5-1-2012

Shaping Attitudes Towards Psychological Services

Lisa M. Bobby
University of Northern Colorado

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

SHAPING ATTITUDES TOWARDS PSYCHOLOGICAL SERVICES

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

Lisa Marie Bobby

College of Education and Behavioral Sciences
Department of Counseling Psychology

May 2012

This Dissertation by: Lisa Marie Bobby

Entitled: *Shaping Attitudes Towards Psychological Services*

Has been approved as meeting the requirement for the Degree of Doctor of Philosophy in College of Education and Behavioral Sciences, Department of Counseling Psychology

Accepted by the Doctoral Committee

_____

Brian D. Johnson, Ph. D., Chair

_____

Basilia Softas-Nall, Ph. D., Committee Member

_____

Jennifer Murdock, Ph. D., Committee Member

_____

Nathan Kling, Ph. D., Faculty Representative

Date of Dissertation Defense

_____

Accepted by the Graduate School

_____

Linda Black, Ed. D., LPC

Acting Dean of the Graduate School & International Admissions

ABSTRACT

Bobby, Lisa Marie. *Shaping Attitudes Towards Psychological Help Seeking*. Published Doctor of Philosophy dissertation. University of Northern Colorado, 2012.

Despite a high need for effective mental health treatment, psychological services are often underutilized. Prior research has revealed factors associated with help-seeking behaviors or avoidance of psychological services. However, little is currently known about how to communicate effectively about psychological services in a manner that may increase rates of utilization. This dissertation documents original research that compared the impact of message framing on factors known to be associated with help seeking; particularly attitude, self-stigma, and intention. One-hundred and fifty-one freshmen at a Midwestern University were exposed to either a positive, negative or neutrally framed message about psychological services on campus. They were then assessed in a variety of domains including: Attitudes towards psychological services; perceptions of self-stigma; and intention to seek help. Information about demographic variables was also collected, including previous experience in mental health treatment, current levels of psychological distress, gender, race, and age. MANOVA procedures comparing the effect of the messages in the population as a whole, and between participants with and without current subjective psychological distress showed that there was not a significant relationship between message framing on attitude, stigma or intention. However, message framing was shown to have significant impact on attitude, stigma and intention (particularly around perceptions of self-stigma) when explored in the context of moderating variables

including gender, past experience with mental health treatment, and race. It was shown that men experience greater self-stigma around help seeking after being exposed to a negatively framed message. People with past experience in therapy reported higher positive attitudes towards therapy and greater intentions to seek help after being exposed to a positively framed message. People with past experience in therapy reported lower levels of self-stigma after being exposed to a positive message about mental health treatment. Additionally, this study found some evidence to suggest that participants identifying as Hispanic may hold poorer attitudes, greater perceptions of self-stigma and lower intentions to seek help after being exposed to either a positively or negatively framed message about psychological service, as compared to a neutral control message. The clinical implications of these findings are addressed, and suggestions for future research are provided.

ACKNOWLEDGEMENTS

This dissertation would not exist without the ocean of support I received from the people in my life. I am so grateful to you. I feel that this accomplishment is yours much as it is mine. We are a team. Your love supported me, and any success I have as a result will always be the purpose of enriching our life together and finding ways to show you my appreciation.

Thank you especially to my husband Mat, who has been a constant source of help and support throughout the process of this degree. Your loyal kindness, generosity and sacrifice afforded me the opportunity to focus on school, and be stressed / heartbroken / obsessed / annoyed (annoying) and generally self-absorbed most of the time. Thank you for listening to me, loving me, and putting up with me all these years. Marrying you was the best thing I ever did. I sincerely hope that all the work we both put in to achieve this degree will make our lives together happy and prosperous.

Thank you to my mother who came to the rescue when our son was born in year three of this program, allowing me to do my internship and finish this dissertation with a peaceful heart knowing that my baby was safe and happy in her care. I will never be able to repay this debt to you, but have every intention of helping my own children the same way should I ever be so lucky to be a grandmother. Your love will pay forward and touch the children of our children's children with unconditional warmth. It is eternal.

Thank you so much to my wonderful cohort: Sarah, Danielle, Amy and Angie. Our friendship was the best part of this experience, and I am so thankful for your

encouragement, advice, feedback and patience. Thank you to the rest of my wonderful friends and family who supported and encouraged me throughout the ups and downs of this process over the years.

Thank you to my committee. Dr. Johnson, I sincerely appreciate the many hours you spent in reading, editing, and critiquing this dissertation. Your feedback and direction helped me make this a dissertation I feel proud of. Drs. Kling, Murdock and Softas-Nall, I am so grateful for your warmth, time, guidance, and practical help in the researching and data collection process. You were all a pleasure to work with. Lia, I especially appreciate how readily you signed up for my committee after I lost part of my committee mid-way through this project. Thank you Dr. Henderson for generously allowing me to survey your University 101 students. Thank you too, to Dr. Jay Shaffer in the statistics department who so generously read my methods section and consulted with me on data analysis after I lost my statistics advisor. I took your advice!

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CHAPTER I

INTRODUCTION

Many can benefit from mental health services. Untreated mental illness contributes to significant problems in society, however only a small percentage of people who could be helped by psychotherapy seek out mental heath treatment. Therefore, understanding factors that may increase the utilization of psychological services is an area worth investigating. The Theory of Planned Behavior has been found to be useful in understanding other health-related behaviors such as diet and exercise choices and compliance with physician recommendations, and it applies to psychological service seeking as well. Strategic message framing aimed at shifting the cognitions and attitudes hypothesized by the theory of planned behavior to be most predictive of actual behavior is thought to be one possible avenue for increasing rates of utilization of mental health services.

This chapter will outline current research in the area of psychological help seeking, provide an overview of the theory of planned behavior, and introduce possible ways of increasing help seeking through strategic message framing. It will then discuss the need for and overall purpose of the current study. The specific research questions, the assumptions, and the limitations of this study will follow. Lastly, this chapter concludes with the definitions of terms that will be used throughout this study.

Theoretical Basis

Psychological Help Seeking

Past research has documented the wide need for psychological services based on the significant level of diagnosable mental health disorders in the United States and elsewhere. It has been found that approximately one-quarter of the general population in the United States has met the criteria for a mental illness, as defined by the DSM-IV-TR, at some point over the preceding twelve months (Kessler, Chiu & Demier, 2006) and that over the course of an individual's lifetime, the prevalence may be much higher (Moffet, et al., 2010).

The World Health Organization has identified significant consequences of untreated mental illness including increased risk for death by suicide and violence; increased potential for child abuse and neglect; greater risk of prenatal exposure to drugs and alcohol that may lead to lifelong neurological deficits; divorce and disruption of healthy family systems; adverse health problems in a variety of domains placing the mentally ill at higher risk for premature death from illness; financial hardship on families; increased economic burden on society; and overall poorer quality of life for those with untreated mental illness (Prince, et al., 2007).

It has been observed that only a fraction of those in need of psychological services receive them (Horton, 2007). Many variables are linked with this phenomenon including the presence of external barriers to treatment, individual characteristics of prospective consumers of mental health treatment, and fears about treatment (Vogel, Wester, & Larson, 2007). In particular, fear of stigma due to being a consumer of mental health services has been found to represent a significant barrier to seeking mental health

treatment (Sartorius, 2007). Men appear to be more greatly influenced by treatment fears and concerns about stigma than do women, particularly if they hold traditional beliefs about masculine gender roles (Galdas, Cheater & Marshall, 2005; Vogel, Heimerdinger-Edwards, Hammer & Hubbard, 2011).

Theory of Planned Behavior

The theory of planned behavior is a model that provides a framework for understanding intentional human behavior, including that of psychological help seeking. The theory of planned behavior identifies the antecedents of behavior that have been shown to have predictive value in anticipating the actions that people are most likely to take (Ajzen, 1991; Ajzen, 1999; Ajzen, 1985). It has been widely used to understand consumer behavior and has been found to be particularly useful in understanding health-related behaviors (Fife-Schaw, Sheeran, & Norman, 2007). The theory of planned behavior theorizes that all intentional human behavior is preceded by intention to engage in that behavior plus a perception that the behavior in question will be worth the effort of doing. Intention to engage in a behavior is, in turn, determined by three other factors including the general positive or negative attitude about the behavior, subjective impressions of what other people think about the behavior, and by the perception that one is actually able to do the behavior in question.

Underlying beliefs contribute to the formation of the attitudes, social concerns and feelings of efficacy that combine to form overall motivation for the behavior. If one's attitude about a behavior is positive, if one perceives that friends and family would approve of the behavior, if it is relatively easy to do so, and if there is a benefit to doing the behavior, it becomes more likely that one would engage in the behavior. Identifying

and measuring the variables of attitude, social norms and perceived behavioral control has been found to predict the likelihood that people will engage in health related behaviors including exercising (Kerner, Grossman & Kurrant, 2001), healthy lifestyle choices (Andrykowski, Beacham, Schmidt, & Harper, 2006) and also seeking out psychological services when needed (Mo & Mak, 2009). The theory of planned behavior is therefore a good conceptual framework for understanding how and where changes in perception must occur in order to increase the utilization of psychological services.

Message Framing

Message framing refers to the manner in which an idea is communicated, generally with regards to its positive or negative affective component. A positively framed message appeals to hoped-for outcomes and focuses on what to do in order to achieve them. A negatively framed message has the affective feel of a warning, and focuses on behaviors or outcomes to avoid. Research exploring the impact that message framing has on health related behaviors has shown that positively framed messages tend to be more effective in increasing preventative, wellness-focused behaviors such as nutrition and exercise (Fuglestad, Rothman & Jeffery, 2008; Latimer, et al., 2008; Uskul, Sherman & Fitsgibbon, 2009), Negatively framed messages have been found to increase detection behaviors such as mammography and colonoscopy. A variety of psychosocial variables, including regulatory focus (Yi & Baumgartner (2009), defensive processing (Ko & Kim, 2010), mood (Yan, Dillard & Shen, 2010), and self-efficacy (Van T Riet, Ruiter, Werrij, & De Vries, 2010) have been found to impact the overall efficacy of message framing, with different intrapersonal variables contributing to different behavioral outcomes.

Positive psychology and the medical model. There is a natural schism in the field of psychology between the negativistic medical paradigm of mental illness and that of the more hopeful personal growth paradigm of the positive psychology model (Maddux, 2008; Maddux, Snyder & Lopez, 2004). This split is similar to that of positively or negatively framed messages, and allows for an investigation comparing the language and rationale of each orientation on the attitudes of prospective consumers of mental health services. The current study sought to ascertain which of these perspectives are most helpful in increasing intentions to utilize psychological services.

Theory of planned behavior, psychological help seeking and message framing. Research has joined these three areas of study to gain increased understanding of mental health treatment utilization rates. Aspects of the theory of planned behavior have been used to understand the current rates of psychological help seeking (Mo & Mak, 2009; Schomerus, Matschinger, & Angermeyer, 2009; Westerhof, Maessen, de Bruijn, & Smets, 2008). In particular, attitudes toward psychological help seeking (Mackensie, Gekoski, & Knox, 2006; Masuda, Suzumura, Beauchamp, Howells, & Clay, 2005). social perceptions (stigma) around help seeking (Eisenberg, Downs, Golberstein, & Zivin, 2009; Green-Shortridge, Britt & Castro, 2007; Vogel, Wade, Ascheman, 2009; Vogel, Wade & Haake, 2006; Vogel, Wade & Hackler, 2008), and education regarding the efficacy of help seeking (Goldney & Fischer, 2009) have been targeted as important areas of recent research . It has been demonstrated that having poorer attitudes toward psychological services are linked with decreased utilization (Jagdeo, Cox, Stein, & Sareen, 2009). Similarly, more positive perceptions of social approval around help seeking, and pre-existing perceptions that mental health treatment is a useful and

worthwhile undertaking (Masuda, Suzumura, Beauchamp, Howells, & Clay, 2005) has also been linked with increased rates of utilization. However, to date, little research has explicitly explored practical methods of *shaping* attitudes or perceptions of social norms around psychological help seeking. Furthermore, little is understood about the best way to educate the public about the usefulness of mental health services in such a way as to increase motivation to use them.

Experimentation with positive and negative message framing has been found to create statistically significant differences in outcomes related to other health related behaviors including diet (Van Assema, Martens, Ruiter, & Brug, 2001), exercise (Jones, Sinclair, & Courneya, 2003), smoking cessation (Toll et al., 2008), binge drinking (Gerend & Cullen, 2008), and certain medical procedures (Rivers, Salovey, Pizarro, Pizarro, & Schneider, 2005). No research has been conducted on the impact that positive or negative message framing may have on intentions to use mental health services. It is thought that message framing which is targeted at the underlying antecedents of the theory of planned behavior (particularly related to beliefs, attitudes, and perceptions of stigma around mental health treatment) may help increase intentions to engage in psychological services. The language used to craft the positively and negatively framed messages used in this study were drawn from two existing models of psychotherapy: the medical model and the positive psychology model.

Need For This Study

According to one recent study, approximately 25% of the United States population has met DSM-IV-TR criteria for a mental illness in the past twelve months (Kessler, et al., 2005a) Many of the people who are in need of mental health services do

not receive them, and this lack of treatment results in significant consequences for these individuals, their families, and society as a whole. A recent investigation into the rates of mental health treatment utilization found that on average only about 30% of people with diagnosable mental illness are ever treated for their symptoms, and that the majority of that treatment is sought through primary care physicians rather than mental health professionals (Kessler, et al.). That psychological-specific services are underutilized in this way is detrimental to the public because psychotherapy has consistently been found to be an important component in the reduction of the symptoms of mental illness. For example, research into the treatment for Major Depressive Disorder has found that the combination of anti-depressant medications plus cognitive behavioral therapy is more effective in relieving symptoms than medication alone, and tends to be longer lasting than medication alone (Dobson et al., 2008). Other studies have outcomes suggesting that behavioral interventions are helpful in managing symptoms of other disorders including Obsessive Compulsive Disorder in teenagers (Whiteside, Brown & Abramowitz, 2008), Borderline Personality Disorder (Stoffers, Vollm & Lieb, 2010), Posttraumatic Stress Disorder (Benish, Imel & Wampold, 2008); and Panic Disorder (Roth, 2010).

Ongoing mental illness can have serious implications for its sufferers ranging from reduced quality of life, job loss, financial problems, disrupted relationships, substance abuse, legal problems, and health problems. At its most extreme, untreated or ineffectively treated mental illness can also lead to personal consequences including child abuse and neglect and premature death due to chronic health problems, and substance abuse. On a societal level the consequences of under-treated mental illness include billions in lost wages amongst the mentally ill and a consequent increase in the economic

burden on a community to provide services and support to people who are not able to function productively due to their symptoms (Kessler, et al., 2008). Untreated mental illness is also associated with increased reliance on social services and child welfare agencies (Hu, 2006; Rajendran & Chemtob, 2010), as well as the expenses associated with managing criminal behaviors of those with untreated mental illness (Baillaregon, Binswanger, Penn, Williams & Murray, 2009).

Recent research has pointed to the fact that there is a significant need for mental health services on college campuses with over 30% of students at any given time having significant symptoms of a mental health problem (Cranford, Eisenberg & Serras, 2009; Ziven et al., 2009). It is also known that only a small percentage of these students ever present for treatment (Ziven et al.). If more students utilized mental health services on college campuses there is a decreased likelihood that they would continue to be plagued by the consequences of untreated mental health into adulthood (Andrews, Hejdenberg, & Wilding, 2006).

Hence, in a wide variety of domains, untreated and under-treated mental illness represents a serious risk to people on both a personal and societal level. Research seeking to understand how to increase the rates of utilization of psychological services is therefore timely and important.

Because such a large amount of the global disease burden (14% or more) is attributable to neuro-psychiatric disorders (Prince et al., 2007) the World Health Organization (2007) is calling for an increase in health communication research as one strategy to address the global epidemic of chronic diseases. For example, health communication is 1 of 28 focus areas in the U.S. Healthy 2010 initiative (United States

Department of Health and Human Services, 2000). This initiative calls for an increase in health communication evaluation and research aimed at enhancing health care providers' communication skills so that providers may design and deliver more effective messages intended to promote behavior changes. There is a paucity of published empirical studies that adequately examine health care provider educational interventions and the effectiveness of these interventions in contributing to desired outcomes.

Psychological services are related to health care in that behavioral treatment seeks to reduce the symptoms of mental illness and improve the quality of life for those treated. Like users of other health care services, most consumers of psychological services start out by voluntarily choosing to present for treatment. The theory of planned behavior has been found to be quite useful in understanding why people engage in health related behaviors ranging from healthy eating habits, to smoking cessation, to scheduling regular mammography exams (O'Neil, et al., 2008). In recent years the theory of planned behavior has been used increasingly to understand phenomena related to seeking out psychological services (Lepre, 2007; Mo & Mak, 2009; Smith, Tran & Thompson, 2008).

Some research has been done that links aspects of the theory of planned behavior to psychological help seeking, and this has led to a greater understanding of *why* current rates of utilization are so low (Vogel, Wester & Larsen, 2007). Specifically, it is now known that people do not seek out psychological services when they have a poor overall attitude towards doing so, they feel that engaging in mental health treatment will be stigmatizing or shameful, they don't understand the benefit of mental health treatment, and it seems difficult or expensive to participate in treatment. Other variables also impact the behavioral outcome of help seeking including the amount of subjective distress being

experienced, comfort with disclosure, locus of control, past experience, personality traits, current social support, and demographic characteristics including gender, age and race (Vogel, Wester & Larsen).

Nonetheless, if the theory of planned behavior can be used to strategically communicate with potential consumers of psychological services in such a way as to increase their positive impressions (or reduce their fears about treatment), educate them about the benefits (or warn of the consequences of not seeking treatment), decrease their concerns about judgment or stigma, and lower their perception of practical barriers then it is thought that they would be more likely to engage in mental health treatment, regardless of other personal variables. Currently there does not appear to be any research that seeks to understand *how* one might shape attitudes towards psychological help seeking. Strategic message framing has been explored as a means of shaping attitudes toward other health related behaviors, and has been found to generate significant shifts in attitude. There is a paucity of research that has sought to explore whether strategic message framing might be the vehicle for shifting specific attitudes about help seeking, as postulated by the theory of planned behavior, in the directions that will ultimately lead to a greater utilization of services. The current lack of understanding of how to shape the attitudes that may increase the likelihood that a person will seek out mental health treatment therefore represents a significant gap in the research to which this study contributes more information.

The Purpose of the Study

This study investigated the extent to which the use of strategic message framing increased the likelihood that treatment will be sought out. Specifically, this study

explored whether positively framed messages or negatively framed messages about mental health treatment resulted in a greater shift in attitudes about psychological services, perceptions of social norms, perceptions of utility, and attainability in a positive direction, therefore increasing the likelihood that psychological services will be sought out. Additionally, information will be gathered from participants in this study that will allow for control of other non-experimental variables that may be associated with intentions to seek psychological services including demographic characteristics, current subjective feelings of distress, and past experience with treatment. These variables will be examined to determine if positively or negatively framed messages are more effective for outreach to target groups sharing one or more of these characteristics. The population of interest in this research is undergraduate college students accessing a college counseling center.

In theory, it was thought that both positively and negatively framed messages would be more compelling to participants who are under greater subjective distress and perceive that they need treatment, and have characteristics that would predispose them to considering mental health treatment. It was hypothesized that positively framed messages about mental health treatment would be more effective in lowering perceptions of stigma and improving attitudes toward seeking treatment than will negatively framed messages. As hypothesized by the theory of planned behavior, it was also thought that lowering perceptions of stigma and improving attitudes are likely to correlate positively with increased intentions to seek out psychological services.

Research Questions

Based on review of current research in this area, the following questions represent important areas of research that have not yet been investigated:

Q1 What is the impact of positive, negative or neutral message framing with regards to perceptions of stigma, attitude, and intentions to seek out mental health treatment?

Q2 How do the attitudes and perceptions of mental health treatment in people with current subjective psychological distress differ from those without? Do positively or negatively framed messages create more significant shift in attitude, intentions or perceptions of stigma in people who have psychological symptoms?

Q3 Are demographic differences including gender, age, race and previous experience in therapy responsible for differences in how individuals respond to positively and negatively framed messages?

Assumptions

In the current study, the following assumptions were made:

1. The participants of this study are volunteers who understand the information presented to them about psychological services.

2. All participants of this study understood the questions that they were asked, and responded in an honest manner to the questions.

3. The instruments used to obtain data in this study were valid and reliable with this sample.

Limitations

The following represent threats to the reliability and validity of this study and are therefore considered limitations of the current research:

1. Because participation in this study was voluntary, it is possible that participants who have greater comfort with the notion of psychological service for a variety of reasons self selected to participate whereas potential participants who have more negative views on the subject opted out. All efforts were made to measure all mitigating variables, however nothing is known about those who opt out of participating in this study. There may therefore be significant differences between people who did participate and those who did not. If the pool of participants in this study are more inherently enthusiastic about psychological services than the general population of undergraduate students the data generated may be misleading. This would make the findings of the current study less generalizable and therefore less useful in real world applications.

2. Due to the time limited nature of this research, participants' exposure to the experimental or control messages was fairly minimal. Although there is evidence to suggest that brief exposure to messages does result in cognitive shifts about a particular issue (Campo & Cameron, 2006; Cowley & Rossiter, 2005), it remains possible that participant's exposure to the experimental messages of this study were insufficient to change deeply held beliefs about the subject of psychological services. It is reasonable to hypothesize that sustained and repeated exposure to similar messages, as in the form of a comprehensive marketing campaign, would elicit more significant changes in attitudes and perceptions than one brief exposure.

3. It is possible that confounding variables unique to individual participants, and unknown to this researcher, might have impacted the findings of this study in a significant way. While all attempts will be made to identify all obvious potential

confounding variables and control for them, the potential remains that unknown factors will account for greater variability in the findings than will the experimental variables.

Definition of Terms

Attitude: Refers to an individual's subjective feelings of like or dislike for a particular thing, behavior, event, person, or characteristic.

Client, consumer, patient: Interchangeable terms referring to the person who seeks out and hopes to benefit from mental health treatment.

Help seeking: Initiation of behaviors leading to contact with a mental health professional.

Locus of control: Refers to the continuum of perceptions that people hold regarding their beliefs that life experiences are either generally under their direct influence or control (internal locus of control), or that they are generally powerless to create particular outcomes in their lives (external locus of control).

Marketing, communication, outreach, education: Interchangeable terms referring to efforts to communicate with current or potential clients about the need for, personal benefits of, availability of, and logistical details about mental health treatment.

Psychological services, mental health services, mental health treatment, treatment, psychotherapy, counseling, behavioral intervention: All of these terms are used interchangeably and represent the following construct: A form of treatment in which a trained mental health professional and a client work together with a mutual goal of reducing the client's psychological and emotional distress, and increasing the ability of the client to function well in desired life roles. This change occurs through the therapeutic relationship, corrective experiences, and exploration and correction of the client's attitudes, thoughts, feelings and behaviors.

Medical model: An orientation of psychotherapy that focuses on the diagnoses and treatment of mental illness, with the goal of therapy being to relieve the symptoms of mental illness.

Mental health professional, psychologist, counselor, psychotherapist, therapist: These terms are used interchangeably and refer to a professional practitioner with Masters or Doctoral level graduate training in counseling psychology, clinical psychology, marriage and family therapy, or social work.

Mental illness, psychological disorder, psychological symptoms, mental health symptoms: Interchangeable terms referring to a psychiatric or psychological condition that is characterized by impairment of a person's usual emotional, behavioral or cognitive functioning and which is caused by psychosocial and/or physiological factors.

Negative message framing: The presentation of information in such a way as to motivate through the mobilization of negative affect such as fear and the desire to avoid harm, which is generated through highlighting the risks, negative consequences, and losses associated with a particular activity. For the purposes of this study, negative message framing additionally refers to the use of pathology, illness, disease, disorder and recovery focused language that is commonly associated with the medical model of psychology.

Personality variables: A term referring to the combination of long-standing temperamental, cognitive and behavioral characteristics that coexist in a person.

Positive message framing: The presentation of information in such a way as to motivate through the mobilization of positive affect such as hope and excitement, which is generated through highlighting benefits, gain and positive outcomes of a particular activity. For the purposes of this study, positive message framing additionally refers to

the strengths-based, normalizing, outcome / goal focused, hopeful and growth oriented language commonly associated with the positive psychology movement.

Positive psychology: an orientation of psychotherapy that emphasizes the awareness and cultivation of strengths, virtues, positive experiences and positive affect in order to improve the subjective quality of life.

Psychological services: Services that apply specialized skills of a mental health professional for the treatment of mental illness or overall improvement of affect, behavior and cognition. Also known as: Psychological help seeking, mental health services, mental health treatment, behavioral intervention, counseling, psychotherapy, therapeutic intervention.

Self congruency: perceptions that the characteristics, thoughts, feelings, and attitudes of the self are either similar to or different from the perceived characteristics, feelings, thoughts and attitudes of other people.

Self-disclosure: The sharing of thoughts, feelings, opinions, goals and memories with another person.

Self-perception: Refers to the awareness of characteristics, feelings, thoughts, and attitudes that make up the self.

Stigma: The perception of negative or derogatory attitudes toward aspects the self, including physical, psychological, social, or material characteristics, that originate from either the self or others.

Utilization: Engagement in mental health treatment.

Chapter Summary

Understanding how best to encourage people in need to utilize mental health services represents an important area of research. Three lines of investigation including the theory of planned behavior, help seeking behavior, and message framing were introduced as conceptual models to help better understand why people do or do not seek out mental health services or other heath related behaviors. An overview was given of how what is currently known about psychological help seeking, the theory of planned behavior, and message framing, and how these three areas of research might be used together in order to increase the likelihood that mental health services will be utilized. The design of the current study was outlined, along with the need for the study, the purpose of the study, the research questions, assumptions, limitations and definition of terms that will be used throughout this study.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter begins with a review of the literature relevant to understanding the significance of untreated mental illness, followed by a discussion of the prevalence of mental illness and the current rates of utilization worldwide, in the United States, and in the population of interest to this study, US college students. Then the current understanding of factors related to psychological help seeking behavior will be outlined. The theory of planned behavior will be presented and then help seeking behavior will be discussed within the context of this theory. Research investigating the relationship between help seeking behaviors and the theory of planned behavior will be reviewed. Following this, the marketing practice of message framing will be introduced and recent research on the subject of message framing and health related behaviors will be explored. The theoretical paradigms of positive psychology and the medical model of psychology will be introduced, and the relationship between these two paradigms and message framing will be discussed. Recent research investigating the relationship between message framing and its impact on the variables of the theory of planned behavior will be reviewed. Lastly, a review of current research utilizing both the theory of planned behavior and message framing to shift attitudes toward health related behaviors will be undertaken, with emphasis placed on how the findings might apply to shifting attitudes towards psychological help seeking. The chapter will conclude with a discussion of how prior research supports the basis for the current study.

Consequences of Untreated Mental Illness

Untreated and under-treated mental illness is a major cause of human suffering. The presence of a psychological disorder is a major risk factor for people across personal, relational, societal, general health, and life expectancy domains. The following section reviews literature that speaks to the consequences of untreated mental illness.

Impact of Untreated Mental Illness on Individuals

Untreated mental illness is related to a variety of adverse consequences for individuals and their families. Problems associated with mental illness include an overall reduction in quality of life, increased risk of premature death, greater health problems, family discord, childhood abuse and neglect, physical injuries, and violence. (World Health Organization [WHO], 2004).

Reduction of quality of life expectancy. According to the National Library of Medicine, which is a database sponsored by the National Institute of Health and its umbrella organization the US Department of Health and Human Services, a Disability-Adjusted Life Year (DALY) is a unit of measurement representing "a unit of health care status that adjusts age-specific life expectancy by the loss of health and years of life due to disability from disease or injury. DALYs are often used to measure the global burden of disease" (NIH, 2012). A DALY can also be understood as the average number of high quality years of life, plus the probability of a premature death (Prince, et al., 2007). According to the latest data available through the World Health Organization (WHO) (Mathers & Loncar, 2006; Prince, et. al) psychological disorders represent greater risks to global health, when measured in DALYs than cancer and cardiovascular disease combined. In their review of the World Health Organization's data on mental health,

Prince et. al, noted that mood disorders, substance abuse disorders and schizophrenia represented a particular hazard to global health. In fact, the World Health Organization's 2005 report on the subject attributed 31.7% of all years-lived-with-disability to psychological conditions. When broken down by category, the most significant contributors to the overall total were found to be unipolar depression, which accounts for 11.8% of the years-lived-with-disability, alcohol use disorders at 3.3%, schizophrenia at 2.8%, bipolar depression at 2.4% and dementia which represents 1.6% of the total (Mathers & Loncar).

Health problems. In addition to the loss of life, or quality of life that are associated with mental illnesses, Prince et. al, in 2007, discussed how psychological problems often interacted with life circumstances in such a way that other health problems were aggravated. For instance, social connectedness has been found to be a factor related to overall of health as well as quality of life (Schoevers, Beekman & Deeg, 2000). For many individuals struggling with mental health problems such as depression, social withdraw and disruption of important relationships is common and can lead to an overall decline of health (Prince, Harwood, Thomas & Mann, 1998).

Mental illness and disease. There also is a significant direct relationship between mental disorders and other serious health conditions. For instance there is a strong relationship with both coronary heart disease and cancer among people who meet the criteria for depression and/or anxiety (Hemingway & Marmot, 1999). In one US study that examined a nationally representative sample of participants, it was found that there was an increased likelihood that a diagnosis of a serious mood or anxiety disorder would be made at some point over an obese person's lifetime (Simon, Von & Saunders, 2006).

It has also been found that people with type-two diabetes have generalized anxiety disorder at rates much higher than in the general population (Grigsby, Anderson, Freedland, Clouse & Lustman, 2002), and there has been speculation (but conflicting evidence) regarding the presence of a causal link between type-two diabetes and depression (Ciechanowski & Katon, 2000; Lin, Katon & Von, 2004).

Mental illness and health related risk factors. Mental health problems are associated with overall health risk factors including smoking, poor diet, and inactivity as well as compliance with medical treatment and other health related behaviors (Prince et al, 2007). It has also been found that people who have HIV/AIDS as well as a mental health diagnosis have a less hopeful prognosis than people who do not (Ickovics, Hamburger & Vlahov, 2001).

Impact on children and families

There is evidence that maternal mental health problems, including common diagnoses such as anxiety and depression after pregnancy, can contribute to a variety of problems in young children (O'Hara, 1997). Higher rates of malnutrition, underweight and generally poorer health has also been observed in infants of mothers with a mental disorder as compared to infants whose mothers are psychologically healthy (Patel, Rahman, Jacob & Hughes, 2004).

Postpartum depression. It has been well documented that post-partum depression can have a significantly negative affect on the quality of mother and child bonding in early infancy (Murray, et al., 2003) which may be one factor leading to the intergenerational transmission of psychological problems. Additionally, maternal depression is associated with poorer cognitive development in infancy (Galler, Harrison,

Ramsey, Forde & Butler, 2000) that extends to measurable differences in cognitive ability well into adolescence and beyond (Galler et al., 2004). Maternal depression has been found to have a relationship with higher incidents of serious accidents and injuries to children (O'Connor, Davies, Dunn & Golding, 2000).

Family systems. There is a relationship between mental illness and family discord including domestic violence, separation and divorce. Being exposed to domestic violence can lead to posttraumatic stress disorder symptoms in children. The impact of divorce on children can be significant, with children of divorce more likely to live in poverty (Ducanto, 2010). In families where children are living with a non-biological step-parent they are at significantly higher risk of being abused (Daly & Wilson, 2001). An increased risk of both suicide and psychological problems exist for survivors of child abuse, as having experienced sexual violence puts people at greater risk of having both maladaptive behaviors as well as psychological problems (Curie & Widom, 2010). Having experienced domestic violence as either a child or an adult increases the odds that one will struggle with anxiety, depression and be at greater risk for committing suicide (World Health Organization, 2004).

Physical injury. Injuries and accidents in adults, as well as children are notable causes of disability, illness and death worldwide and it has been found that untreated mental illness increases the chances that an accidental injury may be sustained. For instance, alcohol and drugs represent a significant risk factor in serious traffic accidents (Smink et al., 2005). There is both a cause and effect relationship between violence and mental disorders, with victims of violent crimes more likely to endorse symptoms of mental illness. People with certain types of psychological problems including symptoms

related to bipolar disorder, or who have active psychoses or paranoia may be more likely to perpetrate violence on others (Spidel, Lecomte, Greaves, Sahlstrom, &Yuille, 2010).

Societal Problems

In addition to the significant personal costs of untreated mental illness, underutilization of mental health treatment impacts our society as a whole. Because of untreated mental illness, a greater burden is placed on our penal system, healthcare system, and employers.

Penal system. The US penitentiary system has become flooded with mentally ill inmates in recent decades as public funding for behavioral treatments has decreased. At the present time there are three times more people with mental illnesses in the prison system than there are in psychiatric hospitals, and the prison population has four times more mentally ill people than the general population (Kanapaux, 2004). Housing and providing for tens of thousands of inmates represents a significant financial burden on society. It is thought that one of the reasons for this phenomenon is that without effective psychological treatment, people with mental illness are more likely to engage in deviant behaviors and illegal activities. A recent study by Human Rights Watch found that many prisoners with mental illness are incarcerated for misdemeanor crimes, or crimes of survival (Sherer, 2006). These crimes may be directly related to their mental illness in that psychological disability creates extreme hardship and impoverishment as well as life stressors that increase the likelihood of violence or criminal activity.

Healthcare systems. Improperly treated mental disorders have been shown to impose a significant burden on healthcare systems. Most notably, somatization of psychological problems accounts for about 15% of all primary care medical visits (Escobar, Waitzkin, Silver, Gara & Holman, 1998; Gureje, Simon, Ustun & Goldberg,

1997). Recent data shows that in the United States alone, attempts of people to alleviate their non-physiological symptoms of irritable bowel syndrome (IBS), chronic-fatigue syndrome, and fibromyalgia add approximately $256 billion to overall healthcare costs (Barsky, Orav & Bates, 2005). This is a very significant expense, given that effective treatment including cognitive behavioral therapy exists which has been found to reduce psychosomatic symptoms significantly, and has the potential to reduce related healthcare costs by a third or more (Smith, Rost & Kashner, 1995).

Employer burdens. Goetzel, Long, Ozminkowski, Hawkins, Wang and Lynch (2004) analyzed data from several large US databases tracking workplace administrative claims of illness and injury including to determine the cost to employers of various common health problems. Included in their analysis was information from the Health and Productivity Management Administrative Claims Database, which contains information on over 350,000 American workers over a three-year period. The Employer Health Coalition of Tampa, Florida which is a survey assessing health and productivity was administered to approximately 10,000 participants and the results were incorporated into the Goetzel et. al meta analysis. The results of the American Productivity Audit, which is a national telephone survey (N=25,000) designed to assess lost productive time as a consequence of common health conditions was also included, as were several other major US surveys. Ultimately the authors incorporated the broad category of "Depression /Sadness/Mental Illness" which was comprised of bipolar disorder; depression; depressive episode in bipolar disease; personality disorders and non-psychotic disorders; alcoholism; anxiety disorders; schizophrenia (acute phase); bipolar disorders (severe manic episode); and psychoses. They found that the aggregate of these psychological

problems was one of the largest and most expensive burdens to employers in terms of absenteeism and lower productivity while on the job as well as the most significant contributor to direct medical costs. In fact, of the 10 most commonly cited illnesses or conditions responsible for employer costs and burdens which included allergies, arthritis, asthma, cancer, diabetes, heart disease, hypertension, migraines and headaches, and respiratory infections, mental illnesses were the ranked the second highest in terms of lost productivity (second only to chronic arthritis). This is especially significant since this lost productivity on-the-job was found to be more expensive to employers than was either absenteeism or medical expenses. Mental illnesses were found to be the third highest overall cost to employers, just slightly behind chronic heart disease and hypertension (Goetzel et al.).

The previous section outlines in detail the significant consequences of untreated mental illness that exist on a both a personal and societal level. In the following section the current prevalence of mental illness and current rates of utilization of mental health treatment are discussed.

Prevalence of Mental Illness

Global Prevalence of Mental Illness

The World Health Organization (WHO) World Mental Health Survey consortium, spearheaded by Kessler & Ustun in 2004, set out to measure the prevalence and severity of mental problems across the globe (Kessler, et al). This WHO undertaking also investigated the extent to which mental health problems were being treated or untreated in the locations they surveyed, including Belgium, Colombia, France, Germany, Italy,

Japan, Lebanon, Mexico, Netherlands, Nigeria, China, Spain, Ukraine and the United States.

Participating countries were selected, ultimately, by the availability of study collaborators who were able to find funding for the project. Interviews were conducted by trained lay-people through face-to-face interviews in the native language of the participants, with individual participants selected via multistage household probability sampling. A total of 60463 participants were involved, with in-country samples sizes ranging from comparatively small (1663 in Japan) to large (9282 in the US). Participants were screened using the World Mental Health Composite International Diagnostic Interview (WMH-CIDI), which assesses for existence of disorders including anxiety disorders, mood disorders, impulse control problems, and substance disorders based on the diagnostic criteria of the DSM-IV. Participants who endorsed symptoms of a recognized disorder were followed up with to ascertain the severity of their problems via disorder-specific Sheehan Disability Scales (SDS; Sheehan, Harnett-Sheehan & Raj, 1996). The interviews were additionally structured to assess for what, if any, treatment has been sought or received for mental health problems. In this study, the term "mental health treatment" referred to having contact with mental health practitioners, medical professionals, and religious or traditional healers for the purpose of resolving their problems (Kessler et. al, 2004).

Kessler et. al, (2004) found that overall prevalence of reported mental health problems varies widely from country to country, with the lowest being China at 4.3% of the population and the highest being 26.3% of the population in the United States. It is unknown as to whether these figures reflect actual rates of disorder of if cultural factors

including stigma may be confounding variables that represent a barrier to accurate assessment in locations where stigma about mental illness is thought to be higher such as Shanghai and Nigeria (both of which had an overall reported rate of psychological problems at 4.7%).

Overall rates of disorder, when averaged across 15 countries came to 12.8% of the population. Anxiety disorders were the most commonly identified disorders in all countries except Ukraine, where mood disorders were more prevalent. Mood disorders were the second most commonly cited family of psychological problems in every country except for China and Nigeria, were substance abuse problems were cited at rates equal to or higher to mood disorders (Kessler et. al, 2004). Relatively higher rates of substance abuse in areas with less reported mental illness may be indicative of attempts to self-medicate or cope with psychological problems. In the United States, the population of which is the focus of the current study, the overall rate of psychological problems endorsed by participants in the Kessler et. al study is 26.3% of the population.

Generally speaking severe mental illness, as defined by impairment leading to a greater number of days out of important life-roles, was found to be less common than mild impairment (Kessler et al., 2004). The rates of mild impairment, moderate impairment, or severe impairment were found to be variable among countries. In the United States 7.7% of participants endorsing mental health symptoms rated themselves as having a psychological problem which they considered to be serious, 9.4% rated their problems as being moderate, and 9.2% rated their concerns as mild (Kessler et. al).

While overall the WHO 2004 Survey of the Prevalence and Severity of Mental Disorders yields very useful information about the needs of psychological treatment there

are some significant limitations that should also be considered. For one, the primary participating country sampling criteria (which was the acquisition of funding) suggests that in the countries where the survey was conducted, cultural awareness and commitment to attending to mental health problems in the population is a greater priority than in countries where such funding was not ultimately available. This may be suggestive of even lower rates of identification and treatment of psychological problems in non-participating countries. Additionally, major diagnostic categories were not assessed for including schizophrenia and other non-affective psychoses that likely suppressed the true rates of mental illness measured. Lastly, some of the surveys had very low response rates or skipped items, suggesting that some participants were rejecting all or parts of the attempts to measure their level of psychological functioning. The nature and degree to which these non or partial respondents differed from the overall population is unknown.

Prevalence of Mental Illness in the United States

In 2007 Baumeister and Harter published a comprehensive and detailed review of the prevalence of mental disorders based on several international population surveys. They selected studies that used comparable methodology and national coverage, and examined data collected between 1993 and 2001 that specifically measured prevalence of reported mental disorders over the preceding twelve-month period. Their criteria for including studies in the analysis was that 1) the study must be on a national level, and comprised of a good representation of the overall population 2) the mental disorders assessed must be based on DSM-III, DSM-IV or ICD-10 criteria 3) common disorders such as anxiety and depression were included and 4) if general categories of disorders

were described (such as mood disorders) than the specific disorders included must also be described. Baumeister and Harter ultimately incorporated data from studies including The Australian National Survey of Mental Health and Well Being (Andrews, Henderson & Hall, 2001; Henderson, Andrews & Hall, 2000) the German Health Survey-Mental Health Supplement (Jacobi, et al., 2004) the Netherlands Mental Health Survey and Incidence Study (Bijl, Ravelli & Zessen, 1998) the US-American National Comorbidity Survey (NCS) (Kessler & Walters, 2002) as well as the replication of the NCS, the NCS-R (Kessler, Chiu, Demler & Walters (2005). While their study examined the prevalence and nature of mental illness on a global scale, their results are used in this section to discuss mental illness in the United States due to the detailed and comprehensive nature of their review.

Baumeister and Harter (2007) found that in the United States the overall prevalence of a having a single, diagnosable mental health disorder was between 26.2% and 29.5%. In their discussion they pointed out that these rates may actually be higher, as the surveys selected did not take into account childhood and adolescent disorders, personality disorders, and adjustment disorders. However, their results essentially confirm the results measured by the prior WHO survey (Kessler et al, 2004), which indicated an overall prevalence of mental illness in the United States of 26.3%.

Baumeister and Harter (2007) were able to capture more detailed information about the rates of specific disorders than did the WHO survey. In the United States it seems that anxiety disorders are by far the most common complaint in the sample surveyed, with 18% of the population experiencing symptoms of anxiety over the last 12 months. Specific and social phobias appear to be the most common of the anxiety

disorders experienced in the US, at rates of 8.7% and 6.8% of the population respectively (Baumeister & Harter). Mood disorders including major depression and bipolar disorder are the next most common, with 9.5% of the population endorsing those symptoms. Close behind mood disorders are impulse control disorders, with 8.9% of the population endorsing these symptoms. While not captured at sufficient rates to report in the Baumeister and Harter study, it has been found elsewhere (Barsky, Orav & Bates, 2005) that somatoform disorders can be found at rates of approximately 11% of the US population.

Limitations of the Baumeister and Harter (2007) survey include the absence of any attempt to measure for personality disorders, disorders of childhood and adolescence, as well as adjustment problems. A recent investigation has found that approximately 12.7% to 14.6% of the US population meets the criteria for one or more personality disorders (Johnson, Cohen, Kasen, Skodol & Oldham, 2008). Personality disorders are frequently comorbid with other psychological diagnoses, including depression, eating disorders, and substance abuse, therefore many people with a personality disorder may have been captured by the general population surveys explored in this review of the literature.

Likewise, while no exploration of the overall rates of prevalence for psychological disorders of childhood and adolescence has been conducted to date in the United States (Costello, 2005) a recent survey of 10,438 children and adolescents in the United Kingdom found that that approximately 9.5% of young people in that country met the DSM-IV criteria for a psychological disorder at the time of assessment (Ford, et al., 2003). Baumeister, Maercker, and Casey (2009) wrote about their investigations into

adjustment disorders; specifically examining how difficult it is to operationalize the criteria for adjustment disorder in such a way as to accurately assess for the prevalence in the general population. They spoke about the need for more research into adjustment disorders, as they may represent a common source of emotional and psychological stress for many people. Given that the Baumeister and Harter study potentially failed to capture these mental illnesses, it may therefore be true that the actual overall rates of psychological problems in the US may be significantly higher than those found in both the Baumeister and Harter 2007 survey, and the World Health Organization investigation of 2004 both of which estimated that approximately 25% of the US population met criteria for a diagnosable mental illness at some point over the past year.

Rates of Utilization of Psychological Services

Global Rates of Mental Health Treatment Utilization

Participants in the World Health Organization study were assessed for any treatment of mental health problems in the 12 months directly preceding the Kessler et. al (2004) study. A significant relationship was found between severity of psychological symptoms and treatment, with there being a much higher likelihood that treatment will have been sought out or received in cases reported as “severe” (Kessler et. al). It was observed that between 49.7% and 64.5% of severe mental health problems in developed countries have been treated, and 14.6% to 23.7% of severe problems in less developed countries had been treated. Kessler et al. report that rates of treatment of moderate cases were lower, with 16.7% to 50% of them treated in developed countries and 9.7% to 18.6% in less developed countries. Mild cases had the lowest rates of treatment with between 11.2% to 35.2% treated in developed countries and 0.5% to 10.2% of mild cases

treated in less developed countries. Interestingly, a percentage of "non-cases" were reported as having received some mental health treatment at rates of between 2.4% to 8.1% of all participants in developed countries and .3% to 3.0% in less developed countries. Kessler et al. write:

> "[These reported non-cases are] presumably reflecting the joint effects of the WMH-CIDI not assessing all mental disorders, some true cases of the disorders being incorrectly classified as non-cases, and some people in treatment not meeting criteria for a DSM-IV disorder" (Page 2586).

United States

At the time of the WHO survey overall rates of treatment in the US were 52.3% for all participants endorsing serious symptoms of mental illness, 34.1% for participants with moderate symptoms, and 0.7% for those with mild symptoms (Kessler et al., 2004). While all European Union countries reported higher rates of treatment for all levels of severity, the US had higher overall rates of treatment than the Asian, Middle Eastern, African and South American countries surveyed. These results indicate that currently, large numbers of people in the United States, even those with very serious psychological problems are not receiving treatment.

American College Students

The prevalence of mental illness and the rates of mental health treatment utilization both worldwide and specific to the United States have been discussed in order to provide a contextual framework for understanding the population of interest in this

study, college students, more comprehensively. The following section of this review will examine the current rates of mental illness in college students and the current rates of utilization of mental health treatment in this population.

Prevalence of mental illness amongst college students. Recent research investigating the prevalence of mental illness among college students in the United States revealed a significant need for services in this population. Zivin, Eisenberg, Gollust and Golberstein (2009) published a study exploring both the prevalence and persistence of mental health symptoms in a sample of college students at a large, Midwestern university. For this study a large original sample of students (N=5021) was randomly selected and invited to participate. Approximately 57% chose to participate (N=2843) and completed the initial survey, which asked questions regarding a variety of mental health symptoms experienced by respondents over the past four weeks. Screening items were based on the Patient Health Questionnaire - 9 (PHQ-9) (Kroenke, Spitzer & Williams, 2001) which is a commonly used screening measure for depression. The anxiety module of this same measure was additionally used to screen for symptoms of generalized anxiety disorder and panic disorder. The SCOFF (titled from mnemonic of five questions) Questionnaire (Morgan, Reid & Lacey, 1999) was used to assess for symptoms of eating disorders. Self-injurious behaviors were measured using an instrument specifically designed for use in this study (Gollust, et al., 2008). Suicidal ideation was investigated via a single item, which was outlined in the National Comorbidity Survey Replication (Kessler et al, 2005a) that has been found to screen for such symptoms with consistent accuracy.

At the time of the initial data collection period in 2005 it was found that approximately one third (35%) of all students sampled gave evidence of having a diagnosable mental illness. This finding is striking, and somewhat counterintuitive, in that it shows that college students are more likely than the general US population to endorse mental health symptoms. However, it may be that this study was collecting more comprehensive information of this specific population than the previous studies discussed which did not attend to several categories of mental illness. Of the domains assessed, it was found that symptoms of eating disorders were the most common in this population, with about 19% of respondents endorsing symptoms of disordered eating. Depressive symptoms were the second most common, with 15% of students reporting such concerns. Anxiety disorders were found to be prevalent in about 5% of the population. Most concerning, reports of self-harming behavior were disclosed by about 10% of the population and thoughts of suicide were disclosed by 3% (Ziven, et al., 2009). Respondents of the original survey who were still enrolled in classes (N=1272) were contacted again in 2007, and a significant percentage of them (60%, N=763) participated in a follow up survey, which was essentially an exact replica of the first. It was found that about 60% of the students who had endorsed mental health symptoms on the first survey in 2005 continued to experience symptoms two years later. Additionally it was found that 27% of students who had denied mental health symptoms in 2005 indicated they were experiencing psychological problems in 2007 (Ziven, et al.). If the findings of this study are generalizable to college students on other campuses, it indicates that there is a significant need for mental health services among this population.

A related study undertaken by Cranford, Eisenberg and Serras (2009) investigated the relationship between mental illness and substance abuse problems in the same college population. Five thousand and twenty-one students were contacted via email and invited to complete their survey, and approximately half became participants in the study (N= 2,843). In addition to asking about mental health symptoms, the participants were assessed for rates of substance use/abuse with regards to their use of alcohol, cigarettes, and marijuana. It was discovered that mental health problems including depression, panic disorder and generalized anxiety disorder were found to be associated with higher rates of substance abuse. In particular, respondents endorsing symptoms of anxiety disorders were more likely to both smoke cigarettes and engage in binge drinking more frequently than their peers who did not. There was no significant difference between rates of marijuana use in the subgroups of students who endorsed symptoms of mental illness than in those who did not. Overall, however, the findings of Cranford et al. show that those college students who do struggle with mental health symptoms are more vulnerable to problems with substance abuse.

Utilization of mental health treatment amongst college students. Similarly to other studies documenting the underutilization of psychological services compared to the need for them, the Ziven et al. (2009) study showed that despite significant prevalence of mental health problems among college students only a fraction of those in need sought help for their symptoms. Of the 35% of students in the 2005 response set who endorsed symptoms consistent with diagnosable mental illness, only 13% received mental health treatment in the form of psychotherapy and 10% had been prescribed psychotropic medications. A total of 17% of students received a combination, indicating that a

significant portion of the students who had received mental health treatment had engaged in both psychotherapy and psychopharmacology. Overall, only half of the students in this study who gave evidence of having mental health symptoms sought out psychological services for their problems.

Of the students with co-morbid conditions, frequent binge drinking and mental health symptoms, a significant percentage (67%) did perceive the need for help. However, only about 38% of these students indicated that they had actually received any form of psychological services in the previous year. The discrepancy between the need for treatment and the utilization of services in this sample with both substance abuse problems and mental health symptoms is worth noting given prior research documenting the increased severity and chronicity of overall psychiatric problems in adults with a dual-diagnosis (Hanna & Grant, 1997) and in the reduction of overall functioning as compared to the non dual-diagnosis population (Davis, Rush, Wisniewski, Rice, Cassano & Jewell, 2005). Even more troubling is evidence that this population is at a higher risk of death due to suicide than either substance-abusing people without a mental health diagnosis, or mentally ill people who do not abuse substances (Cornelius et al., 1995).

Such findings are significant given that about half of all young adults in the United States engage in some kind of secondary education (US Department of Education, 2007). Therefore college counseling centers represent an important point of contact with a significant percentage of young people who could benefit from mental health services. Many mental health problems first surface in late adolescence and early adulthood (Kessler et al., 2005b) and effective intervention during this period may lessen the potential for negative consequences associated with mental illness that may otherwise

extend into later life. It is therefore important for college counseling centers to be as effective as possible in their ability to outreach to students. If rates of utilization of psychological services in college students could be increased, it is possible that broad benefits on personal, economic and societal levels could correspondingly ensue (Andrews, Hejdenberg & Wilding, 2006; Mowbray et al., 2006).

The preceding portion of this literature review documented the need for mental health services and the fact that such services are largely underutilized. Going forward, the following sections discuss the factors that have been found in previous research to be linked to whether or not psychological help seeking occurs.

Help Seeking

To sum up the findings of a large recent investigation into rates of psychological service utilization worldwide: "Few are treated and most are neglected" (Thornicroft, 2007, pg. 807). This statement appears to be true on both a global scale as well as in the microcosm of interest in the current study-- college campuses. Past research has attempted to not just report, but to *understand* the widely observed phenomena of the under-utilization of psychological services. The following section will review current literature that speaks to the major categories of variables related to whether or not a person seeks out psychological services in a time of need. These variables include external barriers to help seeking, demographic characteristics associated with help seeking, and intra-psychic factors related to help seeking. Because the primary purpose of the current study was to explore the variables that may be altered via experimental messages, this review will briefly discuss non-changeable factors related to help seeking

such as practical barriers to treatment and demographic characteristics, and then focus primarily on the theoretically malleable variables of interest in the current study.

External Barriers

External barriers to psychological services include factors such as the expense of mental health treatment, lack of insurance benefits to pay for services, length of time treatment requires, availability of an appropriate practitioner, childcare and transportation.

Financial barriers. It has been found that the presence (or absence) of insurance benefits specific to mental health treatment is a prime factor in whether or not such treatment will be sought (Mechanic, 2007). Out of pocket treatment can be expensive, with hourly rates of licensed practitioners (in the Denver, CO area) ranging between $95 and $150 per session and much higher in other parts of the country.

Time constraints. Furthermore, even short-term therapy typically means 6-10 sessions, and if those sessions are scheduled during the regular workweek, psychological treatment may mean having to take time off from work every week to attend sessions. For many people with hourly or inflexible work schedules, this represents a significant barrier.

Availability and practicality. In rural areas, there may be a paucity of practitioners (Sanders, Fitzgerald & Bratelli, 2007). For consumers of mental health services who have small children, arranging for childcare on an ongoing weekly basis while they go to therapy sessions may be a barrier to treatment. Regular transportation to and from therapy sessions for lower income people who do not have reliable transportation may also represent a significant barrier for treatment (Sanders et al).

Demographic Characteristics

A variety of demographic characteristics have been observed to be correlated with an increased (or decreased) likelihood that psychological services will be sought out. These characteristics include gender, age, race, and socioeconomic status.

Gender. Gender is a significant factor in attitude toward help seeking. From the 1970's (Fischer & Turner, 1970) to present day studies, it has been consistently observed that females are more willing to seek out psychological services (Komiya, Good & Sherrod, 2000), and that females generally have much more positive attitudes towards psychological help seeking than men (Johnson, 2001). Women are also twice as likely as men to experience symptoms of depression (Nolen-Hoeksema, 2001). These differences among men and women appear to transcend culture, as similar findings have been reported for Americans of European descent (Leong & Sachar, 1999), African Americans, Chinese Americans (Tata & Leong, 1994), as well as people from Taiwan, (Yeh, et al., 2002), Kuwait (Soliman, 1993) and Jordan (Al-Samadi, 1994).

Previous research has attempted to understand the underutilization of mental health services amongst men, particularly because the needs of this population are so great. Depression, substance abuse, high-risk activities and suicidal ideation are manifestations of psychological distress amongst men (Kessler, et al., 1994) and warrant professional psychological help. Possible explanations for the phenomenon of underutilization have included: Associations with traditional masculine ideology (self-reliance, reticence to feel or disclose emotions, "strength") (Good, Dell & Mintz, 1989; Komiya & Eells, 2001) and gender role conflict (rejection of femininity or homosexuality) (Good et. al). However recent explorations attempting to validate those

assumptions have only yielded weak associations between gender roles, masculine ideology and poor attitudes towards psychological help seeking in this population (Berger, Levant, McMillan, Kelleher & Sellers, 2005).

More recent research has suggested that the variable mediating the relationship between masculine identity and psychological help seeking is self-stigma (Vogel et. al, 2007). In 2011 Vogel, Heimerdinger-Edwards, Hammer and Hubbard published a study where they found, in a diverse demographic sample of men, evidence suggesting that men with stronger identification to traditional masculine norms also had more negative beliefs about their self identity if they presented for counseling. They appeared to internalize negative messages about men who sought help, and experience highly negative attributions about themselves were they to seek help (Vogel, et. al, 2011). This experience of personal shame or weakness may be associated with perceptions of failure of having been able to live up to the dominant cultural expectation of masculine identity. Men having less powerful identification with cultural masculine stereotypes appeared to have less self-stigma around seeking professional psychological help. The presence of self stigma had a higher correlation with negative attitudes towards counseling than having a strong masculine identity, accounting for 56% of the variance in help seeking attitudes amongst men (Vogel, et. al).

Age. While it has been suspected that older adults had less positive attitudes, in general, towards psychological services than younger adults, recent research has questioned that assumption. In 2009 Pepin, Segal and Coolidge published a study where they used the Barriers to Mental Health Services Scale (BMHSS) to evaluate the most compelling barriers to treatment and whether those barriers differed between older and

younger people. One hundred sixty-four adults ranging between 18 and 71 years of age were surveyed. Their results indicated that younger adults held more fears about mental health treatment than did older adults, they had more concerns about their ability to find a mental health provider than did older adults, and that they perceived financial costs of treatment as a more significant barrier than older adults (Pepin et al., 2009). However, prior research has consistently found that older people tend to utilize psychological services at rates lower than younger people (Bartels, 2003).

An investigation by Mackenzie, Gekoski and Knox (2006) also showed that older adults, on the whole, hold more positive attitudes towards psychotherapy than younger people. They discussed this paradox in light of their related findings: that despite overall positive attitudes toward mental health services older people were more likely than younger people to report being comfortable with discussing mental health concerns with a primary care physician rather than a mental health professional. Mackenzie et al. (2007) discussed the possibility that their findings are related to the phenomena documented by other researchers indicating that senior citizens primarily have their mental healthcare needs addressed by their primary care physicians (Karlin & Fuller, 2007). Mackenzie et al. discussed how reported rates of mental health service utilization are therefore underreported in this population because mental health needs are being handled by primary care physicians, and that this under-reporting is the reason why older people have been thought to engage in mental health treatment less frequently than younger people.

Race. It has been observed that members of different racial and ethnic groups vary widely in their overall use of psychological services. Caucasians are the most

common to engage in psychological service seeking, and ethnic minorities are much less likely to. The following is a discussion of this phenomenon as gleaned from recent literature.

African Americans. African-Americans are generally less likely than White Americans to seek out psychological services, and when they do, they often end the counseling relationship prematurely (Sue & Sue, 2003). Several explanations for the underutilization of mental health services in this population have been investigated including racial and/or cultural factors such as mistrust (Whaley, 2001), external barriers to obtaining services like transportation problems, rigid work schedules, and lack of knowledge about treatment options (Thompson, Bazile & Akbar, 2004), and the expense of psychotherapy (Snowden, 1998; 2001). Similarly to White Americans, African Americans are more likely to seek out mental health services voluntarily when they have a high level of perceived distress, such services are perceived to be accessible, and when they have an overall positive impression of service providers and the therapeutic process (Constantine, 1997). A 2009 study undertaken by Barksdale and Molock indicates that perceived social norms regarding mental health treatment, particularly social norms originating from participant's families of origin, were positively correlated with intentions to seek out counseling.

Snowden (2001) found that perceptions of stigma around receiving mental health services represented a significant barrier for African Americans. Likewise, Thompson et. al, (2004) cited unfamiliarity with and mistrust of mental health systems, as well as perceptions of social stigma as being notable factors in underutilization of psychological services in this population. General mistrust of perceived "White" cultural institutions

such as traditional psychotherapy has also been linked to generally poorer attitudes regarding psychological services among African Americans (Whaley, 2001). Thompson et al. discovered that among their sampling of African Americans there was a greater perception of stigma towards "psychotherapy" and greater relative comfort with the idea of "counseling" due to greater perceptions of mental illness associated with the former term. This finding is consistent with other research showing that African Americans are more likely to make use of career or vocational counseling than they are for personal problems (Constatine et al., 1997).

Hispanic Americans. The rate of utilization of mental health services by Hispanic Americans has also been identified as problematic (Schwarzbaum, 2004). A number of factors particular to this population have been associated with higher rates of utilization including having a higher level of acculturation, lower family support and higher social support (Miville & Constantine, 2006). Conversely, being less acculturated, more family support and less social support is associated with lower rates of utilization. Language may be a major barrier in this population, particularly with a Hispanic American client for whom English is a second language given the overall paucity of bilingual therapists in most treatment settings. While interpretation service may be available, making use of interpreters represents both an additional expense of treatment as well as additional potential for embarrassment or misunderstanding.

***Asian Americans*.** While Asians and Asian Americans have psychological and social problems at rates similar to those of the general US population, it has been found that they are much more likely to utilize informal relationships and networks for help as opposed to seeking out a mental health professional (Yeh, 2002).

Socioeconomic Status. A Canadian study published by Steele, Dewa and Lee (2007) explored the relationship between socioeconomic status and self-reported barriers to mental health service usage. Using a sample of 3101 Canadian adults who met the criteria for an anxiety or mood disorder they sought to understand the main reasons for underutilization of mental health services in the sample population. Their findings were significant, because unlike US studies seeking to understand rates of utilization the Canadian health care model is such that the practical barriers to behavioral healthcare that exist in the United States such as the expense, difficulty in receiving reimbursement from insurance companies, and accessibility of practitioners are greatly reduced. Steele et al. found that the most significant barrier to treatment in Canada was the perceptions of social acceptability of mental health treatment, and fears related to stigma for receiving treatment. They found that people with relatively lower incomes than the general population and people who did not graduate from high school perceived mental health treatment to be less acceptable than their more highly educated or affluent counterparts.

External barriers and demographic characteristics of college students. As described above, in the United States, very real barriers to accessing mental health services do exist including expense, availability, and lack of insurance coverage. The population of interest in the current study, college students, is in a fairly novel position relative to the rest of the population given that on the majority of college campuses across the United States students have free or low cost access to psychotherapy through college counseling centers. This convenient proximity to a mental health center (with counseling centers generally on campus), knowledge of the availability of treatment options (via the outreach commonly engaged in by counseling centers), freedom from financial barriers

(given that most college counseling centers offer free or extremely low cost services to students), and that students should be relatively pro-treatment in terms of their demographic characteristics (younger, higher socio-economic status, more well educated, and more likely to be Caucasian than the general population) would point to an increase in utilization as compared to the general population. As previously discussed, this is not the case. Consequently factors other than demographic variables or external barriers appear to prevent college students from seeking out mental health services. The following section discusses possible reasons for this phenomenon.

Individual Variables Linked With Help-Seeking

A variety of variables specific to an individual also bear on whether that person will seek out psychological services. Among these are internal working models of self and others also known as "attachment style," current psychological distress, locus of control, knowledge of counseling services, past experience with treatment, stage of change, amount of social support, and self concealment.

Attachment style. Internal working models of close relationships, first discussed by John Bolwby (1951) as consequences of early parenting, have been found to impact help seeking on a number of levels. In 1998, Lopez, Melendez, Sauer, Berger and Wyssmann found that securely attached individuals who could be described as having positive inner working models of both themselves and other people were less likely to report having psychological symptoms, but also more likely to seek out psychological services when they did experience difficulty. Lopez et al. also found that individuals with fearful or avoidant attachment styles who had negativistic working models of both themselves and other people had both higher levels of reported psychological distress and

were less likely to initiate mental health treatment for their symptoms. They hypothesized that this difference was due to a basic mistrust in other people and a low sense of self-efficacy. There is evidence to suggest that people who have insecure or avoidant attachment styles are more likely to evaluate their counselor and therapy negatively and to prematurely drop out of treatment (Satterfield & Lydon, 1995).

Psychological distress. There is mixed evidence as to whether current levels of psychological distress are strongly correlated with psychological service seeking. A number of authors claim that people enter mental health treatment when their perceived level of distress becomes overwhelming (Cepeda-Benito & Short, 1998; Cramer, 2000). However, several studies indicate that other factors are more significant than subjective distress with regards to the likelihood that a person will present for treatment (Andrews, Issakidis, & Carter, 2001; Kushner & Sher, 1989; Lopez et al., 1998; Vogel, Wester & Larsen, 2007) primarily related to fears of treatment, and concerns about stigma. Likewise, it has been shown that people with serious mental illnesses and who are in considerable distress are not more likely to seek services than people with relatively minor concerns (Narrow et al., 2000). This evidence is congruent with utilization research indicating that a significant percentage of people with serious psychological and emotional problems never receive services (Kessler, et al., 2005). This suggests that while some psychological distress is necessary for treatment to be voluntarily sought out, other factors may be more influential in determining whether or not an individual actually does

Previous experience and knowledge of treatment. Previous experience with mental health treatment is associated with a greater likelihood that treatment will be

sought out again in the future (Mechanic, 2007; Surgenor, 1985). It has been found that such past experience is associated with lower levels of overall treatment fears (Kushner & Sher, 1991). Furthermore, knowledge of options for mental health treatment has been associated with more positive attitudes towards treatment, (Puma, 1996).

Comfort with disclosure. Difficulty with or dislike of talking openly about feelings has been found to have a significant impact on whether mental health treatment is sought (Cepeda-Benito & Short, 1998; Ciarrochi & Deane, 2001; Komiya, Good & Sherrod, 2000; Vogel, Wade & Hackler, 2008). While it was found that individuals having more discomfort with self-disclosure were less likely to present for treatment, it was also discovered that the same individuals were more likely to endorse psychological symptoms. It is thought that this may be due to having an overall tendency to keep things to themselves and not make use of peer relationships or other natural forms of support that may represent ameliorating factors for more open people (Vogel, et al).

Fears of treatment. While multiple intrapersonal variables are significantly influential, variables that collectively represent "fears about treatment" have shown to be among the most highly predictive of whether or not help-seeking behavior happens (Deane & Chamberlain, 1994; Kushner & Sher, 1991; Vogel, Wester & Larson, 2007). In their seminal work on the subject of treatment fears in the early 1990's two sets of researchers, Kushner and Sher and Deane and Chamberlain extended general knowledge in that area extensively. Kushner and Sher reviewed the literature available at that time and through meta-analysis and identified the most commonly cited sources of treatment fears: fear of change, fear of embarrassment, fears of stereotypes of people in treatment, negative past experiences with treatment, fear of the treatment itself (exposure

to phobic stimuli, or traumatic memories), fears about the stigma of receiving treatment for psychological concerns, and fears of negative judgment from the therapist. They additionally found that the people who endorsed mental health symptoms but who had not yet engaged in treatment also had the highest measured fears about treatment as compared to others. Their findings suggest that such fears can inhibit help seeking even in people who might be in significant need of help. Deane and Chamberlain extended on the work of Kushner and Sher, and discovered that in particular fears regarding stigma around mental health treatment was one of the most powerful factors associated with the avoidance of help seeking.

More recent research has additionally revealed that people may avoid mental health treatment due to their fears of experiencing emotions (Komiya et. al, 2000), or their fears of being confronted or coerced by a therapist (Vogel, et al., 2007). Such research implies that people can be quite anxious and fearful about mental health treatment, and that these feelings represent a significant barrier to seeking out psychological services. Interestingly, in 2008 Vogel, Gentile and Kaplan found that the more people have been exposed to negative portrayals of psychologists or therapy on television, the greater are their perceptions of stigma, fears of treatment, negative attitudes towards therapy and lower intentions to seek out mental health treatment.

Attitude towards counseling. Overall attitude towards counseling is one of the most cited factors implicated in the decision to seek help or not. In compiling research for the current review, very few articles on the subject of psychological service utilization did not refer to attitudes towards counseling as a potential reason for underutilization. Having a more negative overall attitude towards counseling has been commonly

identified as a significant reason for underutilization of mental health services (Kushner & Sher, 1991; Lambert, 2004; Leong & Zachar, 1999; Mackenzie, Gekoski & Knox, 2006; Smith, Tran & Thompson, 2008; Vogel et al., 2005). Negativistic attitudes toward counseling are primarily associated with perceptions of stigma (Vogel et al., 2005) more positive attitudes towards counseling are associated with being female (Smith, Tran & Thompson, 2008); having knowledge of counseling (Puma, 1996); having an internal locus of control (Malin, 2002); being in a more active stage of personal change (Young, 2004); and having implicit or explicit social support to receive mental health treatment (Vogel, Wade, Wester, Larson, & Hackler, 2007). Having hopeful expectations about the outcome of therapy has also been associated with more positive attitudes (Vogel et al., 2005).

In 2005 Vogel, Wester, Wei and Boysen conducted a study in which they sought to understand which of the factors related to help seeking was the most powerful in determining actual help seeking behaviors. To this end they recruited 354 participants to answer a variety of questionnaires assessing for the most commonly cited intrapersonal barriers to seeking help: Perceptions of social stigma, treatment fears, comfort with self disclosure, tendency toward self-concealment, anticipated risks of treatment, anticipated helpfulness of treatment, perceived social norms, current level of subjective distress, amount of social support, previous experience in therapy, and gender. They found that five of the above factors (current levels of social support, comfort with self disclosure, anticipated helpfulness of treatment, perceptions of social stigma, and perceptions of social norms) were most highly correlated with overall attitudes towards mental health treatment. Subjective levels of distress and gender were not found to have a relationship

between attitudes towards help seeking, which points to the possibility that other factors are actually more powerful indicators of whether help will be sought than either gender or current level of distress. The overall finding of this study is that attitude towards counseling was the mediating variable between all of the different psychological factors studied. That means that the *reason* why social support, stigma, anticipated helpfulness, etc were implicated in intentions to seek help was because these factors influenced participants overall attitude towards help seeking.

Stigma. A general definition of stigma as it relates to mental health is the perception of being personally flawed or judged negatively by others (Blaine, 2000). Stigma can be broken down into two broad categories, that of social (also called public) stigma and self-stigma (Corrigan, 2004). Social stigma involves negative overt or covert messages of the larger culture, which in turn forms the set of beliefs on which attitudes are founded. Perceptions of being marginalized, ridiculed, or otherwise cast out by others is in the realm of social stigma (Corrigan, Watson & Barr, 2006). It has been found that the higher the perception of social stigma, the more likely a person is to avoid mental health treatment or to conceal the presence of personal problems (Corrigan & Matthews, 2003). Self-stigma, on the other hand, is thought of as the extent to which acknowledging psychological problems or need for help has on one's self-perception, or self-esteem (Corrigan, Watson, & Barr).

A number of researchers have postulated that treatment avoidance is the result of the internalization of negative messages regarding the identity of those who seek out treatment for mental health problems (Corrigan, 2004; Nadler & Fisher, 1986). Self-regard may be preserved by the act of treatment avoidance (Miller, 1976). The net result

is that stigma is a significant barrier to both help seeking behavior as well as treatment compliance, as people are motivated both to avoid the damage to their self-esteem that identifying as "mentally ill" would cause, as well as to avoid the public judgment and discrimination that comes from being identified with a diagnostic label (Corrigan). A number of studies have concluded that stigma around treatment is among the most influential factors related to whether or not one seeks help (Corrigan; Cooper, Corrigan & Watson, 2003; Komiya et al., 2000; Vogel et al, 2005).

Stigma and psychological help seeking. The impact of stigma on psychological help seeking is receiving more attention as a major, if not *the* most major cause of treatment avoidance. The topic has been receiving increasing attention in major mental health publications, and the American Psychological Association's Monitor on Psychology recently published several articles on the subject in June of 2009. This increased awareness of the negative impact of stigma may be due in part to reports of significant numbers of soldiers (some reports indicating 20%) returning home from the wars in Afghanistan and Iraq with symptoms consistent with posttraumatic stress disorder and/or major depression, and observations that only about half of these veterans in need initiate mental health treatment (Dingfelder, 2009). Reports estimate that there are now hundreds of thousands of US soldiers with untreated mental health symptoms. Their illnesses are thought to account for billions of dollars between their associated medical treatment and lost productivity. More importantly, the quality of life for these soldiers and their families is likely to suffer due to their symptoms. Fears of stigma have been implicated as the biggest reason why soldiers do not present for treatment, and the military has begun to make major efforts to change the misperception that solders

receiving mental health treatment will be persecuted or punished by direct outreach from soldiers who have successfully completed treatment (Dingfelder).

The first section of this review explored the current need for increased utilization mental health treatment based on a discussion of the consequences of untreated mental illness, the current rates of mental illness, the current rates of utilization and an overview of the current research regarding factors related to psychological help seeking. In the next section of this review, the theory of planned behavior will be discussed at length, because it serves as a conceptual framework to understand why the factors associated with help seeking result in either treatment seeking or treatment avoidance behaviors.

The Theory of Planned Behavior

The Theory of Reasoned Action

Icek Azjen's theory of planned behavior (1985), is an extension of the original work he did with M. Fishbein in the early 1970's to develop the theory of reasoned action (1975). The theory of reasoned action is a model that attempts to explain human behavior by understanding the antecedents to behavior. This model stipulates that behavior is preceded by intention, and the degree of the intention that one has to engage in a behavior is in turn influenced by the positive or negative attitudes one holds toward a behavior as well as perceptions of the social norms around the behavior (Fishbein & Azjen).

A very simple example of the theory of reasoned action would be in understanding the behavior of eating ice cream. Attitudes toward the behavior such as, "Ice cream tastes good," or "It would feel nice and cool to eat ice cream on such a hot day" that are on the whole positive, plus perceptions of social norms like "Everybody likes ice cream" increases the likelihood that a person intends to eat some ice cream in

the near future. To have high intentions to eat some ice cream is the most predictive variable of whether or not ice cream will be eaten.

Because the theory of reasoned action takes the stance that most behavior is under direct volitional control, intention to engage in it is seen as the primary predictive indicator (Fishbein & Azjen, 1975). Although the original work on this theory is nearly forty years old, it is considered to be a seminal work in understanding the relationship between attitude and behavior and still of relevance, as evidenced by its inclusion in recently published texts on the subject of attitude and behavior (Albarracin, Blair & Zanna, 2005; Fazio & Petty, 2008). In recent years the theory of reasoned action has been used to understand human decision making across a diverse range of subjects including drinking and driving (Gastil, 2000), dietary habits (Sheperd & Towler, 2007) and gauging the success of educational curricula (Garg & Garg, 2008).

The Theory of Planned Behavior

Although the theory of reasoned action is still considered useful and is currently utilized in its original form, in 1985 Azjen extended the original theory by adding the dimension of "subjective beliefs about control" to the existing social norms and attitude factors of the theory of reasoned action. He did so in order to incorporate one important factor that the previous model had overlooked, which is that not every human behavior is actually volitional (Azjen, 1991; 2001). To understand this in terms of the previously described example of eating ice cream: Even if intentions to eat ice cream may be high, if there is no ice cream immediately available to eat it becomes unlikely that the behavior would occur. The addition of the perception of behavioral control component allowed for a more predicatively powerful theory, as well as one more generalizable to real-world

applications where practical barriers do get in the way of people engaging in behaviors that they may otherwise enact. The new, three-pronged theory he called the theory of planned behavior.

The Theory of Planned Behavior in Research

In the twenty years since the inception of the theory of planned behavior it has become one of the most widely used theories for understanding and predicting many human behaviors, particularly in the case of social and health related behaviors (Fife-Schaw, Sheeran & Norman, 2007). Several recent meta-analyses of this theory have supported the validity of the theory of planned behavior (Armitage & Conner, 2001; Hagger, Chatzisarantis & Biddle, 2002; Sheeran, 2002; Trafimow, Sheeran, Conner & Finlay, 2002). Because the purpose of the current study is to evaluate how the theory of planned behavior might be used to increase rates of psychological service utilization, it will be discussed in great detail in the following section.

As seen in Figure 1 (below), the theory of planned behavior stipulates that an intentional human behavior is preceded by the intention to engage in that behavior. Intention, in turn, is influenced by three components: the perception of social norms around the behavior in question, general attitudes regarding the behavior, and perceptions of control about the behavior (Azjen, 1985).

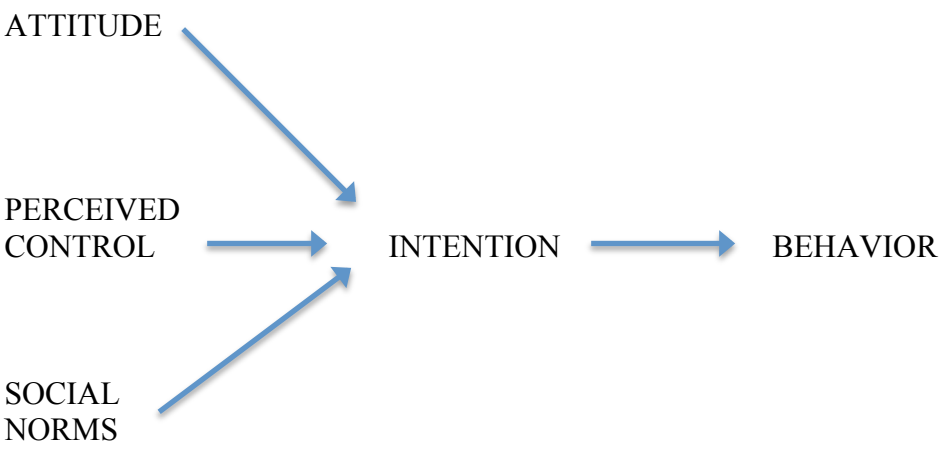

Figure 1. Original model of the theory of planned behavior

In his subsequent work Azjen (1991) elaborated on the basic premise that the interplay between the three dimensions were the primary basis for attitude change. He acknowledged the influence of the underlying beliefs about a behavior as being the original antecedent to perceptions of control, attitudes, and perceptions of social norms (Azjen).

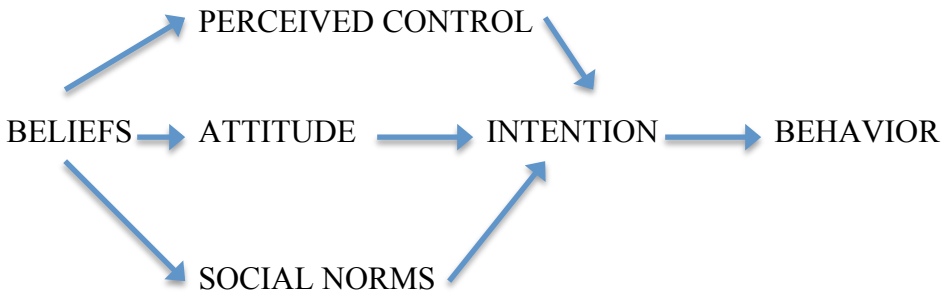

Figure 2. Model of the theory of planned behavior, revised to include beliefs (1991).

In 2001 Azjen expounded on this model further, in order to highlight the confounding variable of objective control, which represents a very real barrier to whether or not a behavior is carried out. While perceptions of control are of psychological importance and have an influence on one's intention to perform a behavior, actual control

may limit the extent to which one actually does (Azjen). For that reason, he urged that the variable of perceived behavioral control, in the sense of actual control, be seen as a factor in addition to intention.

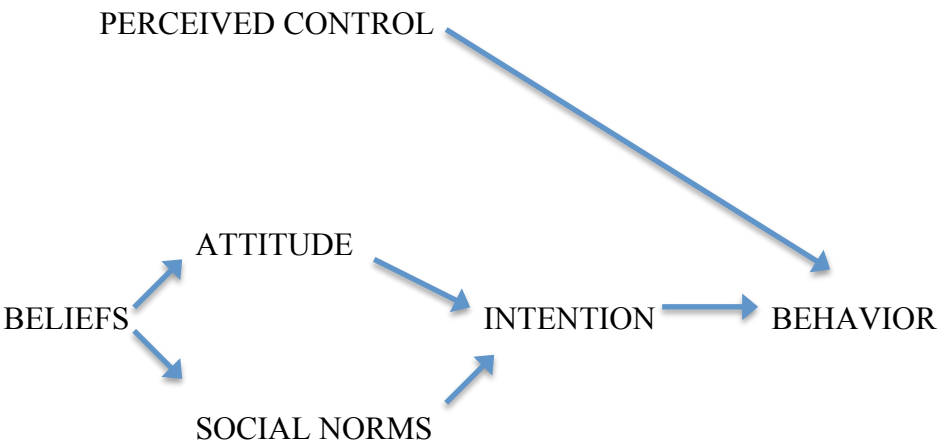

Figure 3. Model of the theory of planned behavior, revised to demonstrate the magnitude of perceived behavioral control (Ajzen, 2001).

The components of the theory of planned behavior that work in synergy to create overall levels of intention will now be discussed in detail.

Beliefs. Beliefs about a behavior are the core component of the theory of planned behavior. In 2002 Ajzen clarified his previous writings on the topic of the theory of planned behavior and included this statement:

> Human behavior is guided by three [beliefs]: Beliefs about the likely consequences or other attributes of the behavior (behavioral beliefs), beliefs about the normative expectations of other people (normative beliefs), and beliefs about the presence of factors that may further or

> hinder performance of the behavior (control beliefs). In their respective aggregates, behavioral beliefs produce a favorable or unfavorable attitude toward the behavior, normative beliefs result in perceived social pressure or subjective norm, and control beliefs give rise to perceived behavioral control, the perceived ease or difficulty of performing the behavior (pg. 665).

Beliefs and intention. Intention refers to an individual's readiness, and/or plan to engage in a behavior. Intention is considered to be an immediate antecedent of behavior, and high levels of intention have been found to be predictive of whether a behavior will be performed (Ajzen, 1985). Hence, according to the theory of planned behavior any efforts to change intentions and resulting behavioral outcomes must target the underlying beliefs in the three areas that are related to intentions. Moreover, the beliefs in question are also related to the values that an individual has and the relative weight they each have accordingly (Fife-Schaw, Sheeran & Norman, 2007). That is to say, beliefs around any of the three antecedent factors of intention must also be important or of value for the individual. For instance, consider a person considering engaging in mental health treatment. At play would be their beliefs related to their attitude towards the behavior (i.e., "Seeing a counselor will help me feel better"), and the belief must be rooted in a personal truth (i.e., "I want to feel better"). Likewise, beliefs related to social norms (i.e., "I will seem unstable to others if I see a counselor") will be tempered by values around that (i.e., "I care what others think of me"). This is the underlying "expectancy-value" structure of the theory of planned behavior. Therefore changes in perception may be

influenced by changes in beliefs, but also potentially by the related values that give particular beliefs meaning (Ajzen & Fishbein, 2008; Fife-Schaw, Sheeran, & Norman).

Beliefs and attitude. Work has been done to investigate the relationship between an attitude's strength or direction and the underlying beliefs that formulate the attitude. In 1981 Fishbein and Ajzen tested the relationship between beliefs and attitude by assessing beliefs about a particular behavior, and then using that information to predict the related attitudes. Their results supported the relationship between underlying beliefs and attitudes associated with them. Beliefs about behaviors, like beliefs about objects, are colored by the attributes that one gives them, and the overall attitude one has is essentially the combination of the strength of beliefs about the behavior and the subjective values one holds (Ajzen, 2001). More recent studies have continued to support the validity of this argument, including a recent study that showed respondent's relative attitudes of trust towards different organizations to be directly related to the beliefs they held about them (Viklund & Sjoberg, 2008). Likewise, Homer (2008) investigated the relationship between attribute-based beliefs impacted the nature of the attitude toward a brand across both quality and image domains.

Instrumental or affective beliefs. While relevant salient beliefs directly influence attitudes, perceptions of social norms, and perceptions of behavioral control, it seems that different kinds of beliefs, instrumental or affective, have different influential and predictive powers (Trafimow, et al., 2004; Trafimow & Sheeran, 1998). Instrumental beliefs refer to the cognitive or rational beliefs that one has about the behavior, and are elicited through questions regarding the advantages or disadvantages in engaging in a particular behavior (Lawton, Connor & Parker, 2007). The instrumental beliefs our

previously described potential consumer of psychological services may express the advantages of psychotherapy as being "helping me to feel better," or "improving my relationships." Instrumental beliefs that refer to disadvantages of therapy may include, "It will be expensive," or "I don't have the time." Affective beliefs refer to emotional associations to a behavior, and are elicited through questions regarding likes and dislikes. Applied again to psychotherapy, affective beliefs could include positive feelings such as, "This will be really good for me," and negative feelings like, "It will be really hard and potentially scary."

Affective beliefs and risky behavior. Evidence suggests that affective beliefs are more consistently predictive of behavior than are instrumental beliefs (Ajzen & Driver, 1991; Armitage, O'Connor & O'Connor, 2006; Lawton, Connor & Parker, 2007). Lawton, Connor & Parker's exploration of the relative predictive value of positive and negative instrumental beliefs and positive and negative affective beliefs showed that, at least with regards to potentially risky behaviors including smoking cigarettes and driving over the speed limit, positive affective beliefs were much more significant predictors of behavior than instrumental beliefs, or negative affective beliefs. These positive affective beliefs in the aforementioned areas of smoking and speeding can be exemplified by statements such as, "smoking relaxes me" or "it's exciting to drive fast." When people have positive affective beliefs about a behavior they are more likely to engage in it. This distinction between affective and instrumental beliefs is particularly relevant to the current study due to the perception of many that psychological help-seeking is a potentially risky behavior (Vogel, Wade & Hackler, 2008). Consequently, outcomes of increased help-seeking could potentially be influenced by helping to shape positive

affective beliefs about doing so. The premise of the current study hypothesizes that positive message framing will achieve that goal more effectively than negative message framing.

Attitude. Attitude about a behavior can be thought of as the evaluation, or judgment that we make about a particular behavior and the resulting feelings that arise regarding that behavior. Positive, negative or ambivalent feelings about a particular behavior can originate from a variety of beliefs about a given behavior. Azjen says, "we form beliefs about an object by associating it with certain attributes, i.e., with other objects, characteristics or events" (1991). Whether these attributes are subjectively positive or negative determines our feelings about the behavior. Going back to the example of engaging in mental health treatment, one related belief may be, "That is for people with problems," but it is the personal evaluation of whether that would be a good thing (i.e., "I have some problems right now, and it might help me") or a bad thing (i.e., "That will confirm there is something wrong with me, and I don't want that to be true") which formulates the resulting attitude. All beliefs and related value judgments can arise from past experiences, cognitive schemas, as well as emotions (Ajzen, 2001).

Attitude and value judgments. It appears that attitude, meaning evaluations and attributions attached to a particular behavior, often arise spontaneously, very quickly, and without conscious effort (Azjen, 2001). There is even evidence to suggest that an evaluative response is triggered even in experimental situations where participants are not being asked to form a judgment (Bargh & Chartrand, 1999). Moreover, attitudes have been found to be particularly easily elicited when it comes to characterizing types of people with positive or negative attributes such as a "Daredevil," "Philanthropist," or

"Bully" (Ottati et al., 2002). This last may have important implications for the current study due to the stigmatizing stereotypical characterizations that may be held towards people who seek psychological help, and the influence that those characterizations may have on attitude towards help seeking. If the strong automatic belief-set is negative regarding the attributes of those who seek psychological services, this may be linked to a negativistic attitude toward help seeking. In particular it may correlate with the observed phenomenon of "stigma" that has been found to be an important factor in help-seeking behaviors (Corrigan, Watson & Ottati, 2003).

Relationship between attitude, social norms and mood state. A strong correlation has been found between the role of attitudes and social norms in the formation of intentions (Ajzen, 2000). For instance, one study (Armitage et al., 1999) found that mood had a role in whether social norms or attitude was more influential with regards to intentions to engage in a behavior. In an investigation of how best to influence health related behaviors it was found that when a negative mood was induced in subjects, overall attitudes toward engaging in a behavior more strongly influenced intentions than did other factors. When a more positive mood state was induced intentions to engage in the same behaviors were found to be more strongly influenced by the perceptions of social norms (Armitage et al). This finding suggests that when in the grip of different mood states, a person's intentions will be more strongly influenced by different concerns.

Attitudes and information processing. There is also some evidence to suggest that attitudes influence the way that we process and remember information. Specifically, attitudes about something tend to create attitude consistent perceptions and memories (Smith, 2001). Essentially, once we have an experience that forms a positive attitude

about a particular situation, person, object, etc. we are more likely to remember data that support our original supposition and reject data that discounts it. However, Eagly et al. (1999) showed that overall support for the strength of this effect and its consistent presence was found to be limited.

Ambivalent attitudes. The nature and degree of an attitude held about a particular behavior is not necessarily singular. Wilson, et. al (2000) found that when attitudes are changed there is a new attitude that has overridden the old, but not necessarily replaced it. Hence, people can hold complex and at times contradictory attitudes about the same thing. These multi-layered attitudes can be expressed differently given the context of the situation. For a simple example, a person may really want to experience psychotherapy but may have a related belief about it being difficult and emotionally draining. Depending on the context (current marital problems, anxious symptoms, etc.) the "good for me" belief may override the "difficult" belief.

Attitude, ambivalence and elaboration. With regard to ambivalent attitudes, or situations in which one holds both positive and negative evaluative beliefs about the behavior in question, some patterns are clear. Predominantly non-ambivalent attitudes were shown to be more predictive of higher intentions as well as more resistant to persuasive messages than were more ambivalent attitudes (Armitage & Conner, 2000). Moreover, when elaboration is high (meaning that there is a more personally relevant, higher stakes subject at hand) there is likely to be greater ambivalence. When a person experiences increased ambivalence about a behavior and elaborates on a course of action more deeply, they tend to become more aware about the source from which they are receiving their information (Tormala & DeSensi, 2008). This is significant to the matter

of psychological help seeking, given that for most help seeking is a high risk, important venture that creates a high-elaboration mindset. If potential consumers are receiving information about psychological services from potentially questionable sources (TV, unreliable family members, etc.) they may be more ambivalent about the prospect than they would be if the good information they were receiving was coming from a trusted or respected source.

Social Norms. According to the theory of planned behavior, social norms can be broadly conceptualized as "the perceived social pressure to perform or not perform [a] behavior" (Azjen, 1991). Essentially, the construct of social norm refers to the tendency to think about how important people or groups of people would view you for engaging in the behavior in question (Azjen, 1985), and whether those people would approve of you doing or not doing that behavior (Hagger & Chatzisarantis, 2005). However, meta-analyses of the theory of planned behavior show this construct to be the least influential on intentions (Armitage & Connor, 2001). Several have argued that the reason for this lack of predictive power when compared to the other antecedents of intention in the theory of planned behavior are due to the narrowness of the social norms construct as it was originally defined by this theory (Terry & Hogg, 1996; Terry, Hogg & White, 1999).

This is because the perception of social norms, also known as social influence, operates in two main forms: Injunctive and descriptive. Injunctive norms are the perceptions that people have regarding what is expected of them. Injunctive norms speak to the explicit or implied messages regarding the "shoulds" of our behavior, as well as to the approval or condemnation that others might direct towards us if we were to engage in a particular behavior (Fedaku & Kraft, 2002; Hagger & Chatzisarantis,

2005). Historically injunctive norms are what have been referred to as "social norms" in the theory of planned behavior. In its purest form the theory of planned behavior has not incorporated the construct of descriptive norms (also called "informational" norms), which are the suppositions that one makes about what other people are doing. Upon reflection this appears to be a significant omission, in that the perception that a particular behavior is common and widely practiced may help direct one to engage in that behavior as well.

As would be expected from Bandura's 1977 social learning theory, these descriptive norms guide behavior through what is learned from the observed actions or reactions of others that then serve as a template to inform future actions (Bandura, 1977; 2004). To sum up, injunctive norms are essentially beliefs regarding other's observations of us, whereas descriptive norms are our beliefs about the actions of others, and both are important in understanding the social determinants of behavior. Because the theory of planned behavior in its original form only considered injunctive social norms (what others think of the self) and did not include descriptive norms (speculations about what others were doing) the construct of "social norms" in the theory of planned behavior may be relatively weak compared to the attitudes and perceived behavioral control constructs (Terry et al., 1999; 2000). The omission of descriptive norms in the theory of planned behavior may partially account for the discrepancy between findings that the social norms factor is weaker than attitudes or perceived behavioral in predicting level of intention (Armitage & Connor, 2001), and more recent research specific to psychological help-seeking which indicates that concerns about social stigma is one of the most important factors contributing to underutilization (Vogel, Wester & Larsen, 2007).

Groups of reference. With both injunctive and descriptive norms, a distinction must be made regarding the groups to which one looks for reference as either doing the observing or being observed. The opinions or actions of some groups of people are more influential on the individual than are others (Fekadu & Kraft, 2002; White & Dahl, 2006; 2007). The more similar one perceives the self as being to the members of a particular group, the more likely one is to have a strong association with that group and look to that group for modeling and guidance with forming personal norms and preferences (White & Dahl, 2006). By accepting membership in a particular group, one is implicitly internalizing the values and preferences of the group, and accepting the norms of the group as one's own (Terry & Hogg, 1996; Wooten & Reed, 2004). At the same time, the perceptions of and acquiescence to the norms of a given reference group are not static but circumstantial in nature (Terry et al., 1999).

Flexible social roles. Going back to our previous example of seeking out mental health treatment: Our example persons perceive themselves to be a health-conscious, responsible individual and identify with their interpretation of the norms of their reference group (other healthy and responsible individuals). They imagine that other health conscious individuals do not engage in mental health treatment (descriptive norms) and so generally avoid participating in psychological services, in part perhaps, to the imagined reaction or evaluations that their healthy, responsible friends may have regarding that behavior as being unfavorable (injunctive norms). They may imagine negative stereotypes about individuals who are in mental health treatment, possibly influenced by television or media sources (Vogel, Gentile, & Kaplan, 2008). Yet, perhaps after spending time with friends or family members who are valued and respected, and

who describe having a positive, meaningful experience in psychotherapy these same individuals will consider engaging in their own therapy. In addition, just as individuals inhabit multiple roles throughout their life span (daughter, mother, wife, sister, teacher, friend, etc.) they may also inhabit different reference groups that inform their identities in these social roles. Different reference groups may seem to hold varying value judgments or standards of conduct than others (i.e., PTA group versus yoga class). To further complicate things, an individual may identify both with groups that are similar to their actual selves (people who struggle with symptoms of depression, perhaps) as well as inspirational groups (energetic, happy people).

Limitations of social norms as defined by the theory of planned behavior. In summary, strict adherence to the theory of planned behavior's original conceptualization of "social norms" (i.e., what do others think of me) does not take into consideration the factors that other researchers have found important in understanding the social pressures that many people feel when considering engaging in behaviors. A more nuanced view of social norms that includes attention to descriptive norms, social learning, social roles and groups of reference are omitted from the theory of planned behaviors' social norm construct. Therefore, recent research using the theory of planned behavior as the anchoring theory has successfully drawn upon social identity theory in attempts to gain the richness that conventional "social norms" measurements may be lacking (Fielding et al., 2002; Hagger et al., 2007; Norman, Clark & Walker, 2005; Terry, Hogg & White, 1999). The current study will similarly define "social norms" as the overall sensitivity that an individual has to perceptions of self and perceptions of others, in the context of

culture, social roles and groups of reference as opposed to the narrow definition of social norms originally proposed by Ajzen in the 1980's.

Perceived behavioral control. The perceived behavioral control component of the theory of planned behavior refers to "the perceived ease or difficulty of performing the behavior… [that] reflect[s] past experience as well as anticipated impediments and obstacles" (Azjen, 1991). This means that perception of behavioral control is taking into consideration both an individual's sense of their own ability to perform a particular behavior, as well as their actual ability to do so. An example of this construct in action would be the scenario of a person who wants to start participating in psychotherapy. The perception of behavioral control component can be conceptualized in their belief in their ability to engage in this behavior: Picking up the phone and making an appointment with a therapist. Of course many factors outside of their direct control could present impediments to doing so, including not being able to find a suitable practitioner in their area, not being able to attend appointments during regular working hours, or not having insurance coverage for psychotherapy and not being able to afford paying out-of-pocket. Therefore the construct of perceived behavioral control is taking into consideration both the subjective beliefs about one's ability to engage in a behavior as well as the possibility that one may be thwarted from doing so by factors outside of direct control (Ajzen, 2002). For this reason, in the most updated model of the theory of planned behavior (Ajzen, 2001) perceived behavioral control trumps positive attitudes towards a behavior and positive perceptions of social norms due to its unique influence on intention and behavioral outcomes.

Perceived behavioral control vs. self-efficacy. While Azjen (2002) acknowledges a debt to Bandura's Self-Efficacy theory (1977; 1991; 1998) for the general concept of behavioral control, he is careful to also delineate the distinctions between the two constructs. Perception of behavioral control is concerned with the degree to which one is actually able to perform a particular behavior (Ajzen), as well as the subjective beliefs one has about their competency. Bandura's construct of self-efficacy differs from the perception of behavioral control in that self-efficacy refers to the subjective belief in one's ability to perform a particular behavior as well as the belief that performing that behavior will accomplish an intended goal (Bandura).

Using the same example of engaging in psychotherapy, self-efficacy would account for an individual's belief in his or her own ability to find a therapist, make an appointment, and pay for therapy. It does not account for the potentially vexing factors that the theory of planned behavior does, including unavailability of a practitioner or financial resources. Moreover, the self-efficacy theory would also account for the overall purposeful goal that psychotherapy accomplishes: to feel better (Bandura, 1998). In contrast, Azjen's perception of behavioral control factor does not concern itself with outcomes, just simply whether or not one can actually do what one intends.

Intention. In a variety of scenarios, researchers have found that intention to perform a particular behavior is predictive of whether or not that behavior will actually occur (Ajzen, 1988; Armitage & Conner, 2001; Hagger, et al., 2002, Trafimow et al., 2002). In 1991, Ajzen said, "As a general rule it is found that when behaviors post no serious problems of control, they can be predicted from intentions with considerable accuracy." In broad terms, intentions can be thought of as analogous to the amount of

motivation that a person possesses to pursue a particular behavior. Intentions "are indicators of how hard people are willing to try, of how much effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991). However, while motivation is generally considered to be an indication of the amount of desire that a person holds to engage in a behavior directed towards achieving a goal, intention is differentiated by emphasis on a decision or plan to behave in a certain way (Kidwell & Jewell, 2010). As has been discussed previously, intention is thought to be formed through the combination of three independent variables: Attitude toward the behavior in question, concerns about the perceptions of other, and perceptions about individual ability to perform the behavior (Ajzen, 1985).

Intention in research. The most reliable predictor of a behavior actually happening is the strength of a person's intention to do so (Hagger, Chatzisarantix & Biddle, 2002). The strength of intentions are generally assessed by simple questionnaires with scaled items such as, "how likely is it that you will exercise sometime in the coming week?" or "I intend to do X behavior over the next week." Validity can then be demonstrated by following up with a post-test to determine whether or not the intention had a relationship with the behavior actually occurring (Mackenzie, et al., 2004).

Current Research of the Theory of Planned Behavior

Recently, Fife-Schaw, Sheeran and Norman (2007) used this technique to confirm the theory of planned behavior's predictive validity. They assessed a group of college students N=211) for intentions to perform 30 different behaviors, ranging from engaging in exercise, to buying a magazine, to going to "the pub" and then following up with them to find out whether or not they actually did. They found that the median

frequency of people who acted as they said they would was 47%. By manipulating the data statistically, they concluded that if intention ratings had been maximized, the follow through would have approached 80%. They were therefore able to show, at least in theory, that intentions were predictive of behaviors. At the same time, they acknowledged that even if intentions were very high, a substantial minority of participants did not follow through with the specified behaviors. In the concluding portion of their study, they speculated as to reasons why including such variables as "intention viability," referring to the fact that participants may not have had actual volitional control over the outcome, analogous to Azjen's "perceived behavioral control" factor. That is to say, even when participants surveyed indicated having a high degree of perceived behavioral control, that may have been over inflated compared with the amount of control they had in carrying out a behavior in reality. This outcome seems to lend evidence to Azjen's 2001 supposition that perceived behavioral control and intention should be viewed as both impacting the behavioral outcomes separately. Other recent meta-analyses also seem to support the dual importance model, in that they have found that the combination of intentions and perceived behavioral control account for approximately 20% to 30% of the variance in behaviors (Armitage & Conner, 2001; Hagger et al., 2002, Sheeran, 2002; Trafimow et al., 2002).

In their 2001 meta-analysis, Armitage and Connor reviewed 185 independent studies that tested aspects of the theory of planned behavior and found that components of the theory of planned behavior accounted for 27% of the variance in actual behavior, and 39% of the variance in the intention to perform a behavior. The constructs of perceived behavioral control, attitude, and social norms were all shown to have a

significant impact on intention to engage in a behavior. However, measures of intention had greater predictive power than any of the related three components (Armitage & Connor, 2001).

Other meta-analyses have shown that the combined influence of perceived behavioral control, attitude and subjective norm account for between 30% to 50% of the variance in the strength of intentions, and that the combination of perceived behavioral control and intentions account for between 20% and 30% of the variance in behavior on their own (Hagger et al., 2002; Sheeran, 2002). However, intention was found to be more predictive of behavior than the perception of behavioral control on its own. The same studies also demonstrated that attitude generally has the greatest influence on overall intention, with perceived behavioral control and perceptions of social norms being less and less influential, respectively (Fife-Schaw, Sheeran & Norman, 2007).

Other theorists have postulated that the three components of behavior change have an interactive rather than additive affect and have to be viewed as such (Grube & Morgan, 1990) as in the case of the behavior of seeking out psychological services. For instance a belief-related attitude (i.e., It would help me feel better) would have much more weight if social norms also supported it (i.e., I have friends who have benefited from therapy) rather than if the perceived social norm made doing so less attractive (i.e., People I know would think less of me). Likewise perceptions of behavioral control may influence an otherwise positive attitude toward a behavior (Norman & Conner, 2006), as in the case of beginning psychotherapy (i.e., I would like to start therapy, but I could never do that due to finances, family obligations, etc.). So while the various components of the theory of planned behavior are often discussed separately it is important to view

them as interactive parts in the context of an individual value system rather than separately functioning components.

Fife-Schaw, Sheeran and Norman (2007) sought to determine whether the components of the theory of planned behavior should be conceptualized as additive determinants of behavioral change or whether they should be understood in relationship to each other. They were able to show that by statistically manipulating the degree to which the variables of social norms, attitudes and perceptions of behavioral control were influential, changes in intention could be generated.

First they collected data from university students (N=211) regarding their relative intentions to perform particular behaviors in the near future that loaded on dimensions of attitude (ATT), social norms (SN) and perception of behavioral control (PBC), and then followed up two weeks later to determine if the students had actually engaged in the behaviors in question. They found that by taking the resulting data and simulating maximum scores on each of the factors, they could identify their relative impact on intentions. They showed that maximizing scores in each domain resulted in significantly increased intentions, and that maximized values for ATT and SN had a greater impact on intention than did PBC. While maximized ATT and SN did not differ much in their impact on intention, taking them both in combination did generate significantly stronger intentions than any of the three variables did on their own.

Fife-Schaw, Sheeran and Norman (2007) were also able to show that changes in attitude have greater impact on intentions when social norms are supportive, as well as the converse, that attitudes are less indicative of intention when social norms are adverse. Going back to the example of seeking out psychological help, this might mean that even

though a person was experiencing depression but hopeful that therapy would help them, they may be less likely to seek out help if they are with a friend who openly expresses negativity about doing so. Likewise they might want to try counseling, but are more likely to if they have social models (friends, television, groups of reference) who express support for doing so.

Additionally Fife-Schaw, Sheeran and Norman (2007) revealed that the perception of behavioral control had little impact on intentions unless the behavior in question was additionally supported by positive attitudes or social norms. That is to say, just because a behavior is within one's ability does not make it more likely that it will be enacted unless the positive attitudes and perception of social norms are there. The greater the attitude or perception of social norm, the bigger a factor was the perception of behavioral control upon influencing intention. This may indicate a relatively large desire to do something (i.e., start going to counseling) but have perceived obstacles from doing so (i.e., not having enough money.) While they were able to demonstrate statistical validity for the theory of planned behavior, they were also careful to note that their undertaking was not the same as an experimental study attempting to find measurable change in intention by targeting the beliefs in attitude, social norms, or perceived behavioral control domains.

The theory of planned behavior and other variables. While the theory of planned behavior does account for a considerable degree of the variance in outcomes, it does not explain it all. Therefore recent researchers of the theory suggest that other internal and external variables must also be taken into consideration, including personality, circumstances, and self-identity, within the flexible framework of the theory of planned

behavior (Hagger & Chatzisarantis, 2006). For example several studies found that additional variance can be accounted for when measures of self-identity were added to the mix, at least for sticking to a low-fat diet (Armitage & Connor, 2001; Hagger et al., 2007), smoking marijuana (Conner & McMillian, 1999) and binge drinking (Hagger, et al., 2007). Another study stressed the importance of personal norms or morals with regards to predicting behavior (Manstead, 2000). Personality variables were also found to account for some of the variance when it came to exercising behaviors (Courneya et al., 1999). Efforts to understand the gap between the outcomes that are predicted by the theory of planned behavior and the actual outcomes have been encouraged in recent years (Hagger & Chatzisarantis, 2007).

Health related research utilizing the theory of planned behavior. Since its inception the theory of planned behavior has successfully been used to understand planned human behavior in multiple contexts (Fife-Schaw, Sheeran & Norman, 2007) and is specifically known for its predictive reliability that has been supported by several meta-analyses (Armitage & Connor, 2001; Hagger, Chatzisarantis & Biddle, 2002; Sheeran, 2002; Trafimow, Sheeran, Connor & Finlay, 2002). The theory of planned behavior has been found to be of particular use in understanding and predicting health related behaviors (Fife-Schaw, Sheeran & Norman). In recent years this model has been applied to a diverse range of topics including how to design effective public health interventions (Bowen, et al., 2009), the maintenance of exercise programs in individuals (Nigg, et al., 2008), development of internet based HIV prevention (Mikolajczak, Kok & Hospers, 2008), and smoking cessation (Moorman & Van Den Putte, 2008).

Other recent studies that have utilized the theory of planned behavior in the social sciences seeking to understand health related behaviors includes investigation of the roles of social norms in understanding the consumption of various fish-foods in Vietnam (Tuu et al., 2008), understanding factors leading to greater frequency of breast self-examination (Mason & White, 2008), prediction of safe-sex practices in various contexts (Cha, Kim & Patrick, 2008; Connor et al, 2008) and healthy life-style choices ranging from organic food consumption (Dean, Raatz & Sheppard, 2008) to diabetes management (Gatt & Sammut, 2008) to exercise behaviors (Bellows-Riecken, Rhodes & Hoffert, 2008; Rhodes et al, 2008; Rhodes & Blanchard, 2008).

Psychological Help Seeking and the Theory of Planned Behavior

As with other health related fields, the theory of planned behavior has been employed to gain insight into help seeking behaviors related to mental health treatment. As previously noted, psychological services are largely underutilized and many of those who could benefit from seeking help choose not to do so. If we accept the tenants of the theory of planned behavior (i.e., beliefs shape attitudes and perceptions of social norms, attitudes lead to intentions, and intentions plus control predict behaviors) and apply it to the problem of help seeking then we are accepting that the following is at least partially true: When people do not engage in help seeking, it means that some combination of underlying beliefs are coloring the antecedent factors of intention in a negativistic light, thereby lowering intentions to seek help. The converse would hold true as well; positive underlying beliefs regarding help seeking that contribute to perceptions of control and utility, positive attitude, and normalcy would correspond with greater intentions to engage in help seeking behavior.

With this in mind, the factors found to be specifically associated with psychological help seeking can be understood through the framework of the theory of planned behavior. The documented reasons for intention to avoid (or seek) mental health treatments appear to correlate with the three aspects of the theory of planned behavior: perceived control, social norms and attitude.

External barriers and perceived behavioral control. For instance, perception of control likely corresponds with factors including practical barriers to help-seeking such as time, cost of treatment, availability of services, lack of savvy with regards to finding an appropriate practitioner, transportation issues, difficulty scheduling weekly sessions during working hours, etc. A general belief that reduction in the experience of psychological distress is under one's volitional control, similar to weight reduction or smoking cessation, would also fall under this category.

Intra-psychic factors related to help seeking and attitudes. Attitude, as defined by the theory of planned behavior, appears to correspond with intra-psychic factors related to psychological help seeking including beliefs about the potential utility of seeking help (Mechanic, 1975), fears of treatment (Kushner & Sher, 1991), experiencing emotional pain in treatment (Komiya et al., 2000), beliefs originating from prior experiences with psychological services (Surgenor, 1985), and negative beliefs about therapists (Furnham & Wardley, 1990). Intrapersonal factors including comfort with self-disclosure, perceived need for treatment, past experience and beliefs about the helpfulness of mental health treatments also likely fall into this category.

Social norms and stigma. The third construct of the theory of planned behavior, social norms, is analogous with factors related to psychological help seeking such as the

fear of negative judgment (Deane & Chamberlain, 1994), fear of embarrassment and the negative stereotypes of people who are in treatment (Kushner & Sher, 1991), and perception of support for help-seeking from social networks (Rickwood & Braithwaite, 1994). The construct of stigma around psychological help seeking also likely falls within this category.

Psychological help seeking research utilizing the theory of planned behavior. Research has been undertaken in recent years relating the theory of planned behavior to mental health service seeking. Smith, Tran and Thompson (2008) conducted a study where they attempted to correlate the extent to which men's identification with stereotypical masculine ideals of independence and strength related to attitudes toward mental health services. Using the theory of planned behavior as a theoretical framework, they administered the Male Role Norms Inventory (MRNI: Levant & Fischer, 1998) to assess for culturally defined male behavior, along with the Attitudes Toward Psychological Help Seeking (ATSPPH: Fischer & Turner, 1970) to determine overall attitudes toward seeking psychological help, and the General Help Seeking Questionnaire (GHSQ: Wilson, Deane, Ciarrochi & Rickwood, 2005) to measure help seeking intentions. They hypothesized, and were able to prove, that it is attitudes towards counseling which mediates the historically observed phenomena that traditional masculine identity is correlated with lower rates of psychological help seeking (Berger, Levant, McMillan, Kelleher & Sellers, 2005) as scores on the measures assessing those domains were found to correlate with each other. Smith, Tran and Thompson, in their discussion, encouraged other researchers to continue working with the theory of planned behavior as a theoretical model for understanding help seeking behavior. They pointed

out that their study gave preliminary evidence that one of the constructs of the theory of planned behavior appeared useful in understanding help seeking behavior, that of attitude toward counseling, but that the domains of perceptions of social norms and perceived behavioral control remained important areas for future research (Smith & Thompson, 2008).

Likewise Vogel, Wester, Wei and Boysen (2005) were able to show that there is a highly significant and consistent relationship between attitudes toward seeking psychological help and the intention to actually do so, as would be expected from the theory of planned behavior. They posit that attitudes serve as the mediating variable between the domains most significantly related to help seeking (comfort with disclosure, social support, anticipated utility, social norms and stigma) and the intention to seek out help, and go as far as to say that "if counselors want to reach out to those in need of services, it seems that [they] will need to address their attitudes towards counseling" (Vogel et al, pp. 468).

Measuring Help Seeking Variables

The theory of planned behavior to measure help seeking variables. Due to the publication of studies such as the ones detailed above, the theory of planned behavior is being increasingly used to understand psychological help seeking behaviors, and a measure linking this area of study with the theory of planned behavior has recently been developed.

The Attitudes Toward Seeking Professional Psychological Help Scale. Historically the most widely used instrument in determining attitudes towards help seeking has been the Attitudes Toward Seeking Professional Psychological Help Scale, or

ATSPPHS (Fisher & Turner, 1970; Fischer & Farina, 1995). The vast bulk of all academic exploration of attitudes towards mental health treatment have utilized this measure. In recent years, the short form of this instrument has been increasingly used. The commonly used short form was developed in 1995 by Fisher and Farina by retaining the 14 items that were thought most strongly correlated with total-item score correlations. These 14 items were factor analyzed and found related to two primary factors: Recognition of Need for Psychotherapeutic Help and Confidence in Mental Health Practitioner (Fisher & Farina). 10 items were retained to form the existing Short Form version of this measure. The measure uses a four-point Likert-type scale (0=Disagree, 3=Agree) and the highest obtainable score of 30 is indicative of higher positive attitudes towards mental health treatment.

Elhai, Schwinle, and Anderson (2008)_examined the reliability and validity of the Attitudes Toward Seeking Professional Psychological Help Scale, Short Form (ATSPPHS-SF, Fisher & Farina, 1995). They administered the ATSPPHS-SP to 300 mixed gender undergraduate college students, as well as 395 medical patients from a local primary care clinic. They assessed the scale's construct validity by comparing scores on the ATSPPHS-SP with results on a co-administered measure of current mental health symptoms, perceptions of stigma about mental health treatment, demographic variables as well as one measuring previous or current treatment seeking. Upon analysis the authors found that the two factors hypothesized by Fisher and Farina, related to recognition of need for help and confidence in practitioners, were actually a poor fit for the data. Elhai et al. hypothesized that two related constructs, "Openness to Seeking Treatment for Emotional Problems" and "Value and Need for Seeking Treatment" were

better fits for the data. They found that the ATSPPH-SF accurately measured variances in attitude related to stigma, gender, previous treatment experience, and age. They also demonstrated that negative attitudes towards treatment are not associated with psychopathology such as depression (Elhai, Schwinle & Anderson). Overall, they reported the psychometric properties of the ATSPPH-SF as "adequate." Despite its widespread use in measuring attitudes toward mental health treatment, and strengths of internal consistency (.83 and .86, 29 items, 2 samples) and test-retest reliability (.73-.89 at 5 days and at 2 months) the ATSPPH has also been criticized as lacking in theoretical grounding and generalizability (Fisher & Turner, 1970).

The Inventory of Attitudes Towards Seeking Mental Health Services.

Mackenzie, Knox, Gekoski and Macaulay (2004) described their concerns about the ATSPPHS regarding its outdated language, item content, lack of incorporation of constructs that might have predictive utility on help seeking behaviors (i.e. subjective norms, perceived behavioral control), and overall weakness due to not being grounded in an established theory of behavior. Furthermore, Mackenzie et al. cited concern regarding the fact that the ATSPPHS has been exclusively standardized on college students. They also described doubts about the ATSPPHS's outdated centroid factor structure (that in more recent years is no longer used due to advancements in the understanding of how to measure factor structure more effectively). As for the factors themselves, Mackenze et al. discussed the advantage for having clearly defined aspects of attitudes to measure as opposed to a measure of general attitude with little insight or understanding as to the antecedents of the attitude being measured. They argued that a more nuanced measure would be a more powerful and useful instrument. Lastly, Mackenzie et al. argued a point

that has been documented by other researchers, (Krosnick & Fabrigar, 1997) that the 4 point rating scale used by the ATSPPHS was less reliable and valid than scales which utilize either a 5 point or 7 point spread of measurement.

Because of these concerns, Mackenzie et al. (2004) cited a need for a new measure that built on the ATSPPHS, but included the ability to pick up on more nuanced multidimensional factors that shaped intentions as opposed to the uni-dimensional "attitudes" construct of the ATSPPHS. To accomplish this, they expanded on the work of Fischer and Turner (1970) and Fischer and Farina (1994) by creating a new instrument with the intention of creating a measure that had better psychometric properties than the ATSPPHS. In particular, they wished to develop a new instrument with improved validity, more accurate measurement of specific factors related to attitudes towards help seeking, and a measure grounded in a solid theoretical basis for the constructs around which the instrument was based. They chose to use the theory of planned behavior as the theoretical basis for the instrument, and used items from the ATSPPHS as the starting point for the item creation of the new measure

Development of the Inventory of Attitudes Toward Seeking Mental Health Services. Mackenzie et al. (2004) looked to the theory of planned behavior to be the theoretical framework on which to base the revised instrument, due to this theory's unique power to accurately predict behavior. Utilizing their understanding of the theory of planned behavior they attempted to identify to what degree these three aspects of the theory were responsible for the measurable intentions to seek out psychological services. They sought to understand if attitudes, social norms or perceived behavioral control s*pecifically* related to psychological help seeking would be particularly predictive of

intention to seek out such help. To this extent, they added several items to the ATSPPHS designed to measure components of the theory of planned behavior including those related to perceptions of social norms, perceptions of control, and attitudes towards help seeking. In addition to establishing a solid theoretical basis for the instrument via the theory of planned behavior, Mackenzie et al. sought to improve upon the conceptual and methodological limitations of the ATSPPS by re-wording items to reduce gender bias in the language and to increase the range of the Likert scale used from four to five options, due to evidence that greater validity coefficients are associated with odd-numbered Likert scales. They additionally sought to broaden their normative base outside of college students in order to achieve more generalizable data. To that end they recruited participants in their study from a local train station. The resulting measurement, entitled the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS) was found to accurately assess the three key constructs of the theory of planned behavior and have solid psychometric properties.

Psychometric properties of the IASMHS. In their work to develop the new instrument, Mackenzie et al. (2004) drew from a pool of participants selected at random by their presence in a train station in Canada. The only participation criterion was willingness to participate in the survey. A total of 246 participants completed items for the new questionnaire. Demographically, participants were found to be more highly educated and less ethnically and racially diverse than the Canadian population as a whole, according to the Canadian 2001 census (Mackenzie et al.). Data for the new measure was analyzed in three phases; item analysis, factor analysis, and internal consistency / subscale inter-correlations. The resulting 24 item, three-factor inventory consists of 17 of

the original items from Fischer and Turner's 1970 Attitudes Toward Seeking Professional Psychological Help Survey (with 10 items revised slightly), and then 7 new items added to reflect the social norms and perceived control dimensions of the theory of planned behavior. Mackenzie et al. referred to their factors as constructs of "psychological openness" (related to attitudes), "help-seeking propensity" (related to perceptions of control) and "indifference to stigma" (related to social norms). They found that the factors included represented a significant portion of the variance among scores, with the first factor accounting for 25%, the second for 9% and the third for 8% (Mackenzie et al). Internal consistency for the measure as a whole was .87, with subscale alphas of .82, .79, and .76 respectively. The original psychometric properties of the IASMHS were then tested by a follow up investigation where 297 university students completed the questionnaire and data was analyzed. Results of the second analysis supported the findings of the first. Item variables loaded significantly onto the factors that they were hypothesized to correlate with, and the three factors were found to correlate positively with each other.

Attempts to provide evidence for the validity of the test was done so by correlating scores with either prior use of psychological services, or future intentions to seek out psychological help. The authors chose not to correlate this measure with any existing measures, due to their beliefs that previously developed measures were psychometrically faulty. Scores on the IASMHS were therefore compared to previous experience and intentions to seek out psychological services, and were found to correlate positively with both of these known measures of attitudes towards psychological help seeking. Both psychological openness and indifference to stigma (attitude and social

norms) scales were found to have moderate correlations with intentions to seek help, while help-seeking propensity (perception of control) were found to be highly correlated with intentions. The resulting measure was, in the opinion of Mackenzie et al, superior to the ATSPPHS which had been the former gold standard when assessing attitudes toward help seeking due to the better psychometric properties of the IASMHS as well as its multidimensional, theoretically based power to predict intentions. Test-retest reliability (n=19, three weeks apart) was found to be r = .85 for the total IASMHS score, r= .86 for psychological openness, r=.86 for help-seeking propensity, and r=.64 for indifference to stigma.

IASMHS in the current study. Results of recent research show that both the ATSPPHS and the IASMHS are acceptable and useful tools to measure attitudes toward psychological help seeking. The advantage of using the ATSPPHS is that it is a widely used measure that has been used in many research studies over the past four decades. However, the IASMHS has significant strengths including good psychometric properties, greater generalizability, and factors related to a more nuanced and thoughtful theoretical basis. Because the IASMHS has been specifically designed to measure the components of the theory of planned behavior as they relate to mental health treatment seeking (which is the central interest of the current study) the IASMHS was used in the current study.

The theory of planned behavior and the self-stigma of seeking help scale. Like Mackenzie et al. (2004), Vogel, Wade and Haake (2004) also reported interest in gaining insight into the nuances behind the general "attitude" scores on previously available help-seeking measures. They noted a gap in the literature between the relatively consistent reports of stigma as being a major variable in help seeking, and the

lack of an available instrument strategically designed to measure that construct. Specifically, Vogel et. al were interested in developing tool to measure the degree of self-stigma, or potential reduction in self-esteem, that an individual perceives around the subject of psychological help seeking. In a five step study published in 2004, they reported on their efforts to construct such a scale; perform confirmatory factor analysis; explore construct and criterion validity; examine test-retest reliability; cross-validate the study with instruments having known psychometric properties; cross-validate with a new sample; and assess the new instrument's ability to predict help-seeking behavior. The resulting instrument is known as the Self Stigma of Seeking Help Scale (SSOSHS). Because this instrument was used in the current study, a detailed examination of the development of this scale now follows.

Development of the SSOSHS. First, Vogel et al. (2004) developed an initial pool of 28 items that were thought to assess for self-stigma. These items were further refined through focus groups of the target population (college students) and were reviewed by professional mental health workers for content validity. The resulting 25 items (7 items reverse keyed) were administered to 583 college students (53% female and 47% male; 86% Caucasian, 4% African American, 3% Latino/a Americans, 3% Asian Americans, 2% multiracial, and 2% international students). The 10 items (five positively keyed, 5 reverse scored) that correlated most strongly with the total score were retained for the final measure. Overall internal consistency was found to be .91 (n-583). All factors were shown to be loading at rates greater than .50, suggesting that this measure is unitary and single dimensional in construct.

Psychometric properties of the SSOSHS. Test-retest reliability found a correlation of .72, n=226 at two months. In follow up construct and criterion validity testing, scores on the SSOSHS were found to be unrelated to measures of global self esteem or current levels of distress, again supporting validity of the measure. As a last precaution to assess the SSOSHS predictive power, researchers again contacted participants two months after they took the SSOSHS. It seemed that 5% of participants had in fact sought professional psychological services in the interim. Scores on the SSOSHS scale significantly differentiated between those who did seek psychological services and those who did not, showing not only the validity of the measure, but the underlining the importance of this particular construct to help seeking behaviors.

Vogel et al. (2004) then gave 470 participants both the SSOSHS and the ATSPPHS (Fisher and Turner, 1970), Intentions of Seek Counseling Survey (ISCI) (Cash et al., 1975), Disclosure Expectations Scale (DES) (Vogel & Wester, 2003), and Social Stigma for Seeking Psychological Help (SSRPH) (Komiya et al., 2000), all of which are measures with known psychometric properties. It was found that scores on the SSOSHS correlated positively with scores on the DES, and SSRPH scales, and correlated negatively with the ATSPPHS and ISCI. These results supported the validity of the measure. Then Vogel, Wade and Haake compared the construct of self stigma with other commonly cited factors linked to attitudes towards seeking help including gender, anticipated risks, anticipated benefits, and public stigma. It was found that compared to these factors, self-stigma was uniquely predictive (and negatively correlated) with attitudes toward seeking help. Again this added evidence to the validity of the construct.

SSOSHS in the current study. At the time of this writing, the Self-Stigma of Seeking Help Scale is unique instrument that specifically examines self-stigma as it relates to help seeking for mental health concerns, and has data supporting the link between scores on this instrument and other factors related to psychological help seeking. Because the design of this instrument is highly congruent with the questions of interest in the current study, the Self-Stigma of Seeking Help Scale was used to measure the impact of positive or negative message framing on the perceptions of self stigma related to psychological services seeking.

Measuring subjective psychological distress and help seeking. There is mixed evidence about the role that psychological distress plays in help seeking. While past research has found that variables besides psychological distress are more important in determining whether one will seek help (Narrow et al., 2000) others (Cepeda-Benito & Short, 1998; Cramer, 2000) have found that people are more likely to seek out psychological services when their own personal resources to cope become overwhelmed. Common sense informs the idea that it is unlikely for any individual to voluntarily present for psychological services without having some subjective experiences of psychological distress. Without some perception of distress there is no basis for treatment. Individuals who are currently in a very positive mood state would be even less likely to present for mental health treatment. Furthermore, people who are in a positive mood state may be less likely to elaborate on messages about psychological services than people who are in a more negative mood state, due to having a less personal interest in the subject. At the same time, people who are experiencing the hopelessness and helplessness commonly associated with depression may evaluate messages about

psychological services negatively. People experiencing the catastrophic thoughts and fearful reactions to neural stimuli often associated with anxiety disorders might feel nervous about help seeking, or more fearful of treatment. For all of these reasons, the subjective psychological state of the participants in the current study was important to capture, as it represents an significant variable that must be mediated to fully understand the impact of message framing.

Instruments that measure psychological distress. There are a number of instruments that have been used in past research to screen participants for symptoms of psychological distress. More commonly used measures include various forms of The Symptom Checklist-90 (Derogatis, 1983), the General Health Questionnaire (GHQ-28) (Goldberg & Hillier, 1979) and the Hospital Depression and Anxiety Scale (HADS), and the Depression, Anxiety and Stress Scale – 21 (DASS-21) (Lovibond & Lovibond, 1995). An additional measure, the Positive and Negative Affect Survey (PANAS) (Watson, Clark & Tellegen, 1988), has also been utilized to gain insight into the current or recent subjective emotional state of an individual. The following is a discussion of the relative merits of each of these assessment tools, as well as a discussion regarding the basis for why the DASS-21 was chosen to document the affective state of participants in the current study.

The General Health Questionnaire. In 1972 the General Health Questionnaire was developed by Goldberg and Hiller (1979). It has 28 scaled-items and measures symptoms in four areas (each area consisting of seven questions): Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression.

The psychometric properties of this instrument were evaluated by Willmott, Boardman, Henshaw and Jones (2008) in order to provide updated information regarding its ability to discriminate a variety of Axis I mental health disorders, as defined by the DSM-IV. Wilmott, et al. administered the GHQ to 1670 adult patients at a primary care medical clinic. Patients were also rated by either a physician or nurse practitioner on a 6 point scale of overall "emotional disturbance" as evidenced by their responses to a brief clinical interview and behavioral presentation. The patients who were assessed as being significantly emotionally disturbed by medical staff were contacted and administered the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID: First et al., 1995). A total of 366 people were interviewed. Overall the instrument was found to have good predictive validity, with eight items in particular having .80 positive correlations with the results of the SCID (Wilmott et al.). They also found that removing the twenty other items actually improved its overall predictive ability from .816 to .844. They drew the conclusion that many of the current items of the measure were not necessary, and their inclusion may contribute to a less effective tool. For this reason, and the fact that some of the language in the items may not be immediately understandable to American undergraduate students (due to this instrument's development in the United Kingdom) the GHQ was not chosen for the current study.

The Hospital Depression and Anxiety Scale. The Hospital Depression and Anxiety Scale (HADS: Zigmund & Snaith,1983) is a self-assessment scale with good psychometric properties (Bjeland, Dahl, Huag & Neckelmann, 2002), and is widely used in clinical practice. However, it has been standardized on people who are in a hospital setting or who are in contact with a medical facility. It is generally used to screen for the

presence of mental illness in these settings. Because of concern regarding the lack of generalizability to the population of interest in the current study, it was not used.

The Hopkins Symptom Checklist. Originally developed in 1973 by Derogatis, et al. as a 90-item measure with a rating scale of 1 to 4, with 1 indicating that one is "not bothered" by symptoms and 4 indicating that the rater is "extremely bothered." The Hopkins Symptom Checklist (HSC) has evolved over the past few decades, with increasingly concise versions being utilized.

Veijola et al. (2003) published an investigation on one of the shorter versions, the Hopkins Symptom Checklist-25, in order to assess its value in accurately screening for DSM-III disorders. To that end, Veijola et al. administered the HSC-25 to 1609 participants, all of whom were part of a birth cohort which represented 96% of all children born in Northern Finland during 1966. Veijola included the HSC-25 with other materials as part of the 31-year follow up survey, conducted in 1997. 1311 participants completed the survey. Based on their scores, 235 participants who screened positive as a possible psychiatric case and were invited to return for a clinical interview. 209 of those participants were interviewed. Additionally, every tenth non-psychiatric case was also invited to return for a clinical interview, and 112 of these individuals were interviewed as well. Interviews were conducted using the Structured Clinical Interview for DSM-III-R (SCID), as the updated interview protocol for the DSM-IV was not yet available at the time data was collected. They found that the Hopkins Symptom Checklist-25 was a moderately accurate screening instrument. In terms of its sensitivity to detecting diagnosable mental illness was 48% overall, with a mean cutoff score of 1.55. Psychotic disorders were accurately screened with 100% sensitivity, mood disorders with 70.1%

sensitivity, anxiety disorders with 42.6% sensitivity, and substance abuse disorders with 29.1% sensitivity. Overall specificity was 87% for all definite disorders (Veijola et al., 2003). Given that this instrument is nearly forty years old, based on DSM-III criteria, and not overwhelmingly accurate in detecting the presence of psychological symptoms, it was not chosen for use in the current study.

The Symptom Checklist. The Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1992) is another instrument commonly used to detect psychopathology. It is an extension of the Hopkins Symptom Checklist (Derogatis, Lipman & Covi, 1973). While the SCL-90-R was intended to measure for psychopathology along nine separate factors related to diagnostic categories, past research has questioned the findings of the standardization data indicating that scores on the SCL-90-R can be reliably interpreted for this purpose (Cyr, McKenna-Foley & Peacock, 1985; Rauter, Leonard, & Swett, 1996). Instead, evidence suggests that there is only one global factor being measured related to overall psychological distress, and that this factor is best calculated as a mean score of all items on the instrument (Hardt & Brahler, 2007). When considered as a uni-dimensional instrument, the psychometric properties of the SCL-90-R including validity, internal consistency, and reliability, have been evaluated positively (Franke, 2002). Global measurements of overall distress can be determined with fewer than ninety questions, and therefore there are many shorter descendants of the SCL-90-R that are commonly used today. These include the Brief Symptom Inventory (BSI: Derogatis, 1993), the Brief Symptom Inventory-18 (BSI-18: Derogatis, 1993) the SCL-11 (Lutz et al., 2006), the SCL-10S (Strand et al., 2003), SCL-K (Klaghofer & Brahler, 2001), the

SCL-27 (Hardt & Gerbershagen, 2001), the SCL-10R and the SCL-6 (Rosen et al., 2000), and the SCL-10N (Nguyen et al., 1983).

In 2009 Muller, Postert, Beyer, Furniss and Achtergarde attempted to compare eleven of the short versions of the SCL-90-R in order to determine the relative strengths of their psychometric properties, and ability to detect and distinguish psychopathology (Muller et al., 2009). To this end they administered the full SCL-90-R to 123 adult participants, all of who had previously undergone a comprehensive psychological evaluation in order to qualify in an educational program for their children. Participants were also administered the Beck Depression Inventory (BDI: Beck, Steer & Garbin, 1988) for comparison purposes. All short versions of the SCL were created by using participant's answers on the SCL-90-R, compiling items for each of the shorter measures from the answers to the longer version that contained all questions. Data from 100 participants was included in the final analysis. Results from all of the measures were then compared.

Overall, Muller et al. (2009) found that the internal consistency scores for all versions were satisfactory, with Chronbach's alpha scores rangind from .77 - .99. The internal consistency scores of the longest instruments were the best, with the original 90-item measure and the 53-item BSI having internal consistency scores of .96 and .94 respectively. They also found that the likelihood that two arbitrarily selected participant's scores would be statistically different diminished with shorter scales. As for validity, they found that the shorter versions of the SCL-90-R remained quite good, with the Global Symptom Index (measured as a mean of all scores) of the shorter scales being close to the GSI of the SCL-90-R. They also found that there was a significant positive correlation

between scores on all versions of the SCL and those of the Beck Depression Inventory. Again, the longer the measure, the stronger was the relationship (r=. 58 for the SCL-5 to r=. 72 for the BSI).

In addition to general psychometric properties, Muller et al. (2009) also explored the eleven short versions of the SCL-90-R in terms of their ability to detect psychopathology or "test sensitivity" (SE), their ability to discriminate or "specify" psychopathology (SP), and have either a positive (PPV) or negative (NPV) predictive value. Using a moderate cutoff score (37^{th} percentile) they found that all of the short forms of the SCL-90-R (except for SCL-5) had good ability in all areas with scores in excess of .90 for sensitivity and positive predictive ability. Likewise, all measures (except for SCL-5) had scores of over .80 for specificity and negative predictive value. While the longest versions (BSI with 53 items, and the SCL-27) were comparatively better in all of these domains, the shorter versions ranging from 6 to 11 items also had good scores. Of these, the SCL-11 stands apart, with a sensitivity score of 98.41, a specificity score of 89.19, a positive predictor score of 93.55 and a negative predictor score of 86.84.

Overall Muller et al. (2009) concluded that all of the short forms capture the main content of the SCL-90-R, and correlate well with the BDI. While the longer versions of the SCL-90-R were consistently found to be better at identifying, discerning, and predicting psychopathology, the short forms were found to be valid and reliable as screening instruments, and able to accurately discern "distressed" from "non-distressed" individuals. Despite its brief form and good reliability and validity, short forms of the SCL-90-R were not chosen for use in the current study because of their lack of ability to discriminate the kind of distress being experienced as well as the emphasis on

questioning around depressive symptoms. The longer versions of the Symptom Checklist (SCL-90-R, BDI) were not chosen for use in the current study because, even though they have better discriminatory ability than the short forms, the high number of items (90 and 56, respectively) would render them too long to administer to this sample.

The Positive and Negative Affect Schedule. The PANAS is a short (20-item) self-report instrument designed to capture subjective experiences of positive and negative affect. It consists of two scales, one rating positive affect and one rating negative affect. Each scale has ten items comprised of an affective label (i.e., "nervous," "inspired"). Participants rate themselves on a scale of 1-5 as to what degree the affective labels apply to themselves over the past week. The PANAS was originally developed in 1988 by researchers Watson, Clark and Tellegen using items from a mood checklist created by Zevon and Tellegen (1982). The PANAS measures current levels of subjective emotional activation, either in a positive or negative direction. Positive emotional activation is associated with subjective feelings of enthusiasm, happiness, alertness, hope, etc. Negative emotional activation is associated with subjective feelings including sadness, lethargy, anger, etc. The PANAS has been found to accurately discriminate between anxiety and depression (Dyck, Jolly, & Kramer, 1994). In particular, high rates of negative affect (NA) are associated with both depression and anxiety and low rates of positive affect (PA) are associated with depression (Crawford & Henry, 2004).

While the PANAS has been widely used to screen for general, subjective psychological distress since its development over twenty years ago, more recent efforts to confirm the psychometric soundness of this instrument have been undertaken. Crawford and Henry (2004) administered the PANAS to 1003 non-clinical subjects recruited from a

diverse range of environments. They were all asked to complete the PANAS as well as commonly used self-report measures of depression and anxiety including the Depression, Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995) and the Hospital Anxiety and Depression Scale (HADS; Zigmund & Snaith, 1983). Their results showed that positive affect scores are negatively correlated with depression, but not anxiety, and that negative affect is correlated with both anxiety and depression (Crawford & Henry). They also found that the PANAS scale had a reliability (as measured by Chronbach's alpha) of .89 for Positive Affect, and .85 for Negative Affect and are therefore accurate representations of an individual's subjective emotional state. They discovered that demographic variables such as age, gender, occupation and education did not impact the results of the PANAS which simplifies its interpretation (Crawford & Henry).

While the PANAS is unique in its ability to capture the balanced range of human emotion it has also been found that the PANAS can be somewhat confusing when interpreting scores due to the common occurrence of obtaining both positive and negative affective ratings (Tuccitto, Giacobbi & Leite, 2010). While depression can reliably be determined due to the presence of negative affect and relative absence of positive affect (Crawford & Henry, 2004) less clear conclusions can be drawn from results indicating elevations on both scales (Tuccitto, Giacobbi & Leite). The current study is seeking to understand if the presence of psychological distress impacts what kinds of experimental messages are most influential. Therefore, this researcher chose to avoid adding the irrelevant variable of positive affect so as to not overcomplicate the results of this investigation.

The Depression, Anxiety and Stress Scale. The Depression, Anxiety and Stress Scale (DASS) was created in 1995 by researchers Lovibond and Lovibond. It assesses for negative affect in three domains, those related to Depression, Anxiety and Stress. The original version contained 42 items. More recent exploration has found that a shortened form of the original, containing 21 items (DASS-21), has improved reliability and validity than the longer form (Henry & Crawford, 2005). Each item on the DASS-21describes a negative experience related to stress, anxiety or depression and participants are asked to rate themselves on a 0 to 3 scale indicating to what degree the statements are true for them (0 indicates not at all, 3 indicates very much). Henry and Crawford explored the psychometric properties and clinical uses of the shortened form, the DASS-21 (Lovibond & Lovibond, 1995). Additionally they were interested to find out if the Stress factor of this scale was a separate construct (as argued by the authors of the test) or if Stress was related to the overall negative affect that was being measured by the Depression and / or Anxiety scales of this measure. To this end, Henry and Crawford administered the DASS-21 to 1794 adult unpaid volunteers recruited from a variety of sources across the UK. Some of these participants (N=740) were randomly selected to additionally rate the Positive and Negative Affect Schedule (PANAS: Watson, Clark & Tellegen, 1988). They analyzed the resulting data and found that raw scores on the DASS-21 were not normally distributed but rather had a pronounced positive skew which made the use of means and standard deviations less helpful in understanding the data. This speaks to the overall sensitivity of the instrument, and that most people endorse some symptoms of psychological distress. Henry and Crawford therefore converted the raw scores to percentiles.

Henry and Crawford (2005) found that the DASS-21 has good internal reliability, with the Anxiety scale having .82 reliability, Stress having .90 reliability, and Depression having .88 (all at a 95% confidence interval). They tested a variety of factor structure models and found that a quadripartite model with allowing for correlated error, and with three scales (anxiety, depression, stress) plus a fourth general distress factor was the best fitting model. When compared with the results of the PANAS, Henry and Crawford found that the DASS-21 correlated with it. Specifically, DASS-21 scores correlated negatively with the Positive Affect scale of the PANAS (-.40), and that this was especially true for the Depression subscale (-.48). Stress and Anxiety levels had a much lower negative correlation with Positive Affect (-.28, and -.29, respectively). The DASS-21 had a positive overall correlation with the Negative Affect scale of the PANAS (.69), and the Stress scale of the DASS-21 had a .64 correlation, the Anxiety scale had a .58 correlation, and the depression scale had a .59 correlation. Henry and Crawford concluded that the DASS-21 appeared to be measuring a common factor of general distress. They also said that the DASS-21 did appear to be measuring unique aspects of depression, anxiety, and stress in addition to overall general distress, and that "stress" and "negative affect" were different constructs as evidenced by comparisons of scores between the DASS-21 and the PANAS. While Henry and Crawford did not explore the convergent / discriminant validity of the DASS-21 during the 2005 study, the instrument has been compared with other validated measures such as the Hospital Depression and Anxiety Scale (Zigmond & Snaith, 1983) and has been found to have good convergent and discriminant validity (Crawford & Henry, 2003).

Overall, the DASS-21 has significant strengths, particularly in its ability to accurately screen and discern affective symptoms of anxiety, depression and stress in a brief format. Its primary limitation, compared to the PANAS, is that it does not offer insight as to positive affective states as well as negative ones. However, the interactive effect between experimental messages, and either the presence or absence of negative symptoms is ultimately what is of interest in the current study. The potential measurements of both positive and negative emotions as one frequently obtains with the PANAS, may be more confusing in this application than illuminating. The DASS-21 is preferable to the other measures discussed, particularly the SCL variants, due to its flexibility. It is a good instrument for detecting overall general distress in a short form. Additionally, by using the DASS-21 this researcher will also have the opportunity to parse further any differences between participants currently experiencing anxiety, depression or stress with regards to the impact of positive or negative experimental messages. The short forms of the SCL do not reliably generate as much specific information as the DASS-21. More information about the kind of distress participants are experiencing, and how those with probable stress or anxiety may differ from those with depression could serve useful in understanding the results. For this reason, the DASS-21 was chosen over other, similar measures for use in this study.

Message Framing

Message framing refers to the manner in which information is communicated, as it pertains to potential gains (benefits) or losses (costs) associated with a particular behavior. A positively framed or gain framed message is one where a behavior is described in terms of positive outcomes and benefits associated with engaging in the

behavior. Conversely, a negatively framed or loss framed message is one where the costs or consequences of not engaging in a particular behavior are highlighted (Salovey, 2005).

Message Framing and Persuasion

Message framing is associated with either "avoidance" or "approach." Positively framed messaged tend to pull for approach, and negatively framed messages pull for avoidance. One interesting study found that positive and negative language framing influenced literal approach and avoidance behaviors. In laboratory experiment Chen and Bargh (1999) were able to show that positive and negative evaluations elicited a physical approach or avoidant response, respectively. When participants were asked to push a lever away, they were able to do it faster if exposed to negative words rather than positive, and conversely were able to pull the lever towards themselves more quickly when exposed to positive words rather than negative. When the messages were congruent with what they were asked to do, they were able to perform the task faster. This study suggested that message framing does impact people and should be taken into consideration when attempting to persuade.

Message framing and health related behaviors. Message framing is increasingly being used as a means of understanding how to most effectively persuade people to engage in healthy behaviors (Myers, 2010). It has been shown that when health related actions are perceived to involve risks and uncertainty, such as in the case of detection activities such as mammograms or colonoscopies, loss-framed messages have been found to be most persuasive. When health related behaviors focus on prevention and maintenance, which are generally considered safe and low risk, positively framed messages are more effective in motivating behaviors (Rothman & Salovey, 1997).

Meta-analyses of message framing research. In the past few years, the impact of message framing has been examined via meta-analytic review of hundreds of individual studies. In the first, Kuhberger (1998) looked at 136 separate studies where message framing was employed to create a shift in attitudes. He found that overall there was a small to moderate effect size associated with message framing, but did not emphasize in which direction the framing was more persuasive. O'Keefe and Jensen (2006) conducted a meta-analysis based on 165 separate studies of message framing, and specifically focused on whether gain or loss framed messages were the most persuasive. In addition, they coded messages in terms of the desirable and undesirable constructs embedded in the messages as an additional measure of "positive" or "negative" framing. They found that there were largely no differences between gain and loss framed messages, with the exception of those related to disease prevention. In that case, positively framed messages were found to be more motivating than negative (O'Keefe & Jensen, 2006). In an extension of this first study, O'Keefe and Jensen (2007) then conducted another meta-analysis focused specifically on disease prevention-related messages. They found that positively framed messages were significantly more persuasive than loss framed messages, specifically in relation to dental hygiene behaviors. However, O'Keefe and Jensen did not examine moderating variables that may have also been at work, interacting with message framing in such a way as to obscure the data.

Message framing and moderating variables. Recent research is shedding light on the fact that the impact of message framing on attitude shift is moderated by different variables. Among these are cognitive variables, including the extent to which a person will elaborate deeply on a message, as is outlined by Petty and Cacioppo's (1986)

elaboration likelihood model. This model informs us that the persuasive ability of a message is dependent upon how personally relevant and meaningful the subject is to the person receiving the message, leading to a tendency to listen and consider the message thoughtfully. It has been found that when elaboration is high, source credibility becomes increasingly important (Jones, Sinclair & Courneya, 2003). A significant body of research exists that supports the relationship between cognitions and attitudes. In particular it has been found that the dominant cognitive response a person tends towards mediates the effect between a message and a resulting shift in attitude (Eagly & Chaiken, 1993; Norton, Bogart, Cecil & Pinkerton, 2005; Petty, Ostrom, & Brock, 1981).

Message framing and personality. Positively or negatively framed messages may also interact with an individual's personality, in terms of being more motivated by a desire to avoid threats or to approach gratification. Messages that are congruent with an overall motivational style tend to be more effective in persuading action (Mann et al., 2004). Along those lines, positively framed messages are more effective in persuading people who are motivated by advancement, attainment of goals, and accomplishment because working towards positive outcomes is congruent with their value system. Negatively framed messages are motivating to people with a prevention focus who tend to be vigilant about avoiding negative outcomes and maintaining personal security (Mann et al.,). The effectiveness of message framing which is targeted at being congruent with this avoidant or promotion oriented personal regulatory system has been demonstrated in a variety of applications including dieting (Fuglestad, Rothman & Jeffery, 2008), dental flossing (Uskul, Sherman & Fitsgibbon, 2009), and exercising (Latimer et al., 2008).

While to a degree, avoidance or achievement orientations may be simply dispositional there is some evidence to indicate that these orientations can be evoked.

Rothman, Wlaschin, Bartels, Latimer and Salovey (2008) suggested that communication about different kinds of health related behaviors can actually provoke either a prevention oriented or a promotion oriented mindset. Specifically, they showed that when people consider engaging in a health - promoting activity (like eating nutritious foods or taking vitamins) they actually experience the kinds of thoughts and feelings that are often associated with a promotion-focused mindset, like hope, satisfaction, and excitement. Under these circumstances positively framed messages tend to be most effective. Alternately, when people consider engaging in detection or avoidance-related behavior they are more likely to have thoughts and feelings associated with a prevention-focused mindset, like anxiety and fear (Rothman et al). Under these circumstances negatively framed messages tend to be most persuasive.

Message framing and affective persuasion. While much of the focus in the field of persuasion in the past two decades has been on cognitive processes, there is increasing empirical support for the significance of affective processes in shaping opinion and creating behavior change (Shen & Dillard, 2007). Emotions have inherent action tendencies. For example, anxiety generally leads to avoidance (Roseman, Wiest, & Swartz, 1994), as does disgust and sadness (Dillard & Peck, 2001). Happiness and excitement, on the other hand tend to lead to approach behaviors (Oatley, 1992). If messages are framed in such a way as to elicit the emotions of approach, or the emotions of avoidance, the corresponding behaviors are more likely to ensue. In this manner,

emotions have been found to have a direct impact on intentions to engage in a behavior (Dillard & Peck; Dillard & Meijnders, 2002; Witte & Allen, 2000).

In 2007, Shen and Dillard conducted two experiments in which they showed two groups of subjects (N=286, and N=252) either positively framed messages about health risks, or negatively framed messages about health risks. They found that exposure to the messages did, as hypothesized, lead to increases in affective responses. Gain framed messages led to more positive affect, and loss framed messages to more negative affect. They were also able to show that emotions did have significant impact on attitudes, with strength of emotion correlating with strength of attitude. While they were able to show that exposure to negatively framed messages elicited feelings of fear and anger in subjects they also, surprisingly, showed that for many of the participants exposure to positively framed messages also resulted in feelings of fear. Both framing styles were shown to be equally persuasive, but that they had different paths to attitude change. Advantage framing led to attitude change by activating the behavioral approach system (BAS) which is stimulated by promises of reward, escape from punishment, and which leads to goal directed behavior. Disadvantage framing stimulated the behavioral inhibition system (BIS), which is associated with an avoidant response to punishment or threats (Davidson, 1995). Neuro-scientific explorations of these two systems have shown brain activity in different areas of the prefrontal lobes when measured by electroencephalograph (EEG), (Sutton & Davidson, 1997).

There is some evidence to suggest that people have differences in whether they generally tend to process information in terms of BAS or BIS. BIS processors tend to feel more negative emotions and BAS processors more positive ones. This tendency towards

emotional processing style has been found to be a moderating effect in message framing experiments (Dillard & Peck, 2001). Therefore, both positively and negatively framed messages have been found to be effective in creating attitudinal shift, but via different affective pathways. In a follow-up study Yan, Dillard and Shen (2010) found that when gain focused pathways are activated and positive emotions are present, positively framed messages are more persuasive and when loss focused messages are activated, and negative affect is present, negative messages are more persuasive. Furthermore, gain framing is more effective when advocating for an action to be taken, and loss framing or more effective in persuading restraint or avoidance (Yan, Dillard & Shen). This research dovetails with the findings outlined in previous sections of this review about how affective attitudes strongly influence intention in the context of the theory of planned behavior.

Message framing and help seeking research. While the impact of message framing has been explored in a multitude of health related areas including obtaining HPV vaccines (Gerend, Shepherd & Monday, 2008), getting PAP tests (Rivers, Salovey, Pizarro, Pizarro & Schneider, 2005), being vigilant for signs of skin cancer (Van T Riet, Ruiter, Werrij & De Vries, 2010) and smoking cessation (Toll et al., 2008) no exploration to date has been done to see how message framing could be used to increase the utilization of psychological services for mental heath concerns.

***General messages and help seeking research*.** While there is a paucity of information in the literature regarding the best way to improve attitudes towards psychological help seeking and increase rates of utilization through message framing, there is evidence that any communication about help seeking is beneficial in improving

attitudes and intentions. This is best exemplified by a recent study exploring the impact of messages about mental health treatment. Bhugra and Hicks (2004) published their study in which they examined the effect that an educational pamphlet had on help seeking attitudes in British South Asian women, particularly with regards to help-seeking for depression. They contacted 298 women through both community contacts as well as primary care physician's offices. One hundred and eighty women consented to participate in the study. No data was available on the group of women who refused to participate. Participants ranged in age from 15 to 75 years old, and who lived in a variety of locations across southern Asia. All of the participants were mailed a packet of materials (along with a self addressed, stamped envelope) containing consent paperwork, a demographic questionnaire, an educational pamphlet about depression, and a pre and post baseline measurement. The baseline measure was an eight-item instrument intended to measure help seeking attitudes for depression and suicidality, and which had specifically been designed for this population (Bhugra, Baldwin & Desai, 1997). The educational pamphlet provided information on recognizing depression, the risk of suicide, preventing suicide attempts, the utility of treatment, treatment options, and how to find help (Bhugra & Hicks, 2000). Participants were asked to complete the attitude assessment before and immediately after reading the pamphlet. The participants were contacted four to six weeks later, and again administered the same attitude assessment over the phone in order to determine whether the shifts in attitude remained over time. Bhugra and Hicks found that attitudes toward help seeking improved significantly after reading the educational material and remained improved six weeks after one exposure. This shift was evidenced by a number of data points including the percentage of women who would not tell anyone

about their feelings of depression and/or suicidality (21% prior to the experimental message, dropping to 8% after), the percentage of women who indicated they would seek help from a medical or mental health professional (21% increase), and overall improved attitudes towards mental health treatment by 14%.

While this study was small, its findings are promising in that they indicate brief exposure to an inexpensive and easily distributed informational pamphlet had significant impact on overall attitudes towards seeking help. This study also sets a precedent for the current study, in that it suggests that attitudes toward psychological help seeking are fairly malleable, and that sustained attitude shift can occur with minimal intervention (Bhugra & Hicks, 2004).

Message framing, the theory of planned behavior and career counseling. While not directly used for help seeking related to mental health concerns, message framing has been used in the related field of career counseling. Lepre (2007) undertook an exploration of how to most successfully persuade students to engage in career counseling through the use of the theory of planned behavior and positive or negative message framing. In the form of a student newspaper column Lepre used either positively framed messages about the benefits of career counseling or negatively framed messages about career counseling (plus a neutral control) that spoke specifically to the domains supposed by the theory of planned behavior to have the most direct impact on intention to engage in career counseling: Attitudes, perceptions of social norms and perceived behavioral control.

Lepre (2007) discovered that by addressing the beliefs that created antecedent perceptions about career counseling in all three of the dimensions of the theory of planned behavior she was able to create higher intentions for students to attend a career

counseling workshop. She attempted to discern any difference in the efficacy of attitude change by framing messages positively (communicating about advantages and desired outcomes) or negatively (consequences of not going to the workshop) compared to a control. She found that while a positive message did elicit the highest of intentions to enroll in the workshop, it was not statistically significantly different from the intentions motivated by the negative message. However, both the positive and negatively framed messages were significantly more effective in persuading attitude change via speaking to beliefs than was the informational control message. She noted that the power of one exposure to a short message to change a pre-existing attitude was encouraging given the potential if more focused energy was spent on communicating about career counseling services (Lepre).

This study provides encouragement for the premise of the current study with its goal of improving intentions and behaviors around psychological help seeking services. However, there are some notable differences between traditional psychological services and career counseling, such that may impact any similar experimentation significantly. In particular, research on help seeking has shown that stigma or the perception of social or self undesirability are significant variables in the psychological help-seeking process (Corrigan, Watson & Barr, 2006; Vogel, Wade & Haake, 2004) that may be much more pronounced than that related to career counseling..

Message framing techniques specific to psychological help seeking. Current research in the field of message framing as a vehicle for persuasion has significant implications for the current study. If beliefs and affect around mental health services can be influenced through the use of positive or negative message framing, it may lead to

increase intention to use psychological services. By using the theory of planned behavior as a guideline to help determine what specific areas the message should address, and by using message framing in conjunction with this content, the message should have additional persuasive power. Furthermore, a unique situation exists within the field of psychology that represents an interesting opportunity for investigation: There are many general theoretical orientations through which to understand the rationale for psychological services. For the purposes of the current study, two of these theoretical orientations were utilized: The positive psychology model, and the medical model or "clinical" model of psychology. The positive psychology model is inherently positive, and this positive orientation is conveyed through the hopeful language commonly used to describe the rationale, need, and outcomes of therapy via this model. The medical or clinical model, places emphasis on illness and disorder is more inherently negative as evidenced by the language used to describe the utility of psychological services through this paradigm. The dichotomy between these two orientations can be observed in many areas throughout the field of applied psychology: As the split between counseling psychology and clinical psychology, the humanistic model or the cognitive-behavioral model, and the positive psychology or medical model. For the purposes of this study, the positive orientation will be referred to as the positive psychology model, and the negative orientation as the medical model.

Generally speaking the medical model emphasizes mental health services as treatment for mental illness, and the positive psychology model emphasizes mental health services as a route for increasing life satisfaction and attaining personal goals. It is thought that messages framed in terms of each of these orientations will naturally

stimulate either the behavioral approach system (with its related positive affect and action oriented behaviors) in the case of the positive psychology model, or the behavioral avoidance system (with its related negative affect and avoidant focused behaviors) in the case of the medical model.

Positive psychology. The positive psychology movement is a fairly recent offspring of the humanistic orientation of psychology. The humanistic conceptualization of mental health was first promoted by Carl Rogers in the 1950s, and emphasized personal growth through self-awareness and human connection. Positive psychology has been championed by former American Psychological Association president Martin Seligman, and promotes personal growth, life satisfaction and cultivation of strengths as goals. At the core of this model is the idea that enhancing personal strengths and cultivating positive aspects of life are the keys to counteracting negative symptoms—often permanently (Seligman, Rashid & Parks, 2006). The focus of this orientation is on cultivating wellness and health, as opposed to banishing illness. It emphasizes "goals, well-being, satisfaction, happiness, interpersonal skills, perseverance, talent, wisdom, and personal responsibility. It is concerned with what makes life worth living, with helping people become more self-organizing and self-directed" (Maddux, 2008, pg. 66). Additionally, the positive psychology model is systemic, and takes into consideration the influences that environment, circumstance and interaction with others have on people and their experiences (Seligman & Csikszentmihalyi, 2000). Interventions used in this model generally focus on identifying areas of strength, satisfaction and pleasure that are already working and then putting energy in to growing them.

Positive psychology and positive message framing. As Albert Bandura observed over thirty years ago, "Relatively few people seek cures for neuroses, but vast numbers of them are desirous of psychological services that can help them function more effectively in their every day lives..." (Bandura, 1978, pg. 99). The positive psychology model offers people something to move *toward.* Furthermore, the rationale and language of the positive psychology model dovetails with components of the theory of planned behavior in such a way as to likely increase intention to seek out services in that it likely helps to create positive, hopeful beliefs about mental health services (i.e., useful, helpful in attaining personal goals, opportunity for personal growth), which improve overall attitudes. It also addresses social norms (psychological problems are normal and common, conquerable, and frequently attributable to context) in such a way as to likely reduce stigma. It is thought that framing information related to beliefs, attitudes, social norms and perceived behavioral control regarding mental health services in the language and orientation of this model, positive affect and positive cognitions will be elicited, the behavioral approach system of the brain will be activated, intentions to seek services will increase and approaching behaviors will be more likely to result.

Medical model. In contrast to the positive psychology view of mental health is the medical model of mental health. For most of the last century mental health problems have been viewed as illnesses, and the reduction of negative symptoms have largely been the focus of treatment. Disorder, dysfunction and disease have been the areas attended to in this model, whereas health and strengths have often been overlooked. It tends to emphasize abnormality and sickness, and generally places the locus of the disorder within the person as opposed to their context. In doing so, people tend to be conceptualized as

passive victims of biological factors or intra-psychic factors that are largely beyond their control (Maddux, 2008). According to Wampold's 2001 overview of the medical model it contains five components:

> "a) the client presents with a disorder, problem, or complaint; b) there exists a psychological explanation for the disorder, problem or complaint; c) the theoretical conceptualization and the knowledge are sufficient to posit a psychological mechanism of change; d) the therapist administers a set of therapeutic ingredients that are logically derived from the psychological explanation and the mechanism of change; and e) the benefits of psychotherapy are due, in the most part, to the specific ingredients" (page 268).

The net result of this orientation is that psychotherapy becomes "treatment" and that the focus of the treatment is on psychopathology. The research model used to demonstrate the efficacy of psychotherapy for specific psychological diagnoses has come from an approach similar to the one used by the FDA to evaluate the effectiveness and safety of new drugs (Chambless & Ollendick, 2001). This paradigm has therefore increasingly become the focus of psychotherapy efficacy trials. Medications are often now considered to be a first order treatment for many affective complaints, and oftentimes are prescribed without exploring circumstantial bases for mood states. Similarly, the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR: American Psychiatric Association, 2000) is heavily

relied upon to inform clinical practice. As the disease model of mental illness gained hold, and diagnoses became a cornerstone of good practice, third party payers became increasingly relied on to fund treatment. These providers generally require a DSM psychiatric diagnosis in order to consider psychotherapy medically necessary. In this way, there is a great deal of systemic support for the medical model of mental illness in the mental health field.

The medical model is highly useful for helping clinicians to accurately identify and understand the psychological problems that their clients are struggling with. Correct diagnosis informs treatment, and helps both practitioner and patient focus on the interventions that will be most helpful in promoting their overall wellness. Certain interventions have been found to be particularly helpful in easing the symptoms of certain mental illnesses, while it has also been argued that much of the healing found in psychotherapy is attributable to a theoretical factors including readiness to change, the quality of the therapeutic relationship, and therapist skills and experience (Wampold, 2001). While conceptualizing psychological problems as illnesses can be extremely helpful for clinicians, the healthcare industry, and also clients, there is also evidence that suggests that the negativistic language of this model and emphasis on disease and diagnostic labels may inadvertently create more stigma and negative attitudes for potential consumers of mental health services.

Medical model and stigma. There is evidence to suggest that receiving a clinical diagnosis may exacerbate the stigma of seeking-help, specifically with regards to self-stigma (Corrigan, 2007). Corrigan's research revealed that stigma interferes with help-seeking propensity in three ways: desire to avoid a diagnostic label and resulting stigma,

the prejudicial attitudes of others impede access to other opportunities, and the impact that internalization of stigma has on self-esteem. These latter manifest into negative self-talk, shame, and diminished self-efficacy. Corrigan goes on to discuss how diagnostic labels, while useful for clinicians, unintentionally promote and maintain this stigma. Diagnostic labels distinguish people as members of a group, and frequently these groups have stereotypical traits associated with them. While the DSM-IV itself advises specifically against this tendency saying "There is no assumption that all individuals described as having the same mental disorders are alike in all important ways" (p. xxxi), the casual as well as clinical use of diagnostic labels frequently does exactly that (Becker, 2008).

Medical model and negative message framing. The medical model of mental health has traditionally been the language used to communicate about the need for psychological services. This model has many factors in common with negative message framing in that psychological disorders are highlighted as threats, with emphasis placed on the negative consequences for not receiving treatment. To communicate about mental health services in the language of this model creates a demand for the recipient of such communication to identify with a disorder (depression, anxiety, eating disorder) in order to feel motivated to seek treatment. The act of seeking treatment for a mental disorder is likely to be a threatening endeavor for many people. The affective feel of such a negatively framed message is a warning, and this likely elicits feelings of fear and anxiety in the recipient. This negative affect may stimulate negative cognitions, which lead to activation of the behavioral inhibition system all of which is likely to lead to avoidance, and therefore decrease the likelihood that mental health services will be

sought. Furthermore, the language of this model likely impact the exact areas that the theory of planned behavior informs us are the most likely to be related to a reduction in intention to engage in a behavior: attitudes and social norms. When learning about psychological services through the framework of the medical model, fears of treatment are likely to be exacerbated which would lead to a more negative attitude towards seeking services. Due to emphasis on diagnosis, fears of social stigma about engaging in treatment are likely to increase and a desire to avoid self-stigma by rejecting a mental illness diagnosis is also likely to ensue and create further avoidance. Unless the recipient of the message is able to identify with the negatively framed message in such a way as to become frightened by the potential for negative outcomes and therefore seek safety by engaging in treatment, a negatively framed message about psychological services is unlikely to motivate help seeking behaviors. Psychological services are generally communicated about in the language of the medical model, because this orientation is dominant in the field. This could be related to the observed presence of widespread stigma towards mental health services, as well as the fears of treatment that are so often cited as significant obstacles to the utilization of services.

It was the intention of the current study to gain evidence to support this hypothesis. If such evidence was found, it could then inform the creation of future education and marketing campaigns, and ultimately, through more effective and persuasive communication about mental health services, allow more people to seek out psychological help in times of need. Having a better understanding of how to communicate the helpfulness of mental health services in such a way as to increase rates of utilization could mean that more people would present for treatment, and have the

opportunity to resolve their mental health symptoms. They, and their families, may ultimately have a better quality of life and society as a whole could reap the benefits. This possibility suggests that this investigation was an important and worthwhile area of research.

Chapter Summary

This chapter began with a review of the existing literature on the prevalence and impact of untreated mental illness. It then described research exploring the general trend towards underutilization of mental-health services. The factors currently known to impact help seeking behaviors were discussed, including external barriers, demographic characteristics, and intra-psychic factors. The theory of planned behavior was introduces as a theoretical model for understanding how these factors work together to either promote help seeking behaviors or create an aversion to mental health treatment. The study of message framing was discussed as an avenue for shifting the underlying beliefs of these areas by stimulating positive affect and positive cognition in a way that would elicit an intention to move towards treatment. Two theoretical paradigms of mental health, the positive and medical models, were introduced as models that could be used to present the need for mental health services in either a positive or negative manner. This literature review suggests that experimenting with messages that are strategically designed to influence beliefs, attitude, affect and cognition and measure what impact they have on increasing help seeking intentions may provide valuable information adding to the understanding about how best to communicate about mental health services in such a way as to increase the likelihood that they are utilized.

CHAPTER III

METHOD

The purpose of this study was to investigate the impact that positively or negatively framed communications about psychological services had on intentions to engage in help seeking behavior. The study explored whether exposure to positively or negatively framed messages about psychological services had a greater impact on the domains that, according to the theory of planned behavior, influence real-world help seeking behaviors. This chapter describes the methodology used in this study, including: participants, sampling methods, instruments, data collection procedures, research design, hypotheses and proposed statistical methods to evaluate the data.

Participants

Before any participants were approached this researcher sought and received permission from the Internal Review Board at the University of Northern Colorado to proceed with this study, after demonstrating how data would be gathered ethically via their standard application process. Then, undergraduate college students recruited from classes at this university participated in this study. This particular population was chosen for several reasons:

Rationale. This population represents an important subset of people who could benefit from mental health treatment. A significant percentage of college undergraduates meet criteria for a psychological disorder, and psychological services are underutilized in this population.

External barriers. Undergraduate university students were also an attractive sample because they have almost no external barriers to mental health services. For example, many students have free or low cost access to psychotherapy at college counseling centers. This relatively easy access is in contrast to populations who are frequently constrained from seeking desired services by barriers such as cost, lack of insurance benefits, and known availability of appropriate service providers. Without the presence of external barriers to counseling, perceived behavioral control of engaging in mental health services will be high in this population. Therefore measurable attitude shift during this experiment were related to changes in attitude or perceptions of stigma rather than perceived behavioral control.

***Developmental factors*.** Undergraduate college students are generally not far removed from adolescence. As such, they are more likely from a developmental perspective to be highly attuned to matters of social stigma. This represents a contrast when compared to older individuals who may have a well-developed sense of themselves, and therefore are likely less concerned with the good opinions of others when making important life decisions. It was thought that the "social sensitivity" of individuals closer to adolescence could allow for greater likelihood that efforts to reduce stigma around help-seeking and would elicit measurable difference in intentions as a result.

***Demographic characteristics*.** Lastly by virtue of their presence in college, students are likely to be intelligent and high-functioning individuals for whom help-seeking is optional. As compared to a clinical population for whom treatment is necessary, college students may be more similar to the larger general US population that may choose to opt out of psychological treatment despite the presence of symptoms.

They are also more likely to be educated, come from middle to upper middle socio-economic classes, be under thirty, and are more likely to either be Caucasian or acculturated to the mainstream culture; all of which are factors associated with increased acceptance of mental health treatment.

Sample size. Sample size for this study was calculated according to the guidelines set forth by Bartlett, Kotrlik, and Higgins (2001) in their article on the subject. Sample size was calculated using the following information: Population, type of variables, number of data points, alpha level, and acceptable error rate. The total undergraduate population size at the university where data was collected is 9,973 (UNC, 2009). The primary variables of interest in the current study are continuous data values (scores on the IASMHS, the SSOSHS, and the intention rating scale) after exposure to one of three experimental messages. These measures all utilize a Likert-type scale: A five-point scale on the SSOSHS and on the intention rating scale, and a six-point scale on the IASMHS. The larger value (6-points) was used in calculating appropriate sample size. A standard alpha level of .05 was used. A 3% margin of error was selected, as is common in educational and social research of continuous variables (Krejcie & Morgan, 1970). The variance was calculated as being 1. This value was obtained by determining the range of the largest scale (6 points) and estimating that 6 standard deviations would capture the majority of the responses in a normal distribution. The sample size was then obtained using the following equation:

$$n = \frac{(t)2 * (s)2}{(d)2} = \frac{(1.96)2\ (1)2}{(7*.03)2} = 118$$

This equation is the one recommended by Bartlett, Kotrlik, and Higgins (2001) where t = level of alpha in each tail (.025, = 1.96), s = the estimate of the standard deviation in the population, where d= the selected margin of error (3%, times the number of points on the largest scale). The estimated sample size was determined to be 118. Then, Cochran's (1977) formula to correct this value for the total population size was used to obtain a more accurate sample size for this specific study. The final sample size was determined to be n=116.

Generalizability. The current study represents first steps in gaining knowledge about how to best increase utilization of psychological services at this midsized western university through targeted communication efforts. The findings may be very helpful in learning how to increase the number of college students at other universities who take advantage of their counseling centers while in school. While the specific findings of this study may not be as helpful in determining exactly how to communicate to all groups of people in such a way as to increase psychological service utilization, the same procedures may be implemented in replicating this study with other demographic groups. By adjusting the messages of the experimental stimuli to reflect the demographic characteristics and concerns of these various groups, the same approach may be found to be equally as useful with non-college students in lowering stigma, increasing positive attitude, and increasing intentions. This may represent an interesting area for future researchers to explore.

Sampling procedures. Participants were approached in a natural cluster sample (undergraduate classroom). The director of a college orientation program available to all incoming freshmen was contacted, and agreed to allow this researcher access to twelve

classes of students from a variety of academic majors. Within each classroom, every participant was provided with written information regarding psychological services on campus as a positively, negatively or neutrally framed message. Participants were then asked to complete the questionnaires described in detail below. Results were analyzed to determine if there are differences between the groups that could be accounted for by exposure to different experimental messages or other variables.

Instrumentation

All participants in this study were first introduced to the study, informed of their rights and risks for participating, and asked to sign consent documents. They were then exposed to a positively framed, negatively framed, or neutral control message about psychological services available on campus in the form of a one-page message about counseling that they will be instructed to read carefully. Data was then be collected via self-report pen-and-paper questionnaires regarding demographic information, past experience with counseling, current levels of negative and positive affect, attitude towards counseling, perceptions of social norms/stigma around counseling, perceptions of behavioral control, self-stigma, and intentions to seek help.

Demographic information. Demographic variables are known to impact attitudes towards help seeking. It was therefore important to capture this information in the current study. This study made use of a general demographic questionnaire to gain insight as to the demographic characteristics of the sample of participants including age, gender, and race. Additionally, participants were asked what grade they are in and whether or not they have served in the military (See Appendix B for full list of questions).

Previous experience. Prior experience with psychological services has been consistently shown to be one of the variables most positively correlated with more positive attitudes and lower stigma around help seeking, and is therefore important to control for in this study. Participants were asked about previous experiences by one item asking them to indicate whether they have been in counseling or psychotherapy of any kind (via a forced choice "yes or no" response). If they choose yes to this item they will be asked to rate this experience in terms of being helpful or unhelpful via a 5 point Likert-type scale. (See Appendix C to view this item).

Psychological distress. In order to determine whether participants were currently experiencing levels of psychological distress that could impact the manner in which they engaged with the experimental messages, they were administered the short form of the Depression, Anxiety and Stress Survey (DASS-21) (Lovibond & Lovibond, 1995). The DASS-21 is a self-report questionnaire that assesses for negative emotions in three different domains: depression, anxiety and stress. It contains 21 items and has 7 items intended to detect symptoms associated with each emotional state. Scores from each subscale are summed and multiplied by two, for a total score on each subscale ranging from 0 to 42. Subscale scores are summed for a total score indicating overall distress, with a highest possible score of 126. Higher total scores indicate a greater overall level of psychological distress and subscale scores generate information as to the dimension in which distress is being suffered. The DASS-21 is in the public domain and is available to use without permission by the authors. (Please see Appendix D to view this item).

The normative data for the DASS was originally collected by Lovibond and Lovibond (1995) as they developed the long version of this instrument, but recent

exploration has confirmed that the short form DASS-21 is slightly more reliable and valid than its parent instrument, due to the omission of several sub-par items (Crawford & Henry, 2003). In 2007 a study was published with updated information regarding the psychometric properties of the DASS-21 (Norton, 2007). It was found that the DASS-21 had good internal consistency across all sub-domains. The three factors were calculated via Chronbach's alpha coefficient and shown to have internal consistency reliability ratings as follows: Depression α=.83, Anxiety α= .78, Stress α=.87. Similarly high internal consistency reliability ratings across sub-domains were found when the test was administered to members of different racial groups as well (Norton). The internal consistency reliability of the DASS-21, as indicated by Chronbach's alpha, was found to be .97 for the total scale, .93 for stress, .95 for depression, and .90 for anxiety (Henry & Crawford). Updated normative data gathered in 2003 by Henry and Crawford from 1771 non-clinical adults in the UK showed that mean subscale scores for depression were 5.55 (SD=7.48), for anxiety were 3.56 (SD=5.39), and for stress were 10.11 (SD=7.91).

In 2003, Henry and Crawford found that the DASS-21 had good validity in that it correlated positively with other established measures of anxiety, depression and stress including the Hospital Anxiety and Depression Scale (HADS), the Positive and Negative Affect Schedule (PANAS), and the Personal Disturbance Scale (Delusions-Symptoms-States Inventory/states of Anxiety and Depression [DSSI / SAD]: Bedford & Foulds, 1978). Correlation values ranged from .78 to .53 between factors compared on various measures (Henry & Crawford, 2003; Crawford & Henry, 2004).

Attitude, social norms, and perceived behavioral control. To measure overall attitudes, perceptions of social norms and perceived behavioral control towards mental

health treatment, this study utilized the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS: Mackenzie et al., 2004) which measures attitudes around help seeking (referred to as psychological openness), perceptions of social norms (referred to as indifference to stigma) and perceived behavioral control (referred to as help-seeking propensity). The IASMHS used in the current study was taken from the appendix of the original article published by Mackenzie et al. which indicates their intention that this measure be freely used in academic research. The IASMHS consists of 3 subscales each containing 8 items, for a total of 24 items that participants are asked to rate on a Likert-type scale. For example, participants would rate the statement "There are certain problems which should not be discussed outside of one's immediate family" from 0 to 5 with 0 indicating strong disagreement, and 5 indicating strong agreement. On this measure, 2 indicates slight disagreement and 3 indicates slight agreement—there is no neutral option. Two subscales, psychological openness and indifference to stigma, are reverse scored. High scores on this measure indicate more positive attitudes and perceptions of psychological help seeking.

Using Cronbach's alpha, internal consistency reliability for the IASMHS has been found to be .87 overall, .82 for the psychological openness subscale, .79 for the indifference to stigma subscale, and .76 for the subscale related to help seeking propensity. The IASMHS has been positively correlated with both past use of mental health services (r=.33) and intentions to seek professional psychological help (r=.38). With a sample of 19, testing three weeks apart, test-retest reliability of the total IASMHS scores were found to be r= .85. Test-retest reliability of subscales were found to be r=.86

(psychological openness), r=.64 (help seeking propensity), r=.91 (indifference to stigma) (Mackenzie et al., 2004). (See Appendix E to view this instrument).

Self-stigma. Additionally this study made use of the Self-Stigma of Seeking Help Scale (SSOSHS: Vogel et al., 2006) to measure the construct of self-stigma among participants. This measure was added to the IASMHS, which contains a stigma factor, due to the unique ability of the SSOSHS to quantitatively capture the impact of psychological help seeking on self-perception, as opposed to the more general concern of being stigmatized by others. Permission has been granted by Dr. Vogel to use this measure in the current study (See Appendix L for documentation of his permission).

The SSOSHS is a 10-item, Likert-type scale with questions such as, "I would feel inadequate if I went to a therapist for psychological help." Several of the items are reverse scored. Items in this survey were developed to measure impact on self-esteem related to help-seeking. Higher scores on the SSOSH reflect greater concerns of self-stigma, and more negative perceptions of mental health treatment as contributing to increased self-stigma. Scores between 10 and 30 indicate lower levels of self-stigma, and scores from 31-50 indicate higher levels of self-stigma.

Overall internal consistency was found to be high, .91 (N=583). All factors were shown to be loading at rates greater than .50, suggesting that this measures a single, unitary construct. Scores on the SSOSHS were compared with instruments measuring commonly cited factors linked to attitudes towards seeking help including gender, anticipated risks, anticipated benefits, and public stigma. It was found that scores on the SSOSHS were positively correlated with more negative attitudes towards mental health services, greater fears of treatment, and concerns about public stigma, which lends

additional support for this measures overall good convergent validity (Vogel et al., 2004). Additionally this measure appears to have adequate reliability as test-retest reliability was determined to be .72 (N=226) at two months (Vogel et al). (See Appendix F to view this instrument).

Intention. Lastly participants were administered an item asking about intentions to seek counseling in the next six months. Intention has been found in previous research (Fife-Schaw, Sheeran, & Norman, 2007) to be reliably measured by rating the statement "I intend to perform ___ behavior over the next [period of time]" using a Likert-type scale to indicate strength of agreement or disagreement with this statement. Likewise, in their comprehensive exploration of the most valid and reliable method of measuring purchase intentions, in 2004 Spears and Singh found that using a series of seven items ("unlikely/likely, impossible/possible, never/definitely, certainly not / certainly, definitely do not intend to buy/definitely intend to buy, definitely buy it/ probably not buy it, probably not/probably buy it") were significantly corresponded with attitude towards the product in question. Their premise is that positive attitudes elicited by advertisements are associated with increased purchase intentions. Due to this researcher's intention to assess basic intentions only, given the inclusion of a comprehensive help-seeking specific measure of attitude (the IASMHS) in this study, one simple and straightforward question of intention will be employed. Participants will be asked to rate the item "I intend to seek counseling over the next six months" on a scale of 1-5, with 1 indicating strong disagreement, 3 indicating uncertainty, and 5 indicating strong agreement with that statement. (See Appendix G to view this instrument). Participant's answers to this question were correlated with their scores on other instruments measuring the constructs

of attitude, perceptions of stigma, and current psychological distress in order to gain a more comprehensive understanding of their level of intention. It was suspected that a participant with no current psychological distress and relatively poor attitudes toward counseling will have low intention to seek help, while participants with significant levels of psychological distress and / or positive attitudes towards counseling will be more likely to express intention to seek psychological services.

Experimental messages. The experimental messages used in this study each consist of a one paragraph written description of who seeks psychological services, why they might do so, and what they can expect out of the experience.

Positively framed message. Group A's paragraph was written in a way that presents this information in the paradigm of the Positive Psychology model, which conceptualizes the need for help as a normal and understandable impact of their current circumstances. The positively framed message therefore presented counseling as a potentially "life-changing experience" that is for the purpose of building on personal strengths to increase positive mood, personal meaning, enjoyment and satisfaction with life. (Please refer to Appendix H for the full copy of this experimental message).

Negatively framed message. Group B's paragraph was written in a way that presents counseling in the paradigm and language of the Medical Model of mental health, which conceptualizes counseling as "treatment" of disordered functioning. Counseling is for the purpose of treating illnesses such as anxiety and depression and to reduce the unpleasant symptoms associated with these disorders. Potential negative consequences of failure to receive treatment were described. (Please refer to Appendix I for the full copy of this experimental message).

Neutral control message. Group C received an informational control message about counseling services on the UNC campus, including locations, hours, fees, contact information, treatment providers and an overview of services provided. (Please refer to Appendix J for the full copy of this experimental message).

Data Collection Procedure

Prospective participants were approached in their classes and asked to voluntarily participate in this study. The confidentiality and anonymity of the responses was explained, with explicit instructions given to participants to not put their names on any of the materials. This researcher obtained data from students in different sections of one single required course so it is unlikely that the same participants will be encountered twice, however participants were asked to not participate again if they have done so before in a different class. Participants received clear information about the voluntary basis of their participation, and this researcher brought to each classroom a variety of individually wrapped and labeled treats (i.e., chocolates, raisins) as a gesture of goodwill to participants in efforts to increase the likelihood of voluntary participation. Packets of materials were passed out to all participants in mixed random order. All packets were passed out in large envelopes so as to maintain the confidentiality of participant's answers when the completed packets are collected. All packets contained a participant consent form (Appendix K), the demographic questionnaire, the DASS-21, the IASMHS, the SSOSHS, and one question regarding their intentions to seek psychological services in the future. Materials were presented to the participants in a mixed, random order within the envelopes. On the outside of each packet was taped one of three experimental messages: Positive, negative or neutral. Approximately one third of the participants in

each classroom received the positive message, one third received the negative message and one third received the neutral message. Participants were asked to carefully read their experimental message, were notified that "questions will follow" and then opened the packets and complete all questionnaires. When done they returned their materials back to the envelopes. Completed materials were then be collected. Participants were debriefed as to the nature of the experiment they just participated in (how different messages about counseling may impact help seeking behavior) and invited to ask questions. Participants were invited to email this researcher after all data has been collected if they are interested to see all three experimental messages or would like to know the outcome of the study. All completed questionnaires remained in possession of this researcher and were maintained securely until data analysis was completed, and then was stored on the University of Northern Colorado campus in a locked file in a location designated for the secure storage of research data (Mckee, #201) for two years. After two years all questionnaires will be destroyed.

Data Analysis

The current study sought to gain information about the relationship between one independent variable (experimental message) and three dependent variables (scores on the IASMHS, SSOSHS, and Intention). Mean scores on the IASMHS, SSOSH, and level of intention to seek help in the future question were compared among the three experimental groups to answer each of the research questions identified in chapter one. Information regarding demographic characteristics, past experience, and current psychological distress were analyzed to determine if any of these factors accounted for

differences between the three groups above and beyond the influence of the experimental messages.

The first step in analyzing the data collected was to enter it into the SPSS statistical program. Participants scores on the previously described dependent variables (test scores) were assigned to an experimental group as well as linked to demographic data including age, gender, ethnicity. Potentially moderating variables including previous experience with psychological services and current levels of subjective distress were linked to test scores in order to control for the impact of these variables on the effect of the experimental message. Once all data was entered, descriptive statistics data were obtained in order to screen for frequency distributions, missing data and outliers. For the purposes of describing the general sample of participants, demographic data was processed to yield information about gender distributions, mean age, age range, and ethnicity.

The data gathered in this study was analyzed using multivariate analysis of variance (MANOVA) procedures. The MANOVA procedure is an appropriate choice for data analysis due to the presence of multiple dependent variables (i.e., scores on three different measures) after exposure to independent experimental variables.

Using the MANOVA test procedure confers other advantages including lowering the chances of Type 1 error that may be encountered by performing multiple ANOVA tests. Furthermore, the use of multiple ANOVA tests to analyze the data limited the opportunity to discern correlations among the dependent variables. The assumptions of MANOVA were met in the current study, including independence of observations, multivariate normality, multivariate homogeneity of variance, independent variables were

categorical, dependent variables were continuous, and lastly that the dependent variables were correlated with each other. Steps were taken to ensure that the assumptions required for MANOVA tests to be considered valid are met. Specifically, normal distribution was be ascertained by examining scatter plots of the individual test scores. The independent observation requirement was fulfilled as the current study does not propose any follow up or test-retest procedures. Homoscedasticity, the final assumption, refers to the presence of relatively equal variance of residual scores. Residual plots were examined to ensure that this assumption was met.

Wilks' lambda test statistic was utilized in order to determine the presence or absence of overall significance of difference between groups. If significantly different mean test scores between groups were found, then the results were analyzed further via post-hoc testing procedures. Specifically the Bonferroni test of multiple comparisons, was used to conduct pair-wise comparisons of mean test scores between groups in order to determine more detailed information regarding the nature and degree of differences. The Bonferroni test is the preferred method of determining mean differences between a relatively small number of groups which, is the case in the current study.

As described in the literature review of this study, much is known about the demographic variables most likely to impact attitudes, stigma and intention. To control for these variables separately while studying their various effects on outcome measures, multiple linear regression appears to be the most appropriate strategy to analyze hypotheses that concern a number of predictor variables (demographics) and how they impact singular criterion variables (test scores) (Huck, 2004; Pedhazur, 1997).

Multiple regression analysis data must meet the following assumptions: All important independent variables are included, no irrelevant variables are introduced, predictors are not excessively multi-collinear, a linear relationship exists between the independent and dependent variables, independence in outcomes exists, residuals are normally distributed and that there has been no error in the measurement of variables (Tabachnick & Fidell, 2001). As evidenced by thorough review of the literature, the independent variables examined in the current study meet the first four assumptions. Due to the single administration test design independence in outcomes was ensured. Before multiple regression analysis was performed residuals were examined via scatterplot to ensure normal distribution. The use of data collection instruments with solid psychometric properties and the adherence to careful data collection procedures helped ensure that variables were measured accurately.

Research Questions, Hypotheses and Statistical Analyses Procedures

The research questions first proposed in chapter one are re-iterated below, followed by the specific hypotheses that were tested to answer that question. The statistical methods that were utilized to test each individual hypothesis are described beneath the hypotheses.

Q1 What is the impact of positive, negative or neutral message framing with regards to perceptions of stigma, attitude, and intentions to seek out mental health treatment?

H1 The group exposed to the positively framed message will have significantly lower scores on stigma scales, higher scores on attitude scales and greater intention to seek out psychological services than will the groups exposed to negatively framed or neutrally framed messages.

An MANOVA was used to determine if any difference exists in mean scores between the independent variables (positive, negative or neutral experimental groups) on the dependent variables which are 1) mean scores on the stigma measure SSOSHS 2) mean scores the attitude measure IASMHS and 3) mean scores on the intention item. Statistical significance was determined at an alpha level of .05. If statistically significant differences between groups were found, MANOVA procedures were followed up with the Bonferroni test of multiple comparisons. The Bonferroni test was used to conduct pair-wise comparisons of mean test scores between groups in order to determine more detailed information regarding the nature and degree of differences.

Q2 How do the attitudes and perceptions of mental health treatment in people with current subjective psychological distress differ from those without? Do positively or negatively framed messages create more significant shift in attitude, intentions or perceptions of stigma in people who have psychological symptoms?

H2a Participants currently experiencing subjective psychological distress who have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants exposed to the positively framed message who are not currently experiencing psychological distress.

A MANOVA was performed on the data collected from the positive message experimental group to determine the presence or absence of statistically significant differences among dependent variables. The presence or absence of current psychological distress, as measured by scores on the DAS-21 were the independent variables. The dependent variables were 1) mean scores on the stigma measure SSOSHS 2) mean scores the attitude measure IASMHS and 3) mean scores on the intention item. Statistical significance was determined at an alpha level of .05. If statistically significant differences between groups were found, MANOVA procedures were followed up with the

Bonferroni test of multiple comparisons. The Bonferroni test was used to conduct pair-wise comparisons of mean test scores between groups in order to determine more detailed information regarding the nature and degree of differences.

H2b Participants currently experiencing subjective psychological distress that have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants with current psychological distress who have been exposed to the negatively framed or neutral message.

A MANOVA was performed on the data collected from participants with current psychological distress (as measured by scores at or above cutoff on the DAS-21) to determine the presence of statistically significant differences between experimental groups. The independent variables were exposure to the positive, negative or neutral message. The dependent variables were 1) mean scores on the stigma measure SSOSHS 2) mean scores the attitude measure IASMHS and 3) mean scores on the intention item. Statistical significance was determined at an alpha level of .05. If statistically significant differences between groups were found, MANOVA procedures were followed up with the Bonferroni test of multiple comparisons. The Bonferroni test was used to conduct pair-wise comparisons of mean test scores between groups in order to determine more detailed information regarding the nature and degree of differences.

Q3 Are demographic differences including gender, age, race and previous experience in therapy responsible for differences in how individuals respond to positively and negatively framed messages?

H3 Participants in the positive experimental group will have more positive attitude towards mental health services as evidenced by scores on the IASMHS than participants in the negative or neutral experimental group above and beyond the influence of other demographic variables.

In order to determine the unique contributions that each of the demographic variables make to the overall attitude scores on the IASMHS, the original intention was to conduct a simple multiple linear regression analysis on the data. Gender, age, race previous experience in therapy, and experimental group status (positive, negative, or neutral) were to have been the independent variables. The dependent variable would have been scores on the IASMHS. Statistical significance was to have been determined at an alpha level of .05. All of the independent variable's standardized beta coefficients were to have been reported so as to document the impact of each independent variable on overall attitudes towards mental health services. This procedure was hypothesized to show that inclusion in the positively framed experimental group accounted for more variance in attitude scores than any other independent variable. However, because preliminary data analysis through MANOVA procedures revealed that because other demographic variables were significant and message framing was not, multiple regression was not necessary.

Chapter Summary

This chapter outlined the proposed experimental design of this study. The rationale for the population was discussed. Sampling procedures were described. The instruments used in this measure were outlined in detail. Data collection procedures were described, with explicit information on administration, procedures and how this researcher would maintain participant anonymity. Lastly, the research questions were re-stated and the corresponding hypotheses that will be tested were outlined, along with the step-by-step data analysis procedure employed to test each hypothesis.

CHAPTER IV

RESULTS

The purpose of this study was to explore the impact that message framing might have on factors known to affect psychological help-seeking, including attitude, perceived social stigma, and intention in undergraduate college students. To this end, a sample of freshman college students was exposed to either a positively framed, negatively framed or neutral control message and then asked to complete a series of questionnaires regarding their attitudes towards counseling, perceptions of self stigma, and intentions to pursue counseling in the future. Additionally, information was collected about factors that prior research has found to be related to help-seeking, including past experience with counseling, current psychological distress, and demographic variables. This chapter describes data collection procedures, a detailed description of the sample from which data was collected, and the results of the data analysis procedures that were employed to test the hypotheses of this study.

Procedure

Sampling. This researcher gained permission from the director of the undergraduate studies department at a mid-sized Western university to contact freshman students enrolled in an optional college orientation course for first year students. This prevented any redundancy amongst participants, and also ensured that samples would be collected from students with a variety of academic interests. Students in twelve different

classrooms were approached during class. The study was introduced, small tokens of appreciation (candy, raisins, mints) were distributed and voluntary participation was requested from students who were eighteen and older. Participants were informed of their rights, anonymity, and risks of participation. They were asked to sign and return consent forms. No participants refused packets or explicitly declined to participate in this study.

Administration. One hundred and sixty-eight sealed packets were distributed in twelve separate classrooms. Each packet contained a copy of the Demographic Questionnaire, as well as the following surveys in mixed, random order: The Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS); the Self Stigma Of Seeking Help Survey (SSOSHS); an item measuring Intention to seek psychological help; questions regarding participation in, and quality of, prior counseling experiences; and the Depression Anxiety and Stress Scale-Short Form (DASS-21). Attached to the outside of each sealed packet were either the positively, negatively or neutrally framed experimental messages.

Participants were instructed to thoroughly read the experimental messages and then turn over their packets when they were done, in order to communicate to the researcher that they had finished reading. When all participants were observed to have read the experimental message they were then instructed to open their packets and complete all questionnaires front and back. When finished, participants returned all questionnaires to the envelopes and resealed them, in order to maintain the anonymity of their answers as materials were collected.

Data. Participants in each class had equal chances of randomly receiving packets with either a positive, negative or neutral message. When packets were returned,

participants were organized into three groups based on which experimental message they had been exposed to. Group 1 was associated with the positively framed message, Group 2 with the negatively framed message and Group 3 with the neutral control message. Approximately one-third of participants fell into each experimental group. Table 1 shows a complete breakdown of data gathered, incomplete measures, and usable data sets.

Table 1

Data Sets by Experimental Condition

	N	Percentage (%)
Group 1 (Positive)		
Distributed Packets	58	
Incomplete Prev. Exp. Item	3	
Incomplete Intention Item	4	
Incomplete DASS-21 Score	0	
Incomplete SSOSHS Score	0	
Incomplete IASMHS Score	0	
Unusable Data Sets	6	
Valid Data Sets	54	34.4
Group 2 (Negative)		
Distributed Packets	52	
Incomplete Prev. Exp. Item	2	
Incomplete Intention Item	5	
Incomplete DASS-21 Score	0	
Incomplete SSOSHS Score	1	
Incomplete IASMHS Score	3	
Unusable Data Sets	7	
Valid Data Sets	47	29.9
Group 3 (Control)		
Distributed Packets	53	
Incomplete Prev. Exp. Item	2	
Incomplete Intention Item	6	
Incomplete DASS-21 Score	1	
Incomplete SSOSHS Score	3	
Incomplete IASMHS Score	4	
Unusable Data Sets	5	
Valid Data Sets	50	31.8

As shown in Table 1, of the one hundred and sixty three packets that were distributed and collected, eighteen were discovered to have multiple pages of questionnaires that had not been completed. It is unknown if participants did not notice the backside of certain pages or if their failure to complete testing materials was an indication of reluctance to participate in this study. Packets containing more than one incomplete measure, defined as a measure with more than ten percent of items left incomplete, were eliminated from analysis. It appeared that a number of participants had failed to complete one or more pages of measures that were double sided, despite explicit verbal instructions to do so. Measures with one or more blank pages were discarded. A seventeen year-old participant returned one packet, and this too was discarded. "Complete" data sets contained demographic information and not more than one incomplete measurement. Information from the remaining one hundred and fifty one packets was used in the data analysis procedures.

Sample size. Prior to data collection, power analysis procedures indicated that an appropriate sample size for this study was N=118. The total sample of one hundred and fifty-one therefore exceeded this requirement and is thought sufficient to generate data from MANOVA analysis procedures. As discussed in chapter three, this sample size was calculated according to guidelines set forth by Bartlett, Kotrilik and Higgins (2001) and was based on the total population size, the study of three continuous variables that used a five to six point Likert scale, an alpha level of .05 and a 3% margin of error rate with an overall estimated variance of one.

Descriptive Statistics

Demographic description of the sample. In order to meet criteria for this study, all participants had to be classified as undergraduate college students who were at least eighteen years of age. Because of their enrollment in a required first-semester class, the sample was uniform in terms of their freshman status. All but one participant was over eighteen. The minor participant's data was excluded from this study.

Participants ranged in age from eighteen and twenty-five years. The sample consisted of a majority of eighteen year olds, with 82.8% identifying as eighteen, Another 10.8% of participants were nineteen, one participant was twenty-one and one participant was twenty-five. Seventy-one point nine percent of participants were female, 24.2% were male, and 3.8% declined to answer this question. Participants reported a variety of racial identifications. Participants were recruited from a wide variety of academic majors. Tables 2 and 3 show the demographic and academic characteristics of the participants of this study, respectively.

Table 2

Demographic Variables By Treatment Condition

		Group One	Group Two	Group Three
Men				
	Asian	0	0	1
	Black	1	2	0
	Hispanic	2	4	0
	Multi	1	2	1
	White	9	7	8
Total Men		13	15	10
Women				
	Asian	1	0	0
	Black	0	0	2
	Hispanic	9	5	10
	Multi-Racial	2	3	2
	White	29	24	26
Total Women		41	33	39
Median Age		18.4	18.6	18.5
Total Participants		54	48	49

While women appear somewhat over represented in this sample, the ratio of males versus females in this study is only slightly higher with the ratios of male to female students in the undergraduate population of the university where data was collected. According to information available on the university website at the time of this writing, 62% of undergraduate students are female and 38% are male. Likewise, this sample appears to be generally consistent with the overall racial and ethnic makeup of undergraduate students at the school where data was collected, as per information available on the university website. This population was relatively homogeneous in academic status and age, as all participants were incoming college freshmen.

Table 3

Majors as Percentage of Participant Sample

Major	Percentage (%)
Anthropology	.6
Audiology & Speech Language Sciences	1.9
Athletics	.6
Audiology	1.9
Bio Medical	.6
Business	5.7
Communication	.6
Criminal Justice	5.7
Dietetics	.6
Education	3.8
English	1.9
History	.6
International Affairs	.6
Journalism	.6
Marketing	.6
Music	1.3
Nursing	11.5
Political Science	.6
Psychology	24.8
Recreation	.6
Sports Exercise Science	12.7
Social Science	.6
Special Education	8.9
Undeclared	8.3
Unreported	3.8

Help Seeking Variables

After reading the experimental messages participants were asked to complete a number of questionnaires. Among these were measures intended to provide information about factors that have been shown in prior research to impact psychological help seeking. These factors included previous counseling experience, quality of previous experience with counseling, and current perceptions of psychological distress. Assessing

for such variables helps put the findings of the experiment in context of the history and experiences of the participants.

Psychological distress. The presence of psychological distress was measured with the DASS-21. Participants in this study were then grouped as being "distressed" or "not distressed" on the basis of their DASS-21 scores by the following rubric suggested by the DASS-21 scoring protocol: Scores of 0-10 indicate no significant perceived distress, scores of 11 and higher indicate the presence of mild to severe psychological distress. Table 4 shows the overall rate of psychological distress in the sample population, by group.

Previous experience, and quality of previous experience. Participants were asked whether they had any previous experience with counseling, and if they responded "yes" they were asked to rate the quality of their experience on a one to five point Likert-type scale ranging from Very Negative (1) to Very Positive (5). Participants were additionally asked whether they were currently receiving counseling services. Only two participants indicated that they were currently in therapy, and five more declined to answer. Table 4 contains information about the percentages of participants with prior experience as well as the quality of their past experience.

Table 4

Help Seeking Variables, by Group

	Group 1	Group 2	Group 3
DASS-21 Score			
Mean	13.8	13.4	16.2
SD	12.5	13.8	14.3
Distressed *(n)*	27	19	28
Not Distressed*(n)*	27	28	21
Previous Experience			
Yes*(n)*	28	20	20
No*(n)*	23	25	28
Quality of Previous Experience (If Any)			
Mean	4.04	3.55	3.60
SD	0.92	0.96	1.31

Hypotheses and Statistical Analyses

Assumptions. Before MANOVA procedures were performed, analyses were conducted to ensure that MANOVA assumptions were met, including independence of observations, presence of categorical variables, and continuous dependent variables that were intercorrelated. Testing procedures and the design of this study ensured that these assumptions were met because all data was collected from individual participants privately and therefore met the assumption of independence, this study incorporated categorical variables (demographic and help-seeking categories), and measured intercorreated dependent variables with instruments that yielded continuous variables.

The assumption that dependent, continuous variables are correlated was met by conducting a correlational analysis. It was shown that the constructs of stigma and attitude had a moderate negative correlation ($R^2 = -.558$), that attitude and intention had a

moderate positive correlation ($R^2 = .293$), and that there is a very weak negative correlation between intention and stigma ($R^2 = -.023$).

The assumption of homodasticity and normal distribution of continuous variables were met as evidenced by examination of histograms. Figure 4 shows the normal distribution of scores on the SSOSHS, and Figure 5 shows the normal distribution of scores on the IASMHS. Intention scores were also assessed via examination of a histogram (Figure 6). Intention scores had a positive skew of .761 and kurtosis was measured as -.165. While this skew is somewhat extreme, the MANOVA procedures employed for data analysis are robust to the violations of normalcy and therefore this skew was not thought to present a significant violation of assumptions.

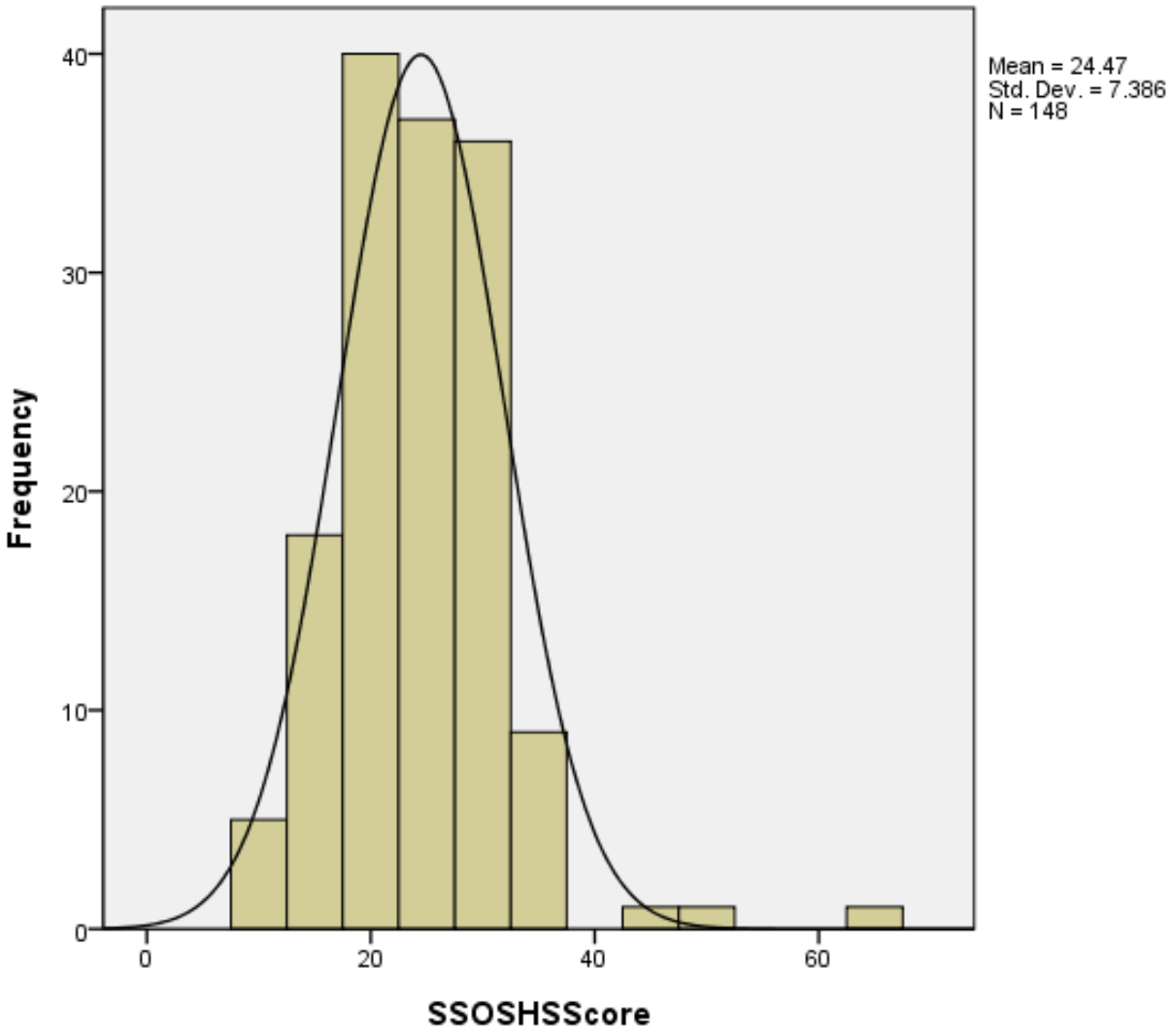

Figure 4. *Distribution of Scores on SSOSHS*

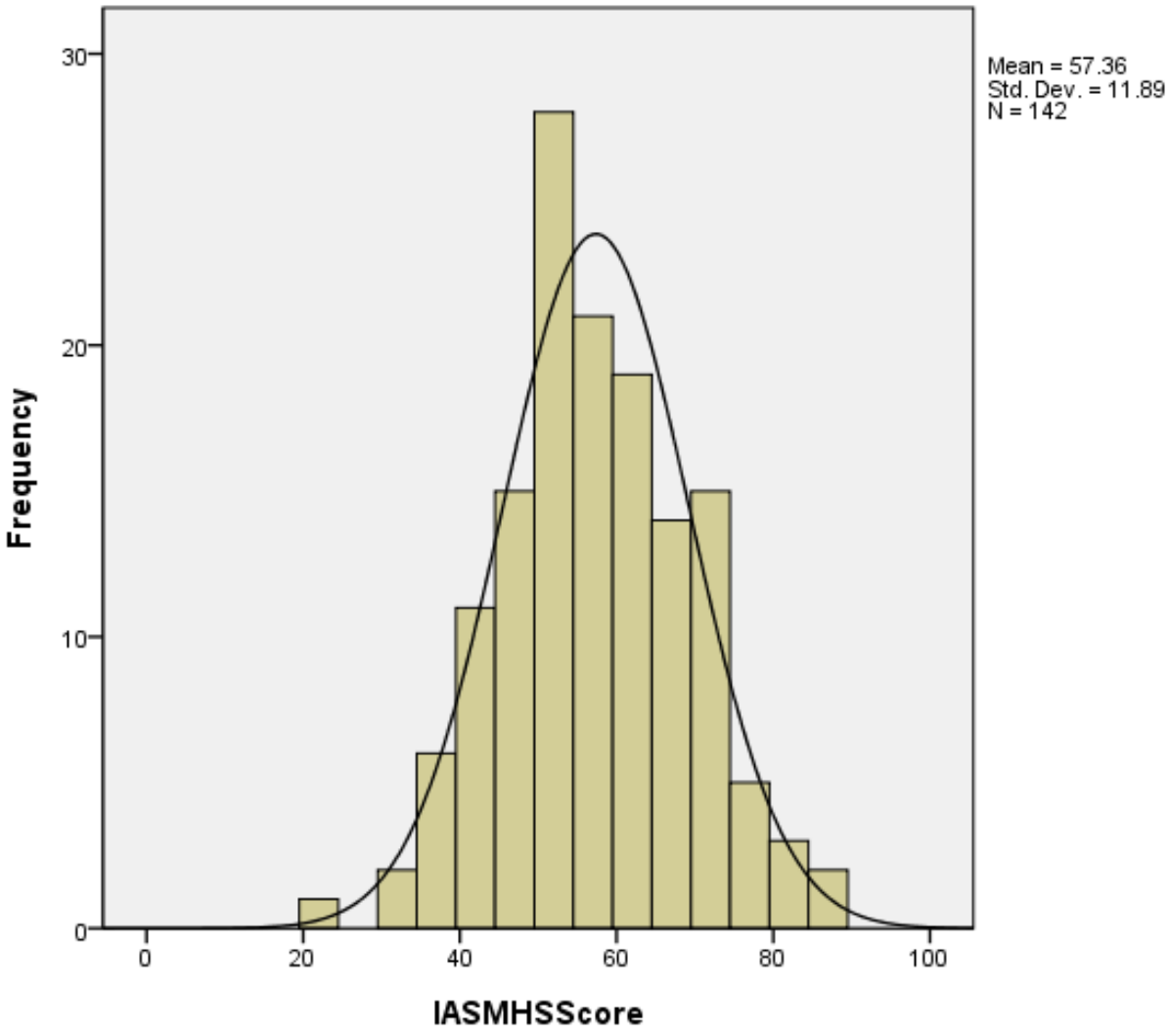

Figure 5. *Distribution of Scores on IASMHS*

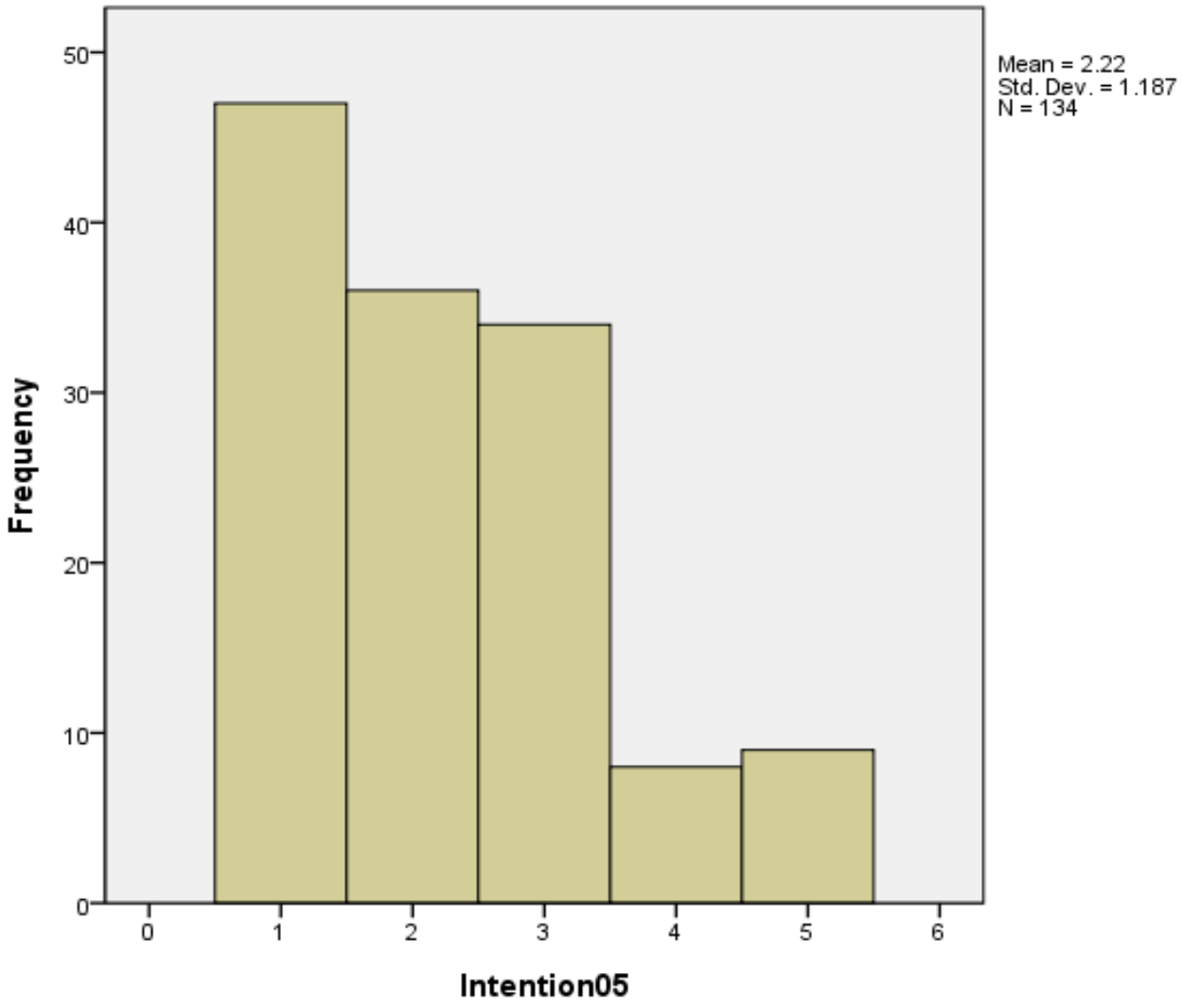

Figure 6. *Distribution of Scores on Intention Item*

Dependent Variables

The primary purpose of this study was to explore the impact of message framing on self-stigma, attitude and intention to seek help. The following table shows the means and standard deviations on these dependent variables, broken down by group. Lower scores on the SSOSHS indicate lower levels of self-stigma. Higher scores on the IASMHS indicate more positive attitudes towards counseling. Higher intention scores

indicate greater intention to seek out psychological help. Table 5 shows the mean scores and standard deviations of these measures by group.

Table 5

Mean Scores and Standard Deviations of Dependent Variables By Treatment Group

	Group One	Group Two	Group Three
SSOSHS Score			
Mean	23.27	27.08	23.29
SD	6.31	9.31	5.73
IASMHS Score			
Mean	57.94	56.36	57.64
SD	11.59	11.59	12.71
Intention Score			
Mean	2.36	2.07	2.67
SD	1.12	1.25	2.87

Hypotheses Testing

Once mean scores and standard deviations of the dependent variables were calculated and it was evident that assumptions of the MANOVA procedure were evaluated, the following hypotheses were then tested at an α =.05 level of significance:

H1 The group exposed to the positively framed message will have significantly lower scores on the stigma scale, higher scores on the attitude scale and greater intention to seek out psychological services as measured by the intention item than will the groups exposed to negatively framed or neutrally framed messages.

Multivariate Analysis of Variance (MANOVA) procedures were performed in order to determine whether any significant differences between experimental groups existed across the dimensions of attitudes towards counseling, self-stigma, and intention. The results of the MANOVA indicated that there was no significance between

experimental groups with regards to scores on the SSOSHS, IASMHS, or Intention Item (Wilks' Lambda = .916, $p > 0.10$). Hypothesis 1 was therefore rejected.

> H2a Participants currently experiencing subjective psychological distress who have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants exposed to the positively framed message who are not currently experiencing psychological distress.

MANOVA procedures were performed to explore whether participants with higher degrees of psychological distress exhibited differences in mean outcome scores of attitudes, stigma or intention measures than did participants without psychological distress, in response to the positively framed experimental message.

It was found that a significant difference did exist in mean scores between currently distressed participants and not distressed participants who had been exposed to the positively framed message at an alpha of .10, with a Wilks' Lambda value of .805, $p = .018$. It should be noted that MANOVA procedures do not shed light on the nature of the differences between groups, it simply indicates that at least one significant difference between groups are present. Tests of between-subjects effects were therefore performed, in order to gain more information. It was subsequently found that there was no significant difference between mean intention scores $F(1, 49) = 2.92$, $p = .094$, or mean attitude scores $F(1, 49) = 2.45$, $p = .121$ of distressed or non-distressed participants in Group 1. There was a small, but significant, difference in mean scores on measures of self stigma $F(1, 49) = 2.92$, $p = .032$. Follow up examination of mean self-stigma scores showed that the scores of non-distressed participants in Group 1 were 21.59 (SD = 6.05), and mean stigma scores of distressed participants were 24.96 (SD = 6.23). These results indicate

that participants without psychological distress in the positively framed message group had significantly lower feelings of self-stigma at the prospect of seeking psychological help than did currently distressed participants, which is opposite of what was postulated in the hypothesis. Therefore hypothesis 2a was rejected.

H2b Participants currently experiencing subjective psychological distress that have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants with current psychological distress who have been exposed to the negatively framed or neutral message.

MANOVA procedures were run on this subset of data. When participants with psychological distress were compared to each other between experimental groups it was found that participants endorsing current psychological distress did not have significantly different scores between experimental groups on measures of stigma as evidenced by a Wilks' Lambda test statistic value of .257, $p = .251$. Hypothesis 2b therefore was rejected.

H3 Participants in the positive experimental group will have a more positive attitude toward mental health services as evidenced by scores on the IASMHS than participants in the negative or neutral experimental group above and beyond the influence of other demographic variables.

Message framing was not found to be associated significant differences in mean scores on any measures of dependent variables between experimental groups (Wilks' Lambda = .916, $p > 0.1$). MANOVA procedures were then performed on the sample as a whole to determine whether gender, age, major, race or previous experience in therapy significantly impacted scores on attitude, stigma or intention measures. Wilks' Lambda values revealed evidence that there was at least one significant difference in dependent variable scores due to gender

(Wilks' Lambda = .865, $p \leq .001$). Post-hoc between subjects tests indicated that gender significantly impacted scores on attitude $F(1, 124) = 8.53$, $p = .004$, self-stigma $F(1, 124) = 6.67$, $p = .012$, and intention measures $F(1, 124) = 16.98$, $p = .000$. Previous experience in therapy was also found to be significant with regards to scores on outcome measures of attitude $F(4, 163) = 5.51$, $p = .001$, self-stigma $F(4, 608) = 5.73$ $p = .001$, and intention $F(4, 4.4) = 3.37$, $p = .015$. Race, age, and major were not significantly associated with scores on measures of the dependent variables. As described in preceding paragraphs, psychological distress was found to have only slight significance on measure of intention. Due to sampling procedures the three experimental groups were alike in the prevalence of demographic variables. Hypothesis 3 was therefore rejected, because other demographic variables were shown to be significantly associated with scores on outcome measures between experimental groups and message framing was not.

Supplemental Analysis

None of the original hypotheses of this study were supported. However, because the data was available, supplemental MANOVAs were subsequently performed in order to ascertain if other help-seeking factors did have a significant impact on outcome measures including stigma, attitude and intention in the current study, as has been found in prior research. Then, these help-seeking factors were compared *between experimental groups* in order to determine if these factors represented moderating variables between message framing and outcome scores on the SSOSHS, IASMHS, and Intention item. Prior research has found that moderating variables are significant to consider when evaluating the impact

of message framing (Apanovitch, McCarthy, & Salovey, 2003; Detweiler, et al.,1999; Rothman et al., 1993; Schneider, Salovey & Apanovitch, 2001). The researcher was interested to explore whether any relationship between moderating variables and message framing would be discovered in the data of the current study as well.

Psychological distress. MANOVA procedures were performed to examine the impact of psychological distress on the dependent variables of attitude, stigma and intention within the sample as a whole. Findings revealed a significant difference amongst dependent variable scores in this area (Wilks' Lambda = .878, p = .002). Post-hoc between-subjects testing procedures yielded results indicating that DASS-21 scores had no significant relationship on SSOSHS scores F(41, 124 = 9.15, p=.617, or IASMHS scores F(41, 124) = .959, p=.549. However, DASS-21 scores were found to be significantly related to intentions to seek help F(41, 124) = 1.829, p = 0.010. It was found that there was a weak positive correlation (R^2=.215) between current levels of psychological distress and intentions to seek help.

Race. MANOVA procedures were run on the sample as a whole to determine if race and / or ethnicity may be associated with significant differences in mean scores on the SSOSHS, IASMHS or Intention item. There were no significant differences in any of these areas among participants of varying racial groups as evidenced by the Wilks' Lambda test statistic (.903, p >0.50).

Race and group. MANOVA procedures were then performed to ascertain if differences existed in mean scores on attitude, stigma and intention among

participants identifying different races, among experimental Groups 1, 2 and 3. The results indicated that there was a significant difference between self-stigma scores across experimental groups when the race of the participants was factored in ($F(2,124) = 5.594$, $p = .005$. Post hoc analysis showed that the difference in stigma scores was most significant when Group 2 was compared with both Groups 1 and 3. Specifically, participants in Group 2 (reading the negatively framed message) had mean self-stigma scores that were an average of 1.98 points higher than those in Group 1 (who read the positively framed message). Participants in Group 2 had mean self-stigma scores that were an average of 2.95 points higher than did participants in Group 3 (neutral control). These findings suggest that when race is taken into consideration, exposure to pathology-focused messages about counseling increase perceptions of self-stigma. Pathology-focused messages appear to be linked with the highest self-stigma scores, and neutrally framed messages with the lowest self-stigma scores.

The following table (6) presents mean scores and standard deviations of self-stigma scores by race and group:

Table 6

Self-Stigma (SSOSHS) Scores by Group and Race

		Group 1	Group 2	Group 3
Asian				
	Mean	23.0	--	--
	N	1	--	--
	SD	--	--	--
American Indian				
	Mean	--	--	22
	N	--	--	1
	SD	--	--	--
Black				
	Mean	13	29	22
	N	1	2	2
	SD	--	1.14	4.24
Hispanic				
	Mean	26.18	24.63	22.44
	N	11	8	9
	SD	4.02	5.13	5.99
Multi-Racial				
	Mean	17	29.6	22
	N	3	5	3
	SD	8.9	4.78	2.65
White				
	Mean	23.21	27.19	23.76
	N	38	31	33
	SD	6.37	10.84	6.129

This table illustrates that in all racial groups except Hispanic, exposure to the negatively framed message was associated with increased perceptions of self-stigma, as compared to the positively framed message or neutral control. Hispanic participants appear to have increased perceptions of self-stigma after exposure to the positively-framed message, as compared to the negatively framed message or neutral control. These results must be interpreted cautiously, given the very small sample sizes of discrete racial groups in this study.

Major. There were not sufficient participants in each major to run statistical procedures exploring variation of scores in this domain. Therefore supplemental analysis was not performed in this area.

Gender. MANOVA procedures were performed on the sample as a whole to determine whether gender significantly impacted scores on attitude, stigma or intention measures. Significant differences between groups were indicated by Wilks' Lambda (.844, $p<.001$). Subsequent tests of between-subjects effects via Bonferroni testing procedures indicated that gender significantly impacted scores across all dependent variables attitude $F(1, 124) = 8.53$, $p = .004$, self-stigma $F(1, 124) = 6.67$, $p = .012$, and intention measures $F(1, 124) = 16.98$, $p = .000$.

Gender and group. MANOVA procedures were then performed to determine whether significant differences existed between men and women who had been exposed to the positive, negative or neutral experimental message. Results revealed a significant difference in scores between men and women across all dependent variables in experimental Group 2 (Table 7).

Table 7

Tests of Between Subjects Effects: Gender and Experimental Group

	df	Mean Square	F	Sig.
Group 1 (Positive Framing)				
IASMHS	1	243.306	1.842	.181
SSOSHS	1	21.436	.527	.471
Intention	1	7.832	7.002	.010
Group 2 (Negative Framing)				
IASMHS	1	900.321	8.913	.005
SSOSHS	1	383.705	10.503	.003
Intention	1	8.667	10.370	.003
Group 3 (Neutral Framing)				
IASMHS	1	132.223	.824	.370
SSOSHS	1	1.747	.067	.798
Intention	1	2.003	1.372	.250

Bonferroni post-hoc analysis revealed that there was no significant difference in the outcome scores between women across experimental groups. However, men in Group 2 reported significantly lower mean scores on the IASMHS (3.38 points lower in than Group 1, and 2.42 points lower than Group 3), indicating poorer overall attitudes towards counseling. Men in Group 2 reported higher scores on the SSOSHS (5.31 points higher than Group 1, and 7.84 points higher than Group 3) indicating higher levels of self-stigma. Additionally men in Group 2 reported lower levels of intention to seek help (.46 points lower than Group 1 and .48 points lower than Group 3). These results suggest that men are more deeply affected by women to negatively framed messages about psychological services. Table 8 presents mean scores and standard deviations by gender

across groups. Given that random assignment was used to place participants into groups, it is less likely that groups were different in a systematic way prior to completing the questionnaires.

Table 8

Self-Stigma (SSOSHS) Scores by Group and Gender

		IASMHS	SSOSHS	Intention
Group 1	Men			
	Mean	54.54	24.38	1.69
	SD	10.33	6.63	.855
	Women			
	Mean	59.05	22.93	2.59
	SD	11.88	6.26	1.12
Group 2	Men			
	Mean	50.13	31.0	1.23
	SD	9.35	8.67	.439
	Women			
	Mean	59.59	25.38	2.41
	SD	11.44	91.89	1.24
Group 3	Men			
	Mean	53.4	25.0	1.71
	SD	10.19	6.53	.488
	Women			
	Mean	58.86	22.84	2.38
	SD	13.22	5.59	1.35

The data presented in the table above indicate that the men in this sample may have been influenced by message framing to a greater degree than the women in this study. Specifically, men exposed to pathologizing language about counseling had poorer attitudes, increased self-stigma, and lower intentions to seek help than did men who were exposed to a positively framed or neutral control message. These results seem to suggest that exposure to disorder-focused

language about counseling results in the exacerbation of factors known to decrease utilization of mental health services in men but not women.

Quality of Prior Counseling. MANOVA procedures were performed examining the impact of prior counseling on attitude, stigma, and intention on the sample as a whole. MANOVA results indicated that there was a significant difference between participants no, poor, or good previous experience on at least one dependent variable, as evidenced by Wilks' Lambda test statistic (.558, $p \leq .001$). Post-hoc analysis procedures showed that prior experience was found to be associated with significant differences between mean scores on measures of attitude, stigma and intention, as is presented in Table 9. Likewise it was found that the vast majority of variance in scores in the sample could be accounted for by the presence and quality of past experience with counseling. Adjusted R Squared values of .130, and .153 were associated with attitude and intention, respectively, indicating a positive correlation between past experience and scores on these outcome measures. Perceptions of self-stigma were found to be negatively correlated with past experience in counseling ($R^2 = -.166$).

Table 9

Tests of Between Subjects Effects: Previous Experience and Outcome Scores

	df	Mean Square	F	Sig.
Previous Experience				
IASMHS	4	162.861	5.518	.001
SSOSHS	4	608.134	5.729	.001
Intention	4	4.376	3.372	.015

Prior counseling and group. MANOVA procedures then were then performed to determine whether significant differences existed in people with and without experience in counseling, among experimental groups. Results indicated that there were significant differences in the impact of message framing of participants with previous experience in counseling between experimental groups. Message framing did not appear to have as significant impact on participants without previous experience in counseling.

As is outlined in detail in Table 10 below, in experimental Group 1, previous experience was found to account for a significant difference in scores on attitude, stigma and intention measures. In experimental Group 2, previous experience was only found to account for a difference in scores on attitude and intention measures, not measures of stigma. This means that in Group 2 participants with prior counseling experience had more positive attitudes towards counseling (as measured by scores on the IASMHS) and higher intentions to seek help again (as measured by ratings on the intention item) than did participants in Group 2 without previous positive experience. Participants with previous experience in counseling in Group 2, who were exposed to the negatively framed message about counseling, did not have significantly different self-stigma ratings (as measured by the SSOSHS) than did participants in Group 2 with no previous experience in counseling. In experimental Group 3, previous experience in counseling was found to have no effect on measurements of attitude, stigma or intention.

Table 10

Tests of Between Subjects Effects: Previous Experience and Experimental Group

	df	Mean Square	F	Sig.
Group 1 (Positive Framing)				
IASMHS	4	366.849	3.080	.026
SSOSHS	4	163.466	5.628	.001
Intention	4	3.331	3.073	.026
Group 2 (Negative Framing)				
IASMHS	4	423.884	5.157	.003
SSOSHS	4	33.467	.988	.429
Intention	4	112.845	3.554	.017
Group 3 (Neutral Framing)				
IASMHS	4	169.368	1.129	.367
SSOSHS	4	14.432	.540	.745
Intention	4	1.828	1.292	.295

The results presented in Table 10 appear to be showing that participants with previous experience in counseling have an overall tendency to hold more positive attitudes towards counseling, have lower perceptions of stigma, and have greater intentions to seek help again in the future, but that exposure to differently framed messages impacts whether these tendencies will be mobilized. Specifically, exposure to positive message framing elicits more positive attitudes, lower stigma and increased intentions in people with previous experience. Exposure to negatively framed messages elicits more positive attitudes and greater intentions in this group, but not lowered stigma, in people with previous experience. Exposure to neutral, informational messages does not elicit statistically significant differences in pro-counseling attitudes, in people with past experience.

The following table presents mean scores on measures of attitude, stigma and intention broken down by group and previous experience:

Table 11

Self-Stigma (SSOSHS) Scores by Group and Previous Experience

		IASMHS	SSOSHS	Intention
Group 1	Experience			
	Mean	60.1	22.46	2.61
	SD	11.30	7.00	1.16
	No Experience			
	Mean	54.86	24.3	2.0
	SD	11.85	5.04	0.94
Group 2	Experience			
	Mean	58.9	25.20	2.32
	SD	9.02	5.16	1.11
	No Experience			
	Mean	54.82	27.96	1.86
	SD	13.94	11.24	1.28
Group 3	Experience			
	Mean	63.44	21.45	2.71
	SD	10.21	5.39	1.53
	No Experience			
	Mean	54.38	24.31	1.96
	SD	12.77	5.81	.976

Table 11 shows that mean scores on measures of attitude are lower in Group 2 than they are in Groups 1 and 3, mean scores on measures of self-stigma are higher in Group 2 as compared to Groups 1 and 3, and mean intention scores are lower in Group 2 than they are in Groups 1 and 3. This indicates that when previous experience in counseling is taken into consideration, participants in Group 2 who have been exposed to pathologizing language have poorer overall attitudes towards counseling, increased perceptions of self-stigma, and lower

intention to seek out counseling than did that participants who were exposed to a positively framed or neutral control message.

Chapter Summary

Data was collected among participants providing an opportunity to explore how positive, negative or neutral message framing impacted attitudes toward counseling, perceptions of self-stigma, and intentions to seek psychological help. Multiple Analysis of Variance (MANOVA) was used to test the hypotheses in this study. None of the proposed hypotheses were supported, suggesting that message framing did not impact scores on measures of attitude, self-stigma or intention between groups as expected.

However the data allowed an opportunity for follow up analysis to determine if message framing had interaction effects with moderating variables shown by prior research to have an impact on attitudes, stigma and intention. Statistical analysis of the data through additional MANOVA procedures showed that exposure to negatively framed messages increased perceptions of self-stigma when racial group is accounted for. Additionally it was shown that negative message framing appears to increase perceptions of self-stigma in men. Furthermore, message framing was shown to have an interaction effect with prior experiences in counseling leading to significant differences in mean scores on outcome measures between experimental groups.

CHAPTER V

DISCUSSION

This research was conducted to explore whether attitudes towards counseling, perceptions of self-stigma, and intentions to seek out counseling services could be influenced by message framing in a population of undergraduate college students. This chapter provides an overview of the purpose of this study, interprets data analysis, and explores the implications of the findings. Additionally this chapter discusses limitations of the current research as well as potential areas of future research.

Conclusions

Overview

Counseling is beneficial to many people, however mental health treatment is often underutilized by people who could benefit from it. While prior research has shown that factors such as perceptions of stigma and poor attitude towards counseling are associated with low rates of utilization, little research has attempted to shift attitudes or perceptions in such a way as to increase help seeking. The intent of this study was to manipulate with the way mental health messages were framed in order to determine if the manner in which psychological services are presented is related to attitudes and perceptions of stigma, thereby increasing the potential for utilization of mental health treatment. To this end, the purpose of this study was to compare the impact of positive, negative and neutral message framing on scores measuring stigma and attitude regarding mental health treatment.

Findings

Hypothesis 1 was rejected. Results indicated that message framing alone did not account for differences in mean scores on measures of attitude, stigma or intention between groups of participants who had been exposed to the positively framed, negatively framed, or neutral control message. This means that message framing alone was insufficient to impact overall attitudes towards counseling, perceptions of self-stigma, or intentions to seek out psychological services in the future, in this sample as a whole. This lack of significance was consistent between groups; as there was no significant difference in mean scores on dependent variables among groups that had been exposed to either positively or negatively framed messages as compared to the neutral control.

Hypothesis 2-a was rejected because the original assumption that participants experiencing psychological distress would have better attitudes and less sense of self-stigma than those without distress, when exposed to the positively framed message, was not supported. Rather, it was found that the opposite was true: Participants who were not currently reporting significant levels of psychological distress appeared to have reduced perceptions of stigma towards counseling after being exposed the positively framed experimental message, than did participants with "distressed" ratings on the DASS-21 who had been exposed to the positively framed message.

Prior research has shown mixed results in correlating psychological distress with help-seeking behavior. It may be that the higher levels of self-stigma indicated by participants currently experiencing psychological distress are a

function of the symptoms themselves as opposed to the exposure to the positively framed message. For example, prior research has found that people experiencing psychological symptoms (particularly depression) are more likely to experience feelings of shame and guilt about the way they feel (Wright, O'Leary & Balkin, 1989). The original supposition of this study was that people currently experiencing psychological distress would feel a sense of relief, hope and normalization after exposure to the positively framed message to a greater degree than their non-distressed peers. Clearly, this did not appear to be the case.

Hypothesis 2-b was rejected. Results found that there was not a significant difference in attitude, stigma or intention scores among students who were currently endorsing psychological distress among experimental groups. That is to say, positive, negative or neutral message framing was not found to have any impact on outcome measures when current levels of psychological distress were accounted for.

Hypothesis 3 was rejected because it was found that other variables besides experimental messages had a greater impact on attitudes, stigma and intention.

Analysis of Help Seeking Factors

Past experience. Supplemental analysis supported previous research finding that past experience in counseling was correlated with attitudes toward help seeking, perceptions of stigma, and intention (Mechanic, 2007). In this study past experience appeared to account for the most variance in scores on outcome measures. The presence of past experience was associated with lowered

perceptions of stigma, more positive attitude toward help-seeking and greater intention to seek help in the future.

Gender. As has been found in previous research (Johnson, 1988; Komiya, Good & Sherrod, 2000), this study found differences between gender and help-seeking factors. Specifically, women had better overall attitudes toward counseling, and lower perceptions of stigma than men.

Psychological distress. There appeared to be a slight positive correlation with overall psychological distress and intention to seek help, which is a result that has been found in previous studies (Cramer, 1999). However, in this study psychological distress was not associated with improved attitudes towards counseling. Some evidence was found to suggest that the presence of psychological distress was associated with increased perceptions of self-stigma.

Race. Contrary of the findings of previous research, it was found that race did not appear to have an impact on attitudes towards counseling, perceptions of stigma, or intention to seek help (Snowden, 2001) on this population as a whole.

Analysis of Help Seeking Factors and Message Framing

After help seeking factors were assessed for any impact on measures of attitude, stigma and intention in this population as a whole, help-seeking factors were explored as possible moderating variables between message framing and scores on outcome measures.

Previous experience and message framing. Previous experience in counseling was shown to be a moderating variable between experimental message exposure and scores on attitude, stigma and intention outcome measures.

Specifically, past experience in counseling plus exposure to the positively framed message was found to be negatively correlated with lower perceptions of stigma, positively correlated with improved attitude towards mental health treatment, and positively correlated with increased intentions to seek help. Previous experience in counseling plus exposure to the negatively framed message was not found to be correlated to a significant difference in perceptions of self stigma, but was associated with improved attitudes and greater intention to seek help in the future. Previous experience in counseling plus exposure to the neutral control message was not found to be correlated with significant differences on measures of attitude, stigma or intention.

Gender and message framing. Gender was found to be a mediating variable between message framing and perceptions of stigma. In particular, men who were exposed to the negatively framed message had significantly poorer attitudes, higher perceptions of self-stigma and lower intention to seek help than did men in the groups receiving either neutral or positively framed messages.

Race and message framing. It was discovered that when race was accounted for, there was a significant difference among groups with regards to levels of self-stigma. In particular, all participants in Group 2 except for those identifying as Hispanic demonstrated higher perceptions of self-stigma after exposure to the negatively framed message, as compared to participants in the positively framed message group and the neutral control group. Participants identifying as Hispanic reported increased perceptions of self-stigma after exposure to the positively framed message, as compared to the negatively framed

message or neutral control. However, it should be noted that these results were obtained from data with a paucity of diversity. Given the fact that there were extremely small sample sizes for some groups in this study, these results are tentative at best.

Discussion

Prior research has clearly shown that there are factors associated with psychological help seeking including perceptions of distress (Cramer, 1999), gender (Komiya, Good & Sherrod, 2000) and previous experience (Mechanic, 2007). The current study supported those past findings.

Message Framing

The findings of this study suggest that message framing alone is not enough to influence underlying core beliefs about psychological services and the attitudes that are associated with them (Azjen, 1991) in people who have not had previous experience in counseling. It may be that a lifetime of aggregated messages gleaned from popular culture lead to a fairly stable set of beliefs, as has been supported by prior research (Vogel, Gentile & Kaplan, 2008). Such beliefs may be entrenched and therefore difficult to sway by one exposure to a message about counseling. However, the current study produced findings that suggested message framing may be more influential amongst certain sub-groups of the population, particularly with people who have had previous experience in counseling, with men, and with people of differing races. This seems particularly true regarding levels of self-stigma.

The following is a discussion about the theoretical basis for the findings of this study. The increased understanding of the relationship between message framing and

moderating variables that this study provides will also be discussed in the context of how such knowledge may assist mental health professionals in crafting their outreach strategies. Possibilities for future research will additionally be discussed.

Past Experience and Message Framing

This study confirmed what has been found in past research: That overall, people with past experience in counseling have better attitudes, lower perceptions of self-stigma and increased intentions to seek help in the future than people without any previous experience in therapy. It also found that the variable of "past experience" is the most influential of all help-seeking variables.

This study additionally found that there seemed to be a difference between experimental groups on attitude, stigma and intention scores amongst participants with previous experience in counseling. Participants with previous experience in therapy who were exposed to the positively framed message about counseling endorsed significantly lower perceptions of self-stigma, higher overall attitude towards counseling, and greater intention to seek therapy in the future than did participants who were exposed to the negatively framed or neutral control messages. It may be possible that reading hopeful, normalizing, positively framed messages elicited memories about past experience in therapy in a way that was congruent and reaffirming to the participants. That the positive message essentially reinforced an already good therapeutic experience may be the reason why the scores of participants with past experience in therapy were significantly different in this group.

Participants who had previous experience in therapy but who were exposed to the negatively framed message reported higher levels of self-stigma around help seeking.

While participants in this group still had improved attitudes towards mental health treatment and higher intentions to seek out psychological services in the future than did those in this group without previous experience, participants in the negatively framed group with previous experience in therapy did not report perceptions of self-stigma that were significantly different from students with no previous experience in therapy. This finding suggests that exposure to the negatively framed message may have supported *some* pre-existing beliefs based on past experience with counseling, perhaps regarding its importance, helpfulness in the past, or potential to be helpful again in the future. However, exposure to the negative message did not demonstrably change perceptions of self-stigma. In fact, such exposure to a pathology-focused message negated the lowered perceptions of stigma that would be expected in participants that had previous experience in therapy. Again, this is significant due to the fact that self-stigma has been found to represent a formidable barrier against psychological help seeking (Corrigan, 2004; Cooper, Corrigan & Watson, 2003; Komiya et al., 2000; Vogel et al., 2004). More positive attitudes and increased intentions to seek help may be insufficient motivators to initiate counseling if perceptions of self-stigma remain high.

Finally, the group with previous experience in therapy who had been exposed to the neutral control message did not appear to have significantly different scores on measures of attitude, stigma or intention than did participants in the control group who did not have previous experience in counseling. It therefore appears that the affect of past experience in counseling was not "triggered" by the neutral control message, to the degree that it was measurable by the SSOSHS, IASMHS or Intention item. This finding suggested that providing people with neutral, fact-based information regarding the

availability of psychological services may not be as useful of an outreach strategy as a positive normalizing message, even among people with positive past experiences.

Gender and Message Framing

This study found that overall, women were likely to have more positive attitudes, lower self-stigma and higher intention to seek out psychological services than men. This finding has been supported widely by previous research (Al-Samadi, 1994; Johnson, 2001; Komiya, Good & Sherrod, 2000; Leong & Sachar, 1999; Nolen-Hoeksema, 2001; Soliman, 1993; Tata & Leong, 1994; Yeh, 2002) which shows that men tend to have a more negativistic "base rate" towards the idea of counseling than women do. Interestingly, in the current study men appeared to respond very differently to the experimental messages than did women, showing that certain ways of communicating about psychological services may exacerbate pre-existing negativistic perceptions of engaging in treatment.

Women's attitudes, perceptions of stigma or intentions did not, in general, appear to be influenced by the kind of message they received about counseling. In contrast, men who read the negatively framed message about counseling endorsed significantly higher levels of self-stigma, poorer attitudes, and lower intention to seek help than did men who read either the positively framed message or the neutral control message. The idea that the emphasis on psychiatric labels may increase perceptions of stigma is not new (Corrigan, 2004). However, it has not previously been shown that men could experience greater perceptions of self-stigma, poorer attitudes, and lower intention to seek help in the presence of medically-oriented language about mental health treatment.

This finding is particularly significant because recent research has suggested that the variable mediating the relationship between masculine identity and psychological help seeking is self-stigma (Vogel et. al, 2007). The presence of self-stigma has also been shown to have a higher correlation with negative attitudes towards counseling than having a strong masculine identity, accounting for 56% of the variance in help seeking attitudes amongst men (Vogel, et. al, 2011). In this area, the findings of the current study suggest that outreach efforts geared towards men should avoid using pathologizing or disease-oriented language. Instead, a normalizing, hopeful message or a neutral, factual message about the availability of services should be employed with this group. This may help to avoid unintentionally increasing perceptions of self-stigma, and worsening perceptions of mental health treatment overall in this population, which may in turn contribute to increased avoidance of psychological help seeking.

Additionally it is possible that these results are linked to more stable opinions about psychotherapy among women in this sample than men, given that there is a high percentage of women and a disproportionate percentage of students with psychology, nursing and education majors in this sample. Speaking broadly, women are often over represented in psychology, education and nursing programs and it is possible that the gender differences identified in this study are also showing that the women in this study have more stable, well formed impressions about counseling to begin with, possibly related to their academic interests.

Race and Message Framing

Similarly to the relationship that was found between men exposed to the negatively framed message about counseling and increased perceptions of self-stigma,

there appeared to be some variability between people of differing racial and ethnic groups in this domain as well. Specifically, it was found that in participants identifying as White, Black, and Multi-Racial, exposure to the negatively framed message increased perceptions of self-stigma around seeking help to a greater degree than did exposure to the positively framed or neutrally framed control message. However, people identifying as Hispanic had, on average, scores indicating increased perceptions of self-stigma in response to the positively framed message than in response to the negatively framed one. Furthermore, self-stigma scores were higher in Hispanic participants in response to the negatively framed message when compared to the neutral control.

These findings seem to indicate that among people identifying as Hispanic, a positively framed "personal growth" message about counseling may be less appealing and more stigmatizing than either a medically-focused message or a neutral, factual one. This may be due to cultural differences unique to people identifying as Hispanic. It is possible that "self-improvement" is not viewed as positively in this culture as it is in others, and that "treatment" for a psychological condition may be a more personally acceptable and valid reason for seeking out services. It is also possible that participants identifying as Hispanic may have interpreted the positively-framed message as being overly optimistic, or as glossing over the reality of mental illness. However, the results did also suggest that exposure to a pathology focused message elicited greater perceptions of self-stigma than was generated by simply receiving information about available services. It may be that outreach campaigns targeted towards Hispanic consumers may improve their efficacy by utilizing neutral, fact-based language.

Clinical Implications

The findings of this study supported what has been found in previous research, which is that there is a substantial need for psychological services in the undergraduate population, with nearly half of all participants in this study reporting some current symptoms of psychological distress. It was also shown that very few of those who could benefit from counseling are currently receiving services.

Clinical implications of message framing and previous experience. This study also revealed that the single most powerful indicator that a student will seek help is whether they have had a relatively good past experience with counseling in the past. However, this study also suggested that *how* psychological services are presented to students with previous experience in counseling is important, because exposure to the negatively framed message was associated with increased levels of self-stigma whereas the positive message was not. Furthermore, exposure to a factual, neutral control message about the availability of services on campus led to similar scores on attitude, stigma and intention measures between those who had previous experience and those who had not. Exposure to the positively framed or negatively framed messages was associated with higher positive attitudes and increased intentions to seek help in students with previous experience, compared to students without previous experience.

This finding seems to suggest that positive message framing appears to interact with previous experiences in counseling, possibly eliciting positive memories and activating more positive attitudes, lower perceptions of stigma and higher intention to seek help again in the future. It may be that describing mental health treatment in the empowering, normalizing and hopeful language of the positive psychology model was

congruent with the actual experiences that people often have in therapy. Being exposed to the language and ideas of positive psychology may have resonated with participants who have previous experience in counseling in such a way as to elicit significantly more positive attitudes towards therapy, lower perceptions of stigma and greater intentions to seek help again.

Likewise, negative message framing was also seen to elicit more positive attitudes and greater intention to seek out services in people with previous experience than in those without. However, negative message framing seemed to suppress the reduction in self-stigma that would otherwise be expected in people with previous experience. It could be that exposure to messages regarding counseling as necessary and helpful for the treatment of psychological disorders reinforced overall positive attitudes and intention to seek help again. However, the negative message, emphasizing disorder, diagnoses, and treatment, was found not to contribute to differences in self-stigma between people with and without previous experience in counseling. This may indicate that participants with past experience in therapy were reminded after reading the negatively framed message that therapy was important, and they should probably go, but that a sense of inner shame and self-stigma remained present. This lingering perception of stigma, even in people with past experience in therapy, may represent a very real barrier to future help seeking.

People with previous experience in therapy did not have demonstrably different attitudes towards therapy, perceptions of self-stigma, or intentions to seek out psychological help in the future than did participants with no previous experience after having been exposed to a neutral fact-based message about the availability of psychological services. This is in marked contrast to the differences in these areas in

groups of participants with previous experience who were exposed to a positively or negatively framed message that would been more likely to lead to activation of memories about their past experiences in therapy. This finding suggests that simply providing students with information about the availability of psychological services on campus is not likely to be a helpful strategy for increasing rates of utilization, even among students with previous experience in therapy. It may be that information about availability of services does not trigger the mental or emotional experience that positively or negatively framed messages do. These results suggest that outreach campaigns on campus should be designed in such a way as to elicit some kind of emotion, and ideally a positive memory of a previous experience in counseling. Preferably this message would also contain a positive, normalizing message that would simultaneously lower perceptions of self-stigma as opposed to a negativistic one that is more likely to support perceptions of self-stigma around seeking help.

Furthermore, strategically eliciting positive memories and reduced perceptions of stigma around counseling in students with prior experiences may be an effective way to outreach to students without previous experience. This is because, even if students with previous experience and positive attitudes towards counseling do not have a current need for services themselves, may become "missionaries" among their peers, advocating mental health treatment for struggling roommates or friends in need. Such peer-based encouragement may be vastly more influential in increasing utilization within the social hives of college student housing than formal marketing or outreach efforts undertaken by professionals.

Clinical implications of gender and message framing. Men's issues have been much discussed in the literature relative to the underutilization of mental health services. This study supported previous findings in this area: That overall men have poorer attitudes, increased perceptions of self stigma, and lower intentions to seek help than do women. This study shed new light on help seeking in men, in that it demonstrated that men are prone to feel increased feelings of self-stigma, poorer attitudes, and lower intention to seek help when psychotherapy is presented as a treatment for mental illness, rather than as an opportunity for self-improvement or when neutral information about services is provided. Since self-stigma and poor attitudes have been linked to avoidance of help seeking (Vogel, 2007) medically oriented, pathologizing language in marketing and outreach efforts targeting men should be avoided. Instead, either neutral, fact based information about the availability of services should be provided, or counseling should be presented as an opportunity for personal growth and increased well-being. Either of these approaches may help to improve overall attitudes, lower perceptions of self-stigma and increase intentions to seek help in men as compared to the use of medical language. This communication strategy could potentially increase utilization of psychological services in this population.

Lastly, this study found evidence that suggested people who identified as Hispanic had a more positive response to neutral, fact-based messages about counseling than they did to positively framed *or* negatively framed messages. This difference appeared related to more positive attitude, lower perceptions of stigma, and increased intentions to seek help in Hispanic people after having read the neutral control message as compared to the positive or negative one. This finding suggests that outreach

campaigns focused on targeting this population would be more effective if basic information about the availability of services was made available, and if either a "personal growth" or "treatment for disorder" approach was avoided.

In general, these findings offer more direction about how organizations and clinicians in private practice can communicate to their target clients in such a way as to lower perceptions of stigma (or at least not exacerbate perceptions of stigma) as well as improve attitudes or intentions. Currently few positive messages about the use and purpose of psychotherapy exist in popular culture other than what is presented on television and in movies. Outreach commonly undertaken by large organizations such as the American Psychological Association (APA) and mental health agencies may inadvertently be increasing perceptions of self-stigma by emphasizing disorders and mental illness rather than positive outcomes, or simply providing information. It is possible that if the mental health industry used some of the information suggested by the current study and used it to guide their efforts to improve attitudes and reduce stigma, more positive attitudes may be shaped in the population over time. This may lead to increased utilization of psychological services in the future.

In summary, the findings of this study suggest that of all the factors considered, self-stigma is the factor that is most affected by the language used to communicate about psychological services. The results of this study indicated that self-stigma can be increased in people who have had past experience in therapy through the use of negative message framing. Self-stigma can be raised in men when pathologizing language is used. Perceptions of self-stigma are increased among people of Hispanic origin when either negative or positive message framing is used. Self-stigma is supported by medically

oriented language, even in people with positive previous experiences in therapy. Collectively, these findings indicate that directors of college counseling centers may increase rates of utilization of psychological services if they carefully consider who their target population is, and adjust their outreach messages accordingly. In general, it would likely be more effective for either positive or neutral strategies to be employed when communicating about psychological services.

Limitations of the Study

Several factors may represent limitations of this study, and threats to the validity of its findings. While data was gathered in a relatively random fashion, and taken from a representative sample of incoming freshman in 2011, participants in this study did self-select to participate in a college-orientation course. It is unknown to what degree this sub-population of college freshmen is different than the population who chose not to participate. Furthermore it appears that a disproportionately large percentage of the students surveyed in this study (24.8%) had declared psychology as a major. It may also be that this does represent a true random sample and that a high percentage of incoming freshman have selected psychology as a major, as psychology is the second most common major among undergraduates. However, students who have overtly expressed an interest in studying psychology may have life experiences, attitudes and core beliefs about mental health and its treatment that is different from students of other majors. This may have impacted the findings of this study, making it somewhat less generalizable to undergraduate students as a whole.

Additionally the majority of participants in this study (71.9%) were women. This is a somewhat higher percentage of women than is found in the population of

undergraduates as a whole (62%). This may be due to the fact that data was collected from many students with psychology, nursing, education and special education majors, which often attract women. In previous research as well as the current study, women have been found to have differences in their attitudes toward therapy as compared to men. It is unknown what impact the gender imbalance of the sample may have had on the findings of this research. Furthermore the high proportion of psychology, nursing and education students may have skewed the data in this sample as students with academic interest in these areas could potentially have deeper innate knowledge of and more clearly formed attitudes about mental health services than other students.

Another potential limitation of this study is the fact that self-reporting instruments were used in the process of data collection. Although great effort was taken to ensure the anonymity of participants' responses, and the voluntary nature of participation was stressed, due to the format of data collection (engaging a "captive audience" in a classroom, with its inherent power differential) there may have been a subsection of students who felt pressured to participate. It is unknown how these inner experiences may have impacted the findings of the research.

Additionally, the concept of psychotherapy, mental illness and mental health treatment is inherently very personal, and can be perceived as quite shameful or stigmatizing, particularly among adolescents. It is therefore possible that participants may have responded to items on the questionnaires in a self-concealing or socially acceptable manner, particularly in their reporting of current mental health symptoms, past experience in therapy, or intention to seek treatment in the future.

Another limitation of this study is the relatively small sample size. Particularly when participants between groups were broken down by race; while the minimum sample size required for statistical power was exceeded, the total sample represented a fraction of incoming freshman. Furthermore, data was collected from incoming freshmen during the first few weeks of the fall semester. It is unknown as to how the attitudes and experiences of upper-classman might differ from those of freshman regarding the utility and benefit of psychological services. Given that eighteen-year-olds fresh off to college are often working to differentiate themselves from their parents and increase their feelings of independence and autonomy, responses of this population to some items on these measures related to help seeking and perceptions of distress may have been impacted. If this population had been assessed later in the school year, or was slightly older, their responses on these measures may have been different. Therefore the conclusions drawn about overall attitudes and message framing, and the associated implications for crafting outreach campaigns on campus may only apply to communications targeted at freshmen early in the first semester of college.

Another major limitation of this study is the fact that participants were only exposed to one, brief message about counseling. Such limited exposure is probably less powerful in shaping attitudes and perceptions than repeated, consistent messages delivered over time. Consequently, the measurable differences in attitude, stigma and intentions that were found in this study are likely much smaller than the differences that could be created by a well-developed and consistent outreach campaign that would allow for repeated exposure to messages about counseling.

Future Research

This study explored how attitudes and perceptions of stigma regarding mental health treatment might be influenced among freshman college students at a mid-sized Western university. While this is, in itself, a high need population and important to target for outreach, this study represents a very small step in increasing understanding about how to make outreach more effective. There is a great deal of opportunity for further research that could be done specific to outreaching to college students as well as the population as a whole.

The underutilization of mental health services is a widespread problem among people in this country and around the world. The results of this study show that the manner in which mental health services are presented does have an impact on attitudes, intentions, and on perceptions of self-stigma when in the context of moderating variables. There may be many other moderating variables that significantly interact with message framing that were not explored in the current study. Such variables might be unique to specific sub-sets of a target population. For example, in this study it was found that population sub-sets of gender, race and previous experience were moderating variables. These factors were explored in the current study because prior research has found them to be significantly associated with help seeking behaviors. It is also entirely possible that additional factors specific to undergraduate students at the school where data was gathered may exist, that would have been even more influential on the results of this study (i.e., involvement in athletics or Greek social organizations, or whether students were in-state vs. out-of-state). Future research targeting undergraduate students would

likely benefit from considering the cultural, contextual and personal concerns of these unique populations and incorporating those potentially moderating variables into their study.

More broadly, different populations of people (non-students, men, people of differing sexual orientations, people of color, people in different professions, from different cultures or of differing socio-economic status) may all find different messages and kinds of outreach more compelling, and more influential than others. For example, the current study found some data (in a small sample) that people identifying as Hispanic had a different reaction to message framing than people who did not. Similar differences may be present among other groups as well. In the opinion of this researcher, mental health agencies and psychological service providers would be wise to replicate this research or extend it with their own populations of interest before crafting a marketing or outreach campaign.

Before embarking on a quantitative investigation in the format of this study, it would likely be helpful for future researchers to gain a deeper understanding of the moderating variables unique to their population of interest. This may involve preceding future quantitative research with qualitative inquiries that reveal help seeking factors specific to that population. This kind of qualitative exploration could be conducted by using focus groups or with individual interviews, with members of the population of interest. Once important factors have been uncovered, messages could be crafted that address the concerns of this particular target population. Variations in communication strategies could then be compared to each other in order to determine their relative power

to increase positive attitudes, lower perceptions of stigma, and increase intention to seek help.

This study only focused on three kinds of messages: Positive psychology influenced, medical model influenced, and a factual control. There are as many ways of presenting the usefulness of psychological services as there are theoretical orientations. Furthermore, every individual practitioner has unique perspectives and approaches towards counseling, all of which can be communicated to their prospective clients. Therefore a great deal of opportunity exists to experiment with different kinds of messages to determine their relative power to improve attitudes, reduce feelings of stigma, and increase intentions to seek help in the population of greatest interest to particular practitioners or agencies.

A useful area of future research may include investigating the influence of longer term outreach campaigns. As was discussed, a significant limitation of this study was the fact that participants received only one brief exposure to an experimental message. Even so, significant differences in responses to these messages were found between sub-populations of this sample. Therefore it is possible that increased exposure to strategic messages may elicit stronger shifts in attitude, perceptions of stigma, and intentions to seek help. Future researchers exploring how best to conduct outreach with college students could therefore develop longer-term studies where different populations of students (by dorm, by school, etc.) were exposed to consistent messages about counseling for a period of time (i.e., a whole semester). Then, participants could be assessed for differences in perceptions of stigma, overall attitude, and intentions to seek help. Additionally, a longer-term study that followed specific groups of students over time

could also assess for actual rates of mental health treatment utilization. To have real world data exploring correlations between attitudes, stigma, intention and actual, help seeking behaviors would be a great asset for future research examining how best to encourage people to seek out psychological help when they need it.

Summary

In summary, this study represented a first, small step in exploring how strategic communication about psychological services could lead to shifts in factors known to be associated with increased utilization. These factors: attitude, stigma, and intention, were discovered to be somewhat malleable after exposure to one brief message. In general, it was found that the use of medically oriented language was associated with greater perceptions of stigma than positive or neutral language in different sub-sets of the population studied. There is opportunity for additional study in this area, particularly with regards to a more nuanced understanding of moderating variables unique to specific populations; experimentation with a wider variety of messages; and comparison of groups that have had longer-term exposure to strategic messaging.

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APPENDIX A

JOURNAL MANUSCRIPT

Abstract

Despite a high need for effective mental health treatment, psychological services are often underutilized. Prior research has revealed information about factors that are associated with help-seeking behaviors or avoidance of psychological services. However, little is currently known about how to communicate effectively about psychological services in a manner that may increase rates of utilization. This study compared different strategically framed messages on their impact of factors known to be associated with planned behavior around psychological help seeking; particularly attitude, self-stigma, and intention. Attitudes towards psychological services, perceptions of self-stigma, and intention to seek help were measured. Information about demographic variables shown in past research to have significant impact on help seeking was also collected, including previous experience in mental health treatment, current levels of psychological distress, gender, race, and age. Analysis via MANOVA and post-hoc tests suggested that message framing was shown to have significant impact on attitude, stigma and intention (particularly around perceptions of self-stigma) when explored in the context of moderating variables including gender, past experience with mental health treatment, and race. The clinical implications of these findings are addressed, and suggestions for future research are provided.

Keywords: Psychological help-seeking, theory of planned behavior, self-stigma, message framing, utilization of psychological services, behavioral health marketing research.

Introduction

Past research has documented the wide need for psychological services based on the significant level of diagnosable mental health disorders in the United States and elsewhere. It has been found that approximately one-quarter of the general population in the United States has met the criteria for a mental illness, as defined by the DSM-IV-TR, at some point over the preceding twelve months (Kessler, Chiu & Demier, 2006) and that over the course of an individual's lifetime, the prevalence may be much higher (Moffit, et al., 2010). Many variables are linked with this phenomenon including the presence of external barriers to treatment, individual characteristics of prospective consumers of mental health treatment, and fears about treatment (Vogel, Wester, & Larson, 2007). In

particular, fear of stigma due to being a consumer of mental health services has been found to represent a significant barrier to seeking mental health treatment (Sartorius, 2007). Men appear to be more greatly influenced by treatment fears and concerns about stigma than do women, particularly if they hold traditional beliefs about masculine gender roles (Galdas, Cheater & Marshall, 2005; Vogel, Heimerdinger-Edwards, Hammer & Hubbard, 2011).

Recent research has pointed to the fact that there is a significant need for mental health services on college campuses with over 30% of students at any given time having significant symptoms of a mental health problem (Cranford, Eisenberg & Serras, 2009; Ziven et al., 2009). It is also known that only a small percentage of these students ever present for treatment (Ziven et al., 2009). If more students utilized mental health services on college campuses there is a decreased likelihood that they would continue to be plagued by the consequences of untreated mental health into adulthood (Andrews, Hejdenberg, & Wilding, 2006). The current study focused on gaining more information about how best to communicate with this particular population in a manner that would increase the likelihood that mental health treatment would be utilized.

Theory of Planned Behavior

The theory of planned behavior is a model that provides a framework for understanding intentional human behavior, including that of psychological help seeking. The theory of planned behavior identifies the antecedents of behavior that have been shown to have predictive value in anticipating the actions that people are most likely to take (Ajzen, 1991; Ajzen, 1999). It has been widely used to understand consumer behavior and has been found to be particularly useful in understanding health-related

behaviors (Fife-Schaw, Sheeran, & Norman, 2007). The theory of planned behavior theorizes that all intentional human behavior is preceded by intention to engage in that behavior plus a perception that the behavior in question will be worth the effort of doing. Intention to engage in a behavior is, in turn, determined by three other factors including the general positive or negative attitude about the behavior, subjective impressions of what other people think about the behavior, and by the perception that one is actually able to do the behavior in question.

Message Framing

Message framing refers to the manner in which an idea is communicated, generally with regards to its positive or negative affective component. A positively framed message appeals to hoped-for outcomes and focuses on what to do in order to achieve them. A negatively framed message has the affective feel of a warning, and focuses on behaviors or outcomes to avoid. Research exploring the impact that message framing has on health related behaviors has shown that positively framed messages tend to be more effective in increasing preventative, wellness-focused behaviors such as nutrition and exercise (Fuglestad, Rothman & Jeffery, 2008; Latimer, et al., 2008; Uskul, Sherman & Fitsgibbon, 2009), Negatively framed messages have been found to increase detection behaviors such as mammography and colonoscopy. A variety of psychosocial variables, including regulatory focus (Yi & Baumgartner (2009), defensive processing (Ko & Kim, 2010), mood (Yan, Dillard & Shen, 2010), and self-efficacy (Van T Riet, Ruiter, Werrij, & De Vries, 2010) have been found to impact the overall efficacy of message framing, with different intrapersonal variables contributing to different behavioral outcomes.

Theory of planned behavior, psychological help seeking and message framing. Research has joined these three areas of study to gain increased understanding of mental health treatment utilization rates. Aspects of the theory of planned behavior have been used to understand the current rates of psychological help seeking (Mo & Mak, 2009; Schomerus, Matschinger, & Angermeyer, 2009). In particular, attitudes toward psychological help seeking (Mackensie, Gekoski, & Knox, 2006; Masuda, Suzumura, Beauchamp, Howells, & Clay, 2005), social perceptions (stigma) around help seeking (Eisenberg, Downs, Golberstein, & Zivin, 2009; Green-Shortridge, Britt & Castro, 2007; Vogel, Wade, Ascheman, 2009; Vogel, Wade & Haake, 2006; Vogel, Wade & Hackler, 2007), and education regarding the efficacy of help seeking (Goldney & Fischer, 2008) have been targeted as important areas of recent research . It has been demonstrated that having poorer attitudes toward psychological services are linked with decreased utilization (Jagdeo, Cox, Stein, & Sareen, 2009). Similarly, more positive perceptions of social approval around help seeking, and pre-existing perceptions that mental health treatment is a useful and worthwhile undertaking (Masuda, Suzumura, Beauchamp, Howells, & Clay, 2005) has also been linked with increased rates of utilization. However, to date, little research has explicitly explored practical methods of *shaping* attitudes or perceptions of social norms around psychological help seeking. Furthermore, little is understood about the best way to educate the public about the usefulness of mental health services in such a way as to increase motivation to use them.

Experimentation with positive and negative message framing has been found to create statistically significant differences in outcomes related to other health related behaviors including diet (Van Assema, Martens, Ruiter, & Brug, 2001), exercise (Jones,

Sinclair, & Courneya, 2003), smoking cessation (Toll et al., 2008), binge drinking (Gerend & Cullen, 2008), and certain medical procedures (Rivers, Salovey, Pizarro, Pizarro, & Schneider, 2005). No research has been conducted on the impact that positive or negative message framing may have on intentions to use mental health services. It is thought that message framing which is targeted at the underlying antecedents of the theory of planned behavior (particularly related to beliefs, attitudes, and perceptions of stigma around mental health treatment) may help increase intentions to engage in psychological services. The language used to craft the positively and negatively framed messages used in this study were drawn from two existing models of psychotherapy: the medical model and the positive psychology model.

Positive psychology and the medical model. There is a natural schism in the field of psychology between the negativistic medical paradigm of mental illness and that of the more hopeful personal growth paradigm of the positive psychology model (Maddux, 2008; Maddux, Snyder & Lopez, 2004). This split is similar to that of positively or negatively framed messages, and allows for an investigation comparing the language and rationale of each orientation on the attitudes of prospective consumers of mental health services. The current study sought to ascertain which of these perspectives are most helpful in increasing intentions to utilize psychological services.

Psychological services are related to health care in that behavioral treatment seeks to reduce the symptoms of mental illness and improve the quality of life for those treated. Like users of other health care services, most consumers of psychological services start out by voluntarily choosing to present for treatment. The theory of planned behavior has been found to be quite useful in understanding why people engage in health related

behaviors ranging from healthy eating habits, to smoking cessation, to scheduling regular mammography exams (O'Neil, et al., 2008). In recent years the theory of planned behavior has been used increasingly to understand phenomena related to seeking out psychological services (Lepre, 2007; Mo & Mak, 2009; Smith, Tran & Thompson, 2008).

Need For This Study

Some research has been done that links aspects of the theory of planned behavior to psychological help seeking, and this has led to a greater understanding of *why* current rates of utilization are so low (Vogel, Wester & Larsen, 2007). Specifically, it is now known that people do not seek out psychological services when they have a poor overall attitude towards doing so, they feel that engaging in mental health treatment will be stigmatizing or shameful, they don't understand the benefit of mental health treatment, and it seems difficult or expensive to participate in treatment. Other variables also impact the behavioral outcome of help seeking including the amount of subjective distress being experienced, comfort with disclosure, locus of control, past experience, personality traits, current social support, and demographic characteristics including gender, age and race (Vogel, Wester & Larsen). Nonetheless, if the theory of planned behavior can be used to strategically communicate with potential consumers of psychological services in such a way as to increase their positive impressions (or reduce their fears about treatment), educate them about the benefits (or warn of the consequences of not seeking treatment), decrease their concerns about judgment or stigma, and lower their perception of practical barriers then it is thought that they would be more likely to engage in mental health treatment, regardless of other personal variables. Currently there does not appear to be any research that seeks to understand *how* one might shape attitudes towards

psychological help seeking. Strategic message framing has been explored as a means of shaping attitudes toward other health related behaviors, and has been found to generate significant shifts in attitude. There is a paucity of research that has sought to explore whether strategic message framing might be the vehicle for shifting specific attitudes about help seeking, as postulated by the theory of planned behavior, in the directions that will ultimately lead to a greater utilization of services. The current lack of understanding of how to shape the attitudes that may increase the likelihood that a person will seek out mental health treatment therefore represents a significant gap in the research to which this study contributes more information.

This study investigated the extent to which the use of strategic message framing increased the likelihood that treatment will be sought out. Specifically, this study explored whether positively framed messages or negatively framed messages about mental health treatment resulted in a greater shift in attitudes about psychological services, perceptions of social norms, perceptions of utility, and attainability in a positive direction, therefore increasing the likelihood that psychological services will be sought out. Additionally, information will be gathered from participants in this study that will allow for control of other non-experimental variables that may be associated with intentions to seek psychological services including demographic characteristics, current subjective feelings of distress, and past experience with treatment. These variables will be examined to determine if positively or negatively framed messages are more effective for outreach to target groups sharing one or more of these characteristics. The population of interest in this research is undergraduate college students accessing a college counseling center.

In theory, it was thought that both positively and negatively framed messages would be more compelling to participants who are under greater subjective distress and perceive that they need treatment, and have characteristics that would predispose them to considering mental health treatment. It was hypothesized that positively framed messages about mental health treatment would be more effective in lowering perceptions of stigma and improving attitudes toward seeking treatment than will negatively framed messages. As hypothesized by the theory of planned behavior, it was also thought that lowering perceptions of stigma and improving attitudes are likely to correlate positively with increased intentions to seek out psychological services.

Research Hypotheses

H1 The group exposed to the positively framed message will have significantly lower scores on stigma scales, higher scores on attitude scales and greater intention to seek out psychological services than will the groups exposed to negatively framed or neutrally framed messages. (H01:[Null] There will be no significant difference of mean scores on stigma, attitude or intention scales across experimental groups.)

H2 Participants currently experiencing subjective psychological distress who have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants exposed to the positively framed message who are not currently experiencing psychological distress.

H2b Participants currently experiencing subjective psychological distress that have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants with current psychological distress who have been exposed to the negatively framed or neutral message.

H3 Participants in the positive experimental group will have more positive attitude towards mental health services as evidenced by scores on the IASMHS than participants in the negative or neutral experimental group above and beyond other demographic variables.

Method

The purpose of this study was to explore the impact that message framing might have on factors known to affect psychological help-seeking, including attitude, perceived social stigma, and intention in undergraduate college students. To this end, a sample of freshman college students was asked to read either a positively framed, negatively framed or neutral control message and then asked to complete a series of questionnaires regarding their attitudes towards counseling, perceptions of self stigma, and intentions to pursue counseling in the future. Additionally, information was collected about factors that prior research has found to be related to help-seeking, including past experience with counseling, current psychological distress, and demographic variables.

Population

Undergraduate college students recruited from classes at a midsized western university participated in this study. This particular population was chosen because it represents an important subset of people who could benefit from mental health treatment. A significant percentage of college undergraduates meet criteria for a psychological disorder, and psychological services are underutilized in this population. Therefore, understanding how to increase rates of utilization of mental health services represents a worthwhile area to research.

Instruments

Demographic information. This study made use of a general demographic questionnaire to gain insight as to the demographic characteristics of the sample of participants including age, gender, and race. Additionally, participants were asked what grade they are in and whether or not they have served in the military.

Previous experience. Prior experience with psychological services has been consistently shown to be one of the variables most positively correlated with more positive attitudes and lower stigma around help seeking. Participants were asked about previous experiences by one item asking them to indicate whether they have been in counseling or psychotherapy of any kind (via a forced choice "yes or no" response). If they choose yes to this item they will be asked to rate this experience in terms of being helpful or unhelpful via a 5 point Likert-type scale.

Psychological distress. In order to determine whether participants were currently experiencing levels of psychological distress that could impact the manner in which they engaged with the experimental messages, they were administered the short form of the Depression, Anxiety and Stress Survey (DASS-21) (Lovibond & Lovibond, 1995). The DASS-21 is a 21 item self-report questionnaire that assesses for negative emotions in three different domains: depression, anxiety and stress, and additionally generates a "global distress scale" which was used for the purpose of this study as a screening instrument. Higher scores indicate higher levels of psychological distress. The DASS-21 is in the public domain and is available to use without permission by the authors.

Attitude, social norms, and perceived behavioral control. To measure overall attitudes, perceptions of social norms and perceived behavioral control towards mental health treatment, this study utilized the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS: Mackenzie et al., 2004) which measures attitudes around help seeking (referred to as psychological openness), perceptions of social norms (referred to as indifference to stigma) and perceived behavioral control (referred to as help-seeking propensity). The IASMHS consists of 3 subscales each containing 8 items, for a total of

24 items that participants are asked to rate on a Likert-type scale. Two subscales, psychological openness and indifference to stigma, are reverse scored. High scores on this measure indicate more positive attitudes and perceptions of psychological help seeking.

Self-stigma. Additionally this study made use of the Self-Stigma of Seeking Help Scale (SSOSHS: Vogel et al., 2006) to measure the construct of self-stigma among participants. This measure was added to the IASMHS, which contains a stigma factor, due to the unique ability of the SSOSHS to quantitatively capture the impact of psychological help seeking on self-perception, as opposed to the more general concern of being stigmatized by others. The SSOSHS is a 10-item, Likert-type scale. Higher scores on the SSOSH reflect greater concerns of self-stigma, and more negative perceptions of mental health treatment as contributing to increased self-stigma. Scores between 10 and 30 indicate lower levels of self-stigma, and scores from 31-50 indicate higher levels of self-stigma. Permission has been granted by Dr. Vogel to use this measure in the current study.

Intention. Lastly participants were administered an item asking about intentions to seek counseling in the next six months. Participants were asked to rate the item "I intend to seek counseling over the next six months" on a scale of 1-5, with 1 indicating strong disagreement, 3 indicating uncertainty, and 5 indicating strong agreement with that statement.

Experimental messages. The experimental messages used in this study each consist of a one paragraph written description of who seeks psychological services, why they might do so, and what they can expect out of the experience.

Positively framed message. Group A's paragraph was written in a way that presents this information in the paradigm of the Positive Psychology model, which conceptualizes the need for help as a normal and understandable impact of their current circumstances. The positively framed message therefore presented counseling as a potentially "life-changing experience" that is for the purpose of building on personal strengths to increase positive mood, personal meaning, enjoyment and satisfaction with life.

Negatively framed message. Group B's paragraph was written in a way that presents counseling in the paradigm and language of the Medical Model of mental health, which conceptualizes counseling as "treatment" of disordered functioning. Counseling is for the purpose of treating illnesses such as anxiety and depression and to reduce the unpleasant symptoms associated with these disorders. Potential negative consequences of failure to receive treatment were described.

Neutral control message. Group C received an informational control message about counseling services on the UNC campus, including locations, hours, fees, contact information, treatment providers and an overview of services provided.

Procedures

Sampling. Permission was granted from the director of the undergraduate studies department at a mid-sized Western university to contact freshman students enrolled in a course required for all first year students. This prevented any redundancy amongst participants, and also ensured that samples would be collected from students with a variety of academic interests. Students in twelve different classrooms were approached during class.

In each class, packets were distributed each containing a demographic questionnaire, as well as the following surveys in mixed, random order: The Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS); the Self Stigma Of Seeking Help Survey (SSOSHS); an item measuring intention to seek psychological help; questions regarding participation in, and quality of, prior counseling experiences; and the Depression Anxiety and Stress Scale-Short Form (DASS-21). Attached to the outside of each sealed packet were either the positively, negatively or neutrally framed experimental messages.

Participants were instructed to thoroughly read the experimental messages and then open their packets and complete all questionnaires front and back. When finished, participants returned all questionnaires to the envelopes and resealed them, in order to maintain the anonymity of their answers as materials were collected. Data was collected from a total of 168 participants, with 157 useable data sets generated for analysis.

Results

Descriptive Statistics

Demographic variables. Participants ranged in age from eighteen and twenty-five years. The sample consisted of a majority of eighteen year olds, with 82.8% identifying as eighteen, Another 10.8% of participants were nineteen, one participant was twenty-one and one participant was twenty-five. Seventy-one point nine percent of participants were female, 24.2% were male, and 3.8% declined to answer this question. Participants reported a variety of racial identifications. Participants were recruited from a wide variety of academic majors. Table 1 shows the demographic characteristics of the participants of this study.

Table 1

Demographic Variables By Treatment Condition

		Group One	Group Two	Group Three
Men				
	Asian	0	0	1
	Black	1	2	0
	Hispanic	2	4	0
	Multi	1	2	1
	White	9	7	8
Total Men		13	15	10
Women				
	Asian	1	0	0
	Black	0	0	2
	Hispanic	9	5	10
	Multi-Racial	2	3	2
	White	29	24	26
Total Women		41	33	39
Median Age		18.4	18.6	18.5
Total Participants		54	48	49

Help Seeking Variables

Psychological distress. The presence of psychological distress was measured with the DASS-21. Participants in this study were grouped as being "distressed" or "not distressed" on the basis of their DASS-21 scores by the rubric suggested by the DASS-21 scoring protocol.

Previous experience, and quality of previous experience. Participants were asked whether they had any previous experience with counseling, and if they responded "yes" they were asked to rate the quality of their experience on a one to five point Likert-type scale ranging from Very Negative (1) to Very Positive (5). Participants were additionally asked whether they were currently receiving counseling services. Only two

participants indicated that they were currently in therapy, and five more declined to answer. Table 2 shows the distribution of these help seeking variables by experimental group.

Table 2

Help Seeking Variables, by Group

	Group 1	Group 2	Group 3
DASS-21 Score			
Mean	13.8	13.4	16.2
SD	12.5	13.8	14.3
Distressed *(n)*	27	19	28
Not Distressed*(n)*	27	28	21
Previous Experience			
Yes*(n)*	28	20	20
No*(n)*	23	25	28
Quality of Previous Experience (If Any)			
Mean	4.04	3.55	3.60
SD	0.92	0.96	1.31

Dependent Variables

The primary purpose of this study was to explore the impact of message framing on self-stigma, attitude and intention to seek help. The following table shows the means and standard deviations on these dependent variables, broken down by group. Lower scores on the SSOSHS indicate lower levels of self-stigma. Higher scores on the IASMHS indicate more positive attitudes towards counseling. Higher intention scores indicate greater intention to seek out psychological help. Table 3 shows the mean scores and standard deviations of these measures by group.

Table 3

Mean Scores and Standard Deviations of Dependent Variables By Treatment Group

	Group One	Group Two	Group Three
SSOSHS Score			
Mean	23.27	27.08	23.29
SD	6.31	9.31	5.73
IASMHS Score			
Mean	57.94	56.36	57.64
SD	11.59	11.59	12.71
Intention Score			
Mean	2.36	2.07	2.67
SD	1.12	1.25	2.87

Hypotheses and Data Analysis

Once mean scores and standard deviations of the dependent variables were calculated and it was evident that assumptions of the MANOVA procedure were evaluated, the following hypotheses were then tested at an α =.05 level of significance:

H1 The group exposed to the positively framed message will have significantly lower scores on the stigma scale, higher scores on the attitude scale and greater intention to seek out psychological services as measured by the intention item than will the groups exposed to negatively framed or neutrally framed messages.

Multivariate Analysis of Variance (MANOVA) procedures were performed in order to determine whether any significant differences between experimental groups existed across the dimensions of attitudes towards counseling, self-stigma, and intention. The results of the MANOVA indicated that there was no significance between experimental groups with regards to scores on the SSOSHS, IASMHS, or Intention Item (Wilks' Lambda = .916, $p > 0.10$). Hypothesis 1 was therefore rejected.

H2a Participants currently experiencing subjective psychological distress who have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants exposed to the positively framed message who are not currently experiencing psychological distress.

MANOVA procedures were performed to explore whether participants with higher degrees of psychological distress exhibited differences in mean outcome scores of attitudes, stigma or intention measures than did participants without psychological distress, in response to the positively framed experimental message.

It was found that a significant difference did exist in mean scores between currently distressed participants and not distressed participants who had been exposed to the positively framed message at an alpha of .10, with a Wilks' Lambda value of .805, p = .018. It should be noted that MANOVA procedures do not shed light on the nature of the differences between groups, it simply indicates that at least one significant difference between groups are present. Tests of between-subjects effects were therefore performed, in order to gain more information. It was subsequently found that there was no significant difference between mean intention scores $F(1, 49) = 2.92$, p = .094, or mean attitude scores $F(1, 49) = 2.45$, p = .121 of distressed or non-distressed participants in Group 1. There was a small, but significant, difference in mean scores on measures of self stigma $F(1, 49) = 2.92$, p = .032. Follow up examination of mean self-stigma scores showed that the scores of non-distressed participants in Group 1 were 21.59 (SD = 6.05), and mean stigma scores of distressed participants were 24.96 (SD = 6.23). These results indicate that participants without psychological distress in the positively framed message group

had significantly lower feelings of self-stigma at the prospect of seeking psychological help than did currently distressed participants, which is opposite of what was postulated in the hypothesis. Therefore hypothesis 2a was rejected.

> H2b Participants currently experiencing subjective psychological distress that have been exposed to the positively framed message will have lower stigma scores, higher attitude scores, and higher intention scores than participants with current psychological distress who have been exposed to the negatively framed or neutral message.

MANOVA procedures were run on this subset of data. When participants with psychological distress were compared to each other between experimental groups it was found that participants endorsing current psychological distress did not have significantly different scores between experimental groups on measures of stigma as evidenced by a Wilks' Lambda test statistic value of .257, $p = .251$. Hypothesis 2b therefore was rejected.

> H3 Participants in the positive experimental group will have a more positive attitude toward mental health services as evidenced by scores on the IASMHS than participants in the negative or neutral experimental group above and beyond other demographic variables.

Message framing was not found to be associated significant differences in mean scores on any measures of dependent variables between experimental groups (Wilks' Lambda = .916, $p > 0.1$). MANOVA procedures were then performed on the sample as a whole to determine whether gender, age, major, race or previous experience in therapy significantly impacted scores on attitude, stigma or intention measures. Wilks' Lambda values revealed evidence that there was at least one significant difference in dependent variable scores due to gender (Wilks' Lambda = .865, $p \leq .001$). Post-hoc between subjects tests indicated that

gender significantly impacted scores on attitude $F(1, 124) = 8.53$, $p = .004$, self-stigma $F(1, 124) = 6.67$, $p = .012$, and intention measures $F(1, 124) = 16.98$, $p = .000$. Previous experience in therapy was also found to be significant with regards to scores on outcome measures of attitude $F(4, 163) = 5.51$, $p = .001$, self-stigma $F(4, 608) = 5.73$ $p = .001$, and intention $F(4, 4.4) = 3.37$, $p = .015$. Race, age, and major were not significantly associated with scores on measures of the dependent variables. As described in preceding paragraphs, psychological distress was found to have only slight significance on measure of intention. Due to sampling procedures the three experimental groups were alike in the prevalence of demographic variables. Hypothesis 3 was therefore rejected, because other demographic variables were shown to be significantly associated with scores on outcome measures between experimental groups and message framing was not.

Supplemental Analysis

None of the original hypotheses of this study were supported. However, because the data was available, supplemental MANOVAs were subsequently performed in order to ascertain if other help-seeking factors did have a significant impact on outcome measures including stigma, attitude and intention in the current study, as has been found in prior research. Then, these help-seeking factors were compared *between experimental groups* in order to determine if these factors represented moderating variables between message framing and outcome scores on the SSOSHS, IASMHS, and Intention item. Prior research has found that moderating variables are significant to consider when evaluating the impact of message framing (Apanovitch, McCarthy, & Salovey, 2003; Detweiler, et

al.,1999; Rothman et al., 1993; Schneider, Salovey & Apanovitch, 2001). The researcher was interested to explore whether any relationship between moderating variables and message framing would be discovered in the data of the current study as well.

Psychological distress. MANOVA procedures were performed to examine the impact of psychological distress on the dependent variables of attitude, stigma and intention within the sample as a whole. Findings revealed a significant difference amongst dependent variable scores in this area (Wilks' Lambda = .878, p = .002). Post-hoc between-subjects testing procedures yielded results indicating that DASS-21 scores had no significant relationship on SSOSHS scores F(41, 124 = 9.15, p=.617, or IASMHS scores F(41, 124) = .959, p=.549. However, DASS-21 scores were found to be significantly related to intentions to seek help F(41, 124) = 1.829, p = 0.010. It was found that there was a weak positive correlation (R^2=.215) between current levels of psychological distress and intentions to seek help.

Race. MANOVA procedures were run on the sample as a whole to determine if race and / or ethnicity may be associated with significant differences in mean scores on the SSOSHS, IASMHS or Intention item. There were no significant differences in any of these areas among participants of varying racial groups as evidenced by the Wilks' Lambda test statistic (.903, p >0.50).

Race and group. MANOVA procedures were then performed to ascertain if differences existed in mean scores on attitude, stigma and intention among participants identifying different races, among experimental Groups 1, 2 and 3.

The results indicated that there was a significant difference between self-stigma scores across experimental groups when the race of the participants was factored in ($F(2,124) = 5.594$, $p = .005$. Post hoc analysis showed that the difference in stigma scores was most significant when Group 2 was compared with both Groups 1 and 3. Specifically, participants in Group 2 (negatively framed message) had mean self-stigma scores that were an average of 1.98 points higher than those in Group 1 (positively framed). Participants in Group 2 had mean self-stigma scores that were an average of 2.95 points higher than did participants in Group 3 (neutral control). These findings suggest that when race is taken into consideration, exposure to pathology-focused messages about counseling increase perceptions of self-stigma. Pathology-focused messages appear to be linked with the highest self-stigma scores, and neutrally framed messages with the lowest self-stigma scores.

The following table (4) presents mean scores and standard deviations of self-stigma scores by race and group:

Table 4

Self-Stigma (SSOSHS) Scores by Group and Race

		Group 1	Group 2	Group 3
Asian				
	Mean	23.0	--	--
	N	1	--	--
	SD	--	--	--
American Indian				
	Mean	--	--	22
	N	--	--	1
	SD	--	--	--
Black				
	Mean	13	29	22
	N	1	2	2
	SD	--	1.14	4.24
Hispanic				
	Mean	26.18	24.63	22.44
	N	11	8	9
	SD	4.02	5.13	5.99
Multi-Racial				
	Mean	17	29.6	22
	N	3	5	3
	SD	8.9	4.78	2.65
White				
	Mean	23.21	27.19	23.76
	N	38	31	33
	SD	6.37	10.84	6.129

This table illustrates that in all racial groups except Hispanic, exposure to the negatively framed message was associated with increased perceptions of self-stigma, as compared to the positively framed message or neutral control. Hispanic participants appear to have increased perceptions of self-stigma after exposure to the positively-framed message, as compared to the negatively framed message or neutral control. These results must be interpreted cautiously, given the very small sample sizes of discrete racial groups in this study.

Major. There were not sufficient participants in each major to run statistical procedures exploring variation of scores in this domain. Therefore supplemental analysis was not performed in this area.

Gender. MANOVA procedures were performed on the sample as a whole to determine whether gender significantly impacted scores on attitude, stigma or intention measures. Significant differences between groups were indicated by Wilks' Lambda (.844, $p<.001$). Subsequent tests of between-subjects effects via Bonferroni testing procedures indicated that gender significantly impacted scores across all dependent variables attitude $F(1, 124) = 8.53$, $p = .004$, self-stigma $F(1, 124) = 6.67$, $p = .012$, and intention measures $F(1, 124) = 16.98$, $p = .000$.

Gender and group. MANOVA procedures were then performed to determine whether significant differences existed between men and women who had been exposed to the positive, negative or neutral experimental message. Results revealed a significant difference in scores between men and women across all dependent variables in experimental Group 2 (Table 5).

Table 5

Tests of Between Subjects Effects: Gender and Experimental Group

	df	Mean Square	F	Sig.
Group 1 (Positive Framing)				
IASMHS	1	243.306	1.842	.181
SSOSHS	1	21.436	.527	.471
Intention	1	7.832	7.002	.010
Group 2 (Negative Framing)				
IASMHS	1	900.321	8.913	.005
SSOSHS	1	383.705	10.503	.003
Intention	1	8.667	10.370	.003
Group 3 (Neutral Framing)				
IASMHS	1	132.223	.824	.370
SSOSHS	1	1.747	.067	.798
Intention	1	2.003	1.372	.250

Bonferroni post-hoc analysis revealed that there was no significant difference in the outcome scores between women across experimental groups. However, men in Group 2 reported significantly lower mean scores on the IASMHS (3.38 points lower in than Group 1, and 2.42 points lower than Group 3), indicating poorer overall attitudes towards counseling. Men in Group 2 reported higher scores on the SSOSHS (5.31 points higher than Group 1, and 7.84 points higher than Group 3) indicating higher levels of self-stigma. Additionally men in Group 2 reported lower levels of intention to seek help (.46 points lower than Group 1 and .48 points lower than Group 3). These results suggest that men are more deeply affected by women to negatively framed messages about psychological services. Table 6 presents mean scores and standard deviations by gender across groups. Given that random assignment was used to place participants into groups,

it is less likely that groups were different in a systematic way prior to completing the questionnaires.

Table 6

Self-Stigma (SSOSHS) Scores by Group and Gender

		IASMHS	SSOSHS	Intention
Group 1	Men			
	Mean	54.54	24.38	1.69
	SD	10.33	6.63	.855
	Women			
	Mean	59.05	22.93	2.59
	SD	11.88	6.26	1.12
Group 2	Men			
	Mean	50.13	31.0	1.23
	SD	9.35	8.67	.439
	Women			
	Mean	59.59	25.38	2.41
	SD	11.44	91.89	1.24
Group 3	Men			
	Mean	53.4	25.0	1.71
	SD	10.19	6.53	.488
	Women			
	Mean	58.86	22.84	2.38
	SD	13.22	5.59	1.35

The data presented in the table above indicate that the men in this sample may have been influenced by message framing to a greater degree than the women in this study. Specifically, men exposed to pathologizing language about counseling had poorer attitudes, increased self-stigma, and lower intentions to seek help than did men who were exposed to a positively framed or neutral control message. These results seem to suggest that exposure to disorder-focused language about counseling results in the exacerbation of factors known to decrease utilization of mental health services in men but not women.

Quality of Prior Counseling. MANOVA procedures were performed examining the impact of prior counseling on attitude, stigma, and intention on the sample as a whole. MANOVA results indicated that there was a significant difference between participants no, poor, or good previous experience on at least one dependent variable, as evidenced by Wilks' Lambda test statistic (.558, $p \leq .001$). Post-hoc analysis procedures showed that prior experience was found to be associated with significant differences between mean scores on measures of attitude, stigma and intention, as is presented in Table7. Likewise it was found that the vast majority of variance in scores in the sample could be accounted for by the presence and quality of past experience with counseling. Adjusted R Squared values of .130, and .153 were associated with attitude and intention, respectively, indicating a positive correlation between past experience and scores on these outcome measures. Perceptions of self-stigma were found to be negatively correlated with past experience in counseling ($R^2 = -.166$).

Table 7

Tests of Between Subjects Effects: Previous Experience and Outcome Scores

	df	Mean Square	F	Sig.
Previous Experience				
IASMHS	4	162.861	5.518	.001
SSOSHS	4	608.134	5.729	.001
Intention	4	4.376	3.372	.015

Prior counseling and group. MANOVA procedures then were then performed to determine whether significant differences existed in people with and

without experience in counseling, among experimental groups. Results indicated that there were significant differences in the impact of message framing of participants with previous experience in counseling between experimental groups. Message framing did not appear to have as significant impact on participants without previous experience in counseling.

As is outlined in detail in Table 8 below, in experimental Group 1, previous experience was found to account for a significant difference in scores on attitude, stigma and intention measures. In experimental Group 2, previous experience was only found to account for a difference in scores on attitude and intention measures, not measures of stigma. This means that in Group 2 participants with prior counseling experience had more positive attitudes towards counseling (as measured by scores on the IASMHS) and higher intentions to seek help again (as measured by ratings on the intention item) than did participants in Group 2 without previous positive experience. Participants with previous experience in counseling in Group 2, who were exposed to the negatively framed message about counseling, did not have significantly different self-stigma ratings (as measured by the SSOSHS) than did participants in Group 2 with no previous experience in counseling. In experimental Group 3, previous experience in counseling was found to have no effect on measurements of attitude, stigma or intention.

Table 8

Tests of Between Subjects Effects: Previous Experience and Experimental Group

	df	Mean Square	F	Sig.
Group 1 (Positive Framing)				
IASMHS	4	366.849	3.080	.026
SSOSHS	4	163.466	5.628	.001
Intention	4	3.331	3.073	.026
Group 2 (Negative Framing)				
IASMHS	4	423.884	5.157	.003
SSOSHS	4	33.467	.988	.429
Intention	4	112.845	3.554	.017
Group 3 (Neutral Framing)				
IASMHS	4	169.368	1.129	.367
SSOSHS	4	14.432	.540	.745
Intention	4	1.828	1.292	.295

The results presented in Table 8 appear to be showing that participants with previous experience in counseling have an overall tendency to hold more positive attitudes towards counseling, have lower perceptions of stigma, and have greater intentions to seek help again in the future, but that exposure to differently framed messages impacts whether these tendencies will be mobilized. Specifically, exposure to positive message framing elicits more positive attitudes, lower stigma and increased intentions in people with previous experience. Exposure to negatively framed messages elicits more positive attitudes and greater intentions in this group, but not lowered stigma, in people with previous experience. Exposure to neutral, informational messages does not elicit statistically significant differences in pro-counseling attitudes, in people with past experience.

The following table presents mean scores on measures of attitude, stigma and intention broken down by group and previous experience:

Table 9

Self-Stigma (SSOSHS) Scores by Group and Previous Experience

		IASMHS	SSOSHS	Intention
Group 1	Experience			
	Mean	60.1	22.46	2.61
	SD	11.30	7.00	1.16
	No Experience			
	Mean	54.86	24.3	2.0
	SD	11.85	5.04	0.94
Group 2	Experience			
	Mean	58.9	25.20	2.32
	SD	9.02	5.16	1.11
	No Experience			
	Mean	54.82	27.96	1.86
	SD	13.94	11.24	1.28
Group 3	Experience			
	Mean	63.44	21.45	2.71
	SD	10.21	5.39	1.53
	No Experience			
	Mean	54.38	24.31	1.96
	SD	12.77	5.81	.976

This table shows that mean scores on measures of attitude are lower in Group 2 than they are in Groups 1 and 3, mean scores on measures of self-stigma are higher in Group 2 as compared to Groups 1 and 3, and mean intention scores are lower in Group 2 than they are in Groups 1 and 3. This indicates that when previous experience in counseling is taken into consideration, participants in Group 2 who have been exposed to pathologizing language have poorer overall attitudes towards counseling, increased perceptions of self-stigma, and lower

intention to seek out counseling than did that participants who were exposed to a positively framed or neutral control message.

Discussion

The intent of this study was to experiment with the way mental health messages were framed in order to determine if the manner in which psychological services are presented is related to attitudes and perceptions of stigma, thereby increasing the potential for utilization of mental health treatment. The findings of this study suggest that message framing alone is not enough to influence underlying core beliefs about psychological services and the attitudes that are associated with them (Azjen, 1991) in people who have not had previous experience in counseling. It may be that a lifetime of aggregated messages gleaned from popular culture lead to a fairly stable set of beliefs, as has been supported by prior research (Vogel, Gentile & Kaplan, 2008). Such beliefs may be entrenched and therefore difficult to sway by one exposure to a message about counseling. However, the current study produced findings that suggested message framing may be more influential amongst certain sub-groups of the population, particularly with people who have had previous experience in counseling, with men, and with people of differing races. This seems particularly true regarding levels of self-stigma.

Past Experience and Message Framing

This study confirmed what has been found in past research: That overall, people with past experience in counseling have better attitudes, lower perceptions of self-stigma and increased intentions to seek help in the future than people without any previous

experience in therapy. It also found that the variable of "past experience" is the most influential of all help-seeking variables.

This study additionally found that there seemed to be a difference between experimental groups on attitude, stigma and intention scores amongst participants with previous experience in counseling. Participants with previous experience in therapy who were exposed to the positively framed message about counseling endorsed significantly lower perceptions of self-stigma, higher overall attitude towards counseling, and greater intention to seek therapy in the future than did participants who were exposed to the negatively framed or neutral control messages. It may be possible that reading hopeful, normalizing, positively framed messages elicited memories about past experience in therapy in a way that was congruent and reaffirming to the participants. That the positive message essentially reinforced an already good therapeutic experience may be the reason why the scores of participants with past experience in therapy were significantly different in this group.

Participants who had previous experience in therapy but who were exposed to the negatively framed message reported higher levels of self-stigma around help seeking. While participants in this group still had improved attitudes towards mental health treatment and higher intentions to seek out psychological services in the future than did those in this group without previous experience, participants in the negatively framed group with previous experience in therapy did not report perceptions of self-stigma that were significantly different from students with no previous experience in therapy. This finding suggests that exposure to the negatively framed message may have supported *some* pre-existing beliefs based on past experience with counseling, perhaps regarding its

importance, helpfulness in the past, or potential to be helpful again in the future. However, exposure to the negative message did not demonstrably change perceptions of self-stigma. In fact, such exposure to a pathology-focused message negated the lowered perceptions of stigma that would be expected in participants that had previous experience in therapy. Again, this is significant due to the fact that self-stigma has been found to represent a formidable barrier against psychological help seeking (Corrigan, 2004; Cooper, Corrigan & Watson, 2003; Komiya et al., 2000; Vogel et al., 2005). More positive attitudes and increased intentions to seek help may be insufficient motivators to initiate counseling if perceptions of self-stigma remain high.

Finally, the group with previous experience in therapy who had been exposed to the neutral control message did not appear to have significantly different scores on measures of attitude, stigma or intention than did participants in the control group who did not have previous experience in counseling. It therefore appears that the affect of past experience in counseling was not "triggered" by the neutral control message, to the degree that it was measurable by the SSOSHS, IASMHS or Intention item. This finding suggested that providing people with neutral, fact-based information regarding the availability of psychological services may not be as useful of an outreach strategy as a positive normalizing message, even among people with positive past experiences.

Gender and Message Framing

This study found that overall, women were likely to have more positive attitudes, lower self-stigma and higher intention to seek out psychological services than men. This finding has been supported widely by previous research (Al-Samadi, 1994; Johnson, 1988; Komiya, Good & Sherrod, 2000; Leong & Sachar, 1999; Nolen-Hoeksema, 2001;

Soliman, 1993; Tata & Leong, 1994; Yeh, 2002). Interestingly, in the current study men appeared to respond very differently to the experimental messages as compared to women, showing that certain ways of communicating about psychological services to men may exacerbate pre-existing negativistic perceptions of engaging in treatment.

Women's attitudes, perceptions of stigma or intentions did not, in general, appear to be influenced by the kind of message they received about counseling. In contrast, men who read the negatively framed message about counseling endorsed significantly higher levels of self-stigma, poorer attitudes, and lower intention to seek help than did men who read either the positively framed message or the neutral control message. The idea that the emphasis on psychiatric labels may increase perceptions of stigma is not new (Corrigan, 2004). However, it has not previously been shown that men could experience greater perceptions of self-stigma, poorer attitudes, and lower intention to seek help in the presence of medically-oriented language about mental health treatment.

This finding is particularly significant because recent research has suggested that the variable mediating the relationship between masculine identity and psychological help seeking is self-stigma (Vogel et. al, 2007). The presence of self-stigma has also been shown to have a higher correlation with negative attitudes towards counseling than having a strong masculine identity, accounting for 56% of the variance in help seeking attitudes amongst men (Vogel, et. al, 2011). In this area, the findings of the current study suggest that outreach efforts geared towards men should avoid using pathologizing or disease-oriented language. Instead, a normalizing, hopeful message or a neutral, factual message about the availability of services should be employed with this group. This may help to avoid unintentionally increasing perceptions of self-stigma, and worsening

perceptions of mental health treatment overall in this population, which may in turn contribute to increased avoidance of psychological help seeking.

Additionally it is possible that these results are linked to more stable opinions about psychotherapy among women in this sample than men, given that there is a high percentage of women and a disproportionate percentage of students with psychology, nursing and education majors in this sample. Speaking broadly, women are often over represented in psychology, education and nursing programs and it is possible that the gender differences identified in this study are also showing that the women in this study have more stable, well formed impressions about counseling to begin with, possibly related to their academic interests.

Race and Message Framing

Similarly to the relationship that was found between men exposed to the negatively framed message about counseling and increased perceptions of self-stigma, there appeared to be some variability, in this small sample, between people of differing racial and ethnic groups in this domain as well. Specifically, it was found that in participants identifying as White, Black, and Multi-Racial, exposure to the negatively framed message increased perceptions of self-stigma around seeking help to a greater degree than did exposure to the positively framed or neutrally framed control message. However, people identifying as Hispanic had, on average, scores indicating increased perceptions of self-stigma in response to the positively framed message than in response to the negatively framed one. Furthermore, self-stigma scores were higher in Hispanic participants in response to the negatively framed message when compared to the neutral control.

These findings seem to indicate that among people identifying as Hispanic, a positively framed "personal growth" message about counseling may be less appealing and more stigmatizing than either a medically-focused message or a neutral, factual one. This may be due to cultural differences unique to people identifying as Hispanic. It is possible that "self-improvement" is not viewed as positively in this culture as it is in others, and that "treatment" for a psychological condition may be a more personally acceptable and valid reason for seeking out services. It is also possible that participants identifying as Hispanic may have interpreted the positively-framed message as being overly optimistic, or as glossing over the reality of mental illness. However, the results did also suggest that exposure to a pathology focused message elicited greater perceptions of self-stigma than was generated by simply receiving information about available services. It may be that outreach campaigns targeted towards Hispanic consumers may improve their efficacy by utilizing neutral, fact-based language.

Clinical Implications

In general, these findings offer more direction about how organizations and clinicians in private practice can communicate to their target clients in such a way as to lower perceptions of stigma (or at least not exacerbate perceptions of stigma) as well as improve attitudes or intentions. Currently few positive messages about the use and purpose of psychotherapy exist in popular culture other than what is presented on television and in movies. Outreach commonly undertaken by large organizations such as the American Psychological Association (APA) and mental health agencies may inadvertently be increasing perceptions of self-stigma by emphasizing disorders and mental illness rather than personal growth or simply providing information on where to

obtain services. It is possible that if the mental health industry used some of the information suggested by the current study and used it to guide their efforts to improve attitudes and reduce stigma, more positive attitudes may be shaped in the population over time. This may lead to increased utilization of psychological services in the future.

In summary, the findings of this study suggest that of all the factors considered, self-stigma is the factor that is most affected by the language used to communicate about psychological services. The results of this study indicated that self-stigma can be increased in people who have had past experience in therapy through the use of negative message framing. Self-stigma can be raised in men when pathologizing language is used. Perceptions of self-stigma are increased among people of Hispanic origin when either negative or positive message framing is used. Self-stigma is supported by medically oriented language, even in people with positive previous experiences in therapy. Collectively, these findings indicate that directors of college counseling centers may increase rates of utilization of psychological services if they carefully consider who their target population is, and adjust their outreach messages accordingly. In general, it would likely be more effective for either positive or neutral strategies to be employed when communicating about psychological services.

Limitations

Several factors may represent limitations of this study, and threats to the validity of its findings. While data was gathered in a relatively random fashion, and taken from a representative sample of all incoming freshman in 2011, it appears that a disproportionately large percentage of these students (24.8%) had declared psychology as a major. Additionally the majority of participants in this study (71.9%) were women.

This is a somewhat higher percentage of women than is found in the population of undergraduates as a whole (62%). Another potential limitation of this study is the fact that self-reporting instruments were used in the process of data collection. Although great effort was taken to ensure the anonymity of participants' responses, and the voluntary nature of participation was stressed, due to the format of data collection (engaging a "captive audience" in a classroom, with its inherent power differential) there may have been a subsection of students who felt pressured to participate. It is unknown how these inner experiences may have impacted the findings of the research.

Additionally, the concept of psychotherapy, mental illness and mental health treatment is inherently very personal, and can be perceived as quite shameful or stigmatizing, particularly among adolescents. It is therefore possible that participants may have responded to items on the questionnaires in a self-concealing or socially acceptable manner, particularly in their reporting of current mental health symptoms, past experience in therapy, or intention to seek treatment in the future.

Another limitation of this study is the relatively small sample size. While the minimum sample size required for statistical power was exceeded, the total sample represented a fraction of incoming freshman. Furthermore, data was collected from incoming freshmen during the first few weeks of the fall semester. It is unknown as to how the attitudes and experiences of upper-classman might differ from those of freshman regarding the utility and benefit of psychological services. The conclusions drawn about overall attitudes and message framing, and the associated implications for crafting outreach campaigns on campus may only apply to communications targeted at freshmen early in the first semester of college. Furthermore, given that only a handful of

participants identified themselves as being other than Caucasian or Hispanic, results regarding racial differences in the impact of message framing must be interpreted cautiously and as not generalizable.

Another major limitation of this study is the fact that participants were only exposed to one, brief message about counseling. Such limited exposure is probably less powerful in shaping attitudes and perceptions than repeated, consistent messages delivered over time. Consequently, the measurable differences in attitude, stigma and intentions that were found in this study are likely much smaller than the differences that could be created by a well-developed and consistent outreach campaign that would allow for repeated exposure to messages about counseling.

Future Research

This study explored how attitudes and perceptions of stigma regarding mental health treatment might be influenced among freshman college students at a mid-sized Western university. While this is, in itself, a high need population and important to target for outreach, this study represents a very small step in increasing understanding about how to make outreach more effective. There is a great deal of opportunity for further research that could be done specific to outreaching to college students as well as the population as a whole.

The underutilization of mental health services is a widespread problem among people in this country and around the world. The results of this study show that the manner in which mental health services are presented does have an impact on attitudes, intentions, and on perceptions of self-stigma when in the context of moderating variables. There may be many other moderating variables that significantly interact with message

framing that were not explored in the current study. Such variables might be unique to specific sub-sets of a target population. For example, in this study it was found that population sub-sets of gender, race and previous experience were moderating variables. These factors were explored in the current study because prior research has found them to be significantly associated with help seeking behaviors. It is also entirely possible that additional factors specific to undergraduate students at the school where data was gathered may exist, that would have been even more influential on the results of this study (i.e., involvement in athletics or Greek social organizations, or whether students were in-state vs. out-of-state). Future research targeting undergraduate students would likely benefit from considering the cultural, contextual and personal concerns of these unique populations and incorporating those potentially moderating variables into their study.

Before embarking on a quantitative investigation in the format of this study, it would likely be helpful for future researchers to gain a deeper understanding of the moderating variables unique to their population of interest. This may involve preceding future quantitative research with qualitative inquiries that reveal help seeking factors specific to that population. This kind of qualitative exploration could be conducted by using focus groups or with individual interviews, with members of the population of interest. Once important factors have been uncovered, messages could be crafted that address the concerns of this particular target population. Variations in communication strategies could then be compared to each other in order to determine their relative power to increase positive attitudes, lower perceptions of stigma, and increase intention to seek help.

This study only focused on three kinds of messages: Positive psychology influenced, medical model influenced, and a factual control. There are as many ways of presenting the usefulness of psychological services as there are theoretical orientations. Furthermore, every individual practitioner has unique perspectives and approaches towards counseling, all of which can be communicated to their prospective clients. Therefore a great deal of opportunity exists to experiment with different kinds of messages to determine their relative power to improve attitudes, reduce feelings of stigma, and increase intentions to seek help in the population of greatest interest to particular practitioners or agencies.

A useful area of future research may include investigating the influence of longer term outreach campaigns. As was discussed, a significant limitation of this study was the fact that participants received only one brief exposure to an experimental message. Even so, significant differences in responses to these messages were found between sub-populations of this sample. Therefore it is possible that increased exposure to strategic messages may elicit stronger shifts in attitude, perceptions of stigma, and intentions to seek help. Future researchers exploring how best to conduct outreach with college students could therefore develop longer-term studies where different populations of students (by dorm, by school, etc.) were exposed to consistent messages about counseling for a period of time (i.e., a whole semester). Then, participants could be assessed for differences in perceptions of stigma, overall attitude, and intentions to seek help. Additionally, a longer-term study that followed specific groups of students over time could also assess for actual rates of mental health treatment utilization. To have real world data exploring correlations between attitudes, stigma, intention and actual, help

seeking behaviors would be a great asset for future research examining how best to encourage people to seek out psychological help when they need it.

Summary

In summary, this study represented a first, small step in exploring how strategic communication about psychological services could lead to shifts in factors known to be associated with increased utilization. These factors: attitude, stigma, and intention, were discovered to be somewhat malleable after exposure to one brief message. In general, it was found that the use of medically oriented language was associated with greater perceptions of stigma than positive or neutral language in different sub-sets of the population studied. There is opportunity for additional study in this area, particularly with regards to a more nuanced understanding of moderating variables unique to specific populations; experimentation with a wider variety of messages; and comparison of groups that have had longer-term exposure to strategic messaging.

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APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

Your voluntary answers here will help me to better understand your anonymous responses to the other measures you are filling out today.

1) Age_____
2) Gender_____
3) Class Status:
    a. ___Freshman
    b. ___Sophomore
    c. ___Junior
    d. ___Senior
    e. ___Other
    f.
4) Major_____
    a. Minor_____
    b. ___Undeclared
5) Are you or have you been in the military? Y / N
6) Race / Ethnicity

    a. Are you of Hispanic, Latino origin? Y / N (Circle One)

    b. What is your race? (Select one or more options)

    __American Indian or Alaskan Native

    __Asian

    __Black / African American

    __Native Hawaiian or Other Pacific Islander

    __White

    __Other

APPENDIX C

PAST EXPERIENCE WITH PSYCHOLOGICAL SERVICES

Past experience with psychological services

1) Have you had experience with counseling in the past?

    a. ___ yes

    b. ___ no

2) If yes please rate the experience between 1 & 5 in terms of whether it was a positive or negative experience for you:

1 2 3 4 5

1= Very negative, 2=Slightly negative, 3=Neutral, 4=Slightly positive, 5=Very positive

Are you currently seeing a counselor?

1) If yes please rate the experience between 1 & 5 in terms of whether it was a positive or negative experience for you:

1 2 3 4 5

1= Very negative, 2=Slightly negative, 3=Neutral, 4=Slightly positive, 5=Very positive

APPENDIX D

DEPRESSION, ANXIETY AND STRESS SURVEY (DASS-21)

Depression, Anxiety and Stress Survey-21 (DASS-21)

DASS21	*Name:*	*Date:*			
Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.					
The rating scale is as follows:					
0 Did not apply to me at all					
1 Applied to me to some degree, or some of the time					
2 Applied to me to a considerable degree, or a good part of time					
3 Applied to me very much, or most of the time					
1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (e.g., in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3

11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

APPENDIX E

INVENTORY OF ATTITUDES TOWARD SEEKING PSYCHOLOGICAL SERVICES (IASMHS)

Inventory of Attitudes toward Seeking Mental Health Services (IASMHS)

The term professional refers to any individual working in the mental health field: Therapist, psychiatrist, counselor, social worker, and family practitioner. The term *psychological problems* refers to reasons one might visit a professional. Similar terms include mental health concerns, emotional problems, mental troubles, and personal difficulties.

For each item, please indicate whether you *Disagree* (0), *Somewhat Disagree* (1), *Are Undecided* (2) *Somewhat Agree* (3), or *Agree* (4):

1. There are certain problems which should not be discussed outside of one's immediate family. ……	Disagree-----Agree 0 1 2 3 4
2. I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems……	0 1 2 3 4
3. I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems…….....	0 1 2 3 4
4. Keeping one's mind on a job is a good solution for avoiding personal worries and concerns……	0 1 2 3 4

5. If good friends asked my advice about a psychological problem, I might recommend that they see a professional……..... Disagree-----Agree 0 1 2 3 4

6. Having been mentally ill carries with it a burden of shame…… 0 1 2 3 4

7. It is probably best not to know *everything* about oneself…… 0 1 2 3 4

8. If I were experiencing a serious psychological problem at this point in my lf, I would be confident that I could find relief in psychotherapy……0 1 2 3 4

9. People should work out their own problems; getting professional help should be a last resort….....0 1 2 3 4

10. If I were to experience psychological problems I could get psychological help if I wanted to…… 0 1 2 3 4

11. Important people in my life would think less of me if they were to king out that I was experiencing psychological problems…….....0 1 2 3 4

12. Psychological problems, like many things, tend to work out by themselves……...… Disagree-----Agree 0 1 2 3 4

13. It would be relatively easy for me to find the time to see a professional for psychological problems…….0 1 2 3 4

14. There are experiences in my life I would not discuss with anyone……0 1 2 3 4

15. I would want to get professional help if I were worried or upset for a long period of time…….0 1 2 3 4

16. I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it. ……0 1 2 3 4

17. Having been diagnosed with a mental disorder is a blot on a person's life……0 1 2 3 4

18. There is something admirable in the attitude of people who are willing to cope with their conflicts and fears *without* resorting to professional help……..……0 1 2 3 4

19. If I believed I were having a mental breakdown, Disagree-----Agree
my first inclination would be to get professional
attention……0 1 2 3 4

20. I would feel uneasy going to a professional
because of what some people would think…….……..0 1 2 3 4

21. People with strong characters can get over
psychological problems by themselves and would
have little need for professional help……...……0 1 2 3 4

22. I would willingly confide intimate matters to an
appropriate person if I thought it might help me or
my family…….0 1 2 3 4

23. Had I received treatment for psychological
problems, I would not feel that it ought to be
"covered up."……. 0 1 2 3 4

24. I would be embarrassed if my neighbor saw me
going into the office of a professional who deals
with psychological problems……0 1 2 3 4

APPENDIX F

SELF STIGMA FOR SEEKING HELP SCALE (SSOSHS)

Self Stigma for Seeking Help Scale (SSOSHS)

People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how you might react in this situation. Circle the number that corresponds to how you might react to each statement

1 = Strongly Disagree, 2 = Disagree, 3 = Agree & Disagree Equally, 4 = Agree, 5 = Strongly Agree

1. I would feel inadequate if I went to a therapist for psychological help.

1 2 3 4 5

2. My self-confidence would NOT be threatened if I sought professional help.

1 2 3 4 5

3. Seeking psychological help would make me feel less intelligent.

1 2 3 4 5

4. My self-esteem would increase if I talked to a therapist.

1 2 3 4 5

5. My view of myself would not change just because I made the choice to see a therapist.

1 2 3 4 5

6. It would make me feel inferior to ask a therapist for help.

1 2 3 4 5

7. I would feel okay about myself if I made the choice to seek professional help.

1 2 3 4 5

8. If I went to a therapist, I would be less satisfied with myself.

1 2 3 4 5

9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.

1 2 3 4 5

10. I would feel worse about myself if I could not solve my own problems.

1 2 3 4 5

Items 2, 4, 5, 7, and 9 are reverse scored.

APPENDIX G

SIMPLE ASSESSMENT OF INTENTION TO SEEK PSYCHOLOGICAL SERVICES

Simple Assessment of Intention to Seek Psychological Services

Please indicate whether this sentence is true for you:

"I intend to seek counseling over the next six months."

1 2 3 4 5

(1=Strongly Disagree, 2= Slightly Disagree, 3=Not Sure, 4=Slightly Agree, 5= Strongly Agree)

APPENDIX H

POSITIVELY FRAMED EXPERIMENTAL MESSAGE

Positively Framed Experimental Message

Getting connected with your own therapist can be a life-changing experience. Talking with a professional counselor, especially one trained in positive psychology, can help increase the good feelings you have every day and also help you feel greater meaning and connectedness in your life. Having your own therapist means that you have a place to go where it is completely private and safe for you to talk about anything, and where you will find acceptance and understanding.

Most people go through times in their lives when they wish to make positive changes and improve their circumstances. Working on these goals with a therapist can help you achieve your goals faster and more easily than you might be able to do on your own.

Through talking to a therapist, you can find out what your greatest strengths are so that you can then apply these strengths to your daily life. Counseling can also help you to be more optimistic, more resilient, happier, and more peaceful. Many times, people use counseling in order to improve their relationships with other people. By talking through things with a counselor, you can learn ways to improve your relationships and feel closer and more connected to the important people in your life.

The increased self-awareness and self-acceptance that can come from seeing a therapist can help you to gain insight into who you are, what things in life are most meaningful and special to you, and what you need in order to feel healthy and happy. By focusing more of your time and energy on these things, you can feel more satisfied and at peace.

UNC students are eligible for free services at the UNC Counseling Center, and for low-cost services at the UNC Psychological Services Clinic. If you would like to start a relationship with your own therapist, please contact one of these UNC resources: (970) 351-2496 (UNC Counseling Center), or (970) 351-1645 (UNC Psychological Services Clinic).

APPENDIX I

NEGATIVELY FRAMED EXPERIMENTAL MESSAGE

Negatively Framed Experimental Message [Adapted from the APA Help Center, American Psychological Association (apa.org)]

Mental health is extremely important, and must be managed just like your physical health. Similarly to physical illness, people may also struggle with mental illnesses. Many people in the US have an emotional or substance abuse problem. In fact, nearly 25 percent of the adult population suffers at some point from a diagnosable mental illness such as Depression, Anxiety, Posttraumatic Stress Disorder, Social Anxiety, and Eating Disorders including Anorexia and Bulimia. No one is to blame for these problems-- they are illnesses just like diabetes or cancer. The consequences of not getting help for mental health problems can be serious. Untreated problems often continue and become worse, and new problems may occur. For example, someone with panic attacks might begin to drink too much alcohol with the mistaken hope that it will relieve his or her emotional pain. However, many mental health problems can be successfully treated through psychotherapy.

Therapy is a partnership between an individual and a professional such as a psychologist who is licensed and trained to help people understand their feelings and assist them with changing their behavior. Research suggests that therapy effectively decreases patients' depression and anxiety and related symptoms. It can increase feelings of well-being, and reduce bad feelings. Psychotherapy can have a positive effect on the body's immune system. Research increasingly supports the idea that emotional and physical health are very closely linked and that therapy can improve a person's overall health status.

UNC students are eligible for free services at the UNC Counseling Center, and for low-cost services at the UNC Psychological Services Clinic. If you think that you could benefit from psychotherapy, please contact one of these resources: (970) 351-2496 (UNC Counseling Center), or (970) 351-1645 (UNC Psychological Services Clinic).

APPENDIX J

NEUTRALLY FRAMED CONTROL MESSAGE

Neutral Control Message [Adapted from: www.unco.edu/counseling/index.htm , and www.unco.edu/cebs/psych_clinic/index.html]

If you feel like you could benefit from speaking with a mental health professional, the University of Northern Colorado offers two different options for you: The UNC Counseling Center and the UNC Psychological Services Clinic. The counseling services at the UNC Counseling Center are free for UNC students, and psychiatric services are available at a reduced rate. Counseling services at the Psychological Services Clinic are forty dollars per semester for UNC students, and psychological assessment is available at a reduced rate. Approximately 18% of the student body accesses services at the Counseling Center each year.

Both options provide high quality mental health care. On-campus counseling services are provided by a variety of licensed psychologists, licensed counselors, psychiatrists, pre-doctoral interns, and practicum counselors. The UNC Counseling Center is accredited by the International Association of Counseling Services. The practitioners at the Psychological Services Clinic are PhD students supervised by highly experienced professional psychologists. Both centers offer a place for students to talk about personal problems and concerns including stress, academic problems, stress, self-care, and emotional or behavioral problems. Services offered include short-term individual counseling, group therapy, couples counseling, family therapy. Staff members present programs on campus to address concerns such as relationships, harmful behaviors, test anxiety, prevention education and stress management.

Both centers are located on campus and have hours convenient to students. If you think that you could benefit from psychotherapy, please contact one of these resources: (970) 351-2496 (UNC Counseling Center), or (970) 351-1645 (UNC Psychological Services Clinic).

APPENDIX K

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

[Personalized from a sample letter template from UNC IRB Website]

UNIVERSITY of NORTHERN COLORADO

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

UNIVERSITY OF NORTHERN COLORADO

Project Title: Attitudes Toward Counseling

Researcher: Lisa Bobby, M. A., LMFT (Ph. D. Candidate)

Supervised By: Brian Johnson, Ph. D.

Phone Number: (720)208-6806

e-mail: lisamariebobby@gmail.com

I am a PhD student researching attitudes towards counseling, and how mental health professionals might more effectively communicate about the benefits of psychological services. As a participant in this research, you will be asked to read a brief message about counseling, answer a few questions about yourself and to fill out three questionnaires. The questionnaires will be multiple choice and will ask a variety of questions about your thoughts and feelings about counseling, as well about any current psychological symptoms that you might be experiencing. The three questionnaires are short and should take a total of about ten to fifteen minutes for you to answer completely.

For the questionnaires, you will not provide your name and no one, including myself, will have any way of knowing who in here filled out which forms. Any questions about your (such as demographic information about gender or race) will be anonymous as well. Only this researcher will examine your individual responses, and I will have no way of knowing who you are or how you responded to any of the questionnaires after your responses have been handed in. Results of the study will be presented in group form only (e.g., averages) and all original paperwork will be kept in locked cabinets on campus.

The risks to you by participating in this research are minimal. You may experience some anxiety or discomfort if you have strong negative feelings about counseling, or if you are currently experiencing significant psychological symptoms. I hope to minimize any of these feelings by assuring you of your full anonymity. The benefits to you for participating in this study include gaining greater awareness of your own thoughts and feelings about counseling from answering the questions on these questionnaires. You will also learn more about mental health resources available to you on the UNC campus. Furthermore you will contribute to the overall wellness of all students at UNC by providing me with honest information regarding your feelings, as the information you give me today may help to create more effective mental health outreach programs in the future.

Your participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please take a packet, read the message on the front and then complete the

enclosed questionnaires if you would like to participate in this research. By completing these questionnaires, you will give permission for your participation. You may keep this form for future reference. Please feel free to contact me personally with any questions regarding this study. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

APPENDIX L

CORRESPONDENCE DOCUMENTING PERMISSION TO USE SSOSHS IN CURRENT STUDY

Correspondence Documenting Permission To Use SSOSHS in Current Study

Lisa Huybrechts lisahuybrechts@gmail.com Wed, Oct 15, 2008 at 5:03 PM

To: DVOGEL@iastate.edu

David Vogel dvogel@iastate.edu Thu, Oct 16, 2008 at 11:41 AM

To: Lisa Huybrechts lisahuybrechts@gmail.com

Feel free to use it. The scale and some articles I have published with it are attached.

David Vogel