, 1998). It is when these hurtful beliefs are applied that the negative behaviours of self-stigma are observed. The application stage is the resulting transformation of identity. A national survey in the United States found that a quarter of respondents with mental disorders and one third of people with severe mental illnesses reported internalized stigma (Brohan et al., 2010; Wahl, 1999).

1.6 Impacts of Stigma

The stigma of mental illnesses is an additional burden beyond the effects of the symptoms and treatments (Link et al., 2001; Perlick et al., 2001). It is important to recognize both the internal and external aspects of stigma. Link and Phelan (2001) conceptualized stigma as the co-occurrence of five components: labeling, stereotyping, separation, status loss, and discrimination. Internalizing the stereotypes and prejudice does not have to be a consequence of stigma. However, greater levels of negative symptoms may result in people's lower ability to effectively cope with the impact of stigmatizing experiences, making them more likely to internalize

negative beliefs from these experiences (Nabors et al., 2014). Employment, housing and health domains can all be affected (Link et al., 1991).

The external consequences of social stigma include social exclusion, prejudice and discrimination. Mental illnesses have been described as invisible illnesses because many symptoms may not be externally discernible. Entering psychiatric treatment has been the primary means by which an individual is labeled as mentally ill (Pattyn, Verhaeghe, Sercu, & Bracke, 2014). A psychiatric label can increase vulnerability to negative evaluation and social exclusion (Kroska, Harkness, Thomas, & Brown, 2014). Discrimination that comes from public stigma leads to a reduction in the targets' quality of life (Link & Phelan, 2001; Thoits, 2011). The stigma associated with mental illnesses can cause individuals who satisfy certain criteria to be excluded from social interactions (Kurzban & Leary, 2001).

Families can provide physical and emotional support but can also bear or contribute to the negative impact of stigma and discrimination. It is estimated that one in four families includes at least one person with a mental illness. These families may be impacted economically, emotionally and socially. The breakdown of family and social life, common for people with a mental illness, is usually attributed to the effects of the illness and lack of understanding from family and friends (Dinos et al., 2004).

The harm caused by stigma is not just a direct result of the discrimination by others but by the internalization of the public attitudes by the stigmatized person (Lauber, 2008). Negative beliefs result from agreeing with stereotypes of mental illnesses and characterizing one's capacity in terms of those stereotypes (Corrigan et al., 2009). If the individual develops a mental illness themselves, this diagnosis can result in a negative social identity (Corrigan & Watson, 2002b). When a person endorses stereotypes about themselves it can generate hurt, disgrace, secrecy,

anger and shame (Byrne, 2001; Goffman, 1963; Hasson-Ohayon et al., 2012; Hinshaw & Stier, 2008; Manderscheid et al., 2010; Wahl, 1999). Self-stigma is associated with various negative impacts to self-esteem, self-efficacy, empowerment, meaning in life, quality of life and hope (Corrigan et al., 2009; Corrigan, Watson, & Barr, 2006; Ehrlich-Ben Or et al., 2013; Livingston & Boyd, 2010; Lysaker, Roe, & Yanos, 2007; Yanos et al., 2008). Other manifestations of internalized stigma include embarrassment about symptom manifestations and about the treatments related to a mental illness (Corrigan et al., 2009; Van Brakel, 2006).

1.6.1 Self-esteem

There is a significant negative association between experiencing stigma and self-esteem (Thoits, 2011). Loss of self-esteem can occur when individuals accept negative views of mental illnesses and lower their sense of worth (Corrigan et al., 2006; Link et al., 2001; Watson, Corrigan, Larson, & Sells, 2007; Yanos et al., 2008). Individuals who keep their illness a secret are also associated with lower self-esteem (Ilic et al., 2012). Thus damage to self-esteem can result from acquiring a stigmatizing label, regardless of whether it has been internalized (Thoits, 2011). Individuals with lower self-esteem may feel unworthy of pursuing life goals (Corrigan et al., 2009). Individuals with higher self-esteem are more likely to hold positive attitudes towards people with mental illnesses (Ilic et al., 2012). People who perceive others' negative views of mental illnesses as unjust or irrelevant may respond with indifference or anger; thus their self-worth is unaffected (Watson et al., 2007).

1.6.2 Self-efficacy

Self-efficacy, or self-confidence, is a perceived ability to successfully act in a specific situation (Corrigan et al., 2009). Beyond impairments related to a mental illness there can be a loss of

independent functioning as a result of self-stigma (Hinshaw & Stier, 2008). Internalized stigma of mental illnesses significantly reduces self-efficacy (Link & Phelan, 2001; Perlick et al., 2001; Rüsch, Angermeyer, & Corrigan, 2005). Individuals who have lower self-efficacy have been associated with failing to pursue meaningful activities and life goals (Corrigan et al., 2006). Patronizing and intrusive behaviours are commonly directed at people with mental disorders (Corrigan & Wassel, 2008). When people with a mental illness are viewed as incapable or unable to handle the demands of life, then others make decisions for them. This disempowering practice affects self-efficacy and can prevent people from pursuing life goals (Corrigan et al., 2005).

1.6.3 Meaning in Life

Individuals with higher levels of self-stigma report having a less meaningful life (Ehrlich-Ben Or et al., 2013). Viktor Frankl (1963) believed that meaning in life, or purpose, is found in every moment of living. Meaning of life can vary greatly between individuals, possibly achieved through work, social relationships, pursuing goals, and through the process of recovery (Andresen, Oades, & Caputi, 2003). As self-stigma erodes self-esteem and self-efficacy, individuals often avoid the pursuit of life goals (Corrigan et al., 2009). Self-stigma can impact goal-related behaviours by dissuading people from pursuing opportunities and increasing avoidance (Corrigan et al., 2009). Self-stigma also affects the motivation to pursue life goals (Corrigan et al., 2009). Decreased involvement in meaningful activities, such as work, spirituality and relationships, can result from avoiding the pursuit of life goals. This avoidance of social activities also removes a person's role identities, which provide resistance to stigma (Thoits, 2011). Reacquiring meaning in life is a central part of the recovery process (Corrigan & Phelan, 2004).

1.6.4 Social Support

Social support is necessary and has a positive effect on mental illnesses (Cooper-Patrick et al., 1997). Research suggests that people who report greater satisfaction with their relationships also report better quality of life (Rudnick & Kravetz, 2001). Social support is a complex construct involving both the number of people and the perceived quality of these interactions. There is a negative association between the number of social contacts and self-stigma (Krajewski et al., 2013). Positive interpersonal experiences have benefits to health and wellbeing. Yet individuals who feel their identity does not match the norm will often exclude themselves from the community that upholds the norm (Goffman, 1963; Perlick et al., 2001). Self-stigma can lead to social isolation and those who feel socially rejected are susceptible to a host of behavioral, emotional, and physical problems (Yanos et al., 2008). Challenging stigma can strengthen family and social ties (Lucksted et al., 2011).

Quality of social support is not significantly related with psychiatric symptoms (Corrigan & Phelan, 2004). Yet seeking professional help for a mental illness is not culturally acceptable in some social groups, which may affect treatment decisions for managing symptoms (Cooper-Patrick et al., 1997). The decision to disclose mental health challenges to a physician is largely based on the quality of their interactions (Cooper-Patrick et al., 1997) and has an important effect on recovery (Horsfall, Cleary, & Hunt, 2010). Keeping mental illnesses secret reduces the availability of social support, and increased self-stigma is associated with fewer social relationships (Lysaker et al., 2007).

1.6.5 Seeking Help

The fear that accompanies stigma often delays diagnosis and treatment, contributing to the economic and human cost of neglecting mental illness. Self-stigma may prevent those with

mental illnesses from accessing services (Corrigan et al., 2005; Corrigan, 2004; Sartorius, 2007) and from adhering to treatment (Cooper-Patrick et al., 1997), which can negatively impact the management of mental disorders (Rüsch et al., 2005). Only a third of people with a mental illness will seek help from mental health services in an attempt to avoid the impact of social stigma that can accompany a mental illness diagnosis (Andrade et al., 2014; Cohen & Galea, 2011; Kessler et al., 2001). The interpersonal skills of medical professionals can also influence their patients' decision to reveal the feelings and thoughts necessary for diagnosis.

Higher levels of perceived social stigma deter people from acknowledging the importance of seeking help (Pattyn et al., 2014). These beliefs are similar in various cultures (Van Brakel, 2006). Because following through with treatment endorses the diagnosis ignoring symptoms and delaying treatment deny acceptance of a mental illness. The most common barrier to treatment is the desire to handle the problem on one's own; this has been attributed to perceived stigma (Andrade et al., 2014). Reducing self-stigma may increase the number of people who seek treatment for mental illnesses (Cohen & Galea, 2011), thus addressing this major roadblock to the recovery process (Roe et al., 2014).

1.6.6 Hope

Self-stigma contributes to hopelessness about the likelihood of recovery (Lysaker et al., 2007; Yanos et al., 2008). Low expectations for the future have also been linked to social isolation and low self-esteem (Yanos et al., 2008). An important goal of the recovery movement has been to re-inject hope in the lives of individuals with mental disorders (Deegan, 1988).

1.7 Anti-stigma Strategies

Understanding the origins and impact of stigma forms the basis of successful anti-stigma interventions (Link & Phelan, 2001). People who suffer from self-stigma may benefit from structured, evidence-based interventions (Yanos et al., 2008). Self-stigma-reduction interventions can help individuals to develop more hopeful attitudes and increase involvement in meaningful activities, thereby facilitating their recovery (Ehrlich-Ben Or et al., 2013; Yanos et al., 2008). Successful interventions designed to reduce social stigma typically focus on three areas: protest, education and contact (Corrigan & Penn, 1999). Corbière et al. (2012) also identified cognitive and affective approaches that can be useful for use in anti-stigma interventions. Other stigma-reduction strategies that have been identified, such as education, protest, contact-based education, legislative reform, advocacy, and stigma self-management (Arboleda-Flórez & Stuart, 2012), involve attempts to change society's beliefs and behaviours (Thoits, 2011).

1.7.1 Challenging Stigma

The goal of engaging with biased attitudes and actions of others involves an attempt to change prejudice and discrimination (Thoits, 2011). Challenging social stigma can vary in the level of directness and assertiveness. Protest is actively contesting unjust acts and erroneous beliefs. Using direct confrontation as a strategy to reduce stigma can antagonize others, but could raise self-esteem and improve feelings of empowerment in the confronter (Wahl, 1999). Protest strategies that have reduced discrimination in other areas may prove effective in combatting mental health stigma (Corrigan et al., 2005). Protest the use of stigmatizing language encourages people to examine and reconsider their values. For example, the Stigma Watch initiative (SANE Australia, 2012) successfully uses the protest strategy by monitoring media stories, advertisements and representations that stigmatise people with mental illness. Protest

prejudices about mental illnesses can reduce the frequency of these publicly endorsed stereotypes (Corrigan & Penn, 1999). Limitations to protest efforts include the rebound effect of suppression on social attitudes (Macrae et al., 1994); however, the goal of protest is to create behavioural changes over time (Wahl et al., 2002).

Stigma is a social injustice and the eradication of stigma is the responsibility of society (Corrigan & Rao, 2012). The massive deinstitutionalization of the second half of the last century has led to community-based rehabilitation services. Seeking mental health services in the community has become the responsibility of individuals themselves (Howell & Voronka, 2013). Yet marginalized people do not share fair and equal access to health services (Tang, Browne, Mussell, Smye, & Rodney, 2015). Systemic changes are necessary to combat discriminatory policies that result in neglect (Arboleda-Flórez & Sartorius, 2008). This social discrimination requires legislative changes to mould public attitudes. Public health policy can challenge public perception with debate and self-reflection as individuals realign their behaviour (Atkins & Frazier, 2011). Anti-discrimination legislation recognizes the value of people with mental illnesses (Canadian Mental Health Association, 2001). There are important legislative and cultural initiatives to reduce and challenge the stigma of mental illnesses.

1.7.2 Education

Most ongoing international anti-stigma work involves large-scale public education campaigns (MHCC, 2012). Educating people about mental illnesses and treatments can involve tactful enlightenment (Thoits, 2011). Education has some effect on generating more positive views of mental illnesses in the public (Corrigan & Shapiro, 2010). Public education strategies present mental illnesses within the social spectrum of normal experience (Hayward & Bright, 1997; Link & Phelan, 2001). Showing mental disorders as commonly occurring and responsive to treatment

can help to challenge stigma. However, stereotypes' resistance to change can limit the impact of education programs (Corrigan & Penn, 1999). Enhancing education with discussion increases the likelihood of participants rejecting false assumptions and remembering accurate information (Holmes & River, 1998). Developing anti-stigma behaviours requires clear understanding of the development of the often-involuntary stigmatising attitude (Putman, 2008). There is a positive correlation between increased education level and belief in the benefits of mental health treatment (Manderscheid et al., 2010). Focused efforts to overcome labeling can challenge powerful sociocultural beliefs.

Research has shown the efficacy of psychoeducation for developing anti-stigma coping skills (Colom & Vieta, 2004). Psychoeducation offers a combination of information, support, and skill development. Psychological interventions are also useful at the affective level. Psychoeducation can provide information that helps individuals develop a greater understanding of their mental illnesses, such as awareness of stressors that can increase the severity of symptoms (Holmes & River, 1998).

1.7.3 Intergroup Contact

Intergroup contact, defined as actual face-to-face interaction between members of clearly defined groups, can reduce prejudice (Pettigrew & Tropp, 2006). People who have a positive interaction with individuals with mental illnesses may generalize the positivity and be less prejudicial than those without this contact (Bizub & Davidson, 2011). Stereotyping is most reduced when contact occurs with members of another group that share similar status and goals (Pettigrew & Tropp, 2006). Contact-based strategies, such as individuals with lived experience of mental illness sharing their personal stories of illness and recovery, have been effective for reducing stigma (Patten et al., 2012). Even indirect positive contact through the mass media can reduce prejudice

(Pettigrew, Tropp, Wagner, & Christ, 2011). Despite this research, the Opening Minds Initiative (MHCC, 2012) revealed that of all the Canadian anti-stigma-interventions organizations who responded to their survey, less than a third used contact-based approaches and only 10% of programs involved people with a mental illness in the planning of the intervention.

Rejecting self-stigma may be achieved by normalizing mental disorders as part of a continuum (Hayward & Bright, 1997). Presenting mental illness as a physical illness ‘like any other’ can contribute to improving public perception of mental illness by minimizing the differences between those with and without a mental illness. Increased contact with people who have a mental illness may serve to normalize mental illness. Exposing individuals with a mental illness to peers with successfully treated mental illnesses has also been associated with experiencing better mental health and higher self-esteem, presumably by challenging fears with a positive interaction (Corrigan & Wassel, 2008; Haghigat, 2001; Ilic et al., 2012; Rüsç et al., 2009).

Disclosing certain aspects of lived experience may reduce the self-stigma associated with mental illnesses (Rüsç et al., 2014). Decision-making strategies about the level of disclosure are largely based on social expectations (Corrigan & Rao, 2012). People with mental disorders often choose coping strategies such as secrecy instead of seeking help in order to avoid feelings of guilt and shame (Hinshaw, 2007). However, individual coping strategies that use secrets and avoidance have consistently shown to be ineffective in reducing social stigma (Link et al., 1991). Learning ways to compartmentalize stigma may help someone with a mental illness live with public stigma (Corrigan & Rao, 2012). Corrigan and Rao (2012) promote broadcasting one’s mental illness as a tool for empowerment, although disclosing a mental illness can negatively impact self-esteem (Ilic et al., 2012).

1.7.4 Cognitive Approaches

Cognitive-behavioural strategies impact the internalization of public stigmas by improving the person's ability to recognize and reject stigma (Fung, Tsang, & Cheung, 2011; Hayward & Bright, 1997; Lucksted et al., 2011; Thoits, 2011). Awareness of the stereotypes surrounding mental illnesses may be an important key to reducing the related discrimination and to challenging the specific stigmatizing beliefs with self-acceptance. One can be aware of stereotypes without concurring (Hinshaw, 2007; Ilic et al., 2012). Insight into one's mental illness is defined as the ability for the individual to show awareness of being ill, of experiencing symptoms and of the implications of the illness (Lysaker, Clements, Plascak-Hallberg, Knipscheer, & Wright, 2002), although it is unclear what effect insight has on treatment adherence and functioning (Ehrlich-Ben Or et al., 2013). The probability of stigma resistance is increased when individuals have previous experience or familiarity with stigma. Resistance to stigma is significantly correlated with lower levels of acceptance of stereotypes about mental illnesses (Nabors et al., 2014).

Cognitive approaches use education as their primary means to help individuals develop the skills necessary to challenge self-stigmatizing processes. Higher levels of psychosocial coping and lower severity of negative symptoms are significantly correlated with stigma resistance (Nabors et al., 2014; Thoits, 2011). Learning coping strategies for dealing with stigmatizing experiences can increase resistance to the impact of stigma. Recognizing and modifying self-stigmatizing behaviours is an important step in coping with a mental illness despite perceptions of public stigma (Colom & Vieta, 2004; Vogel et al., 2013). Successful resistance strategies include reflecting and challenging prejudice (Thoits, 2011). Several successful strategies suggest that there are advantages to dealing with mental illnesses in positive and active ways; typically an

individual uses a combination of coping strategies, adjusting for the situation (Link et al., 2002). Certain behaviours, such as humour, have been shown to promote stigma resistance (Ilic et al., 2012). Stigma resistance is most successful when symptoms are well controlled or non-severe, treatment is provided in a peer-run setting, and the individual shows high levels of psychosocial coping resources (Thoits, 2011).

Narrative therapy, a form of psychotherapy, may be particularly useful in addressing the self-stigma that may have been incorporated into a person's life story (Yanos et al., 2008).

Individuals with severe mental illnesses are often less able to narrate their lives with 'temporal organization' (Gallagher, 2003; Lysaker et al., 2002). They experience difficulties differentiating themselves from their disorder (Roe & Ben-Yishai, 1999). Narrative therapy enhances individuals' ability to narrate their life story and transform their identity. Identity-management strategies, address the potential transformation of identity that often accompanies internalizing stigma (Ilic et al., 2012; Yanos et al., 2008).

1.7.5 Empowerment

Nurturing an individual's sense of power over their experience of a mental illness can be an effective way of reducing self-stigmatization and improving self-esteem (Ilic et al., 2012; Shih, 2004). Psychological empowerment involves a change from a negative view of mental illnesses to a focus on health, wellness, and strengths (Clark & Krupa, 2002). Empowerment can include greater power, control, competence and self-advocacy (Corrigan et al., 2009; Frain, Bishop, Tschopp, & Bishop, 2009; Rogers, Chamberlin, Ellison, & Crean, 1997). Psychological empowerment is multifaceted and situational, requiring changes to both the individual and the society that creates stigma (Corrigan et al., 2009; Frain et al., 2009). Willingness to challenge stigma is positively associated with self-esteem (Link et al., 2002). Empowerment is linked to

higher quality of life, social support and functioning (Rogers et al., 1997). Fostering empowerment can build the hope required to pursue life goals (Corrigan et al., 2009).

Longitudinal studies of intervention programmes have focused on the contribution of social treatments to recovery from mental illnesses (Harrison et al., 2001).

1.7.6 Social Support

Social roles can provide personal identity for most people and have an indirect effect on stigma resistance (Thoits, 2011). Community involvement and positive in-group stereotyping are effective identity-management strategies (Ilic et al., 2012). Supportive family and social supports are a protective factor from self-stigma (Livingston & Boyd, 2010). Medical professionals who use humanist principles such as respect, listening, working with existing strengths, and validating concerns can minimize or prevent stigma (Horsfall et al., 2010). Positive interactions with family members can reduce stigma and secrecy (Arditti, 2014).

Successful anti-stigma strategies have been consolidated from qualitative interviews as tools for preventing the detrimental effects of stigma on the well-being of people with mental illness (Ilic et al., 2012). These adaptive strategies, when used in group interventions such as in the 'Ending Self-Stigma' for people with serious mental illnesses, have shown significant reductions in self-stigma and increases in self-esteem, self-acceptance, quality of life and hope (Ilic et al., 2012; Lucksted et al., 2011; MacInnes & Lewis, 2008; Roe et al., 2014). Small-group designs allow participants to feel valued, listened to, and socially supported, which contributes to a reduction in self-stigma measures (MacInnes & Lewis, 2008). Groups move beyond education to cognitive changes (Knight, Wykes, & Hayward, 2006). The mutual support from group participation can reduce self-stigma by challenging the negative beliefs surrounding mental illnesses (van Gestel-Timmermans, Brouwers, van Assen, & van Nieuwenhuizen, 2012). There is a gap, however, of

anti-stigma interventions that help incorporate the experiences of stigmatized individuals, and a gap of interventions targeted the specific clinical populations of people with Mood and/or Anxiety Disorders. Peer support groups provide support from others who face similar challenges, fostering a sense of community. Shared learning can include coping skills that can lead to feelings of empowerment and self-reliance (Corrigan, 2006; Lloyd-Evans et al., 2014; Proudfoot et al., 2012; van Gestel-Timmermans et al., 2012).

1.8 Summary

Many factors work jointly to increase the ability to reject stigma (Nabors et al., 2014). The majority of the anti-stigma interventions identified above focus on reducing the social stigma of mental illness for people with serious mental illnesses. It is essential for adults diagnosed with Mood Disorders and Anxiety Disorders to have the opportunity to learn how to effectively manage and overcome stigmatizing experiences. Beaudoin's (2012) anti-stigma intervention, *Overcoming Stigma in Mood and Anxiety Disorders*, has been developed and this study's purpose is to measure its efficacy.

Chapter 3

Methods

1.9 Study Design

The Overcoming Stigma in Mood and Anxiety Disorders intervention was designed for small groups of six to ten participants to encourage group discussion yet be small enough to encourage intimate discussion (Gupta, 2005). Seven weekly sessions were chosen to provide participants adequate time for home practice of the strategies without allowing a time lapse that could affect their commitment to the group. The structure of the intervention enabled participants to develop and share personal strategies to successfully manage the impact of stigmatizing experiences. The co-facilitators compiled and later distributed a list of the personal strategies that were shared by participants throughout the course.

The resources for this study consisted of a course manual, slide presentation for each session and a workbook. The course manual was provided to the co-facilitators to ensure the intervention was delivered consistently. The slide presentation served as a tool to help guide the sessions and to ensure that the objectives were met. The course workbook contained information from the slides presented throughout the sessions, home practice exercises and strategies disclosed by past participants for managing and overcoming stigma. Participants were encouraged to take home the workbook home after each session to review and then bring it back for the next session.

For this study, the efficacy of Beaudoin's (2012) intervention was evaluated using a one-group design. Participants were assessed prior to participation in the anti-stigma intervention and at specific intervals (T1=baseline, T2=end of intervention, T3=1 month post-intervention, T4=3 months to 12 months post-intervention). Participants were measured at T2 using a written measure, at T3 by telephone, and at T4 using a written measure. Participants who did not attend

the 8th session were contacted by telephone to complete the T4 measure up to 12 months post-intervention.

Figure 1: Schedule of Study Assessments and Measures

Days	-14 to -1 (T1)	0-56 Intervention	49-56 (T2)	80-87 (T3)	140-365 (T4)
Informed Consent	X				
Confidentiality Agreement	X				
MINI (DMS-IV Criteria)	X				
BDI-II	X				
BAI	X				
PDD	X				
ISE	X				
SIS	X		X	X	X
QOLS	X				X
Empowerment scale	X				X

1.10 Participants

Participants were recruited from the Eastern Ontario region. The initial pilot study participants were recruited from waitlists of the Mood and Anxiety Disorders Outpatient Department of Providence Care’s Mental Health Services in Kingston, Ontario. All other course participants self-referred through a local telephone number, an e-mail address, a website, and from advertising (see Appendix A). The investigator maintained records of people who contacted the program for information but never enrolled; this information was necessary to establish that the participant population was selected without bias.

1.10.1 Inclusion Criteria

For inclusion in the study participants met all of the following criteria:

- a Mood and/or Anxiety Disorder as outlined by the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV);
- current stable mood (this may include non-severe depression and anxiety);
- aged 18 to 70;
- English speaking;
- able to understand and comply with the requirements of the study; and
- provision of written informed consent.

1.10.2 Exclusion Criteria

Any of the following were regarded as a criteria for exclusion from the study:

- current manic, hypomanic or mixed episode, as determined by MINI;
- current severe depression or severe anxiety as measured by the Beck inventories;
- posed a risk of suicide or a danger to self or others, in the opinion of the investigator;
- currently undergoing ECT;
- substance or alcohol dependence at enrolment or in the previous three months (except for caffeine or nicotine dependence), as defined by DSM-IV criteria; or
- involvement in the planning and conduct of the study.

1.11 Ethics

The study was performed in accordance with ethical principles that have their origin in the World Medical Association Declaration of Helsinki (2013). The study protocol, including the Informed Consent Form (see Appendix B) was approved annually by the Research Ethics Board

at Queen's University (REB). The Principal Investigators informed the REB of any amendment to the protocol in accordance with local requirements (see Appendix C). Advertising used to recruit participants for the study was also REB reviewed and approved (see Appendix A).

Participants were given appropriate oral and written information about the nature, purpose, possible risks and benefits of the study. During participant registration, the investigator provided information detailing the study. Registration included an Informed Consent Form (see Appendix B), a confidentiality agreement, and contact information for the investigators. All participants were encouraged to contact the Principal Investigators for any questions or concerns. The registration meeting included time to elicit each potential participant's goals to ensure that their expectations aligned with the objectives of the intervention.

Procedures were in place in case of emergency, and the Principal Investigators ensured that expertise was available to handle medical emergencies during the study. The participants consented to having all sessions recorded. Participants were reminded that they were free to discontinue their participation in the study at any time.

1.12 Measures

The purpose of measuring health-related stigma is to increase our understanding of stigma and the effectiveness of anti-stigma interventions. Measuring instruments can help to quantify determinants of stigma, measure the extent or severity of stigma in a given setting or target group, and to monitor changes in stigma over time. There are several different research methods that can be used to measure stigma, including questionnaires, qualitative methods, indicators and scales (Van Brakel, 2006). Self-report questionnaires were chosen as the primary research instruments for this study.

1.12.1 Eligibility Screening

Participants of the first three trial groups were assessed for eligibility based on self-reported stigma through the Inventory of Stigma Experiences (ISE). All other participants were assessed and screened using additional instruments. These instruments were usually completed within the two weeks prior to the first class. Screening instruments included The Mini-International Neuropsychiatric Inventory, the Beck Anxiety Inventory, and Link's Perceived Devaluation and Discrimination Scale.

The Mini-International Neuropsychiatric Interview 6.0 (MINI) was chosen for this study to make diagnoses of psychiatric disorders according to DSM-IV. The MINI is a psychiatric structured diagnostic interview instrument that can be administered in approximately 20 minutes (Lecrubier et al., 1997). This instrument was designed for use in clinical trials and it is carefully linked to the diagnostic criteria. Questions use decision-tree logic, require mostly "yes" or "no" answers, where positive responses are explored by further investigation of other diagnostic criteria. The MINI's reliability is good for most diagnoses including Major Depressive Episode (0.83) and Generalized Anxiety Disorders (0.86) and is a valuable measure for this study (Lecrubier et al., 1997).

Beck's Anxiety Inventory (BAI) was designed for measuring clinical anxiety. The BAI is a 21-question, multiple-choice, self-report inventory that is used to assess the severity of an individual's anxiety (Beck, Epstein, Brown, & Steer, 1988). The measure uses a four-point scale ("Not At All" to "Severely") to question participants about how they have been feeling in the last week. The overall measure is scored by adding the individual item scores (maximum value of 63). The BAI measure's internal consistency is high ($\alpha = 0.92$), and it will provide insight into the psychiatric condition of the study's participants.

The Perceived Devaluation and Discrimination (PDD) scale is a 12-item instrument used to measure the extent which a respondent believes that other people will devalue or discriminate against those who have a mental illness. This measure uses six-point ("strongly agree" to "strongly disagree") Likert-type items that question participants about the extent of their agreement with statements. The overall measure is scored by adding the individual items and dividing by the number of answered items to give a score (maximum value of 6). The PDD measure's internal consistency is good ($\alpha = .82$). This instrument will be useful for measuring participants' perception of societal discrimination against people with a mental illness, which is an important component of social stigma.

In addition, the Beck Depression Inventory (BDI-II) psychometric test was used to screen for people who were currently severely affected by a Major Depressive Disorder. The BDI is a 21-question, multiple-choice, self-report inventory used to provide a quantitative assessment of the intensity of depression as defined by diagnostic criteria (Beck & Steer, 1984; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The measure uses four question-specific responses for each question, ranging in intensity. When the test is scored, a value of 0 to 3 is assigned for each answer where a higher score indicates greater severity of symptoms of depression. The values are added to produce a final score (maximum value of 40). Eligibility to be included in the study required a score below the rating for Severe (31 out of 40). The BDI-II reliability coefficient is high ($\alpha = 0.86$).

1.12.2 Primary Outcome Measures

The Inventory of Stigma Experiences (ISE) questionnaire measures both the breadth and the impact of stigma experiences through two subscales: Stigma Experiences Scale (SES), which

measures frequency and prevalence and Stigma Impact Scale (SIS), which measures the intensity of psychosocial impact (Stuart, Milev, & Koller, 2005). In this study, the ISE was also used to determine the participant demographics.

The Stigma Impact Scale measures the psychosocial impact of stigma on individuals with a mental illness (Stuart et al., 2005). The SIS was previously tested and has a high reliability coefficient ($\alpha = 0.91$). Questions are rated on a scale from zero (lowest possible amount) to ten (highest possible amount). The original SIS included four areas of impact (quality of life, social contacts, family relations and self-esteem). However, for this study an additional eight areas of impact were added using the same scale from zero to ten (see Appendix D). These areas were: physical health, recovery, personal goals, romantic life, self-esteem, housing, work/school, financial and leisure activities. The scale was completed by participants at various intervals to investigate which aspects of their lives were impacted by stigma and to see if potential benefits were maintained after a greater period of time.

1.12.3 Secondary Outcome Measures

The Quality of Life Scale and the Empowerment Scale were secondary measures used to determine the efficacy of the intervention; they were administered pre- and post-intervention (see Figure 1). The Quality of Life Scale (QOLS) is a self-administered, 16-item questionnaire measuring the perceived quality of an individual's daily life including emotional, social, and physical aspects (Flanagan, 1978); it uses a 7-point Likert-type scale (ranging from "delighted = 7" to "terrible = 1"). The values are summed for a final score (range of 16 to 112), where higher numbers represent greater perceived quality of life. The QOLS scale has good internal consistency ($\alpha = .86$).

The Empowerment Scale (EMP) is a 28-item, self-administered, 4-point Likert-type scale (ranging from “strongly agree” to “strongly disagree”) (Rogers et al., 1997). The EMP is designed to measure subjective feelings of empowerment. The scores for the 28 items are summed and averaged to give an overall empowerment score (out of 4), where higher numbers represent greater empowerment. The EMP scale has a high degree of internal consistency ($\alpha = .86$)

1.13 Co-facilitators

In this study the interventions were either facilitated by a practitioner (Occupational Therapist) and a peer (diagnosis of mood and/or anxiety disorder) or by a pair of peer-facilitators. Past participants were trained as peer-facilitators. The co-facilitators provided feedback about their experiences delivering the intervention at the end of each session through a written questionnaire (see Appendix E). As well, feedback on the format and content of the intervention was gathered from participants through a written questionnaire (see Appendix F) at the end of each session and through group discussion. A group discussion with the Principal Investigators provided the participants with an opportunity to give further input and suggestions to improve the value of the course. In the final session, feedback was requested through group discussion from both participants and co-facilitators about their impressions of the course content. Recommended changes and refinements to the course were incorporated into the intervention to ensure optimal efficacy for the targeted audience with the guidance and expertise provided by Dr. Milev (MD, PhD, FRCPC), Dr. Heather Stuart (PhD) and Debbie Radloff-Gabriel (MSc(Rehab), BScOT).

1.14 Locations

The initial pilot course was offered on Tuesday evenings starting in October, 2012, at Providence Care Mental Health Services in Kingston, Ontario. The group (n=7) met for 2-hours around a board-room-style table in the medical staff lounge. Healthy refreshments were provided in all sessions at a mid-point break. Community-based locations were used for all further courses to reduce the potential stigma associated with the psychiatric hospital. For the next course, a community house was used featuring couches and chairs formed into a circle where participants sat in the circle and held their workbooks on their laps. The third course was housed in a local youth centre, where participants met in a downstairs meeting room around a series of folded tables, joined together to form a rectangle.

In September 2013, the Principal Investigators secured a meeting space at Beamish House at 2263 Princess Street, and all additional courses were provided in these temporary offices. The room featured an overhead projector and ten leather chairs around a large a board-room-style table. The remaining courses were offered over the next year at a variety of times to suit the majority of participants. The final session was held on August 27, 2014.

Chapter 4

Results

This chapter presents the study results and demographic for both samples. The first sample includes all the people who registered to take the course (n=51). The second, a sub-sample, includes only those individuals who met the study criteria and attended four or more sessions of the intervention (n=34). Primary measures are presented for the eligible respondents; however, for tabular output for all participants with respect to the primary measures, please see Appendix G and Appendix H.

1.15 Sample Demographics

The mean age of all registrants was 48.9 years with a range between 18 and 70 years (see Table 1). The reported gender of this sample was mostly female at 76.5% (n=39), with 21.6% (n=11) reported as male and 2.0% (n=1) reported as neither. The sub-sample of eligible respondents was slightly older than the entire group of registered participants: The mean age was 52.8 years, with a range between 32 and 70 years. The majority of eligible respondents reported their gender as female (79.4%, n=27), with only 20.6% (n=7) reported males.

The mean age at which all registrants first received treatment for their mental illness was 30.4 years, with a range between 8 and 58 years (see Table 1). The sub-sample of eligible respondents was slightly older than the entire group of registered participants when they first received treatment: The mean age was 33.4 years, with the same range between 8 and 58 years.

Table 1: Demographics of Registered Participants

	Registered Participants		Eligible Respondents	
	n	%	n	%
	(N=51)		(N=34)	
<i>Age</i>	<i>(missing = 2)</i>			
18-19	1	2.0	0	0
20-29	3	6.1	0	0
30-39	7	14.3	4	11.8
40-49	10	20.4	7	20.6
50-59	18	36.7	14	41.2
60-69	9	18.4	8	23.5
70-79	1	2.0	1	2.9
<i>Age first noticed symptoms</i>	<i>(missing = 3)</i>		<i>(missing = 1)</i>	
9 and under	4	8.3	2	6.1
10-19	24	50.0	15	45.5
20-29	8	16.7	5	15.2
30-39	4	8.3	3	9.1
40-49	7	14.6	7	21.2
50-59	1	2.1	1	3.0
<i>Age received treatment</i>	<i>(missing = 4)</i>		<i>(missing = 1)</i>	
9 and under	1	2.1	1	3.0
10-19	10	21.3	4	12.1
20-29	16	34.0	11	33.3
30-39	7	14.9	4	12.1
40-49	10	21.3	10	30.3
50-59	3	6.4	3	9.1
<i>Age accepted diagnosis</i>	<i>(missing = 16)</i>		<i>(missing = 7)</i>	
19 or under	3	8.6	0	0
20-29	6	17.1	4	14.8
30-39	9	25.7	9	33.3
40-49	11	31.4	8	29.6
50-59	6	17.1	6	22.2
<i>Gender</i>				
Male	11	21.5	7	20.6
Female	39	76.5	27	79.4
Other	1	2.0	0	0

Despite receiving treatment, many people still are unable to accept their diagnosis. In our study, only 68.6% (n=35) of all registrants reported that they had accepted their diagnosis of a mental

illness. The mean age of all registrants when they had accepted their diagnosis was 37.8 years, with a range between 16 and 58 years (see Table 1). The portion of the sub-sample of eligible respondents who had accepted their diagnosis was higher: 79.4% (n=27). Their mean age when they accepted their diagnosis was older at 40.7 years, with a range between 27 and 58 years.

1.16 Social Demographics

The social demographics (see Table 2) reveal that the registered participants are slightly less likely to be living in a spousal-type relationship (42.9% compared to 50.0%) and slightly more likely to be living alone (44.9% compared to 38.2%) than the eligible respondents. Of all registered participants, 24.5% (n=12) had never married, 6.1% (n=3) were separated, 4.1% (n=2) were widowed, 22.4% (n=11) were divorced and 10.2% (n=5) lived common law. A larger proportion of eligible respondents (38.2% compared to 32.7%) were currently married. Only 14.7% (n=5) of eligible participants had never married, 8.8% (n=3) were separated, 2.9% (n=1) were widowed, 23.5% (n=8) were divorced and 11.8% (n=4) lived common law.

Registered participants were more likely to be currently living with relatives (8.2% compared to 2.9%) than eligible respondents (see Table 2). Eligible respondents who did not live alone were more likely to be living with a spouse or partner (50.0% compared to 40.8%) than registered participants. Similar proportions of registered and eligible participants were living with other related people (5.9% compared to 4.1%).

Both registered and eligible participants reported high levels of education. Registered participants were slightly less likely to have graduate or professional degrees (22.0% compared to 26.5%) than eligible respondents (see Table 2). Registered participants were more likely to have completed college or university (51.0% compared to 47.1%) than eligible respondents.

Table 2: Social Demographics

	Registered Participants		Eligible Respondents	
	n	%	n	%
	(N=51)		(N=34)	
<i>Marital Status</i>	<i>(missing = 2)</i>			
Never married	12	24.5	5	14.7
Separated	3	6.1	3	8.8
Widowed	2	4.1	1	2.9
Divorced	11	22.4	8	23.5
Common law	5	10.2	4	11.8
Married	16	32.7	13	38.2
<i>Roommate status</i>	<i>(missing = 2)</i>			
Alone	22	44.9	13	38.2
Spouse/partner	20	40.8	17	50.0
Other relative(s)	4	8.2	1	2.9
Other unrelated person(s)	2	4.1	2	5.9
Other	1	2.0	1	2.9
<i>Level of Education</i>	<i>(missing = 2)</i>			
Some high school	3	6.1	1	2.9
Completed high school	3	6.1	3	8.8
Some college or technical training	2	4.1	0	0
Completed college or technical training	15	30.6	10	29.4
Some university	5	10.2	5	14.7
Completed university	10	20.4	6	17.7
Graduate or professional degree	11	22.4	9	26.5
<i>Employment status</i>	<i>(missing = 2)</i>			
not employed because unable to work due to mental health problems	15	30.6	11	32.4
on leave from work	7	14.3	4	11.8
not employed	5	10.2	4	11.8
retired	3	6.1	3	8.8
student	2	4.1	0	0
volunteer	2	4.1	1	2.9
part-time competitive work	5	10.2	3	8.8
full-time competitive work	10	20.4	8	23.5

Eligible respondents were slightly more likely to have completed high school (8.8 compared to 6.1%), while only 2.9% of eligible participants had not completed high school (compared to 6.1% of registered participants).

Almost a third (30.6%) of the registered participants and 32.4% of eligible respondents reported that they were unemployed because they were unable to work due to mental health problems (see Table 2: Social Demographics). Eligible respondents were slightly more likely to be involved with competitive work (32.3% compared to 30.6%) than registered participants. Of all registered participants, 10.2% (n=5) were not employed, 6.1% (n=3) were retired, 4.1% (n=2) were students and 4.1% (n=2) were volunteers. A larger proportion of registered participants were on leave from work (14.3% compared to 11.8%) than eligible respondents. Only 11.8% (n=4) of eligible participants were not employed, 8.8% (n=3) were retired and 2.9% (n=1) were volunteering.

1.17 Psychiatric Characterization of Participants

Participation in this study required a mental illness corresponding to the diagnostic criteria established by the DSM-IV. Mental illnesses often include multiple diagnoses, so participants in this study may have reported more than one diagnosis (see Table 3). Diagnoses were reported by participants and confirmed using the Mini-International Neuropsychiatric Interview 6.0 (MINI). There was a significant difference between the self-report depression and the MINI assessment results with both the registered participants (72.6% and 56.9%, respectively) and the eligible respondents (73.5% and 55.9% respectively). This difference may be partially attributed to the lack of evaluation in the MINI for dysthymia, a less intense but much longer lasting form of depression (DSM-IV, 2000).

Table 3: Psychiatric Characterization of Participants

	Registered Participants		Eligible Respondents	
	n	%	n	%
<i>(missing = 2)</i>				
<i>Reported Diagnosis</i>				
Bipolar Disorders	13	25.5	9	26.5
Depression	37	72.6	25	73.5
Anxiety Disorders	26	51.0	17	50.0
<i>Diagnosis Assessed using M.I.N.I. Evaluation</i>				
Bipolar Disorders	13	25.5	8	23.5
Major Depressive Disorders	29	56.9	19	55.9
Anxiety Disorders	25	49.0	16	47.1
<i>Have ever been hospitalized</i>				
No	19	38.0	13	38.2
Yes	30	60.0	21	61.8
<i>Hospitalized in past year</i>				
Yes, as a voluntary patient	9	18.4	8	23.5
Yes, as a committed patient	3	6.1	1	2.9
No	36	73.5	25	73.5
<i>Frequency of Outpatient or Community Health use in past year</i>				
None	22	44.0	16	47.1
Weekly or more often	17	34.0	11	32.4
2 or 3 times a month	6	12.0	4	11.8
Once a month	3	6.0	2	5.9
Once every 2 or 3 months	1	2.0	1	2.9
<i>Compared to one year ago, would you say your mental illness is...</i>				
Better	22	44.0	17	50.0
About the same	15	30.0	12	35.3
Worse	12	24.0	5	14.7

Almost two thirds (60.0%, n=30) of the registered participants and 61.8% (n=21) of eligible respondents reported that they had been hospitalized (see Table 3). Eligible respondents were slightly more likely to have been hospitalized as a voluntary patient in the past year (23.5% compared to 18.4%) and less likely to have been hospitalized as a committed patient (2.9%

compared to 6.1%) in the past year. Eligible respondents were more likely not to have used outpatient or community health care in the past year (47.1% compared to 44.0%) and were more likely to report that their mental illness was better than it had been in the prior year (50.0% compared to 44.0%) for all participants.

Registrants for this study who completed the Beck Anxiety Inventory (n=32) had a mean score of 25.4 (out of a possible 63), representing a moderate level of anxiety; eligible respondents (n=18) showed a lower anxiety levels, with a mean score of 20.3. Eligible respondents also reported lower levels of depression according to the Beck Depression Inventory (BDI): Their BDI mean score was 15.5 (out of a possible 40) compared to the mean score of all participants (21.1), which is considered a moderate level of depression. Only two participants, who had participated in four or more sessions, were excluded from the study based on severe depression as measured by the BDI (see Table 4).

Registered participants who completed the Link's Perceived Devaluation and Discrimination Scale (n=31) had a mean score of 4.56 (out of a possible 6); eligible respondents who completed the PDD (n=19) had a slightly lower mean score of 4.47 (see Table 4). A high score reflects a strong perception of devaluation-discrimination, so the eligible respondents reported slightly lower levels of perceived discrimination.

Table 4: Depression, Anxiety and Perceived Discrimination Assessments

	Registered Participants		Eligible Respondents	
	n	%	n	%
	(N=32)*		(N=18)*	
<i>Beck Anxiety Inventory</i>				
Low anxiety (0-21)	15	46.9	11	61.1
Moderate anxiety (22-35)	8	25.0	6	33.3
Cause for concern (36-63)	9	28.1	1	5.6
<i>Beck Depression Inventory</i>				
Normal (1-10)	7	21.9	6	33.3
Mild (11-16)	6	18.8	5	27.8
Borderline (17-20)	4	12.5	3	16.7
Moderate (21 -30)	8	25.0	4	22.2
Severe (31-40)	7	21.9	Not eligible	
<i>Link's Perceived Devaluation and Discrimination</i>				
Low (1-2)	2	6.5	1	5.3
Med (3-4)	20	64.5	14	73.7
High (5-6)	9	29.0	4	21.1

NOTE: Assessments for depression and anxiety were introduced after the third group had completed the intervention, so 37.2% (n=19) of registered participants and 41.7% (n=15) of participants who exceeded 3 sessions were not screened. They have been presumed as eligible for the study.

1.18 Stigma Experiences

The Inventory of Stigma Experiences includes a 10-item stigma experience scale. More than half of participants affirmed that they had experienced stigma in nine of the ten items (see Table 5). Registered participants were slightly more likely to report that stigma had impacted their self-efficacy (79.2%) than the eligible respondents (73.5%). Registered participants also reported greater incidence of stigma affecting their ability to interact with family (72.3% compared to 67.7%). More than two-thirds of all participants (71.4%) and eligible respondents (70.6%) believe that the average person is afraid of someone with a serious mental illness.

Table 5: 10-Item Stigma Experiences Scale (SES) – Affirmative Reports

	Registered Participants		Eligible Respondents	
	n (N=51)	%	n (N=34)	%
Do you think people will think less of you if they know you have a mental illness?	28 (2 missing)	63.3	21	64.7
Do you think that the average person is afraid of someone with a serious mental illness?	35 (2 missing)	71.4	24	70.6
Have you ever been teased, bullied, or harassed because you have a mental illness?	18 (2 missing)	36.7	13	38.2
Have you felt that you have been treated unfairly or that your rights have been denied because you have a mental illness?	25 (2 missing)	51.0	18	52.9
Have your experiences with stigma affected your recovery?	29 (2 missing)	59.2	21	61.8
Have your experiences with stigma caused you to think less about yourself or your abilities?	38 (3 missing)	79.2	25	73.5
Have your experiences with stigma affected your ability to make or keep friends?	30 (2 missing)	61.2	22	64.7
Have your experiences with stigma affected your ability to interact with your family?	34 (4 missing)	72.3	23	67.7
Have your experiences with stigma affected your satisfaction with or quality of life?	36 (2 missing)	73.4	25	73.5
Do you try to avoid situations that may be stigmatizing to you?	32 (2 missing)	65.3	21	61.8

This table summarizes the positive endorsement (YES) reported or the minimum threshold (OFTEN) reported for each item of the Stigma Experiences Scale.

This high level of perceived stigma was also substantiated by the 63.3% of registered participants (and the 64.7% of eligible respondents) who thought that people would think less of them if they were aware of their mental illness. More than half of participants (51.0%) and of eligible respondents (52.9%) felt that they had been treated unfairly or that their rights had been denied because of their mental illness (see Table 5). Yet only 38.2% of eligible respondents (and 36.7% of all participants) reported ever having been teased, bullied, or harassed because of their mental illness.

Almost 75% of each group reported that their experiences with stigma have affected their satisfaction with or quality of life. This included stigma affecting their ability to make or keep friends (61.2% and 64.7%) and their trying to avoid situations that may be stigmatizing (65.3% and 61.8%). The majority also felt that their experiences with stigma had affected their recovery.

1.19 Attrition

Studies have suggested that at least four sessions are necessary to achieve reliable and clinically significant improvement (Delgado et al., 2014). Inclusion for this study required attendance at a minimum of four sessions; however, there was attrition. Specific reasons for participant attrition from this study included voluntary discontinuation by participants who were free to withdraw their participation in the study, without prejudice to further treatment (drop outs) and participants lost to follow-up. Participants who chose to drop out were asked about the reason(s) for their discontinuation and the presence of any adverse events and their responses were noted by the researcher.

Of the registered participants, 5.9% (n=3) did not attend any sessions (see Table 6); a further 23.3% (n=12) attended three or fewer sessions; the remaining 68.4% (n=36) attended four or

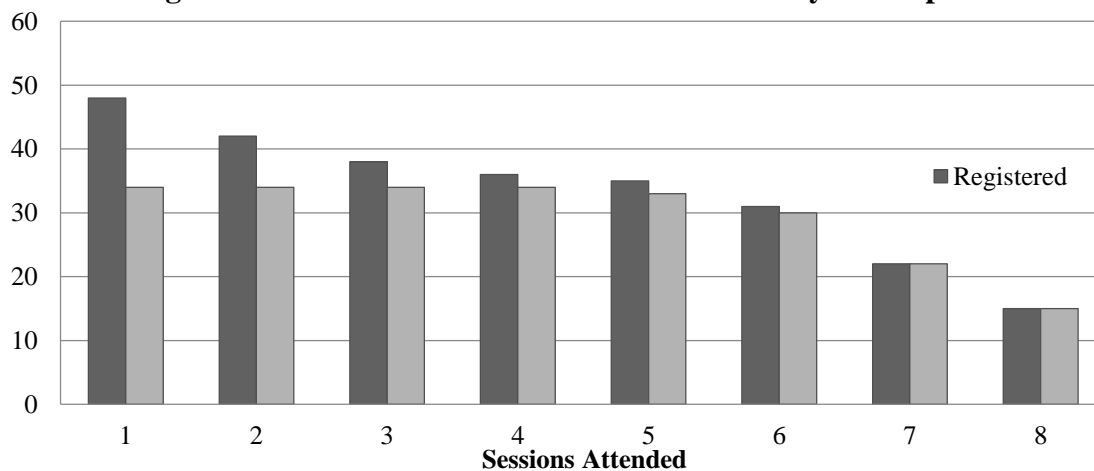
more sessions; and almost a third (29.4%, n=15) completed the entire study without missing any sessions.

Table 6: Study Participant Intervention Attendance

Number of Sessions Attended	Registered Participants (N=51)		Eligible Respondents (N=34)	
	n	%	n	%
0	3	5.9		
1	6	11.8		
2	4	7.8	Not eligible	
3	2	3.9		
4	1	2.0	1	2.9
5	4	7.8	3	8.8
6	9	17.7	8	23.5
7	7	13.7	7	20.6
8	15	29.4	15	44.1

Further examination of the attendance also indicates large rates of attrition within the first few sessions (see Figure 2): A quarter of registered participants (25.5%, n=13) left the intervention within the first two sessions.

Figure 2: Cumulative Session Attendance of Study Participants



Note: Eligibility criteria for this study required attending a minimum of 4 sessions, so participants who withdrew within 3 sessions do not appear as “eligible”

1.20 Primary Outcome Measures

The amended Stigma Impact Scale (SIS) used for this study includes twelve areas of life that stigma could impact (see Appendix D). Participants quantified how stigma had impacted them personally within the past month, where 0 was the lowest possible amount, and 10 was the highest possible amount. Main results are presented for only the eligible respondents in Figures 3 through 14 as boxplots of the item-specific scores for eligible respondents, for each SIS item, at each of the measured intervals (T1 through T4). The last reported SIS measure for each eligible respondent was also carried forward to compensate for the effects of dropout and missing data for paired t-test analysis.

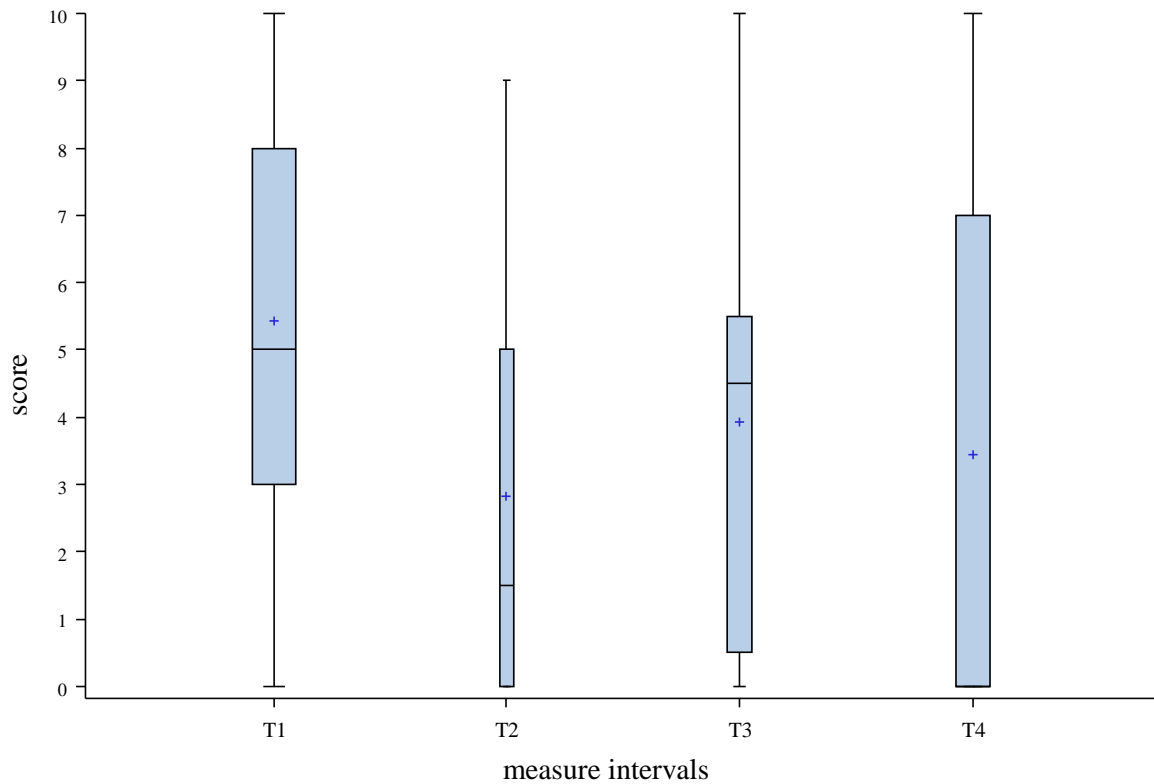
1.20.1 SIS Item Score - Quality of life

Using the SIS, eligible respondents indicated that their quality of life was impacted by stigma both pre-and-post course (see Figure 3). The mean score for quality of life pre-intervention at T1 was 5.4 and at T2 (end of intervention) it reduced to 2.8. The mean score then increased at T3 (one-month post-intervention) to 3.9 and reduced slightly at T4 (3-months post-intervention) to 3.4. A paired t-test analysis for eligible participants showed a trend in decreased stigma impact, but it was not statistically significant (with $\alpha = .05$) at any of the three post-intervention intervals (see Table 7).

Table 7: Pre/Post-Intervention SIS Measure of Quality of Life TTest

Quality of Life	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	16	0.9375	3.4923	0.8731	-6.00	8.00	1.07	0.2999
T1 to T4	24	1.4167	4.0316	0.8229	-8.00	8.00	1.72	0.0986
T1 to Last Meas.	33	1.0303	3.4775	0.6053	-8.00	8.00	1.70	0.0985

Figure 3: Quality of Life Stigma Impact Scale Measure for Eligible Respondents



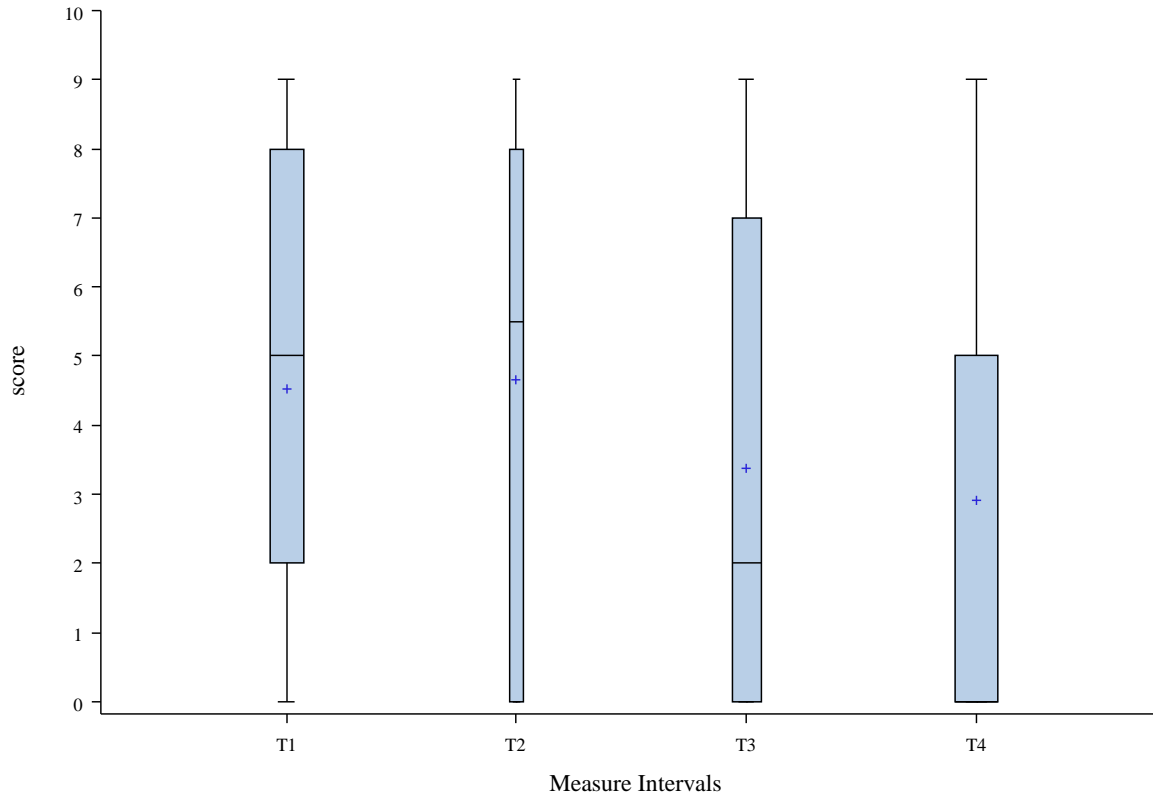
1.20.2 SIS Item Score - Recovery

Using the SIS, eligible respondents indicated that their recovery was impacted by stigma both pre-and-post course (see Figure 4). The mean score for recovery at T1 was 4.5 and at T2 it increased to 4.7. The mean score then decreased at T3 to 3.4, and decreased further at T4 to 2.9. A paired t-test analysis for eligible participants showed a trend in decreased impact of stigma, but it was not statistically significant (with $\alpha = .05$) at any of the three post-intervention intervals (see Table 8).

Table 8: Pre/Post-Intervention SIS Measure of Recovery TTest

Recovery	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	0.8667	2.6957	0.6960	-2.00	8.00	1.25	0.2335
T1 to T4	18	0.9444	3.5226	0.8303	-6.00	8.00	1.14	0.2711
T1 to Last Meas.	19	0.8947	3.4302	0.7869	-6.00	8.00	1.14	0.2705

Figure 4: Recovery SIS Measure for Eligible Respondents



Box width varies with n

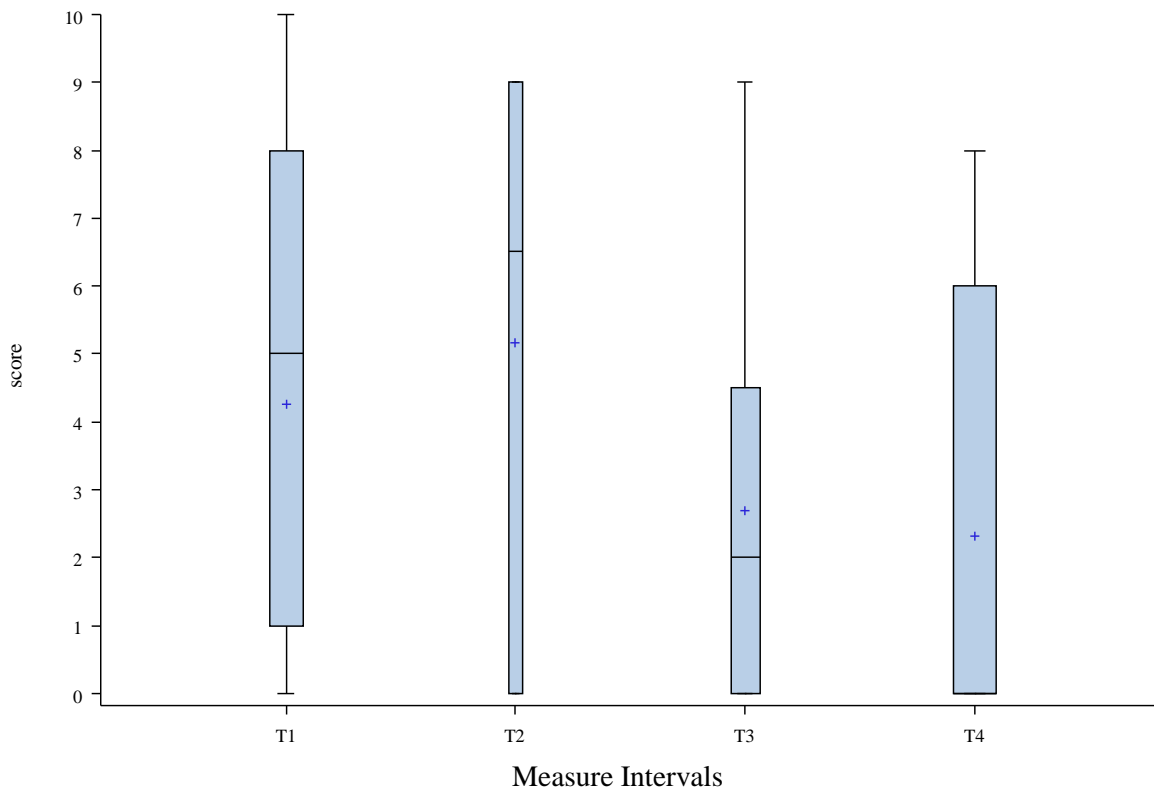
1.20.3 SIS Item Score - Physical Health

Using the SIS, eligible respondents indicated that their physical health was impacted by stigma both pre-and-post course (see Figure 5). The mean score for physical health at T1 was 4.3 and at T2 it increased to 5.2. The mean score decreased at T3 to 2.7, then decreased further at T4 to 2.3. A paired t-test analysis for eligible participants showed it was statistically significant (with $\alpha = .05$) at the three month post-intervention intervals (see Table 9).

Table 9: Pre/Post-Intervention SIS Measure of Physical health TTest

Change	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	1.6000	4.3720	1.1288	-3.0	10.0	1.42	0.1782
T1 to T4	18	1.6667	3.0293	0.7140	-2.0	9.0	2.33	0.0321
T1 to Last Meas.	19	1.5789	2.9689	2.9686	-2.0	9.0	2.32	0.0324

Figure 5: Physical Health SIS measure for Eligible Respondents



Box width varies with n

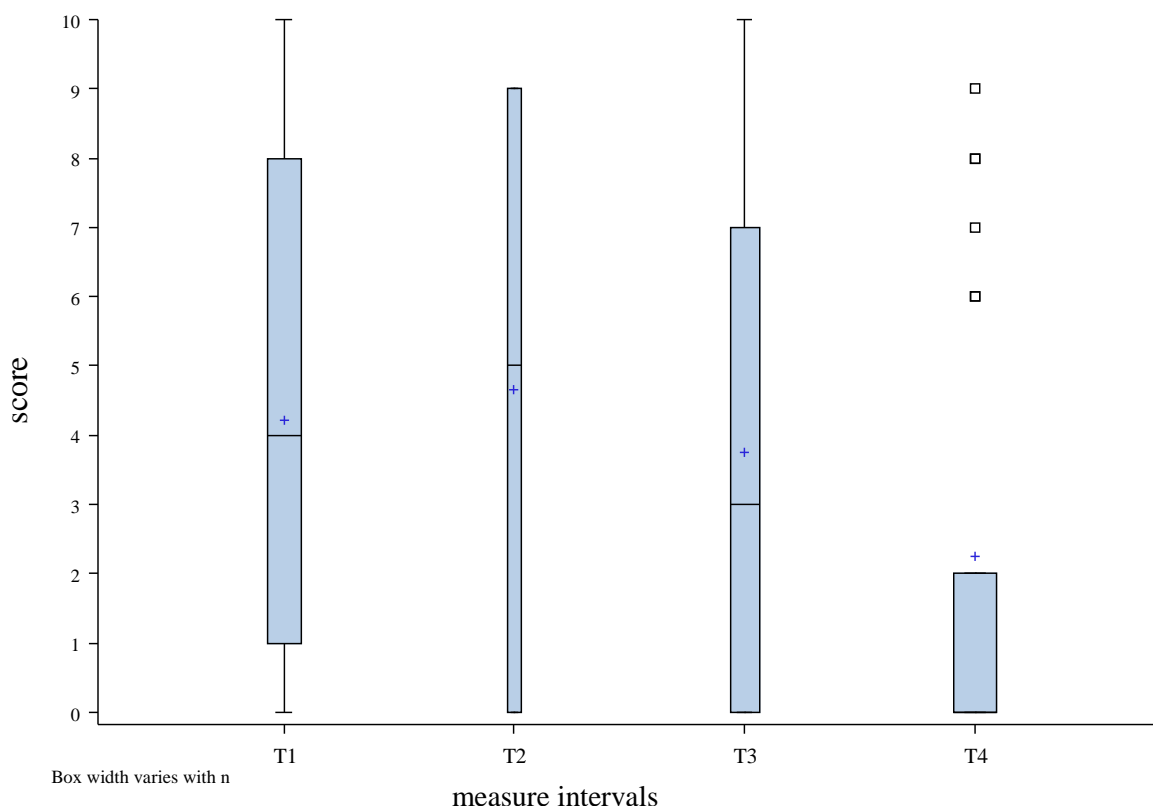
1.20.4 SIS Item Score - Personal Goals

Using the SIS, eligible respondents indicated that their personal goals were impacted by stigma both pre-and-post course (see Figure 6). The mean score for personal goals at T1 was 4.2 and it increased to 4.7 at T2. The mean score decreased at T3 to 3.8, then decreased significantly at T4 to 2.2. A paired t-test analysis for eligible participants showed it was a statistically significant (with $\alpha = .05$) decrease in reported impact of stigma on personal goals at three month post-intervention intervals (see Table 10).

Table 10: Pre/Post-Intervention SIS Measure of Personal Goals TTest

Personal Goals	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	0	3.8730	1.0000	-7.00	7.00	0.00	1.0000
T1 to T4	18	1.7222	3.2685	0.7704	-6.00	7.00	2.24	0.0391
T1 to Last Meas.	19	1.6316	3.2009	0.7343	-6.00	7.00	2.22	0.0394

Figure 6: Personal Goals SIS measure for Eligible Respondents



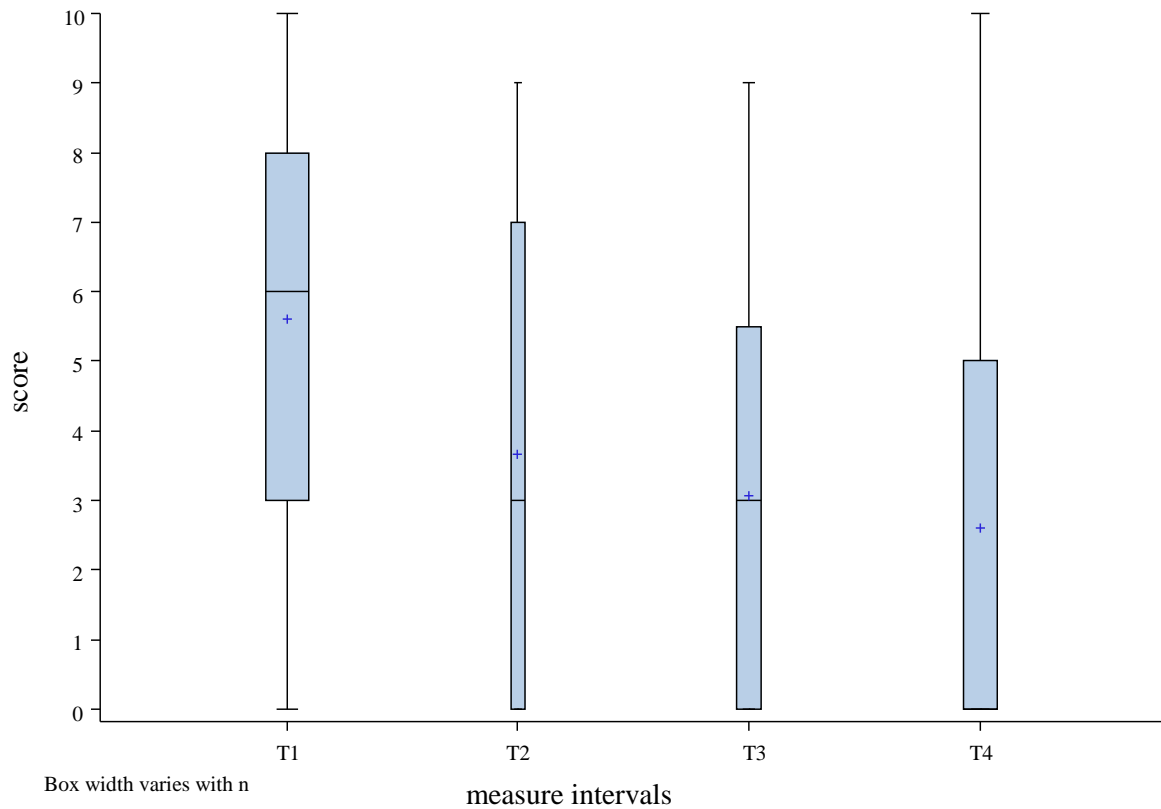
1.20.5 SIS Item Score - Social contacts

Using the SIS, eligible respondents indicated that their social contacts were impacted by stigma both pre-and-post course (see Figure 7). The mean score for social contacts at T1 was 5.6 and this was reduced at T2 to 3.7. The mean score further reduced at T3 to 3.1, and again at T4 to 2.6. A paired t-test analysis for eligible participants showed a statistically significant (with $\alpha = .05$) decrease in reported impact of stigma on social contacts at all post-intervention intervals (see Table 11).

Table 11: Pre/Post-Intervention SIS Measure of Social Contacts TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	16	1.8125	3.3110	0.8277	-5.00	9.00	2.19	0.0448
T1 to T4	24	2.7083	4.8497	0.9899	-10.00	9.00	2.74	0.0118
T1 to Last Meas.	33	1.9697	4.2901	0.7468	-10.00	9.00	2.64	0.0128

Figure 7: Social Contacts SIS Measure for Eligible Respondents



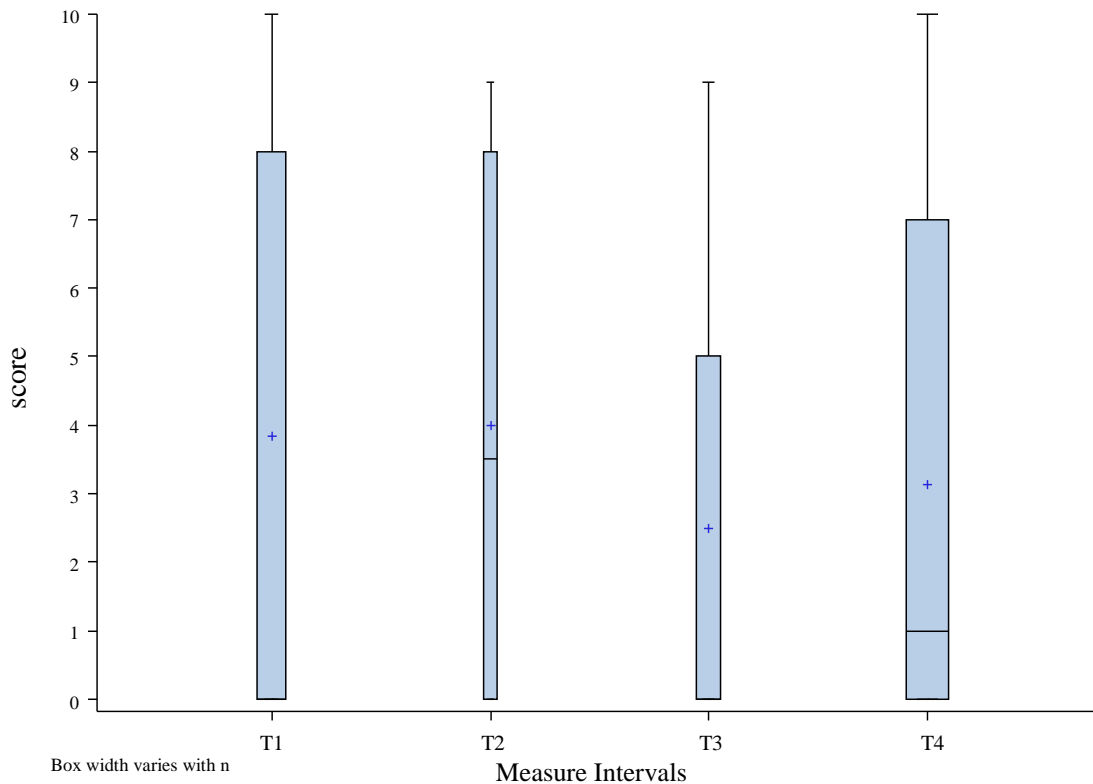
1.20.6 SIS Item Score - Romantic Life

Using the SIS, eligible respondents indicated that their romantic life was impacted by stigma both pre-and-post course (see Figure 8). The mean score for romantic life at T1 was 3.8 and this increased slightly at T2 to 4.0. The mean score then reduced again at T3 to 2.5 and increased slightly at T4 to 3.1. A paired t-test analysis for eligible participants showed a trend in decreased stigma experienced, but it was not statistically significant at any of the three post-intervention intervals (see Table 12).

Table 12: Pre/Post-Intervention SIS Measure of Romantic Life TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	1.6000	3.9605	1.0226	-6.00	9.00	1.56	0.1400
T1 to T4	18	1.1667	5.7317	1.3510	-10.00	9.00	0.86	0.3998
T1 to Last Meas.	19	1.1053	5.5767	1.2794	-10.00	9.00	0.86	0.3990

Figure 8: Romantic Life SIS Measure for Eligible Respondents



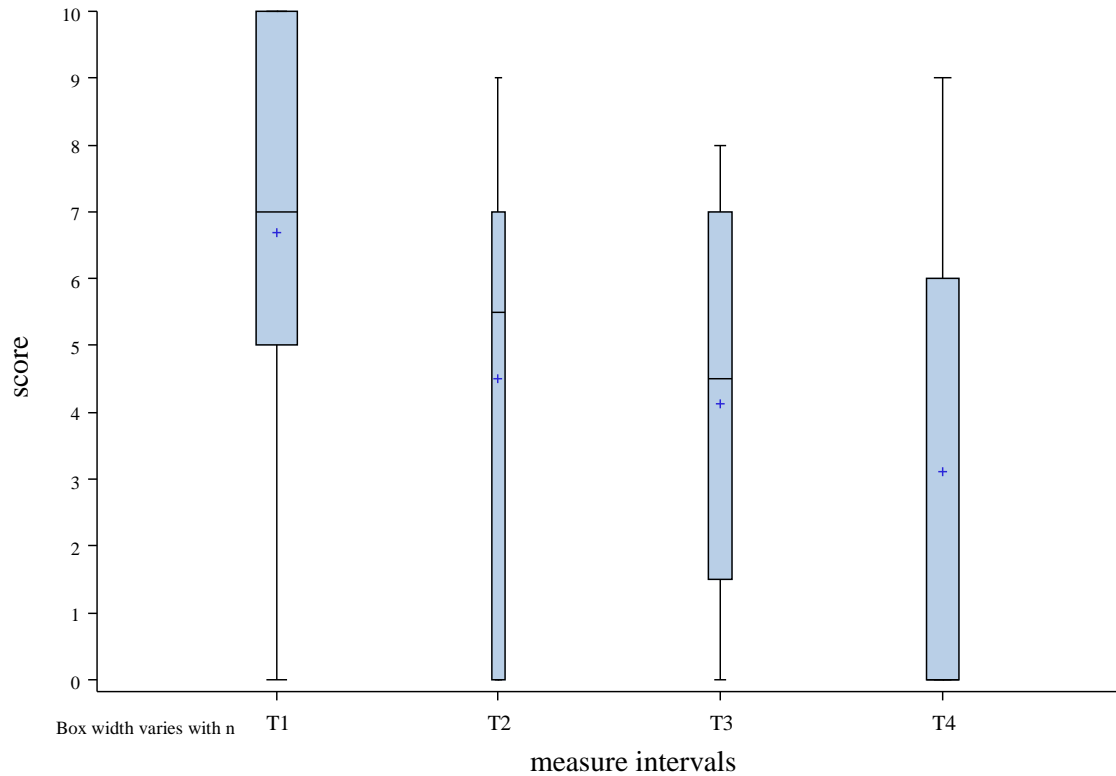
1.20.7 SIS Item Score - Self-esteem

Using the SIS, eligible respondents indicated that their self-esteem was impacted by stigma both pre-and-post course (see Figure 9). The mean score for impact to self-esteem at T1 was high at 6.7 and this reduced at T2 to 4.5. The mean score decreased further at T3 to 4.1 and then finally measured 3.1 at T4. A paired t-test analysis for eligible participants showed that there was a statistically significant decrease (with $\alpha = .05$) in reported impact of stigma on self-esteem at the three month post-intervention intervals (see Table 13).

Table 13: Pre/Post-Intervention SIS Measure of Self-esteem TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	16	1.2500	3.0441	0.7610	-3.00	7.00	1.64	0.1213
T1 to T4	24	3.0417	3.9285	0.8019	-3.00	10.00	3.79	0.0009
T1 to Last Meas.	33	2.2121	3.6034	0.6273	-3.00	10.00	3.53	0.0013

Figure 9: Self-esteem SIS Measure for Eligible Respondents



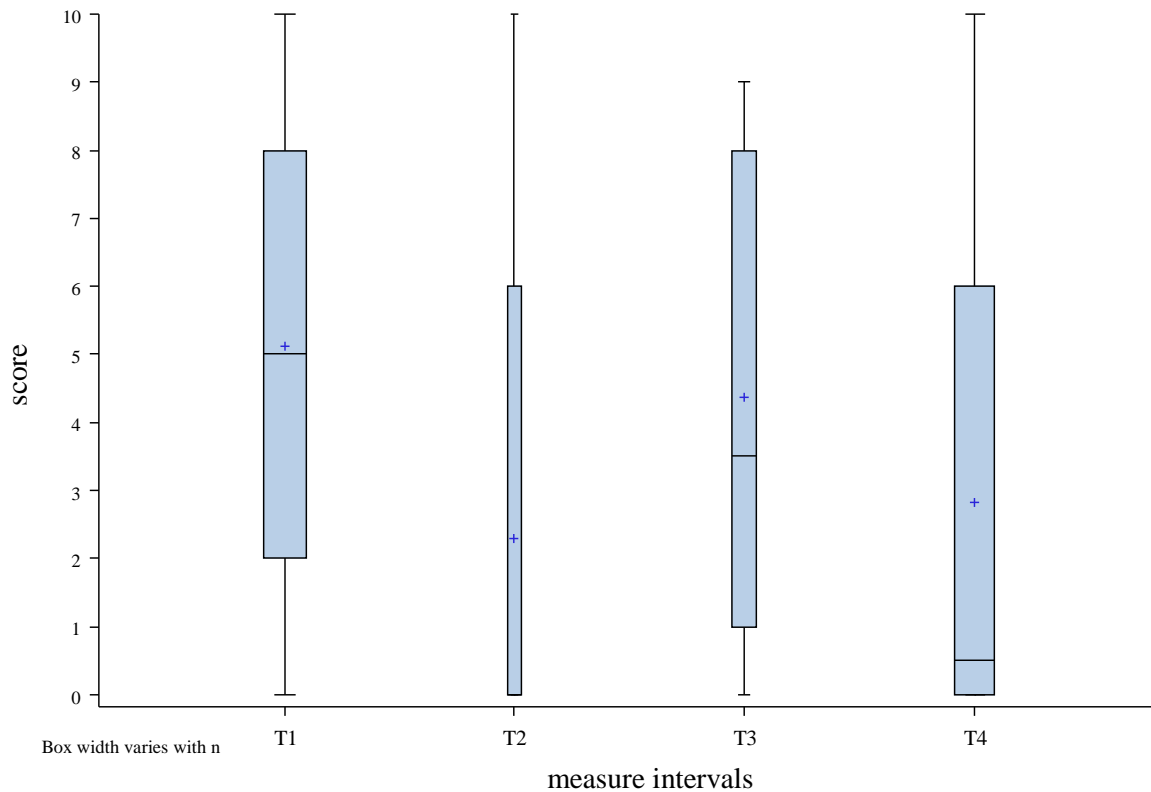
1.20.8 SIS Item Score - Family relationships

Using the SIS, eligible respondents indicated that their family relationships were strongly impacted by stigma both pre-and-post course (see Figure 10). The mean score for the impact of stigma at T1 was 5.1 and this reduced at T2 to 2.3. The mean score increased at T3 to 4.4 then fell again at T4 to 2.8. A paired t-test analysis for eligible participants showed a statistically significant decrease in reported impact of stigma on family relationships (with $\alpha = .05$) at the three month post-intervention interval (see Table 14).

Table 14: Pre/Post-Intervention SIS Measure of Family Relationships TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	16	1.0625	3.6782	0.9196	-7.00	10.00	1.16	0.2660
T1 to T4	29	2.3448	3.9666	0.7366	-5.00	10.00	3.18	0.0036
T1 to Last Meas.	33	2.0606	3.7909	0.6599	-5.00	10.00	3.12	0.0038

Figure 10: Family Relationships SIS Measure for Eligible Respondents



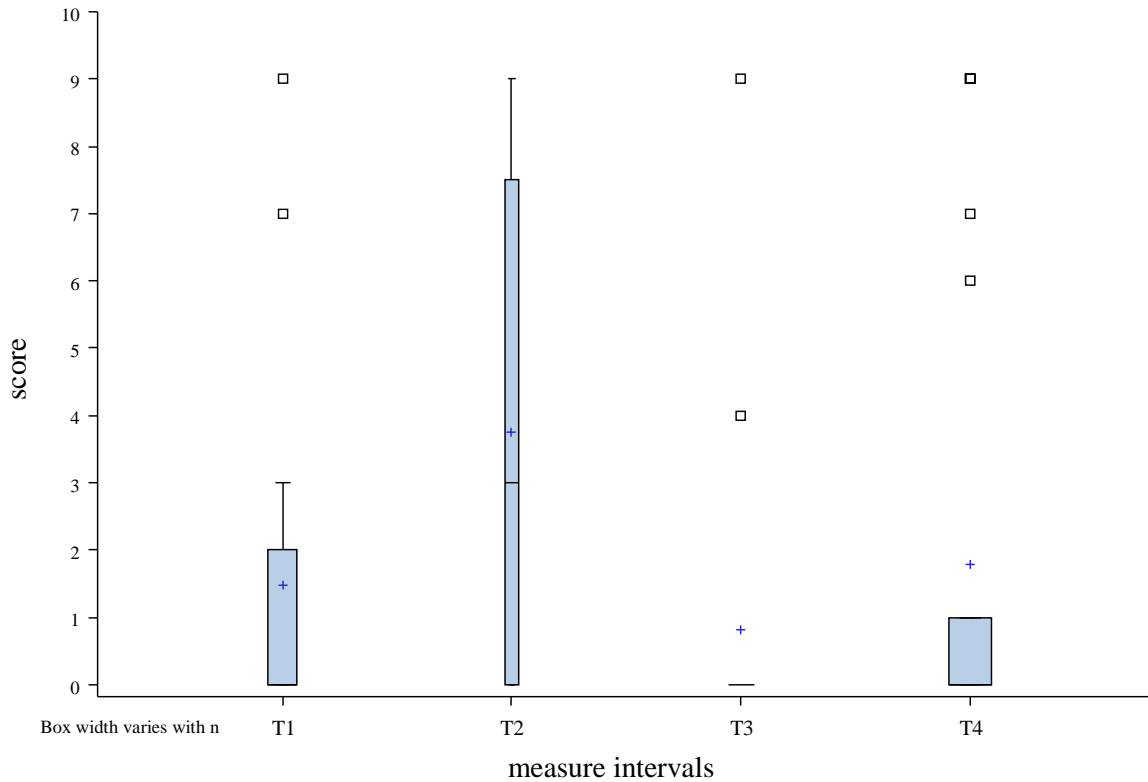
1.20.9 SIS Item Score – Housing

Using the SIS, eligible respondents indicated that their housing situation was only slightly impacted by stigma both pre-and-post course (see Figure 11). The mean score for the impact of stigma on housing at T1 was 1.5 and increased at T2 to 3.8. The mean score decreased at T3 to 0.8 and then recovered slightly at T4 to 1.8. A paired t-test analysis for eligible participants did not show a statistically significant (with $\alpha = .05$) change to the impact of stigma on housing (see Table 15).

Table 15: Pre/Post-Intervention SIS Measure of Housing TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	0.5333	3.6423	0.9404	-9.00	9.00	0.57	0.5796
T1 to T4	18	0.0556	4.0216	0.9479	-9.00	9.00	0.06	0.9539
T1 to Last Meas.	19	0.0526	3.9083	0.8966	-9.00	9.00	0.06	0.9538

Figure 11: Housing SIS Measure for Eligible Respondents



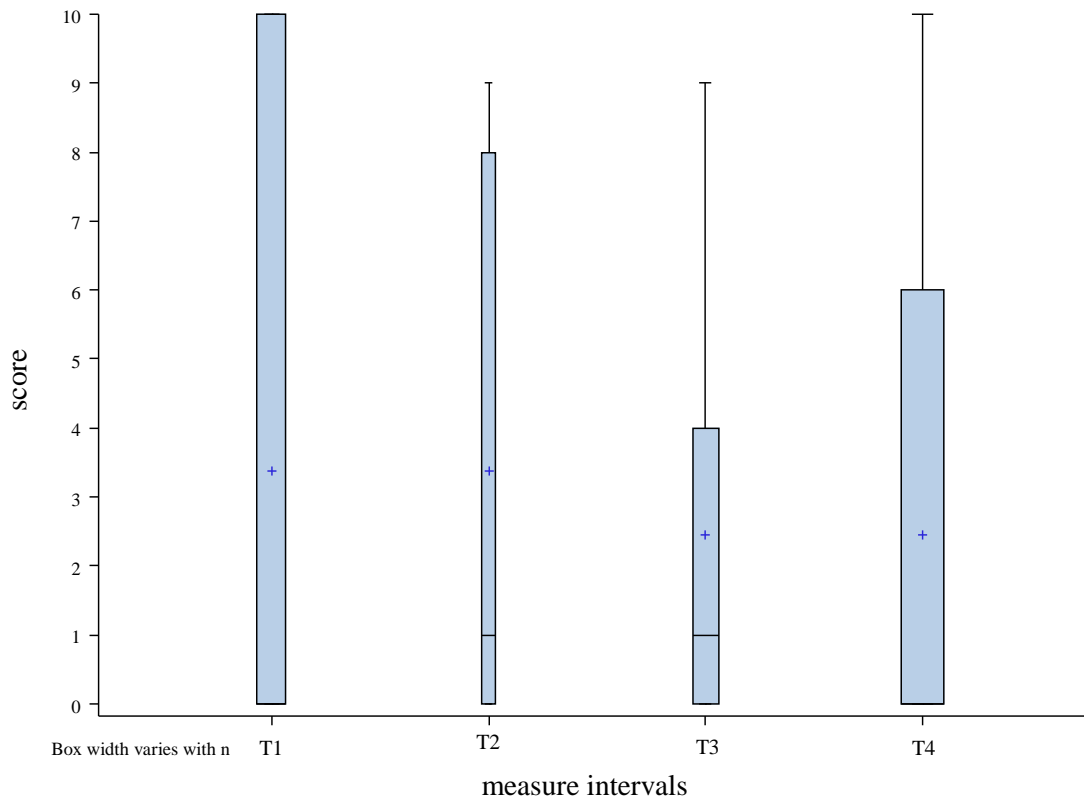
1.20.10SIS Item Score - Work/School life

Using the SIS, eligible respondents indicated that their work and/or school life was somewhat impacted by stigma both pre-and-post course (see Figure 12). The mean score of the impact of stigma on work and/or school life at T1 was 3.4 and remained unchanged at T2 with 3.4. The mean score then decreased at T3 to 2.4 and remained unchanged at T4. A paired t-test analysis for eligible participants showed a trend in decreased stigma experienced, but it was not statistically significant (with $\alpha = .05$) with post-intervention changes (see Table 16).

Table 16: Pre/Post-Intervention SIS Work/School Life TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	1.2000	5.6971	1.4710	-9.00	10.00	0.82	0.4283
T1 to T4	18	1.7778	5.0241	1.1842	-7.00	10.00	1.50	0.1516
T1 to Last Meas.	19	1.6842	4.8996	1.1240	-7.00	10.00	1.50	0.1514

Figure 12: Work/School Life SIS Measure for Eligible Respondents



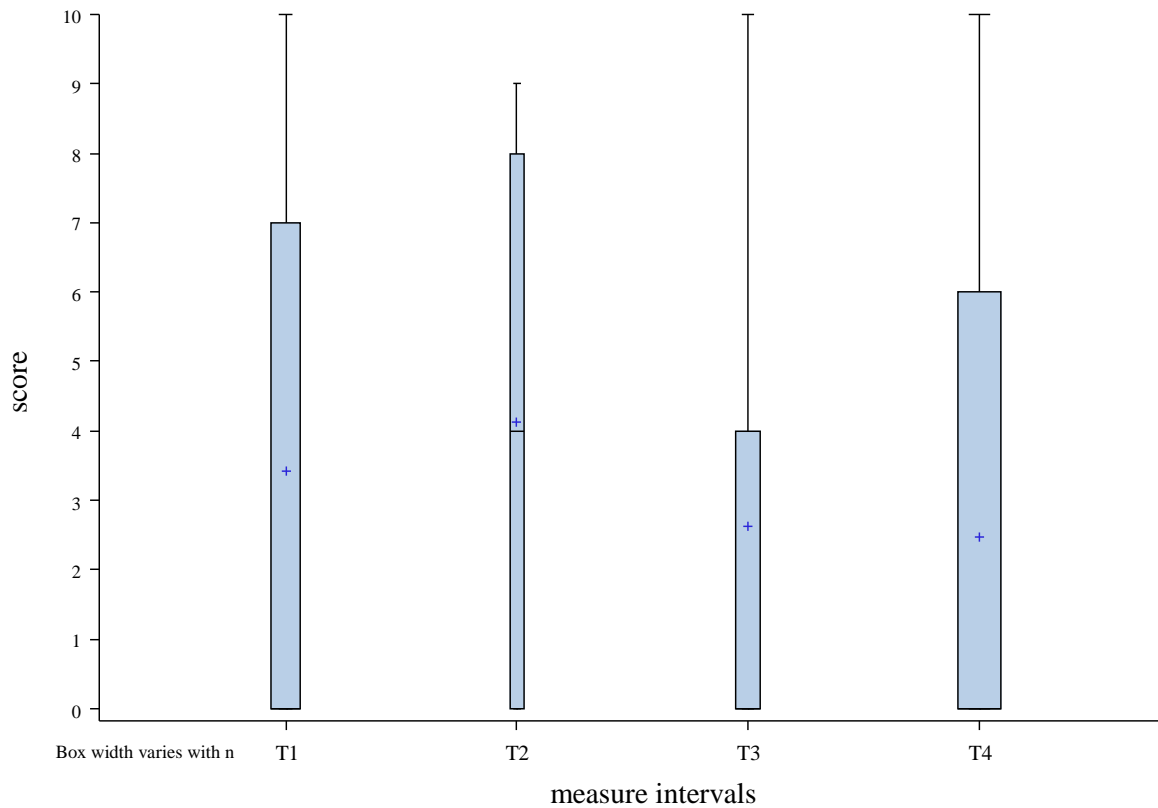
1.20.11 SIS Item Score – Financial

Using the SIS, eligible respondents indicated that their financial situation was somewhat impacted by stigma both pre-and-post course (see Figure 13). The mean score for the impact of stigma on financials at T1 was 3.4 and this increased at T2 to 4.1. The mean score then decreased at T3 to 2.6 and decreased again slightly at T4 to 2.5. A paired t-test analysis for eligible participants showed a trend in decreased stigma, but it was not statistically significant (with $\alpha = .05$) at any of the three post-intervention intervals (see Table 17).

Table 17: Pre/Post-Intervention SIS Financial TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	0.4000	4.3883	1.1331	-9.00	9.00	0.35	0.7293
T1 to T4	18	1.1667	3.5189	0.8294	-9.00	7.00	1.41	0.1776
T1 to Last Meas.	19	1.1053	3.4302	0.7869	-9.00	7.00	1.40	0.1772

Figure 13: Financial SIS Measure for Eligible Respondents



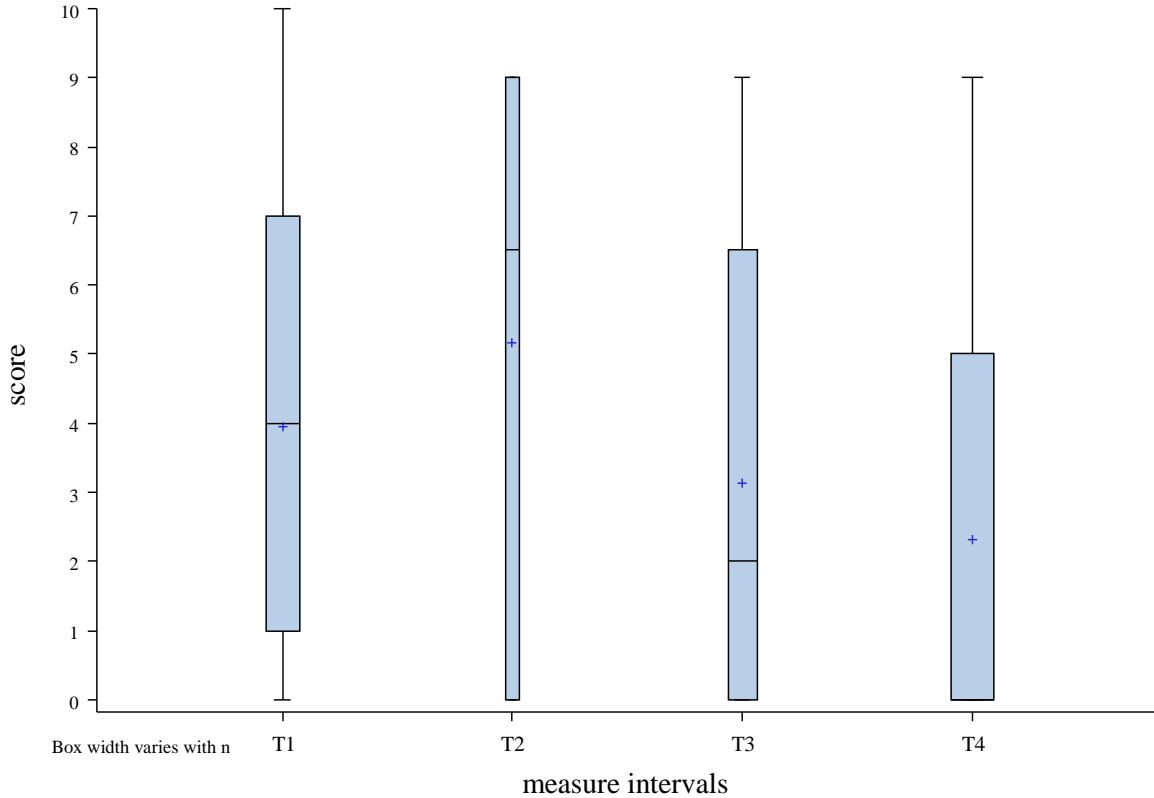
1.20.12 SIS Item Score - Leisure

Using the SIS, eligible respondents indicated that their leisure was impacted by stigma both pre- and post course (see Figure 14). The mean score for the impact of stigma on leisure at T1 was 3.9 and this increased at T2 to 5.2. The mean score decreased at T3 to 3.1 and then decreased further at T4 to 2.3. A paired t-test analysis for eligible participants did not show statistically significant change with $\alpha=0.05$ (see Table 18).

Table 18: Pre/Post-Intervention SIS Leisure TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
T1 to T3	15	0.4000	3.4600	0.8934	-5.00	8.00	0.45	0.6612
T1 to T4	18	1.3333	3.2540	0.7670	-6.00	8.00	1.74	0.1002
T1 to Last Meas.	19	1.2632	3.1770	0.7289	-6.00	8.00	1.73	0.1002

Figure 14: Leisure SIS Measure for Eligible Respondents



1.21 Secondary Measures

The secondary measures in this study are the Quality of Life and the Empowerment scales. The Quality of Life Scale (QOLS) measure the general well-being of individuals. A greater value of QOLS scale score (range of 16 – 112) represents higher reported quality of life. The QOLS measures for eligibility respondents (see Table 19) indicate good quality of life. The average QOLS score pre-intervention (T1) was 69.9 (n=18) and rose slightly at T4 to 75.6 (n=14). A paired t-test analysis (see Table 20) did not show a statistically significant change in the measure of quality of life for eligible participants (with $\alpha = .05$).

Table 19: Secondary Measures – Quality of Life and Empowerment

Scale	Interval	N	Mean	Std Dev	Std Error	Min.	Q1	Median	Q3	Max.
QOLS	T1	18	69.9	14.84	3.5	31	65	70.5	79	91
	T4	14	75.6	10.38	2.77	61	68	73.5	87	91
EMP	T1	18	2.8	0.33	0.08	1.96	2.66	2.77	3	3.3
	T4	13	3.0	0.29	0.08	2.46	2.86	2.96	3.04	3.57

The Empowerment Scale (EMP) is designed to measure subjective feelings of empowerment. A greater value of EMP scale score (range of 0 to 4) represents higher feelings of empowerment.

The EMP measures for eligibility respondents of 2.8 (T1) and 3.0 (T4) indicate good feelings of empowerment (see Table 19). The paired t-test for eligible participants showed a trend of increased empowerment (see Table 20) but was not statistically significant (at $\alpha=0.05$).

Table 20: Pre/Post-Intervention QOL & EMP TTest

	N	Mean	Std Dev	Std Err	Min.	Max	t Value	Pr > t
QOL: T1 to T4	14	-6.21	12.60	3.37	-37.00	13.00	-1.85	0.0878
EMP: T1 to T4	13	-0.24	.43	0.12	-1.39	0.36	-2.00	0.0681

1.22 Facilitator and Participant Feedback

All of the facilitators voluntarily completed written questionnaire following each session of the intervention (see Appendix E). The only recommendation for changing the structure of the intervention was to remove an icebreaker activity that they proposed could create anxiety for participants. Two facilitators reported the benefits of the flexibility of the intervention. All facilitators reported the content of the intervention was relevant.

The participants voluntarily and anonymously completed written questionnaire following each session of the intervention (see Appendix F). Feedback from participants was generally quite positive about the intervention, the environment and the facilitators. Average scores for the

sessions revealed that Session 2, “Depression, Anxiety and Recovery”, was perceived as slightly less useful, slightly less helpful, and slightly less pleasant. Session 7, the review session, received the highest scores from participants.

Table 21: Participant Session Experience Feedback

	N	Mean	Std Dev	Std Error	Min.	Max.	Median	Mode
<i>Content was useful</i>								
Session 1	30	5.23	0.7279	0.1329	3.0	6.0	5.0	5.0
Session 2	22	4.95	0.9989	0.2130	3.0	6.0	5.0	5.0
Session 3	17	5.35	0.7019	0.1702	4.0	6.0	5.0	6.0
Session 4	16	5.25	0.5774	0.1443	4.0	6.0	5.0	5.0
Session 5	17	5.35	0.8618	0.2090	3.0	6.0	6.0	6.0
Session 6	11	5.45	0.6876	0.2073	4.0	6.0	6.0	6.0
Session 7	21	5.67	0.4851	0.1143	5.0	6.0	6.0	6.0
<i>Presentation style was helpful</i>								
Session 1	30	5.23	0.9353	0.1708	2.0	6.0	5.0	5.0
Session 2	22	5.00	0.8729	0.1861	3.0	5.0	5.0	5.0
Session 3	17	5.18	0.7276	0.1765	4.0	6.0	5.0	5.0
Session 4	16	5.25	0.6831	0.1708	4.0	6.0	5.0	5.0
Session 5	17	5.18	1.0146	0.2461	2.0	6.0	5.0	5.0
Session 6	11	5.36	0.9244	0.2787	3.0	6.0	6.0	6.0
Session 7	18	5.67	0.4851	0.1143	5.0	6.0	6.0	6.0
<i>Learning environment was pleasant</i>								
Session 1	30	5.30	0.9154	0.1671	2.0	6.0	5.5	6.0
Session 2	22	5.04	1.3620	0.2904	1.0	6.0	5.5	6.0
Session 3	17	5.41	0.8703	0.2111	3.0	6.0	6.0	6.0
Session 4	16	5.69	0.6021	0.1505	4.0	6.0	6.0	6.0
Session 5	17	5.35	0.9314	0.2259	3.0	6.0	6.0	6.0
Session 6	11	5.27	1.0090	0.3042	3.0	6.0	6.0	6.0
Session 7	18	5.61	0.6077	0.1432	4.0	6.0	6.0	6.0
<i>Facilitators were knowledgeable</i>								
Session 1	30	5.63	0.4901	0.0894	5.0	6.0	6.0	6.0
Session 2	22	5.23	1.0660	0.2273	2.0	6.0	5.5	6.0
Session 3	17	5.47	0.7174	0.1740	4.0	6.0	5.5	6.0
Session 4	16	5.56	0.7274	0.1819	4.0	6.0	6.0	6.0
Session 5	17	5.41	0.8703	0.2117	3.0	6.0	6.0	6.0
Session 6	11	5.36	0.9244	0.2787	3.0	6.0	6.0	6.0
Session 7	18	5.78	0.4278	0.1008	5.0	6.0	6.0	6.0

Chapter 5

Discussion

The Overcoming Stigma in Mood and Anxiety Disorders intervention explored strategies to aid people to manage and overcome self-stigma to have a full and meaningful life. The key findings of this study were that five areas of the twelve-item Stigma Impact Scale (SIS) showed a significant change between pre- and post-intervention measures in the group of eligible respondents. The five reported areas affected were physical health, personal goals, social contacts, self-esteem, and family relationships. These represent some of the personally controlled aspects of an individual's life that are impacted by stigma and were the ones that concerned social relationships (family and social contacts) and self-stigma (personal goals, self-esteem). In turn, responses by participants on these items may reflect their feeling that the impact of stigma on their physical health had decreased (as social support and improved self-esteem have been shown to do). The reduced impact of stigma on physical health also may have been influenced by the strategies in the intervention that explored role playing and preparing scripts for their future medical appointments.

The items reported by participants that did not show statistically significant changes were those that pertained to structural discrimination (housing, work/school, finances) or items that could change once structural barriers were removed (leisure, quality of life and recovery). Structural aspects of stigma are out of the immediate control of individuals, whereas the personally-controlled aspects are dimensions of life over which individuals have more control. Given that the SIS items reported by participants respond differently to the intervention, it is important not to use aggregate scale scores that combine structural aspects of stigma and personally controlled aspects of stigma. A Factor Analysis could confirm this relationship.

Using the Stigma Impact Scale (see Appendix D) as the primary measure presumed a high level of knowledge and awareness of stigma. This study presumed that participants understood the definition of stigma and could differentiate between the impact of the stigma associated with mental illness and the effects of the mental illness.

The results in this study may have been affected by confounders. This project did not measure physical health or the effect of comorbidities that could have affected the results. For example, as the results were not separated by clinical diagnosis, the psychosocial impact of stigma could be different for someone with depression compared to someone with a Bipolar Disorder. Yalom (1970) described 12 curative effects of group therapy, which included self-understanding and the instillation of hope. The intrinsic benefits of group therapy may have also confounded the effects of this intervention.

Although it was not measured, participant awareness and knowledge of stigma did change during the course of the intervention. Anecdotal information from participants revealed that the course increased their awareness of the stigma that they were experiencing. Participants who reported no stigma experiences prior to the course later described an awareness of their self-stigmatizing behaviours. It is possible that those who became aware of stigma through the course showed lower post-intervention measures reflecting an overall increase in the impacts of stigma. Those who were unaware of the impact of stigma may have become upset and withdrawn from the study after they gained an increased understanding and awareness of the impact that stigma may have on various aspects of their lives. Measuring impact would therefore indicate that the intervention contributed to increased impact of stigma. A measure to assess stigma awareness and awareness of self-stigma would be helpful for future controlled studies.

1.23 Limitations

The three main limitations of this study were sample bias, small sample sizes, and the limited length of time to see change. Most studies have been based on clinical populations, diagnosed with one or more specific disorders. In this analysis, disorder-specific differences were not assessed due to comorbidity of several mental illnesses. The sample bias in this project was largely the result of the self-referral recruitment process. A significant number of participants involved in this study were not currently employed, therefore, making them available to participate. A randomized control trial could minimize the effects of sample bias with the addition of a control group and flexible scheduling. The majority of all registered participants received regular care for their mental illness. This exceeds the population norm, where an estimated two-thirds of people do not receive care for their mental illness (Andrade et al., 2014; Golberstein, Eisenberg, & Gollust, 2008; Kessler et al., 2001; Sickel, Seacat, & Nabors, 2014). Also, anecdotal feedback from drop-outs proposed that group composition could be more homogeneous (i.e. a group of teachers, people on leave from employment). One participant reported that he did not feel he could relate to the issues faced by people who had been hospitalized.

Stigma is a barrier to seeking and following-through with therapy (Gould et al., 2010), so it is important to understand the issues that affect premature departure from this course to ensure sufficient sample sizes. Attrition can be a bi-product of stigma, and the people most impacted by stigma would especially find it challenging to continue with treatments and interventions. The number of eligible participants in this study represents a large drop from those who originally expressed interest, largely due to their poor attendance in the intervention. In this study, attrition was highest during the initial sessions, which is consistent across various treatments (Masi,

Miller, & Olson, 2003). The consequence of attrition includes bias and reduced generalization and validity (David, Alati, Ware, & Kinner, 2013). It proved difficult to recruit sufficient participants in Kingston. Two courses were cancelled and participants transferred to other groups due to a lack of registered participants. A larger centre or a multi-site study could provide a larger pool of eligible participants.

To overcome some limitations of attrition, instruments were used both by self-report and by phone interview: two by self-report and two by phone. Collaboration and engagement are important for successful treatment and reduced attrition (Warnick, Bearss, Weersing, Scahill, & Woolston, 2014). In the future, attrition-prevention strategies should be put in place for the randomized control trials. These strategies could include more frequent contact with facilitators between sessions to maintain participant engagement (David et al., 2013).

After the pilot, the addition of instruments during the project resulted in several incomplete data sets. The advantage of the pilot study was to be able to fine tune the project before an expensive RCT. The disadvantage was that the data gathered has many gaps, reducing the sample size. Even if a large number of specific areas were impacted, this information would not be captured by the project and instead reflect a complete elimination of the impact of stigma to all areas.

The third limitation was the length of time required to change long-established behaviours. This intervention lasted only 7 weeks, which may not be long enough to allow for the repetition necessary to change patterns of behaviour. Specifically, significant changes to the impact of stigma related to mental illness on housing, work/school life and quality of life may not be measurable within the short length of this intervention and post-measures. The dilemma is that extending the course could improve the likelihood of behavioural changes and seeing an impact in overall quality of life (as measured by the SIS), but it might also increase attrition. Adding

additional post-intervention measures at multi-year intervals could help to determine whether the intervention effect was sustained over time and if structural level changes could be observed.

1.24 Recommendations for Future Research

This study has demonstrated that it is valuable to test the efficacy of the Overcoming Stigma in Mood and Anxiety Disorders intervention. The experiences documented by this pilot program suggest three adjustments: by enforcing the study's exclusion criteria, by measuring stigma awareness and by obtaining more-refined measures of personally controlled stigma compared to structural stigma. During this study, the "current depression" exclusion criteria was violated. Participants who did not meet the required criteria of the study were not discontinued due to concerns about increasing stigmatization from exclusion; the concern was that rejecting an individual from participation because of severe depression symptoms might negatively affect the individual. Although their scores were not included in the eligible respondents, they were permitted to participate in the group sessions. The involvement of these ineligible participants negatively affected other participants as reported in their feedback form (see Appendix F) and may have altered the dynamics of the group. The randomized control trial protocol could mitigate these effects by postponing inclusion of ineligible participants and encouraging them to seek immediate treatment for their severe symptoms of depression. To further ensure the usefulness of the stigma impact measure, future projects must include a stigma-awareness measure. More refined measures are required to detect personally controlled stigma compared to issues of structural stigma. The findings of this study also suggest that changes to the intervention and/or a different intervention would be required to create significant reductions to the impact of stigma on a person's life of structural-level stigma.

Considering group dynamics is important when measuring anti-stigma interventions (Wirth & Bodenhausen, 2009), an important strength of this study was that it incorporated participants with a spectrum of non-severe mental illnesses. Comorbidities of Mood and Anxiety Disorders are common, and participants appreciated the opportunities to share their experiences with others. Future randomized control trials could mitigate this effect by providing a three-arm approach with two control groups, one of which is a chat group (with no specific focus) and the other is a waitlist group.

Chapter 6

Conclusions

The development of Beaudoin's (2012) unique intervention for individuals with Mood and Anxiety Disorders was necessary in order to provide them the opportunity to learn to overcome self-stigma and manage social stigma in order to live full and meaningful lives. The objective of this study was to evaluate the efficacy of the Overcoming Stigma in Mood and Anxiety Disorders intervention for managing and overcoming stigma for adults with Mood and/or Anxiety Disorders. The results showed promising reductions in the stigma experienced as reported by the participants beyond the three months post-course in areas of life that are under personal control, but no changes in structural areas (such as work or housing) that are largely outside of personal control. These results support further work to help those with a mood and/or anxiety disorder to overcome self-stigma and manage social stigma. This study was an important step towards the larger project of reducing the stigma experience by those with a mental illness.

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Appendix B: Study Consent Form



STUDY INFORMATION AND CONSENT FORM

Title of Project

Pilot Project to Field Test a New Stigma Management Psychoeducational and Behavioural Modification Course for People with Mood and Anxiety Disorders

Principal Investigators

Dr. Roumen Milev, Department of Psychiatry, Queen's University and Dr. Heather Stuart, Community Health & Epidemiology, Queen's University.

Overview of Study

You are invited to take part in a 7-week pilot test of a new course that is intended to help manage the stigma associated with Mood and Anxiety Disorders. Two course facilitators will guide the group discussions. Both have personal experience with a mental illness.

The information in this form is to help you decide whether or not to take part in this study course. Please take time to read all the information carefully. Discuss it with friends and family if you wish. If there is anything you do not understand or if you would like more information, please ask the principal investigators.

Details of Your Participation

A course facilitator will ask you about your past stigma experiences using specially designed questionnaires. Your participation will require you to:

- Participate in group discussions,
- Practice skills at home,
- Complete data collection instruments, as required.

At the end of each session, you will be asked to discuss the content and format of the session. We hope that you will point out things that you found helpful and things that you would like use to do differently the next time.

Sessions will be tape recorded for quality improvement purposes. At the close of the study all tapes will be destroyed.

Course Content

During the seven weeks of the course, the following themes will be examined:

1. The nature of stigma
2. The nature of depression, anxiety and the meaning of recovery
3. The nature of self-stigma
4. Reactions of family and friends
5. Stigma in the workplace
6. Disclosure
7. Summary of stigma management strategies and lessons learned. The final session will include a discussion as to the potential effects of the course for participants.

Benefits

This course is designed to help you increase your understanding about your illness, how stigma may affect you, and provide you with some ways of managing stigmatizing situations. The knowledge and skills gained will assist you in your recovery. You will also have an opportunity to gain peer support from group members. Finally, you may benefit from the knowledge that you have helped us improve this course.

Risks

The risks to participating in this study are minimal. You may find that telling or hearing stigma experiences is upsetting. However, the group environment will provide you with important peer support. The study physician (Dr. Roumen Milev) may withdraw you from the group if he feels the study protocol is not of benefit to your treatment.

Confidentiality

All information obtained during the course of this study is strictly confidential. Your anonymity will be protected at all times. Data will be stored in locked files and will be available only to the investigators. You will not be identified in any publication or reports.

Voluntary nature of study/Freedom to withdraw or participate

Your participation in this study is entirely voluntary. You may withdraw at any time and your withdrawal will not affect your future medical care with your physician or at this hospital.

Contact Information in Case of Questions

If at any time you have further questions or problems, you can contact the Principal Investigators, Dr. Roumen Milev at 613-548-5567 extension 5823 or Dr. Heather Stuart at 613-540-4767.

If you have any questions regarding your rights as a research subject, you can contact Dr. Albert Clark, Chair, Queen’s University Health Sciences and Affiliated Teaching Hospitals Research Ethics Board at 613-533-6081.

If you have any questions about your rights as a participant in this study, please contact Dr. Leslie Flynn, Deputy Head, Department of Psychiatry, Queen’s University at 613-548-5567, extension 5823.

Subject Statement and Signature Section

I have read and understand the consent form for this study. I have had the purposes, procedures and technical language of this study explained to me. I have been given sufficient time to consider the above information and to seek advice if I chose to do so. I have had the opportunity to ask questions, which have been answered to my satisfaction. I am signing this form voluntarily. I will receive a copy of this consent form.

By signing this consent form, I am indicating that I agree to participate in this study.

Signature

Date (yy/mm/dd)

Witness

Date (yy/mm/dd)

Appendix C: Research Ethics Board Approval



QUEEN'S UNIVERSITY HEALTH SCIENCES AND AFFILIATED TEACHING HOSPITALS ANNUAL RENEWAL

Queen's University, in accordance with the "Tri-Council Policy Statement, 1998" prepared by the Medical Research Council, Natural Sciences and Engineering Research Council of Canada and Social Sciences and Humanities Research Council of Canada requires that research projects involving human subjects be reviewed annually to determine their acceptability on ethical grounds.

A Research Ethics Board composed of:

- Dr. A.F. Clark**, Emeritus Professor, Department of Biochemistry, Faculty of Health Sciences, Queen's University (Chair)
- Dr. H. Abdollah**, Professor, Department of Medicine, Queen's University
- Dr. C. Cline**, Assistant Professor, Department of Medicine, Director, Office of Bioethics, Queen's University, Clinical Ethicist, Kingston General Hospital
- Dr. R. Brison**, Professor, Department of Emergency Medicine, Queen's University
- Dr. M. Evans**, Community Member
- Dr. S. Horgan**, Manager, Program Evaluation & Health Services Development, Geriatric Psychiatry Service, Providence Care, Mental Health Services Assistant Professor, Department of Psychiatry
- Ms. J. Hudacin**, Community Member
- Dr. J. MacKenzie**, Pediatric Geneticist, Department of Paediatrics, Queen's University
- Mr. D. McNaughton**, Community Member
- Ms. P. Newman**, Pharmacist, Clinical Care Specialist and Clinical Lead, Quality and Safety, Pharmacy Services, Kingston General Hospital
- Ms. S. Rohland**, Privacy Officer, ICES-Queen's Health Services Research Facility, Research Associate, Division of Cancer Care and Epidemiology, Queen's Cancer Research Institute
- Dr. B. Simchison**, Assistant Professor, Department of Anaesthesiology and Perioperative Medicine, Queen's University
- Dr. A. Singh**, Professor, Department of Psychiatry, Queen's University
- Dr. J. Tang**, Medical Resident, Department of Emergency Medicine, Queen's University
- Ms. K. Weisbaum**, LL.B. and Adjunct Instructor, Department of Family Medicine (Bioethics)

has reviewed the request for renewal of Research Ethics Board approval for the project **Pilot Project to Field Test a New Stigma Management Psychoeducational and Behaviour Modification Course for People With Mood and Anxiety Disorders** as proposed by **Dr. Roumen V. Milev** of the **Department of Psychiatry, at Queen's University**. The approval is renewed for one year, effective **February 02, 2013**. If there are any further amendments or changes to the protocol affecting the participants in this study, it is the responsibility of the principal investigator to notify the Research Ethics Board. Any unexpected serious adverse event occurring locally must be reported within 2 working days or earlier if required by the study sponsor. All other adverse events must be reported within 15 days after becoming aware of the information.

Albert F. Clark

Date: January 09, 2013

Chair, Research Ethics Board

Renewal 1 Renewal 2 Extension Code# PS1Y-255-07 Romeo file# 6004705

Appendix D: 12-item SIS Measure

In the past month, did you feel that anyone held negative opinions about you or treated you unfairly because of your past or current mental health?

Yes No

If yes, how much did these negative opinions or unfair treatment affect you personally? On a ten-point scale where 0 is the lowest possible amount, and 10 is the highest possible amount, what number best quantifies this impact, IN THE PAST MONTH, in the following areas?

Your quality of life?	Not At all	0	1	2	3	4	5	6	7	8	9	10	n/a
Your social contacts?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your family relationships?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your self-esteem?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your recovery?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your personal goals?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your leisure activities?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your physical health?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your housing situation?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your work or school life?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your romantic life?		0	1	2	3	4	5	6	7	8	9	10	n/a
Your financial situation?		0	1	2	3	4	5	6	7	8	9	10	n/a

Appendix E: Facilitator's Reflection Form

Please reflect on your experiences

1. Two challenges I experienced in preparing for today's session...
(e.g. not enough time to prepare, lack of resources, etc.)

2. Two challenges or barriers I experienced during today's session...
(e.g. group dynamics, time frame, my reactions/emotions/thoughts)

3. Two positive experiences I had during today's session...

4. An area for growth in my leadership skills is...

5. Two things I would do differently in future sessions...

6. Things I need to follow up in the next session...

7. Other comments

Appendix F: Participant Feedback Form

Please give us your feedback about today’s session.

Circle one number on each of the following...

	Strongly Disagree							Strongly Agree
1. Content was useful	1	2	3	4	5	6	7	
2. Presentation style was helpful	1	2	3	4	5	6	7	
3. Learning environment was pleasant	1	2	3	4	5	6	7	
4. Facilitators were knowledgeable	1	2	3	4	5	6	7	

Please comment on the following:

5. How do you describe your group experience? *(Please circle as many as apply)*
 Not related to me Fun Helpful Source of learning Boring _____
6. Two things I have learned in today’s session...
7. What I liked best and found meaningful about today’s session...
8. What I liked least about today’s session...
9. I am going to use what I learned today to...
10. Other comments about today’s session...

Thank you for your feedback!

Appendix G: The 12-Item SIS Mean Measures at Time Intervals for All Participants

		N	Mean	Std dev	Pr > t	t Value	Min	Low Quar	Up. Quar.	Max	Mode
Quality of Life	T1	48	5.604	2.937	<.0001	13.22	0.0	3.0	8.0	10.0	8.0
	T2	6	2.833	3.656	0.1161	1.9	0.0	0.0	5.0	9.0	0.0
	T3	16	3.938	3.296	0.0002	4.78	0.0	0.5	5.5	10.0	0.0
	T4	30	3.733	4.051	<.0001	5.05	0.0	0.0	8.0	10.0	0.0
Physical Health	T1	31	4.71	3.598	<.0001	7.29	0.0	1.0	8.0	10.0	1.0
	T2	6	5.167	4.262	0.0312	2.97	0.0	0.0	9.0	9.0	0.0
	T3	16	2.688	2.96	0.0025	3.63	0.0	0.0	4.5	9.0	0.0
	T4	30	2.5	3.411	0.0004	4.01	0.0	0.0	6.0	10.0	0.0
Recovery	T1	31	5.194	3.188	<.0001	9.07	0.0	2.0	8.0	10.0	8.0
	T2	6	4.667	3.983	0.035	2.87	0.0	0.0	8.0	9.0	0.0
	T3	16	3.375	3.384	0.0012	3.99	0.0	0.0	7.0	9.0	0.0
	T4	30	3.1	3.726	<.0001	4.56	0.0	0.0	7.0	10.0	0.0
Housing Situation	T1	31	2.806	3.535	0.0001	4.42	0.0	0.0	7.0	10.0	0.0
	T2	8	3.75	4.097	0.036	2.59	0.0	0.0	7.5	9.0	0.0
	T3	16	0.813	2.401	0.1958	1.35	0.0	0.0	0.0	9.0	0.0
	T4	34	1.824	3.477	0.0044	3.06	0.0	0.0	1.0	10.0	0.0
Personal Goals	T1	31	5.097	3.33	<.0001	8.52	0.0	2.0	8.0	10.0	8.0
	T2	6	4.667	4.033	0.0365	2.83	0.0	0.0	9.0	9.0	0.0
	T3	16	3.75	3.55	0.0007	4.23	0.0	0.0	7.0	10.0	0.0
	T4	30	2.2	3.263	0.0009	3.69	0.0	0.0	2.0	10.0	0.0
Work/School Life	T1	31	5	4.487	<.0001	6.2	0.0	0.0	10.0	10.0	0.0
	T2	8	3.375	4.207	0.0575	2.27	0.0	0.0	8.0	9.0	0.0
	T3	16	2.438	3.183	0.0079	3.06	0.0	0.0	4.0	9.0	0.0
	T4	33	2.485	3.801	0.0007	3.76	0.0	0.0	6.0	10.0	0.0
Social Contacts	T1	48	5.688	3.256	<.0001	12.1	0.0	3.5	8.0	10.0	5.0
	T2	6	3.667	3.67	0.0581	2.45	0.0	0.0	7.0	9.0	0.0
	T3	16	3.063	3.193	0.0016	3.84	0.0	0.0	5.5	9.0	0.0
	T4	28	2.679	3.57	0.0005	3.97	0.0	0.0	5.5	10.0	0.0
Leisure Activities	T1	31	4.903	3.102	<.0001	8.8	0.0	3.0	8.0	10.0	8.0
	T2	6	5.167	4.167	0.0289	3.04	0.0	0.0	9.0	9.0	0.0
	T3	16	3.125	3.462	0.0026	3.61	0.0	0.0	6.5	9.0	0.0
	T4	29	2.345	3.436	0.001	3.68	0.0	0.0	5.0	10.0	0.0
Romantic Life	T1	31	4.452	4.146	<.0001	5.98	0.0	0.0	8.0	10.0	0.0
	T2	8	4	4.14	0.0292	2.73	0.0	0.0	8.0	9.0	0.0
	T3	16	2.5	3.347	0.0092	2.99	0.0	0.0	5.0	9.0	0.0
	T4	34	2.765	3.939	0.0003	4.09	0.0	0.0	6.0	10.0	0.0
Family Relationships	T1	48	5.292	3.47	<.0001	10.57	0.0	2.0	8.5	10.0	6.0
	T2	7	2.286	4.071	0.1879	1.49	0.0	0.0	6.0	10.0	0.0
	T3	17	4.706	3.721	<.0001	5.21	0.0	2.0	8.0	10.0	0.0
	T4	34	2.794	3.828	0.0002	4.26	0.0	0.0	6.0	10.0	0.0
Financial Situation	T1	31	4.226	4.105	<.0001	5.73	0.0	0.0	8.0	10.0	0.0
	T2	8	4.125	4.224	0.028	2.76	0.0	0.0	8.0	9.0	0.0
	T3	16	2.625	3.81	0.0147	2.76	0.0	0.0	4.0	10.0	0.0
	T4	34	2.471	3.662	0.0004	3.93	0.0	0.0	6.0	10.0	0.0
Self-esteem	T1	48	6.792	3.003	<.0001	15.67	0.0	5.0	10.0	10.0	10.0
	T2	6	4.5	3.834	0.0348	2.87	0.0	0.0	7.0	9.0	0.0
	T3	16	4.125	2.964	<.0001	5.57	0.0	1.5	7.0	8.0	7.0
	T4	30	3.5	3.794	<.0001	5.05	0.0	0.0	7.0	10.0	0.0

Appendix H: The 12-Item SIS Pre/Post-Intervention TTest for All Registered Participants

	N	Mean	Std Dev	Std Err	Min.	Max.	t Value	Pr > t
<i>Quality of Life</i>								
T1 to T3	16	0.9375	3.4923	0.8731	-6.00	8.00	1.07	0.2999
T1 to T4	28	1.4643	4.1229	0.7792	-8.00	8.00	1.88	0.0710
T1 to Last Measure	48	0.8542	3.2090	0.4632	-8.00	8.00	1.84	0.0715
<i>Physical Health</i>								
T1 to T3	15	1.6000	4.3720	1.1288	-3.00	10.00	1.42	0.1780
T1 to T4	21	1.9524	3.2168	0.7020	-2.00	9.00	2.78	0.0115
T1 to Last Measure	31	1.3226	2.7855	0.5003	-2.00	9.00	2.64	0.0129
<i>Recovery</i>								
T1 to T3	15	0.8667	2.6957	0.6960	-2.00	8.00	1.25	0.2335
T1 to T4	21	0.8095	3.8681	0.8441	-6.00	8.00	0.96	0.3490
T1 to Last Measure	31	0.4516	3.2439	0.5826	-6.00	8.00	0.78	0.4443
<i>Personal Goals</i>								
T1 to T3	15	0	3.8730	1.0000	-7.00	7.00	0.00	1.0000
T1 to T4	21	1.9524	3.4565	0.7543	-6.00	8.00	2.59	0.0176
T1 to Last Measure	30	1.3667	3.0113	0.5498	-6.00	8.00	2.49	0.0189
<i>Social Contacts</i>								
T1 to T3	16	1.8125	3.3110	0.8277	-5.00	9.00	2.19	0.0448
T1 to T4	27	2.5185	4.8862	0.9403	-10.00	9.00	2.68	0.0127
T1 to Last Measure	48	1.4167	3.8473	0.5553	-10.00	9.00	2.55	0.0141
<i>Romantic Life</i>								
T1 to T3	15	1.6000	3.9605	1.0226	-6.00	9.00	1.56	0.1400
T1 to T4	20	1.1000	5.4280	1.2137	-10.00	9.00	0.91	0.3761
T1 to Last Measure	31	0.7097	4.3527	0.7818	-10.00	9.00	0.91	0.3712
<i>Self-esteem</i>								
T1 to T3	16	1.2500	3.0441	0.7610	-3.00	7.00	1.64	0.1213
T1 to T4	28	2.8214	4.1460	0.7835	-6.00	10.00	3.60	0.0013
T1 to Last Measure	48	1.6458	3.4425	0.4969	-6.00	10.00	3.31	0.0018
<i>Family Relationships</i>								
T1 to T3	16	1.0625	3.6782	0.9196	-7.00	10.00	1.16	0.2660
T1 to T4	33	2.3939	4.3297	0.7537	-7.00	10.00	3.18	0.0033
T1 to Last Measure	48	1.6458	3.7444	0.5405	-7.00	10.00	3.05	0.0038
<i>Housing Situation</i>								
T1 to T3	15	0.5333	3.6423	0.9404	-9.00	9.00	0.57	0.5796
T1 to T4	21	0.5238	4.8334	1.0547	-9.00	10.00	0.50	0.6249
T1 to Last Measure	31	0.3548	3.9543	0.7102	-9.00	10.00	0.50	0.6210
<i>Work/School Life</i>								
T1 to T3	15	1.2000	5.6971	1.4710	-9.00	10.00	0.82	0.4283
T1 to T4	20	1.8000	5.4154	1.2109	-7.00	10.00	1.49	0.1536
T1 to Last Measure	31	1.1613	4.3977	0.7899	-7.00	10.00	1.47	0.1519
<i>Financial Situation</i>								
T1 to T3	15	0.4000	4.3883	1.1331	-9.00	9.00	0.35	0.7293
T1 to T4	20	1.7500	3.9051	0.8732	-9.00	10.00	2.00	0.0595
T1 to Last Measure	31	1.1290	3.2222	0.5787	-9.00	10.00	1.95	0.0605
<i>Leisure Activities</i>								
T1 to T3	15	0.4000	3.4600	0.8934	-5.00	8.00	0.45	0.6612
T1 to T4	20	1.2500	3.5670	0.7976	-6.00	8.00	1.57	0.1336
T1 to Last Measure	31	0.8065	2.9031	0.5214	-6.00	8.00	1.55	0.1324

