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A MULTIMEDIA INTERVENTION TO INCREASE THE LIKELIHOOD THAT
UNIVERSITY STUDENTS IN NEED WILL UTILIZE
COUNSELING SERVICES

by

Todd W. Lindsley

A dissertation submitted in partial fulfillment
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Psychology

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2013

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ABSTRACT

A Multimedia Intervention to Increase the Likelihood That University
Students in Need Will Utilize Counseling Services

by

Todd W. Lindsley, Doctor of Philosophy

Utah State University, 2013

Major Professor: Melanie M. Domenech Rodríguez, Ph.D.
Department: Psychology

An experimental study was designed to determine the effectiveness of a multimedia intervention created to positively influence attitudes of university students toward seeking counseling. The study was based on the Theory of Planned Behavior, which posits that attitudes are directly related to behavior. In the study, 120 participants were randomly assigned to either the treatment or control group and completed measures of psychological distress, attitudes toward counseling, and intent to seek mental health services. The intervention showed significant effects on the first two subscales of the attitude measure, which represent psychological openness and help-seeking propensity, respectively, but did not show statistical significance on the third (indifference to stigma) or on the intent to seek counseling measure.

(98 pages)

PUBLIC ABSTRACT

A Multimedia Intervention to Increase the Likelihood That University
Students in Need Will Utilize Counseling Services

by

Todd W. Lindsley, Doctor of Philosophy

Utah State University, 2013

The primary objective of this study was to create and test an intervention designed to increase students' positive attitudes toward utilizing mental health services. A review of the literature was conducted to establish the guidelines for creating an intervention that would effectively influence attitudes while being relatively easy to customize and adapt to different settings. The content of the intervention was informed by the literature, reviewed by a panel of experts, and tested with a focus group of students before being finalized. In order to test the effectiveness of the intervention, an experimental study was designed which included an experimental and control group. The control group had the same experience as the experimental group except for the content of the intervention. The control group intervention provided general health information related to topics such as diet and exercise.

Student underutilization of counseling services on college campuses is a well-recognized phenomenon. By improving student attitudes toward seeking counseling, it is hypothesized that more students who could benefit from such services would indeed seek them out. This is particularly important as the rates of suicide and serious mental illness on college campuses has increased over the years. Students who receive appropriate treatment for mental health concerns often experience significant improvement. Those students whose mental health is improved may perform better academically than those who remain untreated. Healthier students have the opportunity to be more productive and successful members of the campus community.

The intervention was designed to be low cost so that it could be updated and tailored for different institutions. It was also created to be disseminated over the internet to reduce obstacles for students who may wish to view it. The intervention included music, narration, pictures, and animated text to capture the attention of the viewer. The production was accomplished using low-cost software that does not require expert skills to operate.

The intervention showed significant effects on the first two subscales of the attitude measure (i.e., psychological openness and help-seeking propensity), but did not show statistical significance on the third (i.e., indifference to stigma) or on the intent to seek counseling measure (ISCI). Future studies could explore improvements to the current intervention and could examine the effects of the intervention over time (i.e., longitudinal design).

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Todd W. Lindsley

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CHAPTER I

INTRODUCTION

Background

Various studies have reported the prevalence rate of mental disorders in a given year to be around 30% for general community (Kessler, Chiu, Demler, & Walters, 2005; Norquist & Regier, 1996) and university undergraduate populations (Adlaf, Gliksman, Demers, & Newton-Taylor, 2001). The 18- to 24-year age group, which encompasses the majority of university students, has been found to have the highest prevalence of mental disorders of any age group (Adlaf et al., 2001; Kessler et al., 1994). Among university students with diagnosable mental health disorders, estimates of the percentage not receiving professional services range from 13% up to 70 % (Mackenzie, Knox, Gekoski, & Macaulay, 2004; Norquist & Regier, 1996).

There is an observable trend of underutilization of services on college campuses. Researchers suggest that less than half of all students in need seek services (Brinson & Kottler, 1995; Oliver, Reed, & Smith, 1998). Of further concern is the perception that the severity of mental illness observed on college campuses has increased in recent years (Benton, Robertson, Wen-Chih, Newton, & Benton, 2003; Gallagher, 2005). Many negative consequences can arise when students experience mental illness. One study reported that 6-10% of undergraduate students had seriously contemplated suicide in the past year (Drum, Brownson, Denmark, & Smith, 2009). Help-seeking can be affected by knowledge of available resources. One research team reported that only 26% of

university students in their study were aware of mental health services available on campus (Westefeld et al., 2005).

The basic premise of this study is that students in need of mental health services who would not otherwise seek help can benefit from appropriate treatment. It has been reported that 63% of patients improve after psychotherapy, whereas only 38% show improvement with placebo or minimal treatment (Hoglund, 1999). For college students specifically, research has suggested that a failure to meet mental health needs can result in disorders that follow a more severe course than would otherwise have occurred (Veaser & Blakemore, 2006). Emotional problems have also been implicated as a major cause of attrition in first-year college students (Pritchard & Wilson, 2003). For those students who remain enrolled, there is evidence that depression, anxiety, and stress can increase the likelihood that a student will experience academic difficulties, including lower GPA (Brackney & Karabenick, 1995). This may be related to psychological symptoms such as decreased memory, and impaired executive functioning related to conditions such as depression (Michopoulos et al., 2006). Restoring mentally ill students to health, and intervening in cases where students might otherwise become suicidal, are clearly important activities on any college campus. Although a medication-based treatment can be an effective mental health intervention (Eells, 1999), the focus of this study was on psychotherapeutic interventions. More specifically, the present study sought to improve attitudes toward use of psychological services on a college campus through the use of multimedia universal intervention that would impact intentions to seek services among college students who are at present, or may in the future, experience distress.

Universal interventions are aimed at reaching the total population of interest (i.e., all college students at Utah State University [USU]; Gordon, 1987; Spoth, Trudeau, Gyll, Shin, & Redmond, 2009).

Given the purpose of the study to change attitudes toward engaging in psychological services, the present study used the Theory of Planned Behavior (TPB; Ajzen & Fishbein, 1980) to guide the intervention development. TPB postulates that influencing attitudes is an effective method of influencing future behavior (Ajzen & Fishbein, 1980). TPB is one of many theories in a body of literature focused on persuasion. There are other theories that attempt to explain persuasion in the context of influencing patients or clients (Cameron, 2009). A brief review of the available theories related to persuasion will be presented to support the conclusion that Ajzen's (1991) theory of planned behavior provides a good fit for the present study. The study utilized complementary theories of persuasion to inform decisions in cases where TPB does not address relevant issues specifically (i.e., message effects, information processing). TPB provides the rationale for needing an intervention to support future desired behavior, that is, the literature showed that there were negative attitudes toward help-seeking; not seeking help leads to negative outcomes for individuals, families, and communities. A way to increase help seeking behavior is to change attitudes toward help-seeking.

The intervention to change attitudes toward help-seeking in a college sample was a multimedia intervention. Multimedia interventions incorporate more than one method of information transmission. In the present study, the intervention included audio and video components simultaneously. Multimedia was selected as the intervention for its

ease of dissemination, cost-effectiveness, and attractiveness to the age group at which it is targeted. In terms of dissemination, a multimedia intervention could be easily uploaded to websites such as YouTube and a link could be provided to students, posted on a counseling center webpage, university welcome webpage, or be disseminated through social networking sites. Regarding cost-effectiveness, a full production video can be infinitely expensive (e.g., a Hollywood production), but a multimedia presentation can have a substantially lower cost. Further, a multimedia format could be easily modified to suit the specific needs of a particular college campus. Finally, many college students routinely use computers and social networking sites (Ellison, Steinfield, & Lampe, 2007). Using that channel of delivery is inherently easy for students to access and share with peers. As such, the present intervention was delivered via a familiar and comfortable vehicle of information gathering for students. The positive impact of multimedia interventions has been documented for outcomes related to attitudes toward help-seeking including help-seeking behaviors (Sharp, Hargrove, Johnson, & Deal, 2006), rates of therapy session attendance (Lefforge, Donohue, & Strada, 2007), and clinical outcome (Deane, Spicer, & Leathem, 1992). The proposed intervention sought to shift college students' attitudes toward seeking psychological support.

The purpose of this study was to construct and evaluate an intervention designed to increase the likelihood that university students in need of mental health services would, in fact, seek such services. Underlying this approach was the research-supported belief that more positive attitudes about mental health services will correspond with an increased likelihood of seeking those services when needed. The intervention used in this

study sought to increase positive attitudes toward seeking psychological services. Students will also develop a more accurate and complete understanding of psychological services. Although previous attempts to achieve this goal have been documented, none have focused directly on the link between attitudes and help—seeking behavior by implementing a research-based, theory-driven intervention using a modern and effective delivery method, and then testing efficacy using the best available measures.

Hypotheses

Research evidence suggests that multimedia interventions can lead to changes in attitudes toward help seeking behaviors. The primary hypothesis of this study reflected the belief that existing findings would be replicated.

H1: Participants in the experimental group will show improvement in attitudes toward help-seeking compared to their control group peers. The changes will be evident at (a) postintervention and (b) follow-up (4 weeks). Scores on the subscales of the IASMHS (i.e., psychological openness, help-seeking propensity, and indifference to stigma) will be the dependent measures.

Related to attitudes toward help seeking, it was hypothesized that intent to seek counseling would be improved as a result of participation in the experimental intervention. Thus:

H2: Participants in the intervention group will show increased intentions to seek counseling (ISCI) (a) postintervention and (b) at follow-up (4 weeks) compared to peers in the control group.

Research Questions

The TPB suggests that past performance of a behavior modifies attitudes toward performing the same behavior in the future. It is not clear whether this applies to attitudes toward seeking mental health services or how it applies, therefore a research question was posed instead of a hypothesis.

Research Question 1: Does the effect of the experimental intervention on attitudes toward seeking professional psychological help depend on past experience receiving professional psychological help?

Other studies have found differences in attitudes between men and women.

Research Question 2: Does the effect of the experimental intervention on attitudes toward seeking professional psychological help vary by participant gender?

Finally, an additional question of interest was whether those participants who could most benefit from professional help would show similar treatment effects compared to nondistressed participants.

Research Question 3: Does the effect of the experimental intervention on attitudes toward seeking professional psychological help vary based upon caseness (i.e., participants deemed clinically distressed or not)?

CHAPTER II

LITERATURE REVIEW

This review of the literature provides information demonstrating the importance of targeting attitudes toward seeking psychological help in college students. It will further provide evidence for using TPB in the present study. TPB posits that attitude is a key element that guides behavior. Other theories are included to support the content of the experimental intervention, and guide the framing of the message, and the type of information included. The review also addresses topics related to help-seeking (e.g., stigma) that may affect student attitudes toward seeking psychological help. The review also examines literature based on past interventions designed to affect help-seeking behaviors. The theories being reviewed guided the design of the intervention, additional literature presented was reviewed to determine the factors that have been shown to be relevant to attitudes toward seeking professional psychological help. The review also includes an examination of the various channels of delivery that can be used to reach the intended audience.

Theories

Many theories exist that can be used to explain how people's attitudes are formed. The persuasion literature represents a subset of theories that are useful when considering the best way to influence attitudes. In the present study, the goal was to create an intervention that would leave students with a favorable attitude toward seeking professional psychological help. It is important that favorable changes in attitude remain

stable over time, as the need to seek psychological help would not be immediate for the majority of students. These considerations are important when selecting an appropriate model or theory to guide an intervention.

There are many factors to consider when designing a persuasive message intended to change attitudes toward a behavior such as psychological help seeking. In some cases, a single theory may not adequately explain all the relevant considerations. Fortunately, it is possible to integrate complementary theories in the design of an intervention. The relationship between behavioral change, information processing, and message effect theories illustrate the fusion of complementary theories (Capella, 2006). For example, theories related to behavioral change such as the TPB may suggest the types of factors that are important (e.g., social norms), but do not explain how to construct the message to be maximally effective. Message effect theories can suggest ways to construct a message such that it will be accepted by the audience. Different types of appeals will have particular effects for different audiences. Information processing theories are concerned with factors such as how to capture the attention of the audience, and how to construct a message such that it will be remembered. While there may be some overlap at times, various theories tend to focus or explain one aspect of a complex intervention. Selecting complementary theories to inform development can yield a well-rounded final product. Specific theories will now be presented and placed in the context of the present study.

Theory of Planned Behavior

The TPB (Ajzen, 1991) was formulated as an extension of the theory of reasoned action (TRA; Ajzen & Fishbein, 1980) to include considerations for behaviors that are

not entirely within volitional control. The TRA (Figure 1) and TPB (Figure 2) share the basic assumption that attitudes lead to behavioral intent, which is the direct precursor of a particular behavior. Intentions are thought to consist of an attitude toward the behavior, subjective norms, and perceived behavioral control. Attitude involves the favorability of a particular behavior (e.g., seeking psychotherapy). Subjective norms refer to level of influence an individual feels from others to either perform, or not perform a behavior. Perceived behavioral control refers to relative ease or challenge that is expected to be involved with performing a particular behavior. In the present study, the TPB was used to identify the type of content that was included in the intervention. Other relevant content that may inform attitudes was determined by the literature review that follows.

Subjective norms can work for or against the intent to perform a behavior. If a student feels strongly that he or she will be negatively evaluated by peers for seeking psychotherapy, the student will be less likely to engage in the behavior. On the other hand, if the student believes that important others would look favorably on help seeking behavior, then the likelihood of doing so will be increased. One benefit of psychotherapy

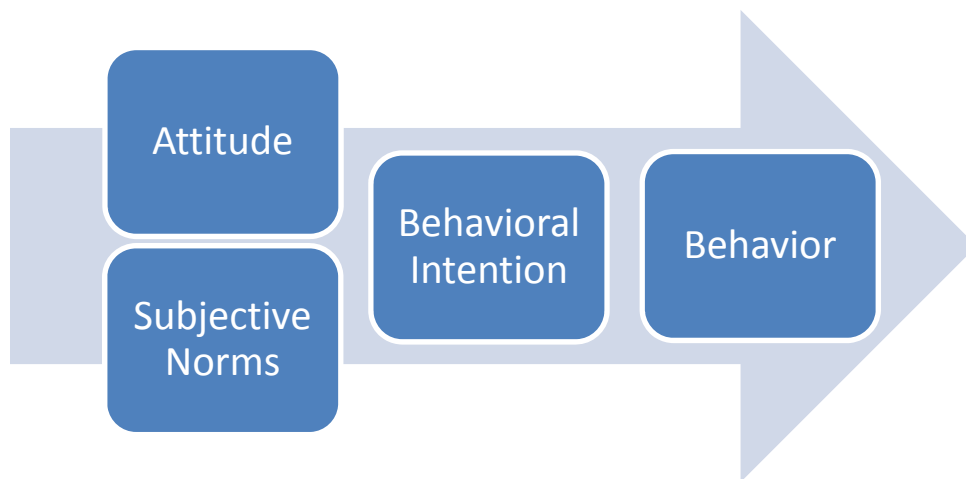


Figure 1. Theory of reasoned action.

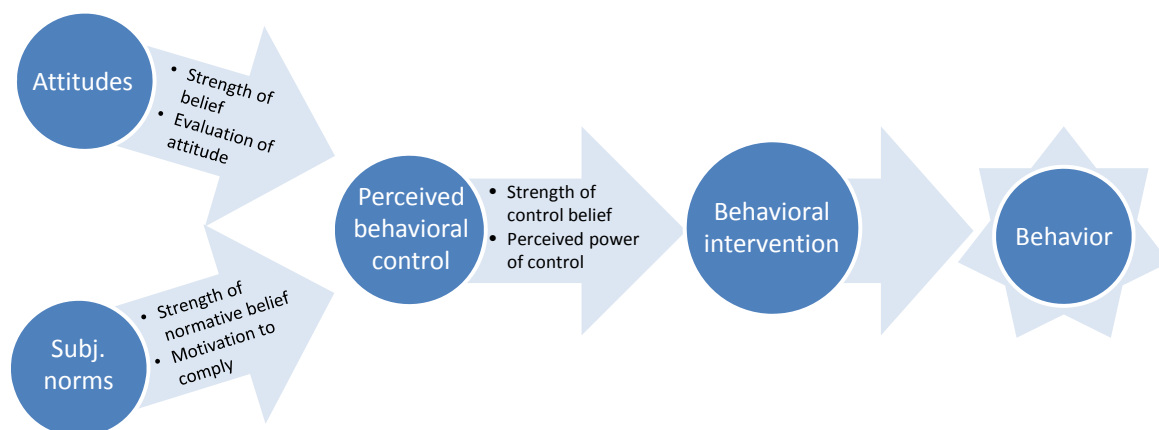


Figure 2. Theory of planned behavior.

related to social norms is the inherent focus on confidentiality. If a student believes that their personal communications with a therapist will not be shared, then the possible negative impact of a negative social norm can be reduced. Another way to address subjective norms is to acknowledge common misconceptions about psychotherapy, and give the student a more accurate understanding about what it means to get treatment. A lack of accurate information may lead a student to overestimate the actual social implications of seeking professional psychological help.

Perceived behavioral control is an important aspect of the TPB (Ajzen, 1991), and may be the easiest to address in the context of a university student population. Perceived behavioral control in the present study refers to how easy or difficult the student believes it is to get treatment. Perceived behavioral control can be improved by giving students information about the existence and location of the university counseling center as well as information about the extent, type, and cost of services. If the student feels that getting

psychotherapy is easily within their means, then behavioral intent will rely on attitudes and subjective norms.

Many studies have produced results that support the TPB (Armitage & Conner, 2001; Collins & Carey, 2007; Martin et al., 2010; Norman, Armitage, & Quigley, 2007). A recent meta-analysis of the efficacy of the theory of planned behavior across multiple applications was conducted by Armitage and Conner. The authors looked specifically at the value of incorporating perceived behavioral control (PBC), which is part of the TPB but not the TRA, for predicting behavioral intent. They found an average multiple correlation between PBC and intention of .52, which accounted for 27% of the variance. They found that PBC added an average of 2% to the prediction of behavior over intention alone. The average multiple correlation of attitude, subjective norm and perceived behavioral control with intention was $R = .63$, accounting for 39% of the variance in intention. The results of the meta-analysis suggest that while the TPB may be further refined in the future, it appears to be a useful tool in its present form. In college student samples, TPB has been found to be useful in explaining gambling behavior (Martin et al., 2010), and has value in predicting drinking behavior (Collins & Carey, 2007; Norman et al., 2007).

Message Effects Models

For the present study, message effects models suggested the types of appeals that could be expected to produce the desired effects on attitude. These included emotional appeals and strategic approaches such as narrative (Cappella, 2006). Message effects models focus on how to deliver a message, without informing the actual content of the

message. Creating or exploiting fears is another approach described in some message effects models (Cappella, 2006). One example is protection motivation theory (PMT; Rogers, 1975), which holds that individuals are motivated to take the action most likely to lead to reward and avoid punishment. The theory states that a particular threat will be evaluated for its severity, personal susceptibility, and the efficacy of potential behavioral responses. One way this was utilized in the present study was by providing information on the prevalence of various mental disorders, the negative effects that can arise if left untreated, and the benefits of psychotherapy as a treatment option. In terms of PMT, if the student acknowledges the likelihood that they will experience psychological distress at some point, and to some degree fears the repercussions of leaving it untreated, they will look for the best solution available to them. The task of the intervention is to portray the threat accurately, and position psychotherapy as an effective solution.

One of the early message effects models, termed “The Yale Model of Persuasion” provided a general overview of important factors in designing a persuasive intervention (Hovland, Janis, & Kelley, 1953). The model stated that a persuasive message must both capture the attention of the audience, and be comprehended. The individual must also yield to the message, which occurs when the individual has an incentive to change attitudes in accordance with the message. The model also states that the individual must retain the information presented in the message. Other variables that are to be considered are the source of the message, the channel of message delivery (e.g., multimedia presentation), and the audience. In the present study, the audience is the sample of university students who participated in the intervention. Regarding the source, the

information in the message was presented as being accurate and from a credible source. The message also needed to be fairly succinct; that way the student would not become overwhelmed and lose the important points of the message.

Information Processing Theories

Information processing theories suggest the process by which a message influences an individual's attitudes (Cameron, 2009). A model that was useful in the present study is the elaboration likelihood model (ELM; Petty & Cacioppo, 1986). According to the ELM, individuals who receive a persuasive message engage in some degree of thinking (i.e., the elaboration), such as considering the personal effects of the message. The ELM suggested two processing routes that can result in attitude change, namely central and peripheral processing. Central processing can occur when one is motivated to evaluate an argument and consider the merits of the message. It is a fairly logical and systematic approach to evaluating the message. Peripheral processing requires less elaboration, and may be used as a shortcut to a meticulous evaluation of the message. An example of peripheral processing is accepting a message because of some quality of the message source, rather than considering the quality of the message itself. According to the ELM, an attitude that is formed as a result of central processing is more likely to be enduring than one formed by peripheral processing (Jones, Sinclair, Rhodes, & Courneya, 2004). One implication for the current study was that a strong argument and convincing evidence for seeking psychotherapy would be more likely to produce the kind of attitude change that would be retained until the need for psychotherapy arises. Engaging the audience in peripheral processing such as through the use of an attractive

model may capture audience attention, but can also distract from retention of the key points of the message. The review of relevant persuasion theories demonstrates the complexity of designing an intervention to affect attitudes about help seeking. It is of no surprise that some authors consider designing such interventions as much art as science based on the current scientific knowledge (Cappella, 2006). The theories that have been included in this review contribute to the various aspects of the intervention as a whole. The role of the theories in developing the intervention is summarized in Table 1.

Table 1

Summary of Use of Theories to Inform Intervention Content and Delivery

Theory	Influence
Theory of Planned Behavior	<ol style="list-style-type: none"> 1. Attitudes: <ol style="list-style-type: none"> a. Work to strengthen desired attitudes b. Improve “evaluation of attribute” by linking behavior to desired outcomes. 2. Subjective Norm: <ol style="list-style-type: none"> a. Work to shift subjective norm to a more positive one or, at least, diminish the strength of a negative normative belief. b. Work to increase motivation to seek services if/when in need. 3. Perceived Behavioral Control: <ol style="list-style-type: none"> a. Increase strength of control belief b. Increase perceived power of control
Protection Motivation Theory	<ol style="list-style-type: none"> 1. Succinct message 2. State “threat” <ol style="list-style-type: none"> a. Severity b. Personal susceptibility 3. State possible behavioral responses <ol style="list-style-type: none"> a. Stimulate efficacy
Yale Model of Persuasion	<ol style="list-style-type: none"> 1. Successfully obtains audience attention 2. Easy to understand 3. Stimulates material retention <ol style="list-style-type: none"> a. Accurate and credible source
Elaboration Likelihood Model	<ol style="list-style-type: none"> 1. Use central processing (v peripheral) <ol style="list-style-type: none"> a. Use strong argument and convincing evidence for seeking psychotherapy.

Correlates of Help-Seeking

Lack of Knowledge

Perhaps the most obvious reason why students do not use mental health services is that many of them do not realize that services are available. As reported earlier, Westefeld and colleagues (2005) found in their study that only 26% of college students were aware of the availability of mental health services on campus. In another study, only 32% of respondents reported being adequately informed about available services (Yorgason, Linville, & Zitzman, 2008). In the Yorgason and colleagues' study, knowledge of services was higher amongst those reporting greater psychological distress, however a gap in utilization rates was still observed for that group. The current intervention directly addresses students' lack of knowledge in an effort to affect those students' perceived behavioral control.

Student-Provided Reasons for Not Seeking Help

Another group of students are those who know that services exist, but choose not to use them for a variety of reasons. Yorgason and colleagues (2008) asked students who scored in the clinically distressed range on the Outcome Questionnaire (OQ-45) their reasons for not using campus mental health services. In addition to lack of knowledge about services, students most frequently reported: not having enough time, being embarrassed, not thinking services would help, lack of motivation, having an independent approach to solving problems, and being frightened or nervous. These specific examples align well with the TPB (i.e., attitudes, subjective norms, and perceived behavioral

control). A similar study with a relatively large sample ($N = 2,785$) of university students utilized screening measures for depression and anxiety through a web-based survey (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Researchers found that in addition to being unaware of services, students did not receive services due to such factors as lack of perceived need and skepticism about treatment effectiveness. It should be noted that only 55.5% of those invited to participate completed all the surveys necessary to be included in the study. It is unclear what effect response bias might have had on results. These two studies show that many students are not convinced that treatment will be effective. The current intervention provides evidence that psychotherapy is effective in an effort to reduce or eliminate this objection.

Attitudes Based on Misinformation

Additional factors related to reduced utilization rates have been identified that might not be expected to show up in student self-reports. Students, for instance, may not recognize that they have been misinformed about the nature of mental illness and its treatment. It is common for nonprofessionals to lack knowledge of symptomatology, and to inaccurately appraise the effectiveness of mental health treatments, including medication and psychotherapy (Jorm, 2000). For many, the only source of knowledge about mental illness comes from personal exposure to unique individual cases. For others, knowledge may be limited to what has been gleaned from the media and entertainment sources such as television and movies (Jorm, 2000; Wolff, Pathare, Craig, & Leff, 1996). These sources tend to portray extreme or exaggerated depictions of mental illness and psychotherapy, which could easily be expected to lead to misconceptions or, in the

language of TPB, to misinformed attitudes and social norms. The TPB places central importance on attitudes and social norms as precursors to behavioral intent. The current intervention was designed to provide students with accurate information about psychotherapy creating the opportunity for them to form realistic attitudes about treatment.

Stigma

A related concern that many have suggested plays a role in mental health service utilization is stigma. Stigma may play a key role in relation to the social norms aspect of the TPB. Two forms of stigma have been identified, self-stigma and perceived stigma; both have been suggested to affect help-seeking behavior (Barney, Griffiths, Jorm, & Christensen, 2005). In a meta-analysis that explored the role of stigma in attitudes toward seeking mental health services (Nam et al., 2012), the authors found a large effect size for self-stigma ($r = -.63$, $z = 29.57$, $p < .001$). Self-stigma occurs when people view themselves in a negative way as a result of their identification as part of a socially undesirable group. For example, a man might view emotional troubles as a sign of weakness, and could avoid seeking help rather than accept being part of a group that is considered “weak.” Perceived stigma involves the belief that other people will negatively evaluate a person based on a particular characteristic or condition (Barney et al., 2005). Nam and colleagues referred to this as “public stigma” in their meta-analysis and found it had a significant relationship with attitudes toward seeking mental health services ($r = -.24$, $z = 4.98$, $p < .001$). An example is the person who avoids mental health treatment for fear of being looked down upon by others. Barney and colleagues found that both

types of stigma reduced the likelihood that people would seek help from a professional. The researchers found evidence that “personal attitudes are more important than the disapproval of others in predicting intentions to seek help” (Barney et al., 2005, p. 53). This is consistent with the meta-analysis by Nam and colleagues. Both authors reported that historically, studies have found mixed results in the relationship between stigma and help-seeking behavior. However, these studies provide a strong case for the significant role that stigma may play in affecting attitudes toward seeking mental health services.

Stigma can operate at various levels. For example, stigma of seeking mental health services can intersect with stigma associated with being a member of an ethnic minority group. At least one author has found that perceived stigma may have an increased influence on the avoidance of help-seeking behaviors for Latino and Black college students (Yorgason et al., 2008). Differing world views and social norms between cultural groups may contribute to discrepancies in the role of stigma in mental health service utilization. Gary (2005) called the additive effects of stigma based on minority status and mental illness together “double stigma” and suggested that the combination of the two could be more than their sum. One way stigma was addressed in the current intervention was to provide information regarding the incidence of mental health issues amongst college students in an effort to normalize help-seeking behavior.

Students’ Alternatives to Professional Services

Individuals suffering from mental distress sometimes seek help from nonprofessional sources including family, friends, and religious leaders (Angermeyer,

Matschinger, & Reidel-Heller, 1999). Establishing the benefits of professional treatment compared to talking with friends or family alone may lead students to see psychotherapy as a promising option. A preference for seeking help from friends or family members has specifically been observed in international students (Yoon & Jepsen, 2008). Angermeyer and colleagues found that people endorsed a preference for discussing mental disorders with friends and family over talking to a professional depending on the type of disorder. For example, a preference for friends or family was found in the case of depression, though a professional was preferred for schizophrenia. The perceived nature and severity of symptoms may play a role in determining care giver preferences. The present intervention clarified for students the types of disorders that are appropriate for treatment by a mental health professional. The intervention also encouraged students to recommend professional treatment to friends who present difficult situations related to mental health.

Gender Differences in Attitude

A general finding across the literature on help seeking is that women tend to be more open to help seeking than men (Leong & Zachar, 1999). Negative views about seeking professional help for mental disorders may come from masculine gender role socialization (Good & Wood, 1995). In support of this hypothesis is a study that found gender differences in help seeking preference during adolescence (Chandra & Minkovitz, 2006). Young men were found to have more negative views than women about help seeking from professionals. Data from a large national sample supported findings that being young and being male correlated with more negative views of help seeking (Gonzalez, Alegria, & Prihoda, 2005). Some evidence suggests that men's attitudes

toward help seeking are not consistent across ethnic groups at various ages. Although gender appears to be a factor, there is a lack of research available to show the efficacy of any particular type of intervention aimed at improving the attitudes of men. Nonetheless, an intervention designed to reach men as well as women should attempt to address men's attitudes. This was addressed by normalizing the behavior as being consistent with male gender roles and by presenting arguments that appeal to a masculine thought process.

Differences in Level of Distress

Another finding related to help seeking behavior has been that individuals with greater symptom severity tend to seek help more often (Oliver et al., 1998). An exception to this pattern is that individuals with the most extreme levels of distress tend to seek help less often (Meltzer et al., 2003). The intervention used in this study was developed to better equip students to identify the need for professional services and seek treatment sooner rather than later. A study comparing levels of mental distress between a primary care sample and a counseling center sample found that both groups had similar levels of distress; however the primary care sample included individuals demonstrating distress at a severe level a higher proportion of the time (Connell, Barkham, & Mellor-Clark, 2007). These findings suggest that, for unknown reasons, people experiencing the greatest levels of mental distress tend not to seek psychotherapy. In such cases, it may be possible to use the social norms effect described by the TPB to indirectly encourage highly distressed individuals to seek professional help. By encouraging healthy students to help their distressed peers by getting them to counseling, the distressed students may see getting professional help as being consistent with the expectations of important others. This also

has a benefit on healthy students' attitudes. Cognitive dissonance theory suggests that in order to endorse psychotherapy as a recommendation for a friend, the healthy student must disqualify any previously held negative attitudes about psychotherapy.

Self-Concealment

Self-concealment is a factor that has been suspected to play a role in help seeking behavior but inherently may not be reported by those for whom it is important. According to Kelly and Achter (1995) self-concealment involves a tendency to hide distressing and potentially embarrassing information. Kelly and Achter reported evidence to suggest that level of self-concealment may play a role in the relationship between attitudes about counseling and intent to seek counseling. They found in their study that high self-concealers reported being more likely to seek counseling, but also tended to have more negative attitudes toward counseling. Kelly and Achter speculated that a lack of access to social support may explain their finding that high self-concealers were more likely to report intent to seek counseling. Cepeda-Benito and Short (1998) proposed an alternative explanation, suggesting that high-self concealers may endorse a higher perceived likelihood to seek counseling because they are actually in greater distress. In their study, Cepeda-Benito and Short aimed to address methodological concerns about the study by Kelly and Achter. Their results showed that high self-concealers were more likely to avoid, rather than seek counseling. They did find that high self-concealers were more likely than low self-concealers to report needing but not seeking professional help. Both studies reported a positive association between self-concealment and psychological distress. Conflicting opinions on the role of self-concealment made it difficult to address

in an intervention. It is possible that self-concealment may be minimized by confidentiality, especially for those students who are worried that their problems will become known and subsequently judged by others. For those students who self-conceal to avoid the aversive experience of sharing (e.g., talking about feelings), it may help to explain that a professional will be respectful of client feelings, and only elicit information for the purpose of healing.

Help-Seeking Interventions

Past studies have utilized an array of intervention delivery methods (Tinsley, Bowman, & Ray, 1988), including group instruction, written materials, audio and video presentations, and multimedia approaches. In order to influence university students' attitudes about psychotherapy, an intervention must be both effective and efficient to deliver on a large scale. Although written materials are efficient to disseminate, studies have not found such an approach to be particularly effective (Tinsley et al., 1988). Classroom instruction has been effective (Sharp et al., 2006), although it may not be feasible to extend that approach to a large group (e.g., an entire freshman class), and certainly it would take sizeable resources over time (e.g., person hours to deliver instruction). Audio, video, and multimedia presentations have all demonstrated effectiveness as modes of pre-therapy intervention (Fende Guajardo & Anderson, 2007; Tinsley et al., 1988).

Delivery Channels

Both attitudes and behavioral expectations have been examined in relation to

predicting behavior. Over the years, researchers have attempted to apply these concepts to increase the likelihood that people will engage in a particular behavior. Expectations about psychotherapy have received attention over the years, and Tinsley and colleagues (1988) investigated the various strategies that had been used to modify those expectations. The authors classified 46 articles into five general categories of attempted manipulation: (a) those regarding therapist attributes (e.g., expertise, attractiveness), (b) prognosis for therapy, (c) therapist behavior or style (e.g., directiveness, advice-giving), (d) client behaviors and roles (e.g., level of participation, self-disclosure), and (e) the counseling process and procedures. The strategies by which manipulation was to be achieved were grouped into six categories: (a) audiotapes, (b) videotapes, (c) verbal instructions, (d) printed materials, (e) counseling interview, and (f) complex interventions. The last category was created to account for a study that involved a class wherein participants were exposed to a variety of didactic and interactive approaches. That study aimed to enhance realistic expectations and improve satisfaction with therapy, but support for the objectives was not achieved. Tinsley and colleagues found that of the strategies they surveyed, audio and video approaches were the most successful methods of influencing expectations. All other investigated modalities yielded mixed or inconsistent results.

Unit of Intervention

Interventions to change attitudes toward help-seeking could, in theory, be delivered to individuals, groups, or communities. At the community level, interventions have been attempted using social marketing campaigns (Kirkwood & Stamm, 2006).

Such interventions are often designed to decrease stigma regarding particular disorders and populations. An example from the United Kingdom was the Defeat Depression Campaign of the mid 1990s (Jorm, 2000). Broad scale campaigns typically select from a range of communications including television, radio, and print media. There has been some evidence that such approaches can increase the number of people in a population who are willing to seek treatment for a psychological disorder (Jorm, 2000).

On a smaller scale, a 40-minute group intervention was designed to reduce mental illness stigma, increase positive expectations about psychotherapy, and educate students about treatment options (Sharp et al., 2006). One hundred twenty-three undergraduate psychology students were recruited to be a part of either a control group, or a treatment group receiving handouts and a lecture accompanied by PowerPoint slides. The control group viewed an astronomy video. Results showed a significant change in attitudes about psychological help seeking post-intervention and at 4-week follow-up for the treatment group only. Opinions about mental illness had not significantly changed for either group when compared at the 4-week follow-up. The study also looked at actual help seeking attempts during the follow-up assessment, but did not find significant differences. Given the relatively small sample size and typical rates of psychological help seeking, it was not surprising that very few students sought such help during the 4-week period after the intervention. Sharp and colleagues suggested that their intervention may have been too short to allow for the maximum retention of information. Since there was no content analysis, it remains unclear whether additional information given during a longer intervention would improve results. It remains possible that presenting only the most

salient information in an efficient manner could lead to positive results while at the same time appealing to a larger audience. Interventions in related studies have been designed for individuals (e.g., written materials) that belong to a target demographic (e.g., college students). A multimedia presentation has the versatility to be administered to a group, or on an individual basis to members of a group.

Related Applications

As reported by Tinsley and colleagues (1988), presenting information in an audio or video format has proven successful in several studies. While some studies have aimed to increase psychological help seeking behavior, others have focused on improving the quality of treatment. Deane and colleagues (1992) used an 11-minute video preparation to enhance client expectations about therapy, improve outcome, and reduce client anxiety. The researchers found that participants who viewed the preparatory video had more accurate expectations, and reduced anxiety; however, no substantial improvement in outcome was observed at 2-month follow-up. A similar but less rigorous study used a 10-minute video to achieve similar objectives (Douglas, Noble, & Newman, 1999). That intervention reportedly increased the accuracy of client expectations, but did not decrease anxiety or improve client satisfaction. The study utilized an untested measure of expectations rather than one of the more common measures.

Another preparatory video intervention aimed to improve the accuracy of client perceptions and expectations about therapy, as well as improve therapeutic outcome (Zwick & Attkison, 1985). An 11-minute video addressed aspects of the therapeutic relationship, typical course of treatment, barriers that occur for some clients, and

therapeutic outcomes. The researchers found that oriented clients retained the information, and showed a decrease in self-reported symptoms after one month compared to the control group. No significant differences in outcome were observed. It is worthy of note that the researchers did not differentiate between clients who had psychotherapy experience and those who did not. Clients with psychotherapy experience are likely to have established conceptions about treatment and could be less affected by an educational intervention. Stated another way, it may be more difficult to modify the first-hand knowledge of experienced clients compared to those with no prior knowledge, or knowledge that was obtained from a less credible source. The present study assessed students' use of psychotherapy.

In a video preparation study designed to assess the effects of preparation on dropout rates, researchers found that viewing a 12-minute video prior to treatment produced a significant decrease in dropout rates compared to those who did not view the video (Reis & Brown, 2006). The video used to educate clients was produced in the early 1980s, and was targeted at educating low-income clients. The format of the video included explanations about various aspects of successful therapy (e.g., being open with the therapist) as well as vignettes with actors portraying the concepts addressed in the video. This study and those already discussed provide solid evidence that multiple benefits can be achieved by showing a 9-12 minute pretherapy education video to clients and prospective clients. The intervention in the current study was 13 minutes. Although it is slightly longer than the interventions described above there have been no studies to date that suggest a precise optimal length for interventions of this nature.

The most recent study found in relation to this area of research involved a multimedia presentation designed to improve the accuracy of client expectations about counseling and decrease client fears about psychotherapy (Fende Guajardo & Anderson, 2007). The experimental design included a multimedia presentation group (information with video examples), an information only (same information with no video), and a no-treatment group who only completed the evaluation measures. The measures employed in the study looked at expectations about counseling, and fears about counseling. The 20-minute multimedia intervention included such information as the reasons people go to counseling, the typical format of sessions, expectations of the client, confidentiality, and typical therapy outcomes. The researchers generally found that the multimedia intervention was superior to the other conditions, although the information-only group achieved similar results in most areas. For example, both treatment conditions achieved similar reduction in fears about counseling. No study to date has implemented and tested a theoretically driven multimedia intervention designed to increase the likelihood that individuals, especially those experiencing psychological distress, will seek and benefit from mental health treatment.

Internet Use

The use of web-based materials has not been well explored in relation to psychological help-seeking, however some evidence is available in other disciplines to support the efficacy of using that modality. In a study looking at HIV testing beliefs among college students, researchers deployed the web-based HIV testing belief inventory (wHITBI) via the internet (Hou & Luh, 2007). The measure that was created yielded

adequate reliabilities, as well as construct and discriminant validity.

An intervention study compared a face-to-face implementation of cognitive-behavioral therapy (CBT) for people with panic disorder to an internet-based intervention (Kiriopoulos et al., 2008). Both interventions were found to produce comparable results, including a reduction in clinician ratings of severity, and self-reported symptom severity, which included measures of depression, and anxiety. Another study that specifically compared paper and internet administrations of the General Health Questionnaire (GHQ-28) found no statistically significant differences for the overall measure of psychological distress (Vallejo, Mañanes, Comeche, & Díaz, 2007). These studies lend support for the efficacy of assessment and intervention via an internet-based modality.

Given the low levels of service utilization in a context of relative high need, and that many college students have negative attitudes toward seeking psychological help, it is appropriate to carry out a universal intervention to seek to change attitudes toward psychological help-seeking and thus increasing the likelihood that those who need services will seek them. An intervention guided by the TPB has the potential to affect attitudes about psychotherapy, decrease resistance based on social norms or stigma, and eliminate the perception of obstacles to receiving treatment that are unfounded.

CHAPTER III

METHODS

Design

In order to measure the effects of the intervention, an experimental test-retest design was used. Participants were randomly assigned to either the experimental or control group and were asked to follow the same procedures regardless of group assignment with only the content of the video being different. Participants were asked to provide demographic information to facilitate later comparisons between groups and to allow the effect of participant sex to be measured. Each participant was asked to complete a set of pretest questionnaires before random assignment to watch either the treatment or control presentation. A knowledge check (Appendix G), which consisted of general questions about the content of the experimental presentation, was given to all participants to determine general comprehension. Knowledge check results were analyzed to determine an appropriate cutoff where participants would be excluded under the assumption that they skipped or otherwise ignored the content of the presentation. Participants who did not make the cutoff were excluded from further analysis. After completing the knowledge check, participants were asked to complete the two outcome measures administered before viewing either the experimental or control presentation. Participants who responded to the pretest and posttest questionnaires were emailed a link to the follow-up survey 4 weeks after their original participation. Participants were asked to complete the same two outcome measures during the follow-up survey.

Procedures

Intervention Development

The intervention was designed to be a theory-guided multimedia presentation drawing on the theory of planned behavior, information processing, and message effects theories (see Table 1). While these theories guided the intervention development, the content of the intervention was informed by the existing literature. For example, the TPB suggests the importance of subjective norms, but does not indicate which norms are relevant for any specific situation. Studies have examined common presenting problems amongst student populations, and those findings were included in the intervention to normalize help seeking for such problems. All of the content and language used in the intervention was designed to achieve optimal attitude change according to the relevant factors indicated by the TPB. Among the factors addressed in the intervention are: basic facts about the nature and prevalence of various mental disorders, other reasons why people seek treatment, possible treatment options and providers, what to generally expect from an intake and subsequent sessions, how confidentiality works, what might be expected of the client, typical outcomes of treatment, and how/where to obtain treatment on campus (enhancing perceived behavioral control). Content information was drawn from the existing literature and other reputable sources, such as the American Psychological Association (APA) website (<http://www.apa.org/topics/index.aspx>, n.d.). As a universal intervention, the focus was on content that is deemed relevant to the majority of students.

As a check on the content of the intervention, the script was provided to Utah

State University Counseling and Psychological Services Center staff who were asked to evaluate the script and provide feedback. Specific requests of the review panel are detailed in Appendix E. The feedback of the review panel was evaluated and used to inform changes to the multimedia presentation. As a result of that review, modifications were made to the presentation of information related to sexual assault. The social marketing literature suggests that a message should be long enough to address all important information and arguments while remaining engaging and understandable to the audience (Snyder, 2007). Interventions of approximately ten minutes in length have been used in similar studies where an experimental effect has been observed. The focus of the current experimental intervention was on the message content; the final length of the intervention was approximately 13 minutes. The intervention script can be seen in Appendix H.

The final script was produced into a multimedia intervention that included narration and pictures. As a check on the multimedia intervention, a test group of twenty students from the target demographic was recruited to test the intervention prior to final data collection. Specific feedback was requested of the test group (detailed in Appendix E) and incorporated into the intervention where the test group was in consensus. One change made, based on focus group feedback (see Appendix F for questions asked in the student focus group), included incorporating additional images of the counseling center and campus in place of images of nature. Additional visual prompts for key concepts were also added based on the suggestions of the focus group.

Control Condition

In order to control for factors such as production value of the intervention, a control presentation was created that follows the same format as the primary intervention. The topic of the control presentation is general health and wellness. While the specific content of the control presentation is not critical, a health focus preserves the spirit of the intervention which shows concern for the wellbeing of college students. There was no mental health related information in the control presentation, but rather content covering such topics as diet and exercise habits, and other behaviors consistent with a healthy lifestyle. The content was collected from credible publicly available sources such as the U.S. Department of Agriculture and American Cancer Society websites.

Intervention Test

Participants were randomly assigned to groups by a computer program when they responded to the request for participation. The experimental group was directed to experience the mental health intervention, while the control group was directed to the health and wellness presentation. Participants were directed to a website, where they identified themselves using their university identification numbers. After agreeing to the informed consent to participate, participants provided demographic information, and pre-treatment responses to measures of psychological distress, attitudes toward psychological help seeking, and intentions to seek counseling. The attitude inventory (IASMHS) includes subscales that measure the effect of subjective norms and perceived behavioral control. Upon completing the measures, they proceeded to participate in a multimedia presentation based on their group assignment.

In order to create confidence that the intervention was responsible for changes that might be observed in post-intervention test scores, a knowledge check was employed. This brief quiz was administered after the intervention; the items of this quiz tested for general comprehension of content delivered in the multimedia presentation. Participants who missed more than two items ($n = 6$) were excluded from data analysis. Following the quiz, participants once again completed the measures of attitudes toward psychological help seeking and intentions to seek counseling. A self-rating of level of current need for services was also requested. An additional request for participants to respond to the measures was sent 4 weeks after the initial intervention. The control group encountered the same procedures as the experimental group, with the only difference being the content of the multimedia presentation

Participants

A convenience sample of students from a large state university (Collegedata.com, n.d.) in the western United States participated in this study. Students were recruited by contacting professors who teach large sections of introductory level courses across majors. The largest representation in the sample was by participants who reported psychology (15%) as their major field of study followed by those who are undeclared/undecided (11%). The remaining sample was comprised of participants who identified one of 25 additional major fields of study including business, engineering, and exercise science. Most participants were offered course credit by their respective professors in exchange for their participation. The invitation to prospective participants also advertised

a random drawing for a gift card that would be open to all participants who completed the study. The final sample included 120 total participants, with 64 and 56 in the experimental and control groups respectively. The age range for participants was between 18 and 34 years of age with a median age of 20. Six participants identified themselves as “35 or older,” of which four were in the experimental group. All six were included in the analyses. The sample included 79 women and 41 men. The total number of participants reporting their ethnicity as Caucasian was 108 (90%). Only two participants identified themselves as international students (1.7%). The sample included 37% first year, 29% sophomores, 21% juniors, 10% seniors, and 3% graduate or other. The sample included 73% of participants who reported being single, 18% married, 5% divorced, and < 1% separated. The religious status of participants according to self-report was 73% Latter-day Saint (a.k.a., LDS and/or Mormon), 18% not religious, 3% Catholic, and 5% other. Participants were also asked if they had ever received treatment for an emotional or psychological problem in the past. Those who reported no previous treatment comprised 71% of the sample.

In total, 74 participants responded to emailed requests to complete follow-up questionnaires sent four weeks after initial participation. There were 41 participants from the experimental group and 33 in the control group. The median age in the 4-week follow-up was 20. Those who followed up included 49 women (66%) and 25 men (34%). Sixty-eight participants (92%) self-identified as Caucasian. There were no reported international students in the 4-week follow-up sample. The sample included 32% first-year students, 31% sophomores, 20% juniors, 12% seniors, and 3% graduate or other.

There were 74% who reported being single, 16% married, 4% divorced, and 3% separated. The religious affiliations of the follow-up sample included 70% LDS, 23% not religious, 4% Catholic, and 3% other. The sample included 54 participants (73%) who reported no previous mental health treatment history.

Sample Size and Power

Using G*Power 3.1.3, power was calculated with small to medium effect size ($f = .20$), the error probability at .05, and power at .95. This yielded a necessary sample size of 84 with two groups (experimental, control) and two time measures. A more relaxed analysis with three time points and power at .80 suggested a sample size of 42. The most conservative estimate was utilized with a small oversampling to accommodate attrition.

Measures

All participants were asked to provide demographic information, including: age, gender, ethnicity, national status (i.e., international student or not), year in school, major, marital status, and religious affiliation. Specific questions are provided in Appendix D.

Psychological Distress

The K10 (Appendix B; Kessler et al., 2003) is a 10-item self-report questionnaire designed as a global measure of psychological distress based on symptoms of anxiety and depression experienced in the past month. Scores on the K10 range from 10 to 50, with scores below 20 typically being considered nondistressed, also known as *noncases*. The K10 has shown the ability to discriminate between cases and noncases based on DSM-IV

criteria for anxiety and mood disorders at a level comparable to comprehensive diagnostic interviews. The K10 has very good internal consistency ($\alpha = .93$) and has been found to be more effective at discriminating respondents with diagnosable disorders than several other measures of similar size used in epidemiological research (Gill, Butterworth, Rodgers, & Mackinnon, 2007). The internal consistency for the current study was also good ($\alpha = .877$). The K10 has been found to be consistent across several demographic groups (Baillie, 2005), and has demonstrated sensitivity and specificity among populations of pregnant women (Spies et al., 2009) and Chinese undergraduates (Zhou, Chu, & Wang, 2008).

Attitudes Toward Psychological Help-Seeking

The Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS; Appendix C; Mackenzie et al., 2004) is a 24-item attitude measure with three subscales: psychological openness, help-seeking propensity, and indifference to stigma. Alpha coefficients for the subscales have been reported to range from .76 to .82, with an internal consistency for the full inventory of .87. The inventory was based off of Fischer and Turner's (1970) Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS), which is perhaps the most widely used measure of its kind found in the research literature. There are seventeen items from the ATSPPHS that were retained on the IASMHS. In developing the IASMHS, Mackenzie et al. sought to improve upon several perceived shortcomings of the ATSPPHS. Perhaps the most significant change made was the incorporation of seven items intended to be consistent with Ajzen's (1991)

TPB. The authors also replaced gender-specific pronouns with gender neutral language. An additional methodological change was to convert the 4-point rating scale to a 5-point rating scale in order increase the reliability and validity of the measure (Krosnick & Fabrigar, 1997). As a result of methodological improvements and the integration of items guided by the TPB, the IASMHS is considered an appropriate fit for the present study.

Intentions to Seek Counseling

The Intentions to Seek Counseling Inventory (ISCI; Appendix A; Cash, Begley, McCown, & Weiss, 1975) is a 17-item measure that asks respondents to rate how likely they would be to seek counseling for the various problems listed. For this study, the term “counseling” was replaced by “professional help” in order to remain consistent with the ATSPPHS that considers medical doctors as well as mental health professionals to be qualified sources of help. Respondents choose from 1 (*very unlikely*) to 4 (*very likely*) in rating their intentions. Three subscales of the ISCI have been identified (Cepeda-Benito, & Short, 1998), including interpersonal problems (10 items), academic problems (4 items), and drug/alcohol problems (2 items). Internal consistency for the ISCI has been reported to be .90 for interpersonal problems, .71 for academic problems, and .86 for drug/alcohol problems.

CHAPTER IV

RESULTS

This research sought to test two primary hypotheses: (H1) Participants in the experimental group will show an increase in positive attitudes toward help-seeking compared to their control group peers (with changes being evident post-intervention and at 4-week follow-up), and (H2) Participants in the intervention group will show increased intentions to seek counseling compared to control group peers (with changes being evident post-intervention and at 4-week follow-up). In addition, the present research sought to address three research questions: (RQ1) Does the effect of the experimental intervention on attitudes toward seeking professional psychological help depend on past experience receiving professional psychological help? (RQ2) Does the effect of the experimental intervention on attitudes toward seeking professional psychological help vary based upon caseness (i.e., participants deemed clinically distressed or not)? And (RQ3) Does the effect of the experimental intervention on attitudes toward seeking professional psychological help vary by participant sex?

Preliminary Analyses

The data utilized in the primary analyses were tested for normality by applying the Shapiro-Wilk test for normality. All dependent variable baseline data were tested at an alpha level of .05. Since the *p* values were not significant, it was concluded that the data were normally distributed. Further examination of the data (i.e., *t* test, chi-square) showed no significant differences between participants who completed all three time

points and those who did not based on age, sex, marital status, religion, year in school, caseness, or whether they reported a belief in needing treatment.

Baseline differences in the variables of interest were investigated to ensure the relevance of further analyses. For attitudes toward help seeking, an independent samples t test showed no differences across experimental and control group at baseline ($M_{exp} = 3.43$, $SD_{exp} = .55$; $M_{ctl} = 3.47$, $SD_{ctl} = .65$). With a scale range of 0 (*disagree*) to 4 (*agree*), a mean of 3.45 suggests relatively open attitudes towards help seeking. Similar results were found for subscales psychological openness (factor 1; $M_{exp} = 3.21$, $SD_{exp} = .75$; $M_{ctl} = 3.38$, $SD_{ctl} = .73$), help-seeking propensity (factor 2; $M_{exp} = 3.59$, $SD_{exp} = .65$; $M_{ctl} = 3.56$, $SD_{ctl} = .80$), and indifference to stigma (factor 3; $M_{exp} = 3.49$, $SD_{exp} = .85$; $M_{ctl} = 3.46$, $SD_{ctl} = .89$). For factor 2, there was a violation to the assumption of equal variance; adjusted statistics revealed no difference. For intention to seek counseling, an independent samples t test showed no differences across experimental and control group at baseline ($M_{exp} = 2.19$, $SD_{exp} = .54$; $M_{ctl} = 2.22$, $SD_{ctl} = .54$). With a scale range of 1 (*very unlikely*) to 4 (*very likely*), a mean of 2.19 suggests participants were generally more unlikely than likely to seek counseling. Finally, a chi-squared analysis was conducted to examine potential imbalance in caseness across groups, $\chi^2(1, N = 120) = .023$, $p = .88$. This result suggests that the observed difference in caseness across groups is likely due to chance. Relationships between dependent variables were examined and are presented in Table 2. Small to moderate correlations are expected as the dependent variables are believed to reflect related constructs. The means and standard deviations for the dependent variables are presented in Table 3 and reliabilities in Table 4.

Table 2

Correlation Between Dependent Variables at Baseline

Dependent variables	1	2	3	4	5
1. ISCI total					
2. IAS total	.107				
3. IAS Factor 1	.192*	.821**			
4. IAS Factor 2	.269**	.735**	.493**		
5. IAS Factor 3	-.152	.773**	.450**	.281**	

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

Table 3

Dependent Variable Means and Standard Deviations

Measure	Baseline			Posttest			4 weeks		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
ISCI total	2.20	.54	120	2.38	.61	120	2.61	.65	74
IASMHS total	3.47	.86	120	3.69	.64	119	3.51	.78	74
IASMHS F1	3.29	.74	120	3.48	.79	120	3.14	.93	72
IASMHS F2	3.58	.72	120	3.93	.73	119	3.95	.86	74
IASMHS F3	3.47	.86	120	3.66	.92	119	3.45	1.07	74

Table 4

Dependent Variable Reliabilities

Measure	Baseline α	Posttest α	4 weeks α
ISCI Total	.869	.912	.885
IASMHS Total	.852	.890	.879
IASMHS F1	.728	.763	.801
IASMHS F2	.766	.833	.767
IASMHS F3	.807	.877	.836

Primary Analyses

Repeated measures ANOVA were utilized to test the hypothesis that participants in the experimental group would show improvement in attitudes toward help-seeking compared to their control group peers at post- and 4-weeks post-intervention. The analyses of interests are group (experimental, control) by time (pre, post, 4-week follow-up). All tests were performed at the .05 alpha level. The difference between experimental and control groups for overall attitude change (IASMHS total) over time was not significant, $F(2, 64) = 1.81, p = .171, \eta_p^2 = .028$. There was a significant quadratic main effect showing that attitude increased from time 1 to time 2 across both treatment and control groups with a decrease at time 3, $F(1, 64) = 30.77, p < .001, \eta_p^2 = .325$ (see Figure 3).

The second hypothesis was that participants in the experimental group would have higher intention to seek counseling than the control group counterpart following

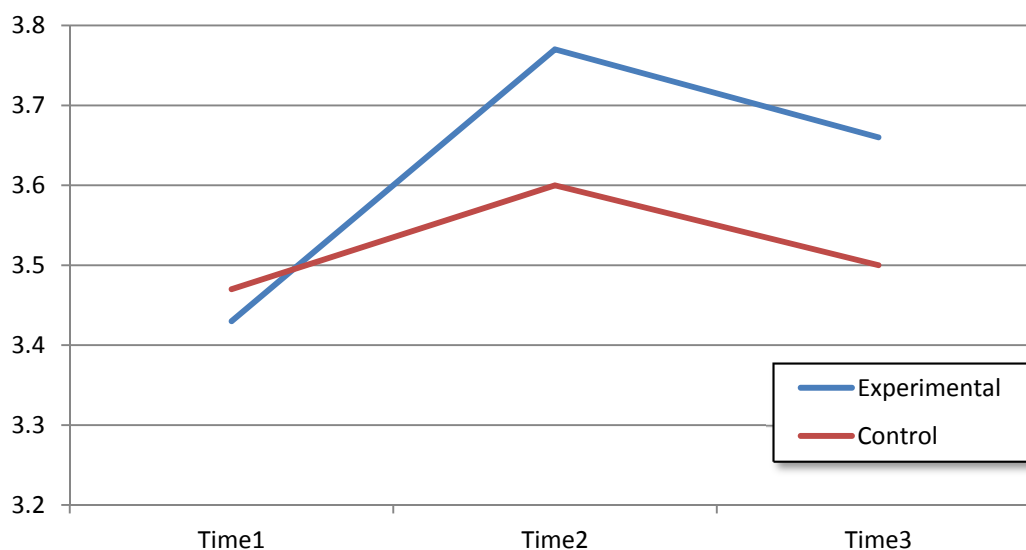


Figure 3. IASMHS total mean scores for treatment and experimental groups.

exposure to the intervention video. A repeated measures ANOVA was conducted to examine the interaction between groups. The interaction between groups as measured by the Intent to Seek Counseling Inventory (ISCI) was not statistically significant, $F(2, 72) = 1.61, p = .203, \eta_p^2 = .022$ (see Figure 4).

The analysis of hypothesis 1 involving attitudes toward seeking professional mental health services included three subscales (factors 1-3) of the IASMHS. The interaction between group means observed for psychological openness toward receiving mental health services was not significant; factor 1; $F(2,65) = 3.111, p = .062, \eta_p^2 = .046$, where those who viewed the mental health video ($M = 3.49, SD = .80$) compared to those who did not ($M = 3.46, SD = .77$) failed to show greater positive change in psychological openness over three time points (Figure 5). This finding was calculated with where those who viewed the mental health video ($M = 4.09, SD = .59$) compared to those that did not ($M = 3.75, SD = .83$) failed to show greater positive change in help seeking propensity (Figure 6).

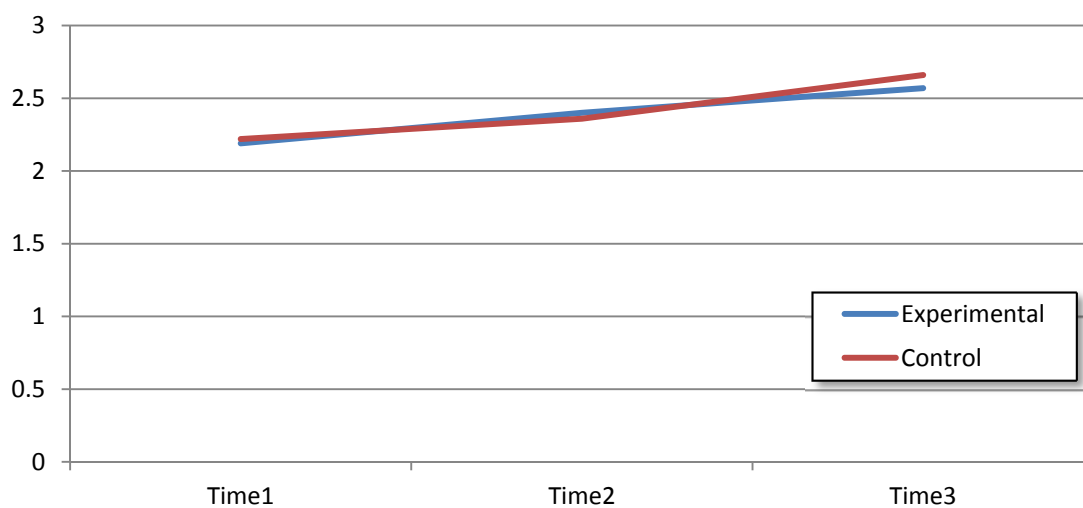


Figure 4. ISCI total mean scores for treatment and control groups.

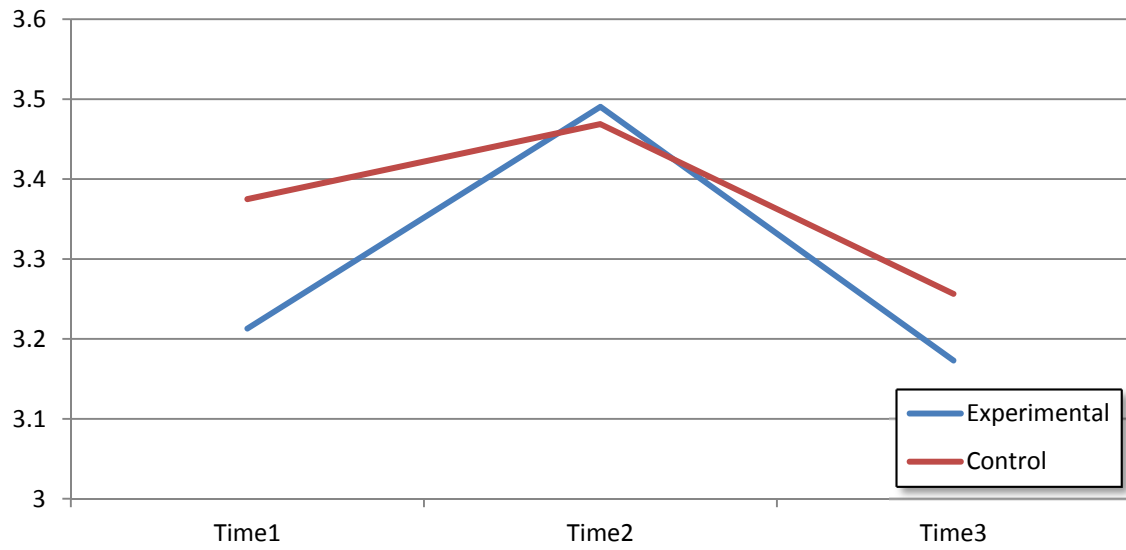


Figure 5. IASMHS factor 1 mean scores for treatment and control groups.

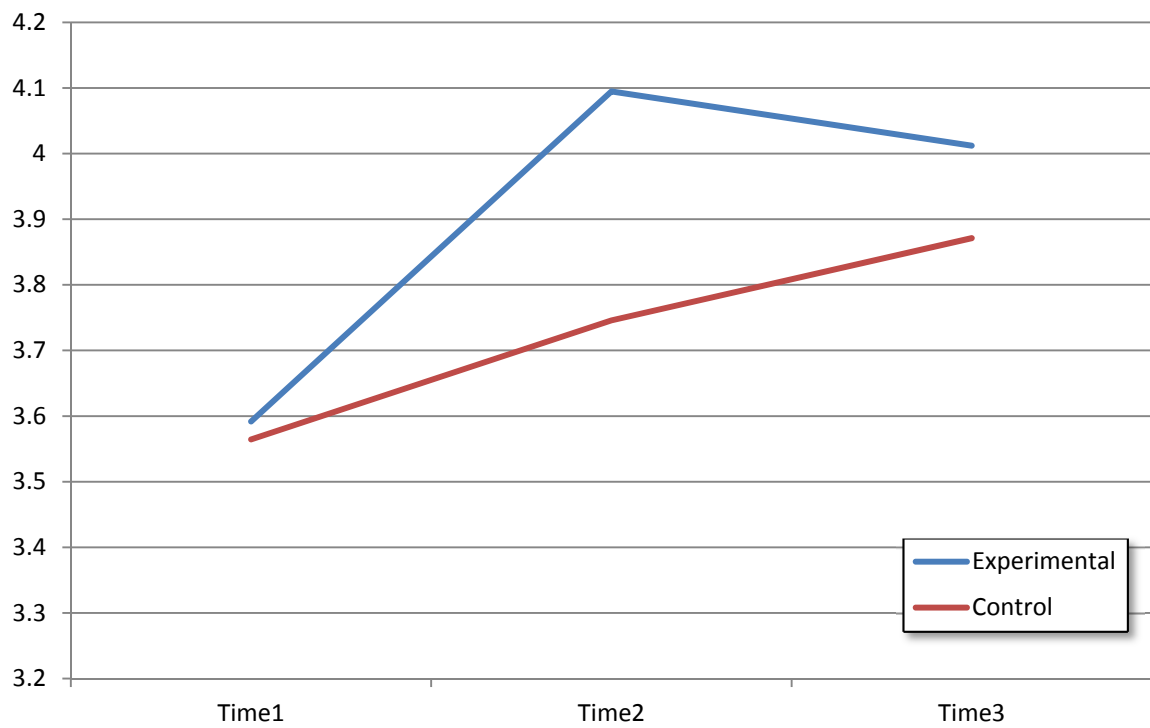


Figure 6. IASMHS factor 2 mean scores for treatment and control groups.

On the indifference to stigma scale; factor 3; $F(2,66) = .105, p = .868, \eta^2_p = .002$ (see Figure 7), no statistically significant difference between means was observed.

In addition to the main analyses, several research questions were proposed. The first question asked whether the effect of the experimental intervention on attitudes toward seeking professional psychological help would depend on past experience receiving the same. The sample included 84 participants who reported no past history of receiving psychological help and 35 who reported past treatment. For this analysis, past experience receiving professional psychological help was added as an additional variable (repeated measures ANOVA). The result was not statistically significant. Research question analyses were run for each of the primary dependent variables and did not yield statistically significant results unless otherwise noted.

The second research question was created in response to previous studies that have found sex differences in attitudes between men and women. This question asked

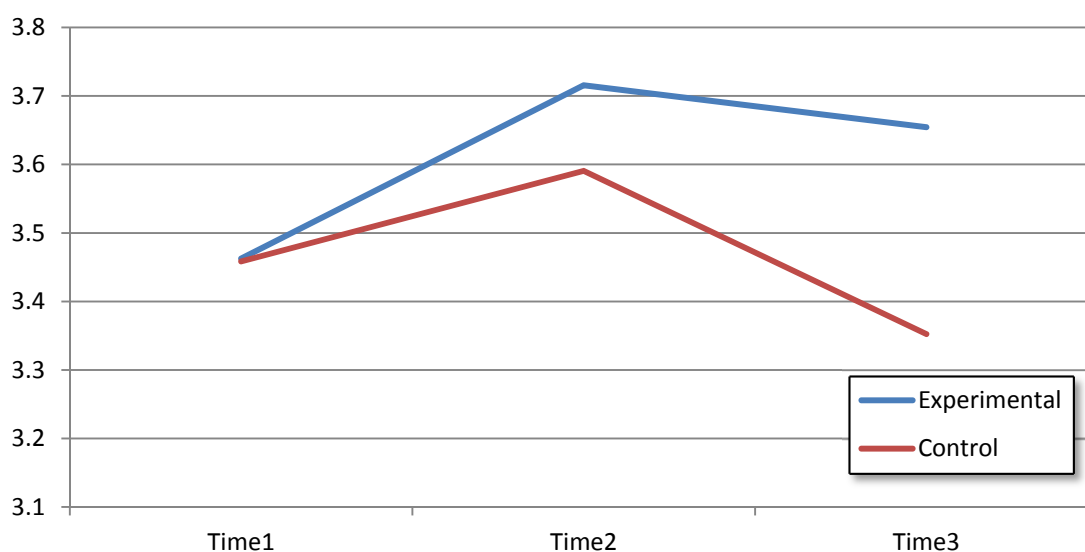


Figure 7. IASMHS factor 3 mean scores for treatment and control groups.

whether the effect of the experimental intervention would vary by participant sex. As noted earlier, the sample included 78 women and 41 men. For this analysis, sex was added as an additional variable (repeated measures ANOVA) and yielded statistically significant results on IASMHS factor 2, $F(2, 69) = 3.193, p = .049, \eta^2_p = .044$, suggesting that participant sex had a significant effect on help-seeking propensity in the current study (see Figures 8 and 9).

A third area of interest was whether those participants who represent the greatest potential need for mental health services would show similar treatment effects compared to nondistressed participants. Based on the mental health screening measure (K-10), 25 participants were deemed more likely to have a clinical DSM-IV-TR diagnosis and 94 participants did not fall into that category. For this analysis, caseness (i.e., participants deemed clinically distressed or not) was added as a predictor to the repeated measures

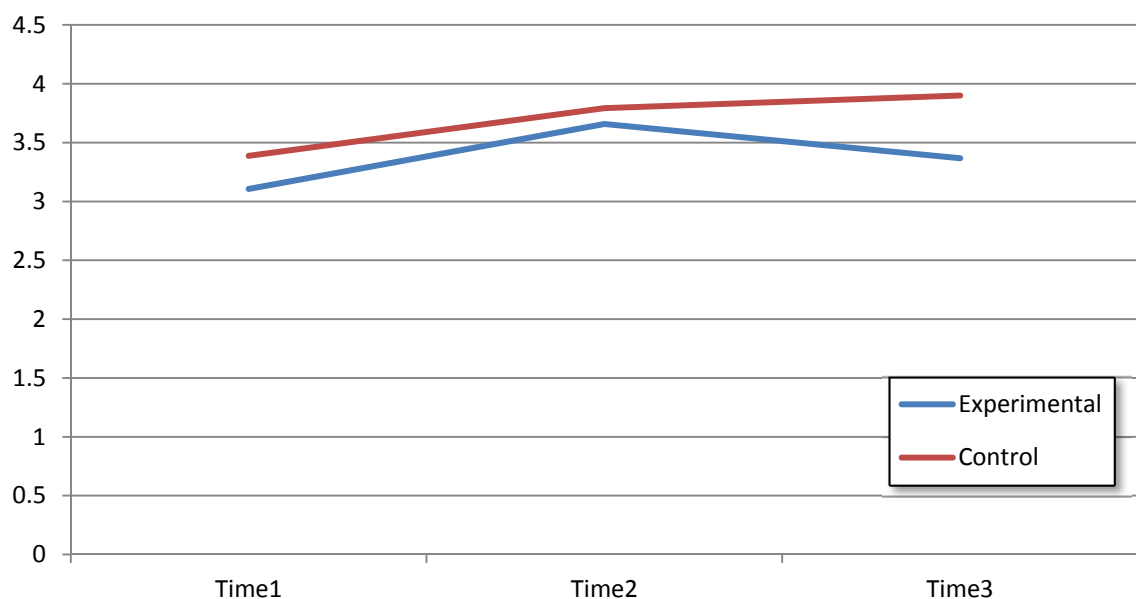


Figure 8. IASMHS factor 2 mean scores for men in treatment and control groups.

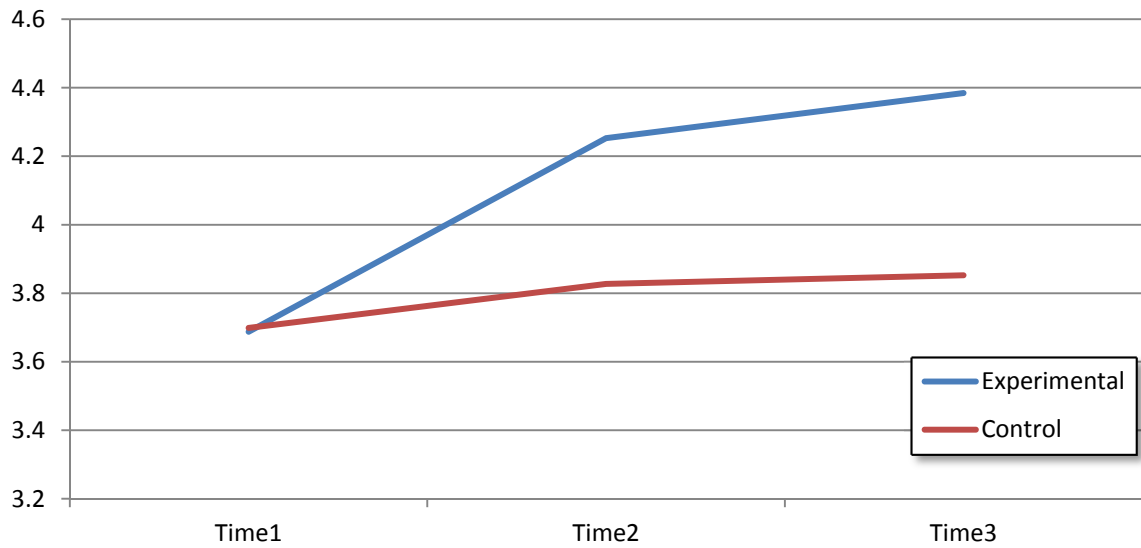


Figure 9. IASMHS factor 2 mean scores for women in treatment and control groups.

ANOVA and the interaction effect approached significance, $F(2,70) = 3.16, p = .052, n^2_p = .043$, suggesting that caseness did not have a statistically significant effect on intent in the present study. The interaction effect for attitudes (IASMHS) was also not significant. A summary of the results showing main and interaction effects for the primary analyses and research questions can be seen in Table 5.

Table 5

Summary of Results

Outcome/predictor	Type III SS	MS	F	df	η^2_p	p
Intention to seek counseling						
Time	6.634	3.182	32.469	2	.311	.000
Time* group	0.316	0.158	1.614	2	.022	.203
Time*caseness	0.077	0.038	0.400	2	.006	.671
Time*group*caseness	0.607	0.304	3.155	2	.043	.046
Time*gender	0.482	0.241	2.491	2	.034	.087
Time*group*gender	0.051	0.025	0.263	2	.004	.769
Time*treatment	0.308	0.154	1.566	2	.022	.213
Time* group*treatment	0.043	0.021	0.217	2	.003	.805
Attitudes toward seeking help						
Time	2.310	1.155	13.347	2	.173	.000
Time*group	0.314	0.157	1.816	2	.028	.167
Time*caseness	0.710	0.355	4.254	2	.064	.016
Time*group*caseness	0.091	0.045	0.545	2	.009	.581
Time*gender	0.116	0.058	0.656	2	.010	.521
Time*group*gender	0.046	0.023	0.263	2	.004	.769
Time*treatment	0.012	0.006	0.067	2	.001	.935
Time* group*treatment	0.352	0.176	2.038	2	.032	.135
F1: time	4.808	2.404	20.346	2	.238	.000
F1: time*group	0.735	0.368	3.111	2	.046	.048
F1: time*caseness	0.307	0.154	1.287	2	.020	.280
F1: time*group*caseness	0.026	0.013	.107	2	.002	.899
F1: time*gender	0.102	0.051	.425	2	.007	.655
F1: time*group*gender	0.077	0.038	.318	2	.005	.728
F1: time*treatment	0.020	0.010	.083	2	.001	.921
F1: time* group*treatment	0.235	0.118	.981	2	.015	.378
F2: time	7.470	3.735	17.911	2	.201	.000
F2: time*group	1.191	0.596	2.856	2	.039	.061
F2: time*caseness	0.394	0.197	.934	2	.013	.396
F2: time*group*caseness	0.055	0.028	.131	2	.002	.877
F2: time*gender	0.256	0.128	.632	2	.009	.533
F2: time*group*gender	1.294	0.647	3.193	2	.044	.044
F2: time*treatment	0.236	0.118	.561	2	.008	.572
F2: time* group*treatment	0.344	0.172	.817	2	.012	.444
F3: time	2.366	1.183	5.956	2	.083	.003
F3: time*group	0.042	0.021	.105	2	.002	.900
F3: time*caseness	2.016	1.008	5.369	2	.077	.006
F3: time*group*caseness	0.486	0.243	1.294	2	.020	.278
F3: time*gender	0.437	0.219	1.100	2	.017	.336
F3: time*group*gender	0.488	0.244	1.228	2	.019	.296
F3: time*treatment	0.066	0.033	.163	2	.003	.849
F3: time* group*treatment	0.398	0.199	.987	2	.015	.375

CHAPTER V

DISCUSSION

Summary of Findings

The results of the present study produced mixed findings with regard to the primary research hypotheses and research questions of interest. The intervention did not show statistically significant effects on the main hypotheses involving intent to seek counseling and attitudes toward seeking services. Although the treatment and control group time 2 means for psychological openness are similar, the means at baseline were somewhat different where the treatment group started out lower at baseline. It appears that the experimental intervention did not significantly affect attitudes toward seeking mental health services with regard to stigma compared to the control condition. It may be worthy of note that the treatment effect trended in the predicted direction in all of the outcome measures at time two, even though this effect was not always maintained at time three. Although the difference between experimental and control means was not always significant, the change from pretest to posttest was consistent with improved attitudes. An unanticipated result of the study was that participants in the control condition also appeared to have improved attitudes toward seeking mental health.

One possible interpretation is that the content of the outcome measures during the pretest primed participants for the second administration of the outcome measures. It may be that asking participants to think about their attitudes related to mental health services initiated a contemplative reflection process that had an effect independent of the

experimental or control video (Segal, 1997). Another possibility is that some unidentified factor present in both experimental and control conditions influenced outcomes. Despite having no overlap in content, both videos possessed a similar tone and general theme suggesting participants should be mindful of their state of wellbeing and attend to problems proactively. This could be tested in the future by adding a completely unrelated control group such as a condition where the video does not provide useful information. It is unlikely that social desirability bias played an important role in the influence on attitudes observed as participants responded to the study with the understanding that their responses would not be linked to their identity and additionally there was no direct contact between participants and researchers.

Perhaps one of the most notable findings was the sex difference on the attitude measure reflecting help-seeking propensity. Women showed positive attitude change that appeared to get stronger over time whereas men showed less initial improvement and a trend toward baseline over time. This finding may suggest that the intervention was effective at increasing help-seeking propensity among women, but not among men. Past studies have reported that women tend to be more open to help seeking than men (Leong & Zachar, 1999). The results of the current study suggest that women may be more amenable to efforts to increase help-seeking. Previous similar studies have either not reported gender effects (Sharp et al., 2006) or have not found significant differences in outcome between women and men (Fende Guajardo & Anderson, 2007). It is not known whether specific attributes of the current intervention such as the use of male voiceover may have influenced results.

Based on the mixed outcomes produced by the current study it is difficult to determine whether the experimental intervention can be regarded as an effective means of influencing attitudes toward seeking professional mental health services or the larger goal of increasing utilization of mental health services by students who could benefit from receiving help. There may be changes that could be made to the intervention that would make it more effective.

Strengths and Limitations

One of the limitations of the current study is that influencing attitude change appears to be a difficult process. It remains unclear whether meaningful change in attitude toward seeking mental health services can be achieved through the use of a universal intervention. If such change is possible, there may be factors that were not adequately addressed by the experimental intervention (e.g., sex), or the approach to measuring attitude change in the current study could have been flawed.

In some instances, the outcome measures selected for the study appeared to reflect ceiling effects. When the average baseline score (as reflected by the outcome measure) starts out relatively high, there is a limited opportunity to measure positive change in attitude. This could be a limitation of the outcome measures selected or could be explained by specific population variables such as a particularly well informed student body.

Another potential limitation of the study is that both experimental and control groups showed positive attitude change in many of the results. While the design was

intended to test the effectiveness of the experimental content by creating a very similar experience for the control group, the health and wellness focused message may have been too similar to the experimental intervention. There may have been unmeasured similarities that account for the positive attitude change in the control group. Perhaps a control group condition such as a wait list or completely neutral video would have a different result.

An unforeseen limitation was the attrition that occurred between the posttest and 4-week follow-up. Due to the timing and grading requirements of professors whose students were invited to participate, some students were provided extra credit based on their participation after the follow-up test and before completion of the 4-week follow-up. In these cases, the most common issue was the need to assign points for extra credit to determine course grades in less than 4 weeks. Once students received credit, they may have lost motivation to continue in the study. Participants were notified in the request for 4-week follow-up that there was a raffle for a Kindle Fire and an Amazon gift card. It is possible that these prizes were not sufficient to induce wide participation in the 4-week follow-up. Prizes of higher value may have increased participation.

Recommendations for Future Research

One possibility is that a universal intervention is not an effective strategy for improving attitudes toward seeking mental health services among college students. It may be that the experimental intervention was not as effective for specific groups of individuals due to being designed to reach a broad audience. Perhaps separate videos that

have been customized for specific groups of students (e.g., athletes, international students) would be more effective within specific groups. Other studies have shown some success with tailored interventions (Carlbring et al., 2011). This could be tested by identifying subgroups of students and modifying the intervention to address the special needs and considerations of each subgroup. Such a strategy could lead to a greater effect in areas where the experimental intervention did not produce significant results such as indifference to stigma. For example, a specialized video might allow for the use of models that represent a particular subgroup and who could normalize the use of mental health services amongst members of that group.

Another possibility is that an intervention of this nature cannot sufficiently influence attitudes related to factors such as stigma and should instead focus on attitudes that can be effectively changed through the multimedia modality. Based on significant findings related to help-seeking propensity (IASMHS Factor 2), the intervention could be optimized to address related factors such as perceived behavioral control as covered in the TPB. Refining the focus of the intervention to achieve specific attitude changes could increase the effectiveness of the intervention in those areas by reducing the distraction caused by other messages. This would also allow the intervention to be more efficient in that it would be of shorter duration and would require less time and effort to create.

An additional consideration in the evaluation of the usefulness of the experimental video is that it may provide benefits that are not reflected in the outcome measures selected for the current study. As suggested by the literature review, consumers of mental health services may benefit from being better educated about psychotherapy. It

is conceivable that an intervention such as the experimental video in this study could improve therapeutic outcomes by reducing anxiety about counseling amongst students who have never received counseling and providing a basis for students to have realistic expectations for therapy. To test these hypotheses would require an experimental design where actual counseling clients complete the experiment and are measured before and after initiating counseling services.

Students who are better informed about the types of presenting problems that are suitable for treatment in a university counseling center may also seek services when they are in distress due to problems that they would not have otherwise recognized as appropriate for treatment. For example, some students may not seek help because they think that counseling services are only for those with severe mental illness.

Perhaps the most significant improvement on the current study would be to add a longitudinal design (Willet, Singer, & Martin, 1998). One of the notable limitations of the current study is the lack of direct indicators of effectiveness over a longer period of time. A four week time period does not capture the potential effects on student behavior over the course of an academic career.

The current study relied on the theoretical belief that attitudes about mental health services directly affect utilization of mental health services. The only way to truly measure whether the experimental intervention increases utilization of counseling center services would be to determine the actual rates of utilization between students who have seen the video and those who have not. While improved attitudes toward mental health services are expected to correlate with increased utilization, this relationship is not yet

well established in the literature. One way to test the intervention directly would be to administer the intervention to a group of incoming freshmen and track their utilization of counseling center services compared to a group of students who have not been exposed to the intervention across their college career.

Although the experimental intervention in the current study arguably may require further refinement before it is ready to be widely used on college campuses, the results may justify the need for further study. The potential benefits of a multimedia intervention similar to the one in this study arguably outweigh the risks. The time and effort required to reproduce such an intervention might be considered worthwhile if the end result leads to the successful treatment of even a small percentage of students who would not have otherwise received treatment.

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APPENDICES

Appendix A
Intentions to Seek Counseling Inventory

Intentions to Seek Counseling Inventory

Below is a list of issues people commonly bring to counseling. How likely would you be to seek counseling if you were experiencing these problems? Please circle the corresponding answer.

Very unlikely Unlikely Likely Very likely

- | | | | | | |
|-----|-------------------------------|---|---|---|---|
| 1. | Weight control | 1 | 2 | 3 | 4 |
| 2. | Excessive alcohol use | 1 | 2 | 3 | 4 |
| 3. | Relationship differences | 1 | 2 | 3 | 4 |
| 4. | Concerns about sexuality | 1 | 2 | 3 | 4 |
| 5. | Depression | 1 | 2 | 3 | 4 |
| 6. | Conflict with parents | 1 | 2 | 3 | 4 |
| 7. | Speech anxiety | 1 | 2 | 3 | 4 |
| 8. | Difficulties dating | 1 | 2 | 3 | 4 |
| 9. | Choosing a major | 1 | 2 | 3 | 4 |
| 10. | Difficulty in sleeping | 1 | 2 | 3 | 4 |
| 11. | Drug problems | 1 | 2 | 3 | 4 |
| 12. | Inferiority feelings | 1 | 2 | 3 | 4 |
| 13. | Test anxiety | 1 | 2 | 3 | 4 |
| 14. | Difficulty with friends | 1 | 2 | 3 | 4 |
| 15. | Academic work procrastination | 1 | 2 | 3 | 4 |
| 16. | Self-understanding | 1 | 2 | 3 | 4 |
| 17. | Loneliness | 1 | 2 | 3 | 4 |

Appendix B

K10 Test

K10 Test

These questions concern how you have been feeling over the past 30 days. Tick a box below each question that best represents how you have been .

1. During the last 30 days, about how often did you feel tired out for no good reason?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

2. During the last 30 days, about how often did you feel nervous?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

3. During the last 30 days, about how often did you feel so nervous that nothing could calm you down?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

4. During the last 30 days, about how often did you feel hopeless?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

5. During the last 30 days, about how often did you feel restless or fidgety?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

6. During the last 30 days, about how often did you feel so restless you could not sit still?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

7. During the last 30 days, about how often did you feel depressed?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

8. During the last 30 days, about how often did you feel that everything was an effort?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

9. During the last 30 days, about how often did you feel so sad that nothing could cheer you up?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

10. During the last 30 days, about how often did you feel worthless?				
1. None of the time	2. A little of the time	3. Some of the time	4. Most of the time	5. All of the time

Appendix C

The Inventory of Attitudes Toward Seeking Mental Health Services

Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS)

The term *professional* refers to individuals who have been trained to deal with mental health problems (e.g., psychologists, psychiatrists, social workers, and family physicians). 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, indicate whether you *disagree* (0), *somewhat disagree* (1), *are undecided* (2), *somewhat agree* (3), or *agree* (4):

	Disagree				Agree
1. There are certain problems which should not be discussed outside of one's immediate family.	[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.	[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 <i>everything</i> about oneself.	[0	1	2	3	4]
8. If I were experiencing a serious psychological problem at this point in my life, 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 professional 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 find out that I was experiencing psychological problems.	[0	1	2	3	4]

Psychological problems, like many things, tend to work out by themselves.....	[0	1	2	3	4]
It would be relatively easy for me to find the time to see a professional for psychological problems.	[0	1	2	3	4]
There are experiences in my life I would not discuss with anyone.....	[0	1	2	3	4]
I would want to get professional help if I were worried or upset for a long period of time.	[0	1	2	3	4]
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]
Having been diagnosed with a mental disorder is a blot on a person's life.	[0	1	2	3	4]
There is something admirable in the attitude of people who are willing to cope with their conflicts and fears <i>without</i> resorting to professional help.....	[0	1	2	3	4]
If I believed I were having a mental breakdown, my first inclination would be to get professional attention.....	[0	1	2	3	4]
I would feel uneasy going to a professional because of what some people would think.	[0	1	2	3	4]
People with strong characters can get over psychological problems by themselves and would have little need for professional help.	[0	1	2	3	4]
I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.	[0	1	2	3	4]
Had I received treatment for psychological problems, I would not feel that it ought to be "covered up." ...	[0	1	2	3	4]
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 D

Demographic and Related Questions

Demographic and Related Questions

1. What is your age?
2. What is your gender?
3. What is your ethnicity?
4. Are you an international student?
5. What is your year in school? (e.g., freshman)
6. What is your major?
7. What is your marital status?
8. What is your religious affiliation? (e.g., Catholic, LDS, none)
9. Have you ever received treatment for an emotional or psychological problem from a doctor or mental health professional in the past?

Yes

No
10. How would you rate your current need for treatment for an emotional or psychological problem?

0 (not needed)

1 (possibly needed)

2 (probably needed)

3 (needed)

4 (strongly needed)

5 (very strongly needed)

Appendix E

Instructions for Counseling Center Staff Review Panel

Instructions for Counseling Center Staff Review Panel

- 1) Please identify any content that you feel could be presented more clearly or succinctly.
- 2) Please suggest any information or details that you feel, if added, would contribute to the objectives of the intervention.
- 3) Please identify any content or information that appears to you to be inaccurate, or that could be misleading to a college student.
- 4) Please provide any additional comments or suggestions that you believe could enhance the effectiveness of this script based on your experience with the student population.

Appendix F
Questions for Student Focus Group

Questions for Student Focus Group

- 1) Please identify any aspects of the presentation that you found confusing or difficult to understand.
- 2) Based on the presentation, please rate how important you feel it is for students to know about mental illness and the role of mental health providers. (1-5, Likert type scale)
- 3) How well did the presentation hold your attention? (1-5, Likert type scale)
- 4) Was there anything you were left wondering after viewing the presentation, or something you wish had been covered in greater depth?
- 5) How likely would you be to recommend this presentation to a friend? (1-5, Likert type scale)

Appendix G

Intervention Knowledge Check

Intervention Knowledge Check

1. For a full-time student who wants counseling:
 - a. He or she would first need to have a diagnosable mental illness
 - b. There must be a referral from a doctor or professor
 - c. Calling or stopping by the counseling center is all that is needed to start the process

2. Counseling services may be helpful when a student has:
 - a. Depression
 - b. Eating/Body image concerns
 - c. Relationship problems
 - d. all of the above

3. Confidentiality in counseling means that:
 - a. The counselor is sworn to silence at all costs
 - b. Counselors can talk about their student clients freely, but records are kept sealed
 - c. All communications and records remain private, except in special situations

4. Mental illness:
 - a. Is rarely found among college students
 - b. Affects as many as 1 in 4 college students
 - c. Is a fact of life for all college students

5. Getting help from a counseling center:
 - a. Involves the same type of treatment for every student
 - b. Involves treatment and services tailored to a student's specific needs
 - c. Usually consists of being sent home with pamphlets to read over

6. Regarding religion in counseling:
 - a. The religion of the counselor determines the type of treatment
 - b. Religious views of the counselor or student have no place in counseling
 - c. Religious views are respected, and their role is determined between the counselor and student

7. A student who attends sessions at the counseling center:
 - a. Will be expelled from involvement in sports, clubs, or extracurricular functions
 - b. Will be too busy getting help to pursue leisure activities
 - c. Has a good chance of resolving issues that negatively impact their life

8. A typical therapy session:
 - a. Lasts about 50 minutes, and occurs once a week
 - b. Lasts about 30 minutes, and occurs once a month
 - c. Lasts an hour, and rarely extends beyond the first contact

9. One of the most common problems that leads students to seek counseling is:
 - a. Hearing voices
 - b. The fear of crowded places
 - c. Feeling “blue” or depressed

10. It is appropriate to seek counseling if distress is causing:
 - a. Academic performance to decline
 - b. Problems with friends or family
 - c. Symptoms that affect a student’s health or wellbeing
 - d. Any of the above

Appendix H
Intervention Script Draft

Intervention Script Draft

Introduction

N: As a college student, you're faced with new challenges all the time. You want to get the most out of your education, and experience all that college life has to offer. This is an exciting time in your life. You have the opportunity to achieve a solid foundation in education, and make memories that will last forever.

You wouldn't be here if you didn't have a good head on your shoulders. A lot of hard work has gone into getting you where you are today. The reality is, even those who are most prepared encounter bumps in the road along the way. Sometimes these bumps are nothing more than minor obstacles, but other times, they can create serious challenges. The information you're about to learn will help you to avoid one of the most commonly overlooked pitfalls during the college experience, failing to tend to your mental health and wellbeing. In fact, up to 1 in 3 college students suffers from a mental illness each year (Norquist & Regier, 1996). The knowledge you're about to gain has been carefully prepared by experts in the field of psychology. By the end of this presentation, you will be able to spot the most common signs of distress. More importantly, you will know what to do if you should ever need help.

So pay close attention; this information could make a world of difference to your college experience. And by the way, you are in college now, so there will be a quiz to test your knowledge at the end.

Facts About Mental Illness

N: Conditions such as depression are the leading cause of disability in the United States (www.nimh.nih.gov/health/topics/statistics/index.shtml). There are an estimated 57 million Americans suffering from mental illness in a given year (NIMH), and college students may be particularly at risk. The age group 18-24 has been found to have the highest prevalence of mental disorders of any age group (Kessler et al., 1994). Many people with mental illness don't recognize the disorder, and fail to seek treatment that can be highly effective (www.apahelpcenter.org).

There are many potential causes of mental illness, both biological and environmental. If you have a family history of mental illness, you are at an increased risk of mental illness yourself. Other factors that may lead to mental illness include stress, traumatic events, and major life changes. The number of students who suffer from mental illness may already seem high, but there are even more students who are suffering from symptoms related to mental illness who do not meet the full criteria for an official diagnosis.

Two of the most common disorders affecting students are depression and anxiety. Depression can affect your energy levels, and is often described as feeling sad or “blue” (apahelpcenter.org). Depression can also affect your ability to concentrate, your appetite, and your sleep. There is often a lack of interest in things that were once enjoyable, and sometimes people feel so down that it’s hard to get out of bed in the morning. For some students, it will be hard to get through a homework assignment, and in some cases, there might even be thoughts of death or dying. Most people will experience some of these symptoms during their lifetime, but will only require treatment if they are negatively affected in their ability to function academically, at work, or socially.

Anxiety disorders can take many forms, one of which is Generalized Anxiety Disorder. Generalized anxiety is most easily recognized by the presence of excessive worry. It involves worry about a variety of things, and is bad enough that it interferes with your life. Other anxiety disorders include phobias, such as an excessive fear of heights, Panic Disorder, Social Phobia, and Obsessive-Compulsive Disorder. You can find out more information about these disorders online, but if you think you might have a mental illness you should talk to a professional.

In addition to depression and anxiety, there are other types of disorders that are common amongst college students. Eating disorders have become a common occurrence on college campuses over the years, and include anorexia, bulimia, and binge eating disorder. A counselor can be a good source of information if you suspect that you or someone you know might have an eating disorder.

There are many types of mental disorders that can affect a student’s health and well being; in fact, too many to mention here. If you notice that things are not going as well as they used to in school, at work, or socially, then it might be worth a visit to a professional who is trained to identify mental health problems, and will help you find the best solution.

Additional Reasons People Seek Counseling

N: As you now know, mental disorders are fairly common among college students, but there are many reasons why people might seek counseling. Common stressors faced by students are anxiety about tests or problems with a particular subject, such as math. It’s normal to be nervous about a test if you haven’t studied, but if you have studied and done well on tests in the past but still feel so stressed it almost makes you sick, then you could benefit from some simple strategies and exercises that you can learn from a counselor.

Another common problem facing students is relationship difficulties. Break-ups can be hard to deal with, and can have real effects on your ability to

focus on your responsibilities. Other students can feel pressure from friends or family in a way that is not healthy. It can be difficult to please professors, parents, bosses, and friends all at the same time while managing to take care of your own needs in the process. If you feel like you're barely managing to tread water, a professional might be able to help you find a more manageable approach given your unique circumstances.

Sometimes serious distress can come from sources outside of your control. The unfortunate reality is that it is impossible to prevent things like hazing, and physical or sexual assault from ever happening on a college campus. One in seven college women has been raped, and four out of five knew their attacker (www.doitnow.org/pages/175.html). The effects of such a violation can be deep, and can have unpredictable effects on the victim. Victims of all kinds of abuse are often afraid or too ashamed to talk about what happened. A trained professional has the knowledge and experience to help you through a difficult time in a discrete and respectful way.

Pressure from friends or the stress of the many demands that a college student faces can lead to the problematic use of drugs or alcohol. If you or a friend's use of a substance has become excessive, the repercussions can be serious. Students have lost friends, scholarships, and even their lives as a result of substance abuse. It's never too soon to get help for a substance abuse problem.

Some students gamble, or view pornography, and find that these activities are taking increasing amounts of time and other resources. Left untreated, there is a possibility that homework can suffer, and relationships with friends and family can be damaged.

What to Expect from Counseling [include "client" video testimonial]

N: Mental health counseling has sometimes been referred to as "talk therapy". While every counselor is unique, and will vary somewhat in their approach to treatment, all are trained to be professional, respectful, and ethical. A counselor will listen to what you have to say, and help you to find a better understanding of your problem and some possible solutions.

Counselors don't give medication, and don't have a magic pill that will make a person's troubles disappear. They work with their client to find new ways of looking at problems, new ways of thinking, and alternative ways of doing things that are more in line with the client's personal goals. Going through counseling isn't always easy, but the results can be dramatic and permanent. Sometimes the difficult work occurs right there in session, and sometimes a client is asked to complete homework assignments designed to help them reach their goals.

Counselors and their clients build a relationship based on trust. Sometimes it is necessary for a client to talk about things that are difficult to share. This is one of the reasons that professional counselors practice confidentiality. Counselors are legally and ethically bound to keep their communications with clients confidential. A counselor won't talk about what happens in session except under special circumstances. One of the times a counselor might break confidence is when there is a serious threat to the safety of their client, or the client poses a threat to the safety of someone else. A counselor will break confidentiality when it is necessary to report child abuse, or when ordered by a judge, but such occurrences are rare, especially amongst college students.

Depending on the situation, a student may contact a counseling center for a 1 time consultation, individual treatment, or to be a part of a treatment group. Counseling center staff members are knowledgeable, and will help a student identify appropriate services. Typically, a student in distress will first meet with a counselor to explain their reason for seeking help, and clear up any questions about treatment options and available services. The student will then meet regularly with that counselor, or one that has been deemed a better fit based on the information that has been provided. It is normal practice to attend 50 minute sessions once a week, and continue for varying amounts of time depending on what brings the student in and the level of distress. The best outcomes occur when clients work with their counselor to identify a treatment plan that makes sense, and work together until the treatment goals are met.

When appropriate, a counselor will make referrals to other professionals such as doctors, and resource specialists who may provide additional services consistent with the client's goals. A counselor is often in the best position to coordinate efforts and help the client achieve the best possible treatment outcome.

Typical Outcomes of Treatment [potential for professional testimonial]

N: The good news is that counseling often works. Counselors are mental health professionals who are trained to recognize and provide treatment for all of the problems mentioned during this presentation and more. Sometimes it is even possible to find a counselor who has special skills or experience in treating a specific type of problem. Although the outcome of professional treatment varies for different individuals and disorders, as many as 63% of those who use counseling see improvement (Hoglund, 1999).

Many who seek counseling have already tried other things, such as self-help books or talking to friends, relatives, or religious leaders. A counselor will consider all of these resources and work with the client to find a solution that is respectful of their convictions and those of the important people in the client's life.

How to Get Counseling if You Need It

N: If you or someone you know needs counseling, it might be easier than you think to get help. Students of Utah State University who are currently enrolled in at least six academic credits can obtain counseling services free of charge at the USU Counseling Center located on the third floor of the Taggart Student Center [include picture]. Another resource on campus is the Psychology Community Clinic, which is located on the fourth floor of the Education building and offers counseling services on a sliding fee scale and is available to all members of the community.

Students with medical insurance may also be entitled to receive services from mental health professionals who practice outside of campus. Students should consult with their insurance provider to learn about any provisions for mental health treatment that might be available.

Students in crisis should get help immediately. If your condition is serious, or you fear for your personal safety, you should not hesitate to dial 911, or visit the local hospital emergency room. During normal business hours, the USU Counseling Center has staff who can meet the same day if a student needs immediate attention.

VITA

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Education

- Ph.D. **Utah State University, Logan, UT**
8/2012 Combined Clinical/Counseling/School Psychology
(APA accredited Ph.D. Program)
 Chair: Melanie Domenech-Rodriguez, Ph.D.
 Master's thesis: Ethnic minority utilization of counseling center
 services
 Dissertation: A multimedia intervention to increase the likelihood
 that university students in need will utilize counseling services
- M.A. **University of San Diego, San Diego, CA**
2002 Marriage and Family Therapy
- B.A. **San Diego State University, San Diego, CA**
1999 Psychology
 Minor in Political Science
- 8/95 – 5/97 **Grossmont College, San Diego, CA**
 General Education

Clinical Experience

- 9/12 – present **Dartmouth College, Counseling and Human Development**
 Staff Counselor

 Providing culturally sensitive individual, couples, and group
 therapy, crisis response, consultation, and outreach.
- 8/11 – 8/12 **Montana State University, CPS (APA Accredited)**
 Pre-doctoral Intern in Psychology

 In an IACS accredited university counseling center setting,

experience includes culturally sensitive brief individual and couples therapy, crisis response (including on-call duty), psychological assessment and integrated report writing, consultation, outreach, and supervising a master's level clinician. A 13-week summer rotation on the Crow reservation was included as part of the internship.
Supervisor: Cheryl Blank, Ph.D.

6/09 – 9/09 **Utah State University Community Clinic, Logan, UT**
 Student Therapist

Intake assessments, psychological testing, individual and couples therapy. development of treatment plans and progress monitoring.
Supervisor: Carolyn Barcus, Ed.D.

8/07 – 5/08 **Utah State University Counseling Center, Logan, UT**
 Graduate Assistant Therapist

Experience included intake assessments, individual, couples, and group therapy, consultation, peer supervision, outreach, and weekly professional development seminars
Supervisors: David Bush, Ph.D., Amy Kleiner, Ph.D.

8/05 – 5/06 **Utah State University Counseling Center, Logan, UT**
 Student Therapist

Intake assessments, individual, and couples therapy, consultations, outreach, and weekly training and development
Supervisors: Thomas Berry, Ph.D, David Bush, Ph.D.

8/04 – 5/05 **Center for Persons with Disabilities, Logan, UT**
 Student Clinician

Interview, testing, and evaluation of clients suspected of disabilities, including participation in multidisciplinary treatment team
Supervisor: Patricia Truhn, Ph.D.

8/03 – 6/04 **Utah State University Community Clinic, Logan, UT**
 Student Therapist

Interview, assessment, treatment planning, and psychotherapy with individual adult clients (students)
Supervisor: Kevin Masters, Ph.D.

8/02 – 7/03 **San Diego American Indian Health Center, San Diego**
 Marriage and Family Therapy Registered Intern

Individual psychotherapy, outpatient substance abuse counseling, community outreach, created smoking cessation group, organized National Alcohol Screening Day event. All services with Native American Clients.
Supervisor: Drucilla Ruocco, Ph.D.

8/01 – 7/02 **Catholic Charities, San Diego**
 Student Therapist

501 direct contact hours including individual psychotherapy, marriage, family, and child treatment of diverse clients.
Supervisor: Marilyn Cornell, LMFT

Teaching

2011
 Fall **HDCO 521, Counseling Skills Lab**
 Graduate Teaching Assistant

Prepared masters counselors-in-training in a CACREP accredited program through coaching and instruction in the use of essential counseling skills. Evaluated student progress and assessed for areas of growth.

2010
 Spring **PSY 1010, Intro to Psychology**
 Primary Instructor

Prepared syllabus, planned the course, lectured, and conducted evaluations of local and broadcast students.

2006
 Spring **PSY 5200, Intro to Interviewing and Counseling**
 Primary Instructor

Prepared syllabus, planned the course, lectured, and conducted evaluations of local and broadcast students.

8/04 – 5/05 **PSY 1010, Intro to Psychology**
 Graduate Teaching Assistant

Guest lectured, facilitated labs, graded assignments, provided advising to students
Supervisor: Scott Bates, Ph.D.

2003 **PSY 5200, Intro to Interviewing and Counseling**
 Spring Graduate Teaching Assistant

Guest lectured, graded assignments, provided advising and office hours

Supervisor: Carolyn Barcus, Ed.D.

Research

2006 **Early Intervention Research Institute**
 Graduate Assistant

Psychological testing of elementary school children including intellectual assessment and achievement

Supervisor: Mark Innocenti, Ph.D.

Professional Presentations

Lindsley, T.W. (2009). *Ethnic Minority Utilization of Counseling Center Services*. Poster session presented at the annual meeting of the Rocky Mountain Psychological Association, Albuquerque, NM.

Memberships and Associations

American Psychological Association, Student Affiliate

Society of Indian Psychologists and Psychology Graduate Students