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Changing perceptions of seeking help: A test of the effectiveness of an intervention video

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Changing perceptions of seeking help:
A test of the effectiveness of an intervention video

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ABSTRACT

The purpose of this study was to assess the effectiveness of an intervention video designed to promote positive associations with help seeking for mental health concerns. Participants were 290 undergraduates who were randomly assigned to a repeated exposure video intervention, a single exposure video intervention, or a control video condition. Participants completed measures pre-intervention, post-interventions, and at a six-week follow-up. The intervention repeated exposure group improved significantly more than the control group on help-seeking peer norms but not on the other outcome variables. The effect for peer norms was found at each time point, indicating both immediate and longer-term effects. The repeated exposure group also improved significantly more than the single exposure group on peer norms from pretest to Time 3. Effective, empirically supported interventions capable of reaching large numbers of people are necessary to help improve the under-utilization of mental health services. The present study offers some initial support for such theory-based video interventions for changing perceptions of normative behavior of seeking help.

CHAPTER 1. INTRODUCTION

Three-fourths of the estimated 50 million Americans suffering from mental illness do not seek mental health services (Center for Mental Health Services [CMHS], 2000). As such, one would expect that there would be an increase in the number of interventions aimed at enhancing the utilization of mental health services similar to those used for other health services. For example, in the 1980s and 1990s, AIDS interventions focused on health promotion and detection, disease prevention, and utilization of health care services (Slavin, Batrouney, & Murphy, 2007). However, health behavior interventions aimed at promoting mental health are sparse compared to other medical conditions and the effectiveness of these limited efforts has not been clearly established. Therefore, the goal of this study was to test a theory-based mental health promotion video aimed at changing help-seeking attitudes, peer norms, outcome expectations, stigma, and willingness to seek professional mental health services. Creation of an empirically supported intervention video can provide the impetus for changes with regard to seeking help for mental health concerns.

The Media and Attitudes

Media outlets such as television have been shown to be one of the public's most important sources of information about mental illness (Borinstein, 1992) and psychotherapy (Jorm, 2000; Jorm et al., 1997). In addition, a survey by the National Health Council revealed that at the turn of the 21st century, more people in the U.S. turned to television as their primary source of health information (40%) than to physicians (36%; Chory-Assad & Tamborini, 2003). Seventy-six percent of the respondents reported having taken advice offered in a news story they heard or read and the majority cited television news magazines as

the most credible source of health news (Chory-Assad & Tamborini*).* As such, people seem to be receiving information about health care services from the media.

It has long been established and is generally agreed upon in media literature that media sources such as television can have a significant influence over a person's social construction of reality (Potter, 1993). Within mass media studies, one dominant theoretical frame is known as the cultivation hypothesis (Potter & Chang, 1990). The cultivation hypothesis, developed by George Gerbner in 1969, predicts a positive relation between amount of television exposure and evidence of norms, values, conceptions of reality, attitudes, thoughts, and beliefs. Specifically, these cultivated perceptions are learned through repeated viewings of information over time. Numerous studies have shown that frequent viewers of television are more likely to perceive the real world as it appears on television (Potter). Therefore, a problem with obtaining mental health information from media sources is that the information presented is often negative and inaccurate (Philo, 1994) and portrayed in an exaggerated and sensationalized manner (Crisp, Gelde, Rix, Meltzer, & Rowlands, 2000; Wolff, Pathare, Craig, & Leff, 1996), both of which may perpetuate negative mental health attitudes and decrease the use of mental health services.

Entertainment television programming, in particular, has been found to portray largely unrealistic, sensationalized and exaggerated images of characters (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002) and the presentation of those experiencing a mental illness is no exception. For example, media analyses of film or print representations of mental illness reveal misconceptions of those with mental illness as being violent, unpredictable, child-like, rebellious, and irresponsible (Brockington, Hall, Levings, & Murphy, 1993; Farina, 1998;

Gabbard & Gabbard, 1992; Monahan, 1992; Taylor & Dear, 1980). Other research shows that the media devalue mental illness through ridicule, exaggeration, and disrespect (Wahl, 1995). The National Mental Health Association (NMHA; 2000) maintains that entertainment media frequently use negative and derogatory terms when referencing mentally ill persons. For instance, in 2001, the popular series *ER* aired six episodes that starred Sally Field as a mother of one of the doctors on the show. Field's character was described as a "bipolar mother" (*Episode Guide,* 2001). The publicity write-ups describing these episodes included adjectives such as: *mentally unbalanced, mentally disturbed, unstable, unpredictable, disconnected, suicidal, and a broken woman.* These derogatory terms can fuel negative attitudes toward persons with mental illness (Brown & Bradley, 2002). In a 2002 study of mental illness in the news by Coverdale, Nairn, and Claasen, mentally ill characters were portrayed and referred to as aggressive, violent, and unpredictable. Signorielli (1989) pointed out that 72.1% of prime-time characters with a mental illness hurt or kill others. According to Diefenbach (1997), prime-time television inflates violent tendencies in mentally ill individuals by a factor of 20. In addition, news coverage has been found to portray 65% of those with mental illness as committing violent acts against others (Rose, 1998). Not surprisingly, the majority of people still believe those with mental illness are violent, when in fact less than 10% of people with disorders are potentially dangerous (Steadman et al., 1998).

The perceptions cultivated through multimedia outlets can play a role in attitudes toward mental illness. For example, research by Granello and Pauley (2000) studying negative effects of electronic media on public perception "suggests that television portrays inaccurate and unfavorable images of mental illness" (p. 171) and that exposure was correlated with

intolerance toward people with mental illness. As a result, Corrigan (1998, 2004) asserted that the negative portrayals of the mentally ill could lessen a person's willingness to seek help because of the greater expectation by the individual that others will perceive them negatively. In other words, negative television portrayals may lead to the increased expectations of being devalued for seeking help and thus impede actual intentions to seek help (Byrne, 1997; Corrigan & Penn, 1999; Crisp et al., 2000; Socall & Holtgraves, 1992; Wahl & Lefkowits, 1989).

Not only are portrayals of mental illness important but portrayals of mental health professionals and counseling in general might have an influence. Media analyses of print, film and television representations reveal themes of unethical behavior, incompetence, and sexually inappropriate behavior among male and female mental health professionals (Domino, 1983; Eber & O Brien, 1982; Schneider, 1987; Signorielli, 1989). In a content analysis of 61 movies portraying mental health professionals, Bischoff and Reiter (1999) found that male therapists were typically portrayed as unethical, unemotional, and incompetent. Female therapists were typically sexualized and although they were portrayed as competent clinicians, they were portrayed as incompetent at managing personal relationships. Such negative portrayals have been a well-documented trend dating back to the 1960s and 1970s (Schneider; Signorielli, 1986). Old television shows such as *The Bob Newhart Show* and movies such as *One Flew Over the Cuckoo's Nest* all use unfavorable or unrealistic depictions for entertainment purposes. Contemporary film and television portrayals remain as vivid and unfavorable as ever, as more modern movies continue to perpetuate negative stereotypes of therapists. For example, Hannibal Lector, in *Silence of the Lambs,* is depicted as a mental health professional,

criminally insane, cannibalistic, and one who uses psychologist skills to manipulate victims (Hyler, Gabbard, & Schneider, 1991, Wahl, 1992). Doctor Leo Marvin, in *What About Bob,* is depicted as a psychiatrist in New York City who becomes so irate with a patient of his that he turns to abduction and violence to deal with the situation.

In sum, the accuracy of mental health-related media messages can be a barrier to people seeking help when they need it, particularly, if media outlets portray inaccurate images of mental health services. The media are outlets for equal opportunity, however, and health-related messages can be framed more positively. In fact, there may be some positive effects of the media as the media can also be used to promote accurate health information. For example, preventive measures are being taken, with television as a conduit, to combat AIDS (condoms, HIV testing, clean needle programs), treatments for cancer (lumpectomies and mastectomies), and education of STDs (Hornik 1997; Snyder & Hamilton, 2003). Similarly, mass media outlets can be used to disseminate theory-based messages to counter stigma and to help improve help-seeking attitudes.

Efforts to Improve Mental Health Attitudes

Organizations and government agencies have started to use the media to try to improve attitudes toward the mentally ill and toward seeking mental health services. For example, the British government introduced a media intervention "to end the stigma of mental illness," seeking to change public prejudice and enhance patient support by 2009 (Gould, 2004). In addition, interventions were launched in Canada using educational and advertising strategies to change public attitudes towards mental illness (Warner, 2000). South Carolina's Department of Mental Health (SCDMH) started several interventions in May 2000 to raise

awareness and to reduce fear associated with mental illness (SCDMH, 2000). This effort utilized multidimensional strategies including a speaker's bureau, volunteer programs to work with professionals who regularly deal with mental illness, and statewide PSAs during televised programming.

New media outlets, with their ability to reach large numbers of people in a short amount of time, have been used more frequently today than in the past. For example, the internet hosts numerous websites used to attack the false perceptions of mental illness. The National Stigma Clearinghouse (n.d.) raises public awareness about psychiatric disabilities through their website. They focus on identifying inaccurate images in the media and sending counteractive, accurate information to mental health professionals. They also communicate with media outlets about replacing the negative images of mental illness with positive ones (Arnold, 1993). Their website provides links to other web pages promoting sensitive language use around mental health issues. The *Words Matter* (Maio & Caras, 2001) web page lists positive words and phrases to use "in shifting vocabulary closer to reality and away from judgmental clichés" (p. 1). Examples of alternative wordings and how to use first person language are offered.

United States governmental agencies such as the National Alliance for the Mentally Ill (NAMI) launched the "Campaign to End Discrimination" in 1995, which has used newspaper, television and internet sources. In addition, the NMHA has been educating the public about mental illness for over 90 years. The CMHS has an intramural office on consumer empowerment and funds extramural projects that aim to discredit inaccurate portrayals (Corrigan & Penn, 1999). This agency, run through the Substance Abuse and Mental Health

Services Administration ([SAMHSA], n.d.a), uses education to inform the public about facts and offers posters for download on their website. Their slogan, “Know me as a person and not by my mental illness,” requires people to recognize the difference between a person and their mental illness, ideally humanizing those with an illness just as those with the other medical illnesses are recognized. In fact, SAMSHA has increased their web-based efforts in the past five years. Since its original launch in 2003, the Resource Center to Address Discrimination and Stigma Associated with Mental Illness (ADS; 2008) “features information and advice to help individuals and organizations counter discrimination and stigma associated with mental illness.” The SAMSHA website, *What a Difference a Friend Makes* (SAMSHA, n.d.b), offers multimedia links to better understand mental illness. Resources help address what people can do to lend support to those with mental illness, differentiate mental illness facts from myths, and instruct individuals and organizations on how to take action against negative attitudes and discrimination on a personal, local, state, and federal level.

Although the notable increase in the number and type of advocacy efforts seems like a positive step, little research has been done to examine the effectiveness of interventions. In a 1999 report entitled *Mental Health: A Report of the Surgeon General* (Satcher, 1999), the Surgeon General called attention to the need for continuous evaluations of an intervention’s effectiveness. Although useful, previous indicators of effectiveness have varied according to the type of intervention and field of discipline doing the research. Interventions in marketing research commonly focus on the prevalence of multimedia visibility such as a quantifiable increase in the production of websites, hits, publications in news and print media, speaker bureaus, placement of TV spots, newspaper articles and magazine features, and the

development of self-help and support group opportunities (SAMHSA, n.d.). These visibility indicators are important but they do not speak directly to whether or not the increased visibility and accessibility is actually changing attitudes, beliefs, and behaviors around mental illness stigma and the utilization of mental health services. As stated by Wilde (1993) in an overview of media interventions, the goal for future media intervention research should be to work towards increasing published data on the effectiveness of media interventions, with experimental data using clear yardsticks for what constitutes successful and unsuccessful interventions. As such, there is a need to use pre-post-test comparisons using self-report questionnaires, behavioral observations in lab settings, and accessible health records to measure an intervention's intended effect. Often, measuring the intended effects calls for longitudinal research or repeated measure designs, which are sparse. The goal of this study is fill in some of these gaps in the literature by conducting a random assignment pre-post-test comparison of the effectiveness of video intervention viewed on the Internet.

Media interventions are becoming increasingly popular ways to change attitudes toward mental illness**.** Interventions often use such outlets as television and the Internet largely because they have the ability to reach more people in a shorter amount of time than word of mouth, flyers, or brochures. The objectives are to educate the public about mental illness and mental health care, improve the public image of mentally ill individuals and professional mental health service providers, and positively influence help-seeking attitudes and behaviors (i.e., utilization of mental health care services). These goals must be guided by theory however, which requires a closer review the role theory plays with regard to the media and attitude change.

Theoretical Support for How to Use the Media for Attitude Change

According to cultivation theory (Gerbner, 1969), repeated exposure to images and themes present in the media will influence an individual's attitudes, perceived norms, and beliefs in line with the portrayed images. In support of this, Haugtvedt, Schumann, Schneier, & Warren (1994) found that people receiving three exposures to different types of advertisements showed greater persistence in attitude change over a one-week period, compared to people who received just one exposure. Also in support, a systematic review of the effectiveness of mass media campaigns by Elder et al. (2004) showed that increasing the frequency of audience exposure maximized campaign effectiveness.

It has been posited that heuristics serve as one explanatory mechanism by which repeated exposure influences the formation and modification of target beliefs. For example the availability heuristic, which proposes that judgments about events are greatly affected by the memories that, at the time judgments are rendered, are available (Kahneman, 2000; Tversky & Kahneman, 1973). The availability depends on how easily information are accessed in memory and retrieved. A number of factors control the accessibility of memory, including frequency of exposure as the likelihood of availability is known to increase the more frequently the information is activated (Bargh, 1996; Higgins, 1996; Kahneman & Tversky, 1982).

Although cultivation theory (and the availability heuristic) suggests the general connection between exposure to messages and the development of attitudes, norms, and beliefs consistent with those messages, other theories such as the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986) also suggest specific characteristics of the message that will make the message more or less likely to be accepted. Specifically, ELM suggests that

attitude change occurs through two routes of persuasion: the central and peripheral routes. Central route processes involve extensive and focused thought, and thus tend to predominate the under conditions that elicit higher elaboration. Thus, attitudes are affected by the amount a person thinks about or elaborates upon a message (Petty, Haugtvedt, & Smith, 1995). This entails careful scrutiny of a persuasive communication to determine the merits of the arguments. Here, a person's unique cognitive responses to the message determine the persuasive outcome (i.e., the direction and magnitude of attitude change). A person must have the ability and motivation for central processing to take place. In the case of a media intervention the most relevant central cues include the message content. Peripheral route processes do not involve elaboration of the message through extensive and focused thought on the merits of the actual argument presented. Instead they involve environmental characteristics of the message, such as the perceived credibility and attractiveness of the source and how the message is presented (Petty & Cacioppo, 1986). Relevant peripheral cues include use of emotional appeals and messenger characteristics.

Message Content

Researchers examining the effectiveness of interventions have shown that attitude change depends on type of information presented. For example, in a study by Penn et al. (1994), participants received information about an aspect of mental illness. Those participants who received information about post-treatment living arrangements (i.e., positive information) reduced negative judgments about the person with mental illness. In turn, those participants who received information on the acute symptoms of an illness (i.e., negative information) showed a significant increase in negative attitudes toward those with mental illness. In other

words, it seems that highlighting the negative symptoms can actually trigger negative stereotypes and promote negative attitudes. Thus, interventions interested in improving attitudes towards help seeking may need to highlight the positive aspects of the behavior or treatment results.

Message content also needs to be clear and straightforward (Atkin, 2002). Interventions that are not clear in their content are open to differential interpretations, which may interfere with the intended message. A study conducted by Zillmann (2006) examined textual narratives as a way to increase clarity and relevance. Results suggested that imagery (e.g., showing an image of a tick-bite victim in a news report on the threat of Lyme disease) and properly framed textual narratives (e.g., text on a screen underscoring the image as "tick-bite victim") not only can serve to attract viewers to pertinent health and safety messages but may also function as a marker to guide audience interpretations. Furthermore, narratives can be used to help the viewer understand why the images being portrayed are relevant to them (e.g., more than 98 percent of all reported cases of Lyme Disease are concentrated in the coastal Northeast, mid-Atlantic states, Wisconsin and Minnesota, and northern California; Steere, 2001). Additionally, providing narrative information within an educational intervention can provide a sense of efficacy to the viewer. For example, messages that clearly describe to the audience what target behavior is being advocated and offers detailed instructions for how to perform the behavior will alleviate any ambiguity in the message content and help the viewer feel confident in their ability to perform the behavior (Barber, Bradshaw, & Walsh, 1989).

Emotional Appeals

The use of emotional appeals may also be an important way that media interventions can influence attitudes and behavior. Emotionally stirring imagery may not need thought elaboration to have an important effect and so can leave viewers influenced via peripheral routes of persuasion. The effects can be seen in two televised ads and a related poster campaign in the United States aimed at drug-prevention. They were launched in 1987 and created by the PDFA. These commercials compared one's brain on drugs to a frying egg. The intention was to highlight the terrible things that would happen to your brain if you take drugs. This campaign became well known for its entertainment value based on fear and humor and it won the Mobius Advertising Award in 1997 (1st Place in Public Service Announcement Television). It showed that fear, as an emotionally arousing form of entertainment, has the capacity to change attitudes.

One reason that emotional appeals may work effectively is that emotional-arousal results in superior encoding into one's brain. Amygdaloid monitoring discerns emotional salience that prompts the activation of central norepinephrine receptors, and the enhanced sensitivity of these receptors creates the conditions for superior coding of emotional situations into long-term memory (Cahill, Prins, Weber, & McGaugh, 1994; McGaugh & Gold, 1989). Thus, emotional material can be used to draw attention to pressing safety and health issues, to alter beliefs concerning risks, and to create a greater readiness for protective and/or corrective action (Zillmann, 2006). The use of emotionally arousing presentations offers a greater likelihood of motivating such actions than purely rational or informational appeals (Loewenstein, Weber, Hsee, & Welch, 2001; Slovic, Finucane, Peters, & MacGregor, 2002).

It is worth mentioning that affective reactivity is considered the mainstay of personal risk assessments; and in accordance with emotion theory, affect intensity is thought to create action readiness (Frijda, 1986) and instigate appropriate overt behaviors (Rolls, 1999; Zillmann, 1996). In the assessment of health risks, presentations associated with affective reactivity tend to receive disproportional attention and thereby render overestimates of the incidence and magnitude of threats to health (Zillman, 2006). Therefore, relevant to the present mental health intervention, individuals whose beliefs about counseling and mental health are activated by an emotionally reactive message will be more likely to contemplate counseling as a possible strategy to deal with mental health risks. Such contemplation is likely to result in greater intentions to perform or the actual performance of health promotion behaviors.

Messenger Characteristics

Another factor to consider when designing a media intervention is the characteristics of the messenger. The messenger is a character who delivers information, demonstrates behavior, or provides a testimonial. Characteristics of the messenger such as credibility, intelligence, likeability, social status, or expertise significantly influence message acceptance under different circumstances (Heesacker, Petty, & Cacioppo, 1983; Jones, Sinclair, & Courneya, 2003; Rosen, 2000). Health campaign messengers include expert specialists such as doctors, celebrities, and individuals with health-related experiences such as victims and survivors, ordinary people, and government officials such as the President or Surgeon General (Atkin, 2002). The target impact of these messengers depends on the type of campaign. For example, celebrities can help draw attention to a dull topic. Health experts enhance response

efficacy. Victims convey the severity of harmful outcomes. In addition, victims who share similar characteristics of the audience help build personal relevance (Atkin), which alludes to the fact that the viewer needs to be able to identify with the character and their experiences.

Identification is the process by which the viewer finds aspects of the character that is similar to her or himself (Laplanche & Pontalis, 1973). If the character's behavior is exaggerated, such as throwing child-like temper tantrums, or their condition is too extreme for the average viewer (i.e., paranoid schizophrenia), the viewer is likely to reject identification with them. As a result, it is best to use moderate characterizations that do not threaten the viewer's self-concept if they choose to identify with the messenger. Furthermore, the messenger should be someone who evokes empathy. Empathy is commonly defined as one's capacity to think, perceive and feel the emotion of another person. Empathy is elicited in a media intervention by having the viewer witness the experience of pleasure or pain in another person and subsequently, they should come to feel a touch of their own emotions that are associated with these expressions. The emotional responses do not need to be identical to those witnessed, however, some similarity in experiences needs to be present, or the viewer will not feel empathy and the emotional appeal will be unsuccessful (Zillmann, 1991).

In sum, findings across mass media studies have shown that frequency of exposure and route of persuasion are two main factors influencing attitude change. In the next section I will describe the development of a video intervention that uses what we have learned from both a cultivation theory perspective (repeated exposure) and from an ELM's central processing (message content) and peripheral processing (characteristics of the message such as emotional appeal, messenger characteristics) in its development.

Intervention Video Design

Several important aspects of intervention design should now be apparent. Viewers should be exposed to the intervention more than once and given time to reflect on what they have seen between viewings. Repeated viewings strengthen associations between a behavior and outcome, and increase the accessibility of expectancy beliefs in the formation of attitudes. Research has shown that three exposures results in greater persistence in attitude change over a one-week period than single exposure (Haugtvedt et al., 1994). Second the video should allow for viewers to be influenced via central route processes while also utilizing factors that appeal to peripheral process. Accordingly, the content of a video intervention should contain a message that aims to educate viewers about counseling through positive information about the function of counseling, the roles mental health professionals play, and increased awareness of services available to them. To ensure a clear and straightforward message with increased control over interpretation, the video can use textual narrative information, which can also serve to enhance efficacy over the targeted behavior. This will give the viewers the correct knowledge needed to motivate attitude and behavior change. Furthermore, informational content should be combined with some emotional appeal, as this arousal can also motivate action readiness. In fact, studies show that combining emotional appeal with accurate information leads to increases in both knowledge and attitude change, as opposed to one without the other (Zillmann, 2006). Thus, it is important to supplement emotionally arousing images with textual narration to advocate a specific health behavior, enhance message accessibility, promote confidence in the viewer's ability to perform the advocated behavior, and exert more control over audience interpretations.

The associations between the targeted health behavior and outcomes should be positive. Media campaign research on stigma and attitudes towards mental illness suggests that a positive message for health promotion behaviors (i.e., help-seeking) works better than a negative message (Jones et al., 2003; Rothman, Kelly, Hertel, & Salovey, 2003). Moreover, Fishbein and Cappella (2006) state that a message is more likely to be accepted if it produces more positive than negative thoughts. Thus, the video should focus on positive aspects of the help seeking and mental health services. In addition, the video should be enhanced by first person testimonies. By using testimonies of a real client with emotional appeal, the video can augment identification with the messenger, personal relevance, and action readiness. Research has found that the effect of a message depends on the viewer's opinion of the source. Perceived credibility, trustworthiness, and similarity with the recipient have been shown to improve message acceptance (Wilde, 1993). Therefore, the messenger must be perceived as non-agenda driven and similar in characteristics (e.g., age, linguistic style, social class, personality traits, and group membership). That said, health behavior intervention videos will likely benefit from using an ordinary, honest, and experienced person who has gone through the therapeutic process. The source should also be likeable and easy to relate to; nothing too extreme. Moderate personality traits, behaviors, and emotions will help viewers identify with the source. It is also best to display moderate images of pleasure or pain to help the viewer identify and empathize with the source without dissociating from them. In other words, messages are more likely to be accepted if they are portrayed realistically. These factors, taken together, provide general guidelines in the creation of the intervention video.

Current Study

If media outlets are contributing to negative attitudes towards mental illness and help seeking, they can help to combat it as well. An intervention video may serve as a successful educational tool to help dispel myths and stereotypes about mental illness and mental health services. I propose that the media may provide a useful medium for videos aimed at increasing public awareness and education about counseling. However, in order to do so, such video interventions will need theoretical groundings and empirically supported. Therefore, the purpose of this study was to offer a theory-based, interdisciplinary framework by which health campaigners can create intervention videos to be tested among diverse populations. This line of research could provide a positive contribution to the field by offering support for broad-based application to multiple real-world settings.

Participants in this repeated measures design completed a pretest questionnaire and three posttests over a six-week period. After the pretest, participants were randomly assigned to one of three conditions designated by two factors; type of video and number of exposures. Group 1 was the intervention video repeated exposure group (IVR). Group 2 was a control video repeated exposure group (CR). Group 3 was the intervention video single exposure group (IVS). The survey questionnaire at each point in time asked about help-seeking attitudes, perceived norms of seeking counseling, anticipated risks and benefits of seeking counseling, help-seeking intentions, and stigma associated with seeking counseling. These outcomes were assessed for two main reasons. First, it was important to examine the potential impact of the video on several determinants of behavior change. The Theory of Reasoned Action suggests that behaviors are influenced by intentions, attitudes, norms, and expectancy

beliefs (Ajzen & Fishbein, 1980). Second, each of these outcomes is empirically linked to aspects of help seeking. Research has shown that attitudes toward counseling, peer norms, and outcome expectancies of therapy all affect the likelihood of seeking services (Bayer & Peay, 1997; Brown & Bradley, 2002; Corrigan & Penn, 1999). Also, Vogel, Wester, Wei, & Boysen (2005) showed that the anticipated risks and benefits of disclosing information to a therapist and attitudes towards seeking professional services were linked with intentions to seek treatment. Vogel, Gentile, and Kaplan (2008) also found correlations between the amount of television viewed and each of these factors. Therefore, these factors are both potentially influenced by the media and representative of the factors involved in the decision to seek professional help.

This study used a repeated measures design to test the extent by which an intervention video changed undergraduate students' help-seeking attitudes, norms, outcome expectations, stigma, and intentions over time (i.e., attitudes, peer norms, perceived norms, anticipated risks, anticipated benefits, self-stigma, social stigma willingness to seek help). Overall, I hypothesized that the IVR group would show significantly greater improvements in the dependent variables relative to those found in the other two comparison groups. I also hypothesized that for the IVR group all effects would be maintained through each time-point in the six-week period. All specific hypotheses are as follows:

H1: Compared to the CR and IVS groups, participants in the IVR group are expected to show significantly greater improvements in attitudes, peer norms, perceived norms, anticipated risks, anticipated benefits, self-stigma, social stigma, and

willingness to seek help. These significant effects are expected be maintained across the six-week period.

H2: Compared to the CR group, participants in the IVS group are expected to initially show significantly greater improvements in attitudes, peer norms, perceived norms, anticipated risks, anticipated benefits, self-stigma, social stigma, and willingness to seek help. However, unlike the IVR group, these effects are not expected to last over the six-week period. In other words, immediate effects but no longer-term effects are expected in the IVS condition.

CHAPTER 2. METHODS

Participants

Participants included in the study (*N* = 290, 34% male and 66% female) were college students from Iowa State University who self-selected to sign up for a study on attitudes and media. Of these participants, 98% were between the ages of 18–25, 1% between 25–34, and 1% between 35–44. The sample was 90% Caucasian, 3% Asian/Pacific Islander, 3% Hispanic, 3% African American, and 1% who specified *other* or *bi-racial*. Additionally, 47% were freshmen, 30% sophomores, 13% juniors, 7% seniors, and 1% who specified *other*.

An a priori power analysis through G*Power 3.0.10, an online power calculator, was run to determine the required total sample size for the experiment. The test was an F-test repeated measures ANOVA, focusing on the within-between interaction. The input effect size was set at .2, α error probability at .05, power .95, number of groups 3, repetitions 4, nonsphericity correction ε 1, and correlation among repeated measures .5. The correlation (r = .5) was selected because it was a low-end estimate of the test-retest reliability for all measures in the study. Results indicated the total sample size would need to be N = 69 (or about 23 per group) to obtain sufficient power.

Procedures

Before data collection began, human subject approval was obtained from the University Institutional Review Board. Participants enrolled in Iowa State University introductory-level psychology classes self-selected themselves by reading a description of the study in the SONA system. Persons under the age of 18 were not allowed to participate. Students received extra course credit for their participation. The description read as follows:

> This study will ask about your attitudes regarding the content of an edited reality TV video. This is a four part online study designed to better understand how media presentations can influence attitudes. Each part will take 50 minutes or less. You will receive one credit point for each part completed. After taking the first part of the study you will be emailed in about 1 week with an online link to complete the second part of the study. This same email procedure will occur for parts 3 and 4.

The study had four parts. For Time 1, the pretest, all self-selected participants clicked on a link (through an online sign-up system; SONA) taking them to a pre-test survey questionnaire via Survey Monkey, an online survey program. The informed consent description was displayed in Survey Monkey, and fulfilled once participants clicked on the "next" link taking them the pretest questionnaire. The survey questionnaire asked about relevant demographics, background information (i.e., familiarity with *The Real World: Key West*), help-seeking attitudes, peer norms, perceived norms, anticipated risks, and anticipated benefits, self-stigma, social stigma, and willingness to seek counseling (see measures section below). It also asked participants to list their email address for further contact throughout the remaining three parts. A response check item was also included in the questionnaire at each time-point. The item was imbedded into a scale with likert-type responses and asked participants to respond with "4". Participants who failed the check on more than one questionnaire were dropped (n = 35). In addition, six participants attempted to participate twice and were dropped as well, thus equaling 41 participants that were excluded. See Figure 1 for a visual diagram of participant flow throughout the study. After the pretest was completed, each participant was assigned a number for random assignment purposes. Then

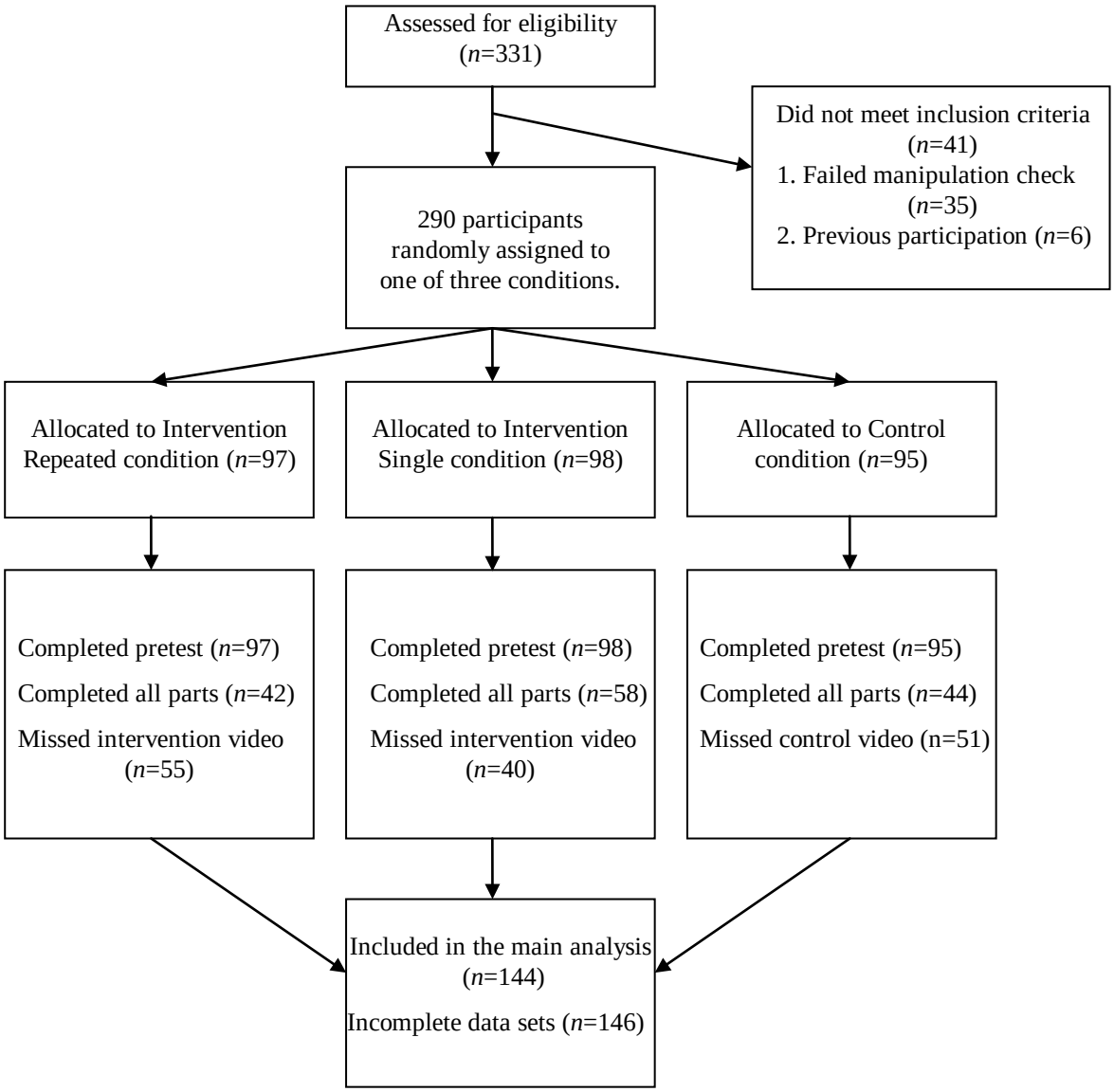

Figure 1. Participant flow throughout the study.

were then randomly assigned into one of three conditions: IVR, IVS, or CR. Random assignment took place via an online random number generator (www.randomizer.org).

For Times two, three, and four, the details are uniquely described for each group. In the IVR group, for Time 2, participants were asked to go online to watch the seven-minute intervention video (see below), take a survey questionnaire, watch the same video again, and then complete a feedback questionnaire on the video. In an attempt to reduce participant suspicion and conceal the hypotheses, a cover story was told to participants before viewing the video for the second time. This aimed to prevent response biases and induce higher levels of elaboration, which has been shown to increase the influence of a message on attitude formation (Petty & Cacioppo, 1981). It read as follows:

> Thank you for watching the video. By watching the video and taking our questionnaire, you are contributing to a scientific analysis of entertainment. As you might be thinking, studies like this help predict what kind of television programming will be popular. For example, many studies were done on reality shows before they started popping up everywhere. And whether you like or dislike reality television, it has been popular hasn't it? Don't reality shows differ in how well they realistically address issues common to all?
>
> In this study, we are examining the importance of media content and viewing patterns. Specifically, we are looking to see whether repeated viewing affects people's opinions.
>
> Please watch the video again. Pay careful attention to relationship dynamics in the video, social skills, what the characters are saying, what words they use, and how

they are saying it. Think about how realistic the portrayals are. Afterwards, you will be asked to provide thoughtful feedback to open-ended questions about the video.

The feedback questionnaire asked open-ended questions requiring elaborative thought about the video. Consistent with the cover story, participants were asked hypothesis-irrelevant questions that would induce a higher level of thinking in participants. A few examples questions include "What kind of language did characters use when discussing personal issues?"; "How realistic were the friendships portrayed in the video?"; "Which aspects of the video evoked any kind of emotional reaction?"; and "How well could you identify with the character(s) in this video? In what way?" In order to motivate participants for thoughtful reflection, they were told that their feedback would add to a scientific analysis of entertainment and that their responses are highly valued. Also, to help induce a feeling of personal investment aimed at potentially increasing motivation for thoughtful feedback, participants were asked which aspects of the video they personally liked. All together, Time 2 took less than 50 minutes. For Time 3, participants were asked to watch a shortened (four-minute) version of the intervention video online and take the survey questionnaire. The four-minute video is a condensed version of the seven-minute video edited to display only positive images of help seeking. Time 3 took approximately 20 minutes. Participants had watched 18 minutes of intervention video by this point. For the fourth and final part, Time 4, participants were asked to go online to take the final survey questionnaire between two and three weeks after Time 3. Time 4 took approximately 10–15 minutes.

In the CR group, participants underwent the exact same procedure as in the IVR group, but when required to watch videos, they watched a control video (see below) instead

of the intervention video. These participants were asked to go online to watch a seven-minute control video, take a survey questionnaire, watch the control video again, and then provide open-ended feedback on the video. The control entailed clips of the same people from *The Real World: Key West* but was different from the intervention video in that it contained no reference to mental health concerns, counseling, or help seeking. Before viewing the video for the second time, they were given the same cover story as the IVR group to prevent identification of the hypotheses and response biases. Again, the feedback questionnaire asked open-ended questions requiring elaborative thought about the video. These questions were created in such a way that applied to either video. All together, Time 2 took less than 50 minutes. For Time 3, participants were asked to go online to watch the control video and take the survey questionnaire. The CR participants were also exposed to the control video three times totaling 18 minutes across the time points. Time 3 took approximately 20 minutes. Time 4 took place between two and three weeks after Time 3 and participants completed the same final survey taken in the IVR and IVS groups.

In the IVS condition, participants were asked to go online to watch the seven-minute intervention video and take the survey questionnaire. Time 2 took approximately 20 minutes. For Time 3, they were asked to go online again one week later and take only the survey questionnaire. This took approximately 10–15 minutes. For the fourth and final part, Time 4, they were asked to go online between two and three weeks after Time 3 to take the final survey questionnaire. This took approximately 10–15 minutes.

In sum, the IVR group viewed the intervention video three times over the course of the study. The CR group underwent the exact same procedure, but viewed a control video

three times. The IVS group viewed the intervention video only once over the course of the study. For all participants, Time 4 was between five and six weeks after the pretest and consisted solely of taking the survey questionnaire.

An incentive program was employed to encourage participation at each time point. Students were offered four extra credit points; one for each of the four times completed. Participant credits were registered through an online research sign-up system (i.e., SONA). After the completion of each part, all participants were sent two reminder emails; one at five days, and again at two days before their participation dates for the next part. In each email, they were reminded of the available course credits and the importance of completing all parts. Additionally, upon completion of each part, all participants were given the names and contact information of the principal investigators and IRB committee for any questions or concerns. Debriefings were provided at the end of the final time point to explain the purpose of the study, provide contact information of the principal investigators and IRB committee, and offer community referrals for mental health services.

Independent Variable

Intervention Video

The intervention video is a compilation of clips from *The Real World: Key West*, season 17. *The Real World* is a reality television program on MTV (Music Television), an American cable television network, executive produced by Bunim/Murray Productions (2006). These clips were selected from a series of 25 episodes that approximate 22 minutes per episode in length. The characters in the show are typically aged 18–25 (a reflection of the network's target demographic as well as the participant pool target demographic) and usually

chosen from vast pools of applicants from across the United States. Scenes were compiled to realistically and accurately portray the need for professional mental health services by focusing on one female character's (Paula) help-seeking process. Paula is 24 years old; within the 18–25 demographic predominantly representative of participants in the college environment. The professional production enhances the likelihood that the images from the program will be accessible in the formation of attitudes, intentions, and behaviors. Taken together, a reality television portrayal of a character was chosen because it offered the video these clips were selected because of the professional production, emotional appeal, and potential for identification with a main character similar in demographic to the target population. The intervention video offers a real-life exemplar of what it is like to be a therapy client in and outside of sessions. The clips were chosen to educate the viewers about the counseling experience through a mix of emotion-arousing images and textual narratives. They were edited using visual transitions and sound enhancements from a Mac software program called I-Movie. The video was designed with multiple goals in mind. First, it aimed to increase viewers' knowledge and awareness of mental health services. For example, in one scene, Paula's therapist states: "Let me explain what we're going to be doing. We're going to be getting you to understand your thoughts if it makes you feel bad, and then teach you how to maybe question those thoughts." Second, the video seeks to improve perceptions of help-seeking behaviors. The Real World's portrayal of the benefits, support, and encouragement for counseling offers many positive images to replace negative stereotypes that pervade society. In an example of the effect social support has on Paula, she can be seen saying, "To have my roommates be happy for me and proud of me, it makes it feel that much better."

Also, by using an ordinary person with some popular culture appeal and showing reality-based examples of the therapeutic experience, the videos attempt to highlight personal relevance and improve peer and perceived norms for help-seeking behaviors. As such, there is a textual narrative added to the end of the video normalizing the need for help among a college population and publicizing available services on campus. Finally, the ultimate goal is to get people to seek professional help or develop intentions to seek help when needed. If viewers can empathize and identify with the main character in the ad, she can serve as a model for help-seeking behaviors. This was met by choosing a main character that fit the demographic of the target audience and to portray her to be a typical college student with normal problems.

The intervention video starts with an opening textual narrative that reads: “Please watch closely! We have 7 minutes to get your attention.” It ends with a closing textual narrative that reads: “Life can be a beautiful thing but sometimes it can be hard to deal with the stressors alone. Professionals out there are willing to help. Many universities like Iowa State offer free counseling for students.” The video not only contains images of happiness and growth as a result of Paula’s counseling experience, but it also portrays the emotional pain and fear preceding the decision to seek help. Clips were selected to help viewers empathize with the need for professional help, identify with emotional problems that led to the decision to seek counseling, learn about what the help-seeking and counseling experience is like, and see the benefits of counseling.

Participants watched the 7-minute intervention video twice at Time 2. A second shorter version of the video was also developed for participants to watch at Time 3. This version was created to keep the participants attention since they would have already seen the

longer version twice. This version lasted four minutes. Like the longer version, an opening textual narrative is used to grab the viewers' attention and increase thought elaboration. It reads, "Please watch closely! We have 4 minutes to get your attention." The video content is taken directly from the first version, but with the primary goal of highlighting only positive associations with help seeking. Therefore support, encouragement and positive outcomes were emphasized in this version. For example, in the shortened version, instillations of hope such as "Dr. Covan doesn't make me feel crazy or bad. He almost makes it something that is so normal to feel bad and that it's still possible to feel better" are left in. On the other hand, doubts such as, "I'm supposed to be going to a doctor who's basically going to be letting me know I'm crazy and that there's a lot of things wrong, and that he's going to tell me all these things to do and how to fix them and they're not going to work" are cut out. To avoid negative associations, the closing textual narrative was altered slightly as well. It reads: "If you might consider counseling in the future, please know professionals out there are willing to help."

Focus Group

A pilot survey was sent out to Iowa State University graduate students and counseling center staff to get feedback on the intervention video before testing on research participants. Respondents were not given any information about the purpose of the video or intended message. They were asked to view the video online and take the survey, which consisted of closed and open-ended questions. Ten respondents gave feedback, consisting of three undergraduate and seven graduate students. Both written and verbal feedback was reviewed

and this data was used in a final round of edits made to help tailor the video toward the intended message and intervention goals.

For close-ended questions, respondents were asked to rate how much the video increased knowledge of mental health services, seemed relevant to college students, and addressed perceived risks, benefits, stereotypes, common beliefs, and stigmas associated with mental health services on a Likert-type scale. They were given options of (1) *not at all*, (2) *a little*, (3) *some,* and (4) *a lot*. Mean ratings for closed questions were as follows: increased knowledge (M = 1.75), seemed relevant (M = 3.25), addressed perceived benefits (M = 3.00), perceived risks (M = 2.17), stereotypes (M = 3.30), common beliefs (M = 2.80), and stigmas (M = 3.10). From this data, it was decided that the video needed to add more of an educational component. For example, information about where students can find counseling services on their campus and the cost was provided in the textual narrative at the end as a result of this data.

For open-ended questions, respondents were asked to list salient scenes. Common themes from responses to the open-ended questions indicated that scenes leaving the most lasting marks were those that evoked empathy and helped viewers identify with the main character. Specifically, the most effective scenes were reported to be those that displayed emotions such as sadness, hopelessness, nervousness, and ambivalence towards therapy in the beginning of the video, and hope, pride, joy, and fulfillment from therapy by the end. Scenes that were commonly deemed least effective were those that portrayed her problems as extreme. As a result, scenes where the main character could be seen as hysterically crying were deleted. Furthermore, respondents indicated positive emotional reactions to scenes

where the main character made positive comments about therapy and the therapist (e.g., “Dr. Covan doesn’t make me feel crazy or bad. He almost makes it something that is so normal to feel bad and that it’s still possible to feel better” and “I like talking to the doctor cuz he’s an unbiased party and doesn’t make me feel crazy…for the first time I felt like someone really listened”) and scenes displaying social support and encouragement from friends (e.g., “To have my roommates be happy for me and proud of me, it makes it feel that much better” and “I think the fact that Paula’s in therapy right now is working wonders for her. She’s finally able to start making changes and start trying to better herself”). It was also mentioned that viewers could likely identify with the fact that the main character was similar in age and lifestyle to college students, middle class, attractive and of seemingly good physical health, popular, and socially supported. In addition, the viewers liked a scene where realistic expectations were set up regarding what therapy would be like, and so another clip was added where Paula can be seen saying “It’s different than I thought it’d be. I thought he’d be able to like, ‘fix’ my problems. He’s just trying to help me understand the way I think.” Finally, it was indicated that the portrayal of therapy should focus on therapy as a gradual process and not a quick fix. Therefore, the line “I know it’s not going to happen in one day, but at least the process has started” was included in the final versions.

Control Video

The control video was made similarly to the intervention video. Clips are taken from the same series of 25 *The Real World* episodes, portraying the same main character Paula, and with the same editing techniques such as the use of visual transitions and sound enhancements. The main difference resides in the video content. Unlike the intervention video, the control

contains no portrayals of, references to, or associations with therapy anywhere in the video. Instead, the same characters can be seen carrying on everyday activities such as going to work and holding conversations of the everyday variety.

Measures/Survey Questionnaire

Demographics and Familiarity with The Real World

Key West. Participants were asked to provide their gender and race/ethnicity as well as their year in school and academic major. They were also asked to provide information regarding their familiarity with *The Real World: Key West* season 17.

Attitudes Toward Seeking Counseling

To measure attitudes about counseling, the Attitudes Towards Seeking Professional Psychological Help scale (ATSPPH; Fischer & Farina, 1995) was employed. The ATSPPH is a 10-item shortened version of the original 29-item scale (Fischer & Turner, 1970). Items are answered using a 5-point Likert scale (1 = *disagree*, 5 = *agree*). Of the ten items, five are reverse-scored, indicating that higher total scores represent a more positive attitude toward help seeking. Internal consistencies are reported to be .84 and a four-week test-retest correlation of .80 (Fischer & Farina). These authors reported the correlation between the shorter and longer versions to be .87, which suggests that they are measuring similar constructs (Fischer & Farina). Additionally, current studies using the measure have reported internal consistencies of .82 and .88, respectively (Vogel, Wade, & Haake, 2006). For the current study, the internal consistency of the measure was .83. The 1995 version also correlated with whether the respondent had previously sought professional help for personal crises (.39; Fischer & Farina).

Peer Norms

To assess normative beliefs regarding help seeking, two measures were used. The first, labeled *peer norms*, was taken from Fishbein et al. (2002). In their study testing the relative effectiveness of antidrug public service announcements, they asked participants, "Of students your age, how many do you think do, or have done, the following things?" For each behavior, participants responded according to a Likert-type scale from 1 (*none*) to 4 (*most*). For the purposes of the present study, this single item was adapted to measure help-seeking as the target behavior. Three items measuring peer norms were created. They are as follows: (1) "Of students your own age, how many do you think have ever sought mental health counseling?"; (2) "Of students your own age, how many do you think are currently seeing a mental health counselor?"; and (3) "Of students your own age, how many do you think would consider seeking mental health counseling?" For each item, participants responded according to a Likert-type scale from 1 (*none*) to 5 (*most*). The internal consistency of peer norms for the current study was .74.

To supplement this adapted three-item measure, an additional one-item measure used by Bayer and Peay (1997) was employed. The item, labeled as *perceived norms*, asks individuals to rate on a Likert-type scale from 1 (*very unlikely*) to 6 (*very likely*) the question: "Most people who are important to me would think that I should seek help from a mental health professional if I were experiencing a persistent personal problem in my life." Bayer and Peay found that this norm uniquely predicted help seeking intent such that individuals who were likely to seek help answered this question more favorably.

Anticipated Risks and Anticipated Benefits

The Disclosure Expectations Scale (DES; Vogel & Wester, 2003) was employed to measure anticipated risks and anticipated benefits of seeking help from a counselor. The DES is an eight-item instrument measuring participants' expectations about the risks and benefits of talking to a counselor about emotional problems. These eight items are divided into four items for the anticipated risks and benefits subscales, respectively. Items are rated on a Likert-type scale from (1) *not at all* to (5) *very*. Higher scores reflect greater anticipated risks and greater anticipated benefits. Responses are summed for each four item subscale. The Anticipated Risks subscale contains items such as "How risky would it feel to disclose your hidden feelings to a counselor." The Anticipated Benefits subscale contains items such as "How helpful would it be to self-disclose a personal problem to a counselor." A factor analysis of the DES has revealed only a minimal correlation between two factors (r = -.19; Vogel & Wester). The internal consistencies have been reported to range between .74 and .80 for Anticipated Risks and .83 and .87 for Anticipated Benefits (Vogel & Wester). For the current study, the internal consistency of Anticipated Risks was .84 and for Anticipated Benefits was .86.

The DES treats expectations as a trait variable, stable over time. A study by Vogel and Wester (2003) reported adequate test-retest reliability over a two-week period (N = 41; r = .77 for anticipated risks and r = .75 for anticipated benefits). Vogel et al. (2005) have more closely investigated this issue, finding that anticipated risks and benefits at one point in time could predict help-seeking behaviors two to three months later. In the same study, Vogel et al. (2005) found a link between the DES and other trait measures of comfort with self-disclosure (r = -.20 and .28 for risks and benefits, respectively). The Anticipated Risks subscale has also

been shown to correlate negatively with self-disclosure (r = -.19) and intentions to seek counseling (r = -.25), and conversely the Anticipated Benefits subscale has shown a positive correlation with self-disclosure (r = .24) and intentions to seek counseling (r = .27; Vogel & Wester, 2003). Moreover, Vogel and colleagues found that people who saw greater risk in counseling found counseling to elicit greater self-stigma (r's = .30 to .47), while people anticipating greater benefits found counseling to be less self-stigmatizing (r's = -.32 to -.45; Vogel et al., 2006).

Self-Stigma Regarding Counseling

To measure respondents' internalization of perceived social stigmas associated with seeking psychological help, the Self-Stigma of Seeking Help scale (SSOSH; Vogel et al., 2006) was employed. The SSOSH scale is a 10-item measure that uses a 5-point Likert-type response scale (e.g., 1 = *strongly disagree,* 3 = *agree and disagree equally,* 5 = *strongly agree*). An example item is, "Seeking psychological help would make me feel less intelligent." Of the ten items, five are reverse-scored, indicating that higher total scores represent greater self-stigmatizing regarding seeking therapy, thus considering help-seeking as a greater threat to one's self-esteem. Internal consistencies are reported to be between .86 and .92 (Vogel et al., 2006). For the current study, the internal consistency of the measure was .90. In terms of the scale's construct validity, initial and confirmatory factor analyses identified a single construct (Vogel et al., 2006). Convergent validity was also demonstrated: the SSOSH was related to social stigma (.46 to .48), anticipated risks (.30 to .47), anticipated benefits (-.40 to -.45), attitudes toward seeking professional psychological help (-.54 to -.63) and willingness to seek counseling (-.34 to -.38), the tendency to self-disclose distressing information (-.25),

and the tendency to self-conceal (.15). In support of the instrument's divergent validity, SSOSH scale scores revealed no relationship between global self-esteem and psychological distress.

Social Stigma for Seeking Psychological Help

To measure social stigma, the Stigma Scale for Receiving Psychological Help scale (SSRPH; Komiya, Good, & Sherrod, 2000) was employed. The SSRPH is a five-item scale designed to assess perceptions of the stigma associated with seeking professional help. The original version contains five Likert-scale type items rated from 1 (*strongly disagree*) to 5 (*strongly agree*). All five items are summed and higher total scores reflect greater perceptions of stigma. The SSRPH contains items such as "Seeing a psychologist for emotional or interpersonal problems carries social stigma." The internal consistency for the measure was originally found to be .73. The SSRPH has been found to correlate with attitude towards seeking professional help (r = -.40, p < .001; Komiya et al.). For the current study, the internal consistency of the measure was .82.

Willingness to Seek Counseling for Psychological and Interpersonal Issues

To measure willingness to seek help, the Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Wiese, 1975) was employed. The ISCI is a list of 17 items that asks respondents to rate how likely they would be to seek counseling for each problem listed (e.g., depression, weight issues, relationship difficulties, drug problems). A factor analysis has shown there to be three subscales: Drugs/Alcohol – two items, Academic – five items, and Psychological and Interpersonal – 10 items). Only the 10-item Psychological and Interpersonal Concerns scale was included in the present study to increase completion rates

and because it has been most successful in past research. For example, Vogel et al. (2005) found the Psychological and Interpersonal subscale to correlate with social norms *(r* = .39*)*, distress (*r* = .25), anticipated benefits *(r* = .48*)*, and social stigma *(r* = -.20*)*; all of which are constructs also being measured in this study. The Drugs/Alcohol subscale significantly correlated with only Anticipated Utility (*r* = .25), which was less than Interpersonal Concerns, and Treatment Fears (*r* = .23), which is not being measured in this study. Furthermore, the Academic subscale only significantly correlated with Anticipated Utility (*r* = .25) and Social Norm (*r* = .27), both less than correlations with the Interpersonal Concerns subscale. Items are answered on a Likert-type scale from 1 (*very unlikely*) to 5 (*very likely*). Higher total scores suggest a stronger likelihood of seeking counseling for psychological or relational issues. Authors have reported internal consistency estimates for the ICSI between .86. and .90 (Vogel et al., 2005). For the current study, the internal consistency of the measure was .88. In terms of construct validity, the ISCI's authors found that the measure could detect preferences in college students' intent, or willingness, to seek counseling with counselors who were more attractive (Cash et al.). In addition, a positive correlation was found between the ISCI and favorable attitudes toward psychotherapy (*r* = .36; Kelly & Achter, 1995).

CHAPTER 3. RESULTS

Descriptive Statistics

Means and standard deviations for all observed variables are reported along with the zero-order correlations at pretest (see Table 1 and Table 2).

Differential Attrition

To examine the effects of attrition, a test of the significant differences between participants who dropped out and those who finished the study was conducted. One hundred and forty-four participants completed all questionnaires over the six-week study . Of these, 35% were male and 65% female. 99% were between the ages of 18–25 and 1% was between 25–34. This sample was 94% Caucasian, 2% Asian/Pacific Islander, 3% Hispanic, and 1% African American. Additionally, 47% were freshmen, 28% sophomores, 16% juniors, 8% seniors, and 1% who specified *other*. One hundred forty-six participants did not complete questionnaires for Time 2 or 3, which meant they did not undergo any experimental trial. Their demographics are as follows: 33% male and 67% female. 98% were between the ages of 18–25, 1% was between 25–34, and 1% was between 35–44. The sample was 87.0% Caucasian, 3% Asian/Pacific Islander, 3% Hispanic, 6% African American, and 1% who specified *other* or *bi-racial*. Additionally, 48% were freshmen, 32% sophomores, 11% juniors, 7% seniors, and 1% who specified *other*.

Chi-square analyses were conducted to test for differences between participants who finished the study (n = 144) and those who dropped out (n = 146) on the demographic variables gender, ethnicity, and year in school. There were no significant differences between groups on any variable. Specifically, the percentage of participants that finished and dropped

Table 1.

Zero-order Correlations for Outcome Measures and Covariates at Pretest

	1	2	3	4	5	6	7	8	9
1. Attitudes	---	.21**	.37**	-.37**	.55**	-.03	-.68**	-.37**	.03
2. Peer norm		---	.24**	-.11	.15**	-.01	-.19**	-.12*	.01
3. Perceived norm			---	-.11	.32**	.11	-.21**	-.13*	.05
4. Risks				---	-.24**	.01	.41**	.28**	.06
5. Benefits					---	-.11	-.44**	-.18**	.03
6. Willingness						---	.05	-.04	.21**
7. Self-stigma							---	.47**	.02
8. Social stigma								---	-.04
9. Familiarity									---

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

Table 2

Means and Standard Deviations for Outcome Measures at Pretest

Outcome	*N*[a]	*M*	*SD*
Attitudes	286	32.06	7.07
Peer norms	285	7.79	1.65
Perceived norms	289	3.78	1.50
Anticipated risks	285	11.92	4.37
Anticipated benefits	285	13.35	3.85
Willingness to seek help	285	40.51	13.01
Self-stigma	290	25.95	6.92
Social stigma	282	13.35	3.78

[a]Different sample sizes due to incomplete surveys.

out of the study did not differ by gender $\chi^2(1, 290) = 0.11$, $p > .05$, ethnicity $\chi^2(4, 290) = 6.33$, $p > .05$, and year in school $\chi^2(4, 288) = 3.22$, $p > .05$. An independent samples *t*-test was conducted to test for differences between the two groups on mean participant age and each of the dependent variables. Again, there were no significant differences between conditions on any variable. Specifically, no effects were found for age $t(288) = -.70$, $p > .05$, attitudes $t(284) = .46$, $p > .05$, peer norms $t(283) = .45$, $p > .05$, perceived norms $t(287) = -.58$, $p > .05$, anticipated risks $t(283) = .25$, $p > .05$, anticipated benefits $t(283) = -.35$, $p > .05$, self-stigma $t(288) = -.78$, $p > .05$, social stigma $t(280) = .17$, $p > .05$, and willingness to seek help $t(283) = -.91$, $p > .05$.

Pretreatment Differences

Chi-square analyses were conducted to test for pretreatment differences across the three conditions on the demographic variables gender, ethnicity, and year in school. There were no significant differences between groups on any variable. Specifically, results indicated no pretreatment differences based on gender $\chi^2(2, 290) = 2.58$, $p > .05$, ethnicity $\chi^2(8, n = 290) = 9.00$, $p > .05$, and year in school $\chi^2(8, 288) = 9.67$, $p > .05$. To test for pretreatment differences in mean scores on participant age and the dependent variables between the three conditions, ANOVA's were conducted. Again, there were no significant differences found between conditions on all variables. Specifically, results indicated no main effect for age $F(2, 289) = .40$, $p > .05$, attitudes $F(2, 285) = .22$, $p > .05$, peer norms $F(2, 284) = .53$, $p > .05$, perceived norms $F(2, 288) = 1.00$, $p > .05$, anticipated risks $F(2, 284) = 1.31$, $p > .05$, anticipated benefits $F(2, 284) = .58$, $p > .05$, self-stigma $F(2, 287) = 1.73$, $p > .05$, social stigma $F(2, 279) = .97$, $p > .05$, and willingness to seek help $F(2, 282) = .13$, $p > .05$.

Changes in Mean Scores over Time

My first hypothesis was that repeated viewings of the intervention video over the course of six weeks would result in greater changes than the other two conditions in the outcome measures (i.e., attitudes, peer norms, perceived norms, anticipated risks, anticipated benefits, self-stigma, social stigma, and willingness to seek help). A repeated-measures analysis of covariance (ANCOVA) was used to test whether there were differential changes in each of the outcomes across the three conditions over the entire study period (condition [IVR, CR, IVS] was a three-level between-subjects factor and time [pre-treatment, Time 2, Time 3, Time 4] was a four-level within-subjects factor). Whether participants watched The Real World: Key West, season 17 prior to the experiment was controlled for in the analyses. Rationale for using familiarity as a covariate was such that previous exposure could lead to pre-experimental opinions that may confound the interpretation of results. Interactions between time and condition were the primary focus. The effect size utilized is partial eta squared (indexed by η_p^2). According to the literature, the corresponding qualitative judgments for η_p^2 are: 0.01 (small), 0.06 (medium), and 0.14 (large; Cohen, 1988).

Analyses for each of the eight outcomes were run separately and across the four time points, respectively. Therefore, to correct for the number of tests, a bonferroni adjustment was made whereby significance was determined by $p < .006$ (.05/8 = .006). Time X Condition interactions indicated there was a significant differential change over time across conditions for peer norms, $F(6, 278) = 3.88$, $p < .001$, $\eta_p^2 = .077$. Results were not significant for attitudes, perceived norms, anticipated risks, anticipated benefits, self-stigma, social stigma, and willingness to seek help (p's > .013). Next, a follow-up ANCOVA model was employed

to contrast pairs of conditions at each of the follow-up time-points for peer norms. Peer norms was the only measure assessed because no other outcomes produced significant results, as indicated from the ANCOVA. The intent was to identify exactly which conditions differed significantly from each other and how long these differences persisted. Thus, condition was a two-level between-subjects factor (e.g., IVR vs. CR) and time was a two-level within-subjects factor (e.g., pretest to Time 2, pretest to Time 3, and pretest to Time 4). Again, to correct for the number of tests, a bonferroni adjustment was made whereby significance was determined by $p < .017$ (.05/3 = .017). When comparing changes in peer norms between the IVR and IVS groups across time points, Time X Condition interactions indicated there was no significant differential change from pretest to Time 2, $F(1,151) = 1.106$, $p = .295$, $\eta_p^2 = .007$, a significant change from pretest to Time 3, $F(1,129) = 11.049$, $p = .001$, $\eta_p^2 = .079$, and no effect for pretest to Time 4, $F(1,117) = 3.636$, $p = .059$, $\eta_p^2 = .030$. When comparing changes in peer norms between the IVR and CR groups, results indicated significant effects from pretest to Time 2, $F(1,142) = 10.122$, $p = .002$, $\eta_p^2 = .067$, pretest to Time 3, $F(1,124) = 15.046$, $p = .000$, $\eta_p^2 = .108$, and pretest to Time 4, $F(1,108) = 10.083$, $p = .002$, $\eta_p^2 = .085$. Finally, when comparing changes in peer norms between the IVS and CR groups, results indicated no significant effects from pretest to Time 2, $F(1,148) = 5.491$, $p = .02$, $\eta_p^2 = .036$, pretest to Time 3, $F(1,132) = 1.277$, $p = .261$, $\eta_p^2 = .010$, and pretest to Time 4, $F(1,116) = 2.802$, $p = .097$, $\eta_p^2 = .024$.

Finally, to examine whether within group outcome changes were significant for peer norms, paired sample *t*-tests were employed comparing each time point to the pretest. Peer norms was the only measure assessed because no other outcomes produced significant results,

as indicated by the ANCOVA. It is important to run this test separately to indicate the direction of change, relative to the relationship between two time points within a given condition instead of between conditions. The means and standard deviations over all time-points are presented in Table 3 and graphically represented in Figure 2. The IVR group had no immediate effects from pretest to Time 2 but showed significant changes over time, specifically between pretest and Time 3 and pretest and Time 4. Thus, after repeated exposure positive changes in peer norms were found. For the IVS group, there were no immediate effects. Furthermore, no significant changes between the other two time points and the pretest were seen in the IVS group. Finally, the CR group showed consistent significant changes over time, and these changes were seen between every time point compared to the pretest. Unlike the IVR group, however, the change in peer norms actually decreased at each time point.

Table 3

Means and Standard Deviations at Each Time Point

Outcome	Pretest *M* (SD)	Time 2 *M* (*SD*)	Time 3 *M* (*SD*)	Time 4 *M* (*SD*)
Peer norms				
IVR	7.81 (1.80)[1]	8.12(1.63)	8.31 (1.52)[2]	8.41 (1.55)[2]
IVS	7.74 (1.72)	7.83(1.61)	7.57(1.59)	7.59 (1.57)
CR	7.98 (1.49)[1]	7.34(1.28)[2]	7.30 (1.37)[2]	7.36 (1.54)[2]

Note. Means in the same row with different superscripts were statistically significantly different ($p < .05$).

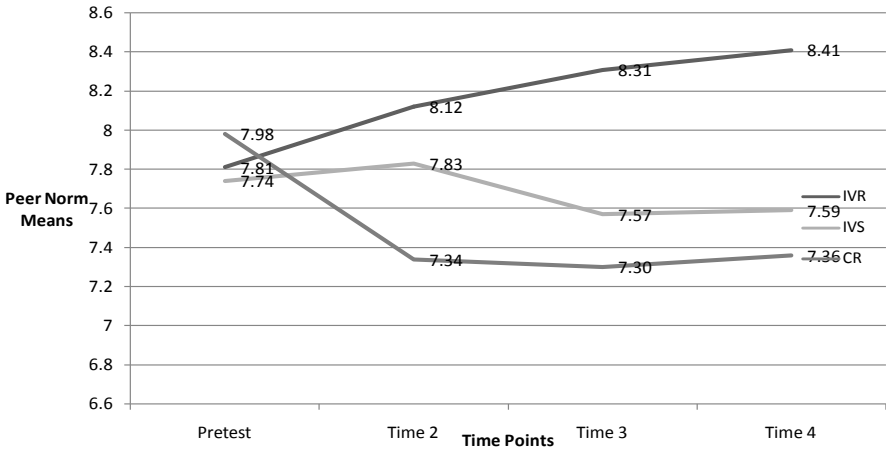

Figure 2. Peer norm means across time points by condition.

CHAPTER 4. DISCUSSION

The present study examined whether watching a video intervention would result in significant changes in perceptions of help seeking. It was one of the first of its kind to examine whether multiple exposures to a video intervention would result in significant changes in outcomes over time using a repeated measures design, which tested for significant improvements across four time points. Each condition was examined for immediate and longer-term effects on all outcomes. This study was also the first of its kind to determine whether changes over time in a repeated exposure intervention group (IVR) were significantly greater than two comparison groups, including a single exposure intervention group (IVS) and a repeated exposure control group (CR). Together, this study was designed to identify potential within-group and between-group differences and found evidence for both in regard to peer norms though not for other measured variables.

The findings of the study are mixed. Of the eight variables tested only one, peer norms, was found to be significantly affected by the intervention video. The reader should be reminded that while the peer norms measure is adapted from Fishbein et al. (2002) this measure along with other viewer perceptions influenced by the PSA were significantly related to the perceived effectiveness of the PSAs analyzed in that study. Accordingly, the greater the perceived effectiveness of the intervention, the more one believed that people one's own age engaged in the targeted health behavior. As such, there is an empirically-based reason to believe that changing normative beliefs contributes to the perceived effectiveness of the present study's video intervention. Moreover, such an effect cannot be easily attributed to expectancies, social presentation biases, or demand characteristics.

Although it is possible that the greater effects appeared because there were stronger social presentation biases and demand characteristics, particularly in the repeated exposure conditions (due to increased opportunity for hypothesis guessing), it is unlikely considering the measures taken to conceal the hypothesis through the cover story and feedback questionnaire. The videos and surveys were online as well, thereby increasing the perception of anonymity and eliminating social presentation biases that may be more prevalent in live experimental settings.

Most importantly, there were significantly differential changes in peer norms across the three conditions over time. This effect was not better accounted for by show familiarity than the intervention video itself. Specifically, after controlling for previous exposure to the specific season of television episodes from which the video was designed, results indicated that watching the video for a total of three times (IVR group) led to significantly greater changes in peers norms than watching an equal number of exposures to a control video (CR group). This difference was found at the immediate post-test (Time 2 and Time 3) and maintained over the entire six-week study period (Time 4). The effect sizes found were medium in magnitude for all comparisons between a follow-up time point and the pretest. Furthermore, these immediate and longer-term differential effects cannot be easily attributed to regression to the mean or a measurement artifact, as such processes would have affected both repeated exposure groups equally.

In addition, the ANCOVA indicates that watching the intervention video more than once produced significantly greater increases in peer norms relative to the single exposure group from pretest to Time 3 (i.e., immediately after the repeated exposure). It should be

reiterated that there was no difference in experimental manipulation between the IVR and IVS groups between pretest and Time 2, thus no effects would be expected and none were found. Therefore, for peer norms, repeated exposure to the intervention video was shown to have an immediate effect (pretest to Time 3), evidenced by significantly differential changes when compared to a single exposure. Like the differential effects found between the IVR and CR groups, this effect was medium in magnitude and not better accounted for by show familiarity than the intervention video itself. While this effect was not maintained at Time 4, it is promising from an empirical standpoint to see immediate effects on people's cognitions, especially if this video or others like it are to be replicated in future research or tested under different designs and populations. In addition, this finding compliments results found by Haugtvedt et al. (1994), which indicated that people receiving three exposures to different types of advertisements showed greater persistence in attitude change over a one-week period, compared to people who received just one exposure.

There are a number of interpretations for these findings. In terms of the effects found, the intervention video did appear to change perceptions of the utilization of counseling services among peers, an effect observed over the entire six-week study. Accordingly, the significantly differential effects found between the IVR and CR groups for peer norms are likely due to the intervention video itself, as both groups had an equal number of exposures but watched different videos. The video may also be a primary factor in explaining the significantly differential effects found between the IVR and IVS groups for peer norms at Time 3 but not Time 2 or Time 4. For example, both groups saw the same video before taking the questionnaire at Time 2 and no effects were found. No effects were

found at Time 4 as well. However, the differential effect found at Time 3 coincided with the IVR group having watched the shortened video (edited to show only positive associations with counseling) prior to taking the questionnaire. Thus, it is possible that this new version of the video accounted for the significant difference between intervention groups at Time 3. Alternatively, the difference at Time 3 may be due to repeated exposures. By this stage of the study, participants in the IVR group had seen the video three times compared to once in the IVS group.

Ultimately, the number of exposures appears to be the strongest explanation for the video's effect on peer norms. Although an effect for the IVR group was found at each time point when compared to the CR group, such an effect was not found at any time point when comparing the IVS group to the CR group. Therefore, it seems that the video accounts for between-group differences with the control group but only after multiple viewings. Also, as mentioned, there was no difference in experimental manipulation between the IVR and IVS groups between pretest and Time 2, but only after repeated exposures at Time 3 was a significant differential effect was found. Given this effect was not maintained at Time 4, there is evidence to suggest that repeated exposures does lead to immediate, temporary changes in normative beliefs about counseling. This interpretation is confounded by the fact that the third exposure in the IVR group was a shortened video only emphasizing positive associations with counseling. Therefore, in relation to the findings observed by Haugtvedt et al. (1994), it remains empirically unclear whether multiple exposures or the combination with alternative types of video better accounted for the effects but the evidence strongly suggests that repeated exposures is a necessary contributor.

The present study's support for repeated exposures as a primary factor influencing perceptions of help-seeking behaviors among peers is consistent with the Cultivation Theory's claim that perceptions are cultivated through repeated viewings of information over time. In other words, people with more frequent exposure to media messages are more likely to perceive the real world as it appears in their media world. This is a statement supported by the present study's findings for peer norms. In terms of why that statement does not fit for attitudes towards counseling, anticipated risks and benefits of counseling, stigma from seeking counseling, or intentions to seek help, those variables are more intrapsychic in nature, having to do more with one's personal world as opposed to the "the real world," thus compromising the face validity for comparisons between perceptions of people's real world and media world. Perceptions of the utilization of counseling services among peers are judgments of the real world; therefore, in retrospect, it makes intuitive sense that peer norms would be more influenced by media portrayals of the real world than the other variables in this study. Although the cultivation hypothesis predicts that more frequent exposure to media messages will shape attitudes in addition to norms, the results from the present study suggest that more than three exposures are needed to shape attitudes. Thus, the present study only partially supports the cultivation hypothesis from the effect found on norms and leaves the question of whether repeated exposures to intervention videos can influence attitudes, beliefs, or other intrapsychic variables open to further experimentation.

Regarding the null results, the intervention video did not effectively change people's attitudes towards counseling, outcome expectancies, self-stigma, social stigma, or

willingness to seek help. This may be due to the fact that one to three viewings is not enough to influence change on those outcome measures. Also, the null effects may be because the design of the video did not combine the right elements to change help-seeking attitudes, beliefs, and intentions. On the other hand, it may have addressed the right elements but with the wrong editing. For example, perhaps the video would have held participants' attention better, and thus would have been more effective, if the original video was shorter in length or did not include any negative associations at all. Support for this claim can be inferred from the significantly differential effects found between the IVR and IVS groups for peer norms only at Time 3, the time point where the IVR group watched the shortened video, edited to show only positive associations with counseling.

In terms of why the effect between the IVS and IVR groups for peer norms did not last through Time 4, scores were moving in the right direction but significance was not achieved. This may be due to the procedural differences between groups at Time 3. For instance, the differential effect found at Time 3 may be explained by the fact that the IVR group took the questionnaire right after seeing their third exposure to the intervention video, whereas the IVS group had not seen the video for two weeks when they took it. That said, Time 3 was the only time point where the questionnaire procedures for these two groups differed, thus raising the possibility that the effect observed at Time 3 but not Time 4 was due to a recency effect (from watching the video right before the questionnaire). To examine this explanation, it helps to look at the follow-up within-group tests. For example, within-group tests for the IVR group indicated significant improvements for peer norms at each time point compared to the pretest. The effects found were in the intended direction and

maintained over a two-week period between the date of their last exposure to the video and their final questionnaire. If watching the video before taking the questionnaire accounted for a large proportion of any effects found, one would expect results comparing Time 4 to the pretest to be insignificant because participants in the IVR group did not watch a video before taking the final questionnaire. However, the within-group difference between pretest and Time 4 was significant, thus lending support against the "recency effect" as an explanation for the peer norm effect, which in turn increases internal validity insofar as the effects are better explained by the intervention video and number of exposures. Therefore, in explaining why the effect between the IVS and IVR groups for peer norms did not last through Time 4, it is most likely because three exposures are not enough to influence such longer-term change when compared to another group exposed to the intervention video. In other words, the effect of three exposures could have worn off by Time 4. More exposures and/or alternative types of videos for the repeated group may be needed if an effect is to be maintained over time. Alternatively, perhaps seeing the video just once (in the single group) creates too high of a floor for any longer-term differential effects between intervention groups to be found. Although a significant difference was not maintained between the intervention groups over time, evidence suggests that it is not necessarily because repeated exposures did not have an effect on norms or had maxed out its effect. Instead, there seems to be a limited duration of influence that a few exposures to media interventions can have on one's perceptions and beliefs, especially when compared to people exposed to the same video at least once.

Despite the limited duration of effects from repeated exposures, some exposure seems better than no exposure. For example, looking at the follow-up within-group tests, the CR group had a significant effect in the negative direction for peer norms from pretest to Time 2, an effect maintained over time. Thus, peer norms got worse upon each testing for people not exposed to the intervention video and an effect in the opposite, positive direction was found in the IVR group. Interestingly, no effect was found within the IVS group at any time point. Therefore, the within-group tests suggest that repeated exposure has a positive influence on norms, no exposure has a negative influence, and one exposure is neutral. In other words, it seems as if the intervention video serves as a protective factor for beliefs about peer help-seeking behaviors. Thus it can be surmised that the questionnaire activated pre-existing stereotypes but that watching the video might have altered that activation or countered the effects of stereotypes on normative beliefs. For example, by seeing a character of similar demographic background seek help, personal relevance is increased, thus leading to greater thought elaboration, which allows for changes in ones' perceptions regarding the utilization of services among peers.

According to the cultivation hypothesis, mass media campaign literature, and availability heuristic, repeated exposure to accurate messages about help-seeking behavior in a video with emotional appeal makes such associations between peers and help-seeking more accessible, especially when probed. On the other hand, no exposure to the intervention video serves as a risk factor for beliefs about peer help-seeking behaviors. Being asked repeatedly about the utilization of counseling services among peers without exposure to any stimuli promoting such associations seems to result in decreased perceptions of the number

of peers who seek help. Accordingly, it seems "out of sight, out of mind" does more damage than good when it comes to the promotion of help-seeking behaviors, specifically in the realm of norms. It could be that counseling has been seen over the years as a service for only a few people, perceived as "crazy," in severe need, or wealthy, and unless people are exposed to disconfirming evidence, they will continue to hold the same perceptions and beliefs. For instance, if people are exposed to neutral or status quo images of counseling and clients, akin to those portrayed in the media up until the turn of the century, it is unlikely their beliefs will change for the better. Likewise, if they are not exposed to any help-seeking stimulus, there is no reason to believe their beliefs will change, thereby allowing inaccurate, obsolete, or deleterious beliefs about the utilization of services to be maintained.

Theoretical Implications

Consistent with tenets of the Elaboration Likelihood Model (ELM), which suggests that specific characteristics of the message will make the message more or less likely to be accepted, the intervention video was designed to appeal to central (message content) and peripheral routes of persuasion (emotional appeal and messenger characteristics). From this experiment, it seems that using a real-life, experienced client as a messenger, similar in demographic background to the college population being sampled, and in moderate emotional distress helped augment personal relevance, which is theoretically assumed to increase thought elaboration and change cognitions. In addition, positive portrayals of counseling were promoted and the message content also offered information about how to seek counseling services. Thus, together, it seems these central and peripheral factors helped viewers accept the normative message that "18–25 year olds do seek counseling". However,

to the extent that the ELM is a theory of attitude formation first and foremost, no significant change in attitude was detected and thus support for the ELM is limited.

In addition, the ELM model states that time in between exposures and a greater number of exposures both lead to increased thought elaboration, which increases the likelihood for attitude change. The design of the present study allowed for time in between multiple exposures and took other measures to induce higher thought elaboration, yet no attitude effects were found. Therefore, findings from the present study do not lend strong support for using the ELM as a theoretical basis in the design of intervention videos seeking to improve help-seeking attitudes. Perhaps the video was not designed with the proper ratio of central to peripheral factors; perhaps it failed to induce enough thought elaboration or personal relevance in viewers; or maybe three was not an effective number of exposures to detect attitude change as found by Haugtvedt et al. (1994). Contrarily, designing the video in a way that appeals to central and peripheral factors and designing the experiment in a way that attempted to induce higher thought elaboration seemed to change perceptions of help-seeking norms, which is believed to play a role in influencing attitudes according to the TRA. The implication is that positive effects found for peer norms offers indirect support for the ELM to the extent that norms influence attitudes. Specifically, the TRA states that intentions to perform a behavior are influenced by attitudes about the behavior and subjective norms. While attitudes and norms are not said to be weighted equally in predicting behavior, the present study shows support for part of that equation (i.e., norms). Furthermore, the correlation between those two measures (r = .21) was significant in the present study. Nonetheless, theory-based efforts should be made to strengthen initial

intervention effects and prolong them to a practically feasible degree in order to enhance their persistence in real-world and experimental settings. Whether the ELM or another theory of attitude formation, health behavior promotion, or persuasive communication would serve as the best theoretical basis for such media interventions seeking to promote help-seeking attitudes, intentions, or behaviors, it seems that such change is possible based on persistent effects found on peer norms.

Research Implications

The present findings have several research implications. While these findings add to the growing body of evidence for the effectiveness of media interventions, less is known about the actual factors that accounted for the variance in outcomes. We know that the theory-based framework created a video that has short-term and some longer-term effects on peer norms, but do not know which, if any, individual components of the video are most potent. Thus it will be important to examine factors that mediate the intervention effects for the repeated and single exposure interventions. As such, subsequent studies may seek to hone in on a few of the factors used in the design of the present video. Second, it may also help if future studies examine source characteristics by comparing interventions with a male and female main character, an everyday person and celebrity, or spokespeople from differing age groups. Third, it is possible that the effects are best explained by the promotion of positive associations with counseling in the video and a decrease in negative associations, as this is a common finding in previous stigma and attitude towards counseling research (Fishbein & Cappella, 2006; Jones et al., 2003; Rothman et al., 2003; Wahl & Lefkowits, 1989). Future research will need to test the message frame in help-seeking interventions to

determine if this is a valid interpretation. Moreover, frequency of exposure and use of alternative types of video have both been found to effect attitude change in previous research and both were utilized in the design of the IVR group. Future tests may seek further clarification for the amount of variance accounted for by each of those factors. Fourth, it will be useful to investigate factors that may moderate the intervention effects, such as those listed in the limitations section, including familiarity with counseling (via self or others) or demographic and background variables not assessed in the present study. Fifth, more knowledge is needed about the actual mechanisms that make the message effective or the cognitive processes that account for the intervention effects. For example, it will be useful to directly test whether the repeated exposure condition produces intervention effects because of the increase thought elaboration from the cover story and feedback form, delayed time between surveys, repeated exposures and increased accessibility, or perceived personal relevance.

Given the findings about longer-term effects from repeated exposures on peer norms, it will be vital to determine ways to enhance the magnitude and duration of the effects from this intervention video. Strategies such as increasing the frequency of exposures, extending the time between exposures and questionnaires, or integrating application-based activities into the design may prove helpful. Additional effort should be devoted to designing interventions that affect multiple mental health outcomes and integrated health care as a whole because this could significantly improve the utilization of professional mental health services. The measures in the present study were selected to correspond with key factors in the video. Of the primary eight outcomes, only one was

found to have significant changes over time. Future effectiveness studies can use the present findings as a starting point to determine which outcomes are reachable. Then, the goal can be to conduct dissemination studies to determine the best application and implementation of these video interventions.

Practical Implications

Videos such as the one in this study offer an opportunity for broad-based application to multiple real-world settings. Media outlets have been shown to be one of the public's most important sources of information about mental illness (Borinstein, 1992) and psychotherapy (Jorm, 2000; Jorm et al., 1997). Applications such as television and the Internet are increasing in popularity largely because it's efficient and practical. They also provide a medium by which people can view alternative types of the same video messages repeatedly over time, as this study shows the potential effectiveness of doing so. Furthermore, a newly released study from the Kaiser Family Foundation and the Pew Research Center's Project for Excellence in Journalism (KFF/PRC, 2008) reports that news about health and health care made up less than 4 percent (3.6%) of all news content from January 2007 through June 2008. Specifically, health content was shown to range from a high of 8.3 percent of network evening news coverage to a low of 1.4 percent of cable news coverage, and from 5.9 percent of newspaper content to 2.2 percent of online news content. Moreover, recent trends have shown that people's television viewing is migrating from network to cable programming and from reading news in print publications to more online content such as offered via the Internet. Victoria Rideout, Kaiser vice president and director of the Program for the Study of Media and Health at the Kaiser Family Foundation made a

significant comment, stating “as the public’s news consumption shifts more toward online and cable outlets, people are likely to come across fewer stories about health” (KFF/PRC, 2008, p. 4).

The implications of the present findings can be useful in a number of ways. First, the failure to find any effect on attitudes, stigma, outcome expectancies, or intentions means more research will be needed before it can be more broadly applied. Alternative theories will need to be used in the design of other video and tested before it can be applied to stigma reduction or attitude change campaigns. However, this study lends support to a video framework that is shown to be effective at raising awareness of counseling services and changing normative beliefs. Therefore this video or others like it can be used to inform the field of how to best use the media to disseminate accurate and favorable information about mental health care and services. This may require conscious lobbying and a greater role in networking and marketing with communications professionals.

If health care continues to be a big societal issue, people continue to turn to media outlets for their health care information, and there is currently a lack of coverage in outlets like cable television and the Internet, it seems prudent to target those outlets for videos like the one in the present study. Websites that attract diverse viewers may be interested in hosting the video or one like it. Message boards devoted to health care issues may be a specific target. MTV may be interested to learn that an intervention video from material they produced was found to effectively promote pro-counseling beliefs. Perhaps they can help find an appropriate outlet for the video. In addition, once tested, videos can be applied to waiting rooms of clinics in all health care disciplines, movie theaters as a pre-movie trailer,

or on college campuses. There may be opportunities to network with local news agencies to establish a weekly broadcast on their website or television channel. Current anti-stigma efforts may be able to use video interventions in their campaigns as well to disseminate accurate information on the utilization of services among age groups as well as providing efficacy-based information on how to find and utilize professional services. While the current video does not change all the outcome variables correlated with help-seeking behaviors, it indicates some change and gives direction for others. It was not a magic bullet but the information gleaned is enough to encourage further experimentation and resources towards increasing help-seeking attitudes, intentions, and behaviors through media interventions.

In the United States, 2008 saw mental health parity enacted after tiresome efforts dating back to the mid to late 1990s. This parity bill helped make it more financially possible for people to obtain mental health services if they need them. By requiring insurance companies to provide equal coverage for mental health and medical health issues, thus diminishing the financial barrier to the utilization of mental health services, strong efforts were made to repair the access to mental health care problem in the United States. Other barriers remain though, such as stigma and misinformation, and as mental health continues to draw attention on an individual and societal level, it will be important to make sure accurate information is disseminated in hopes that stigmas decrease and attitudes towards counseling change. It is also important for people to gain awareness of the positive associations between help-seeking and mental health. Empirically tested intervention videos can be an efficient and effective way to achieve these means and others in a practical

fashion. By using mass media outlets to disseminate theory-based messages aimed at increasing help-seeking behaviors, we will be contributing to people's health and well-being in an empirically-supported and contemporary fashion.

Limitations

The current study has several important sampling limitations. While the reported power analysis suggested the sample size was sufficient, many of the effects may have been limited by the small number of participants in each condition, which may have obscured some of the results. Related, the study used a homogenous sample of undergraduate college students. Although random assignment was employed with no significant pretreatment gender differences between groups, the overall and within-group ratio of females to males was approximately 2:1 and this may have skewed the direction or magnitude of effects found. For example, the results could have been limited because females made up the majority of participants (close to 66%) and they are generally more favorable towards counseling and perhaps therefore in less need of pro-counseling interventions. Both the moderately small sample size and gender imbalance might also limit the generalizability of the findings. In addition, the main character in the video was female and this may have made it harder for males to identify with the source messenger. Identification was hypothesized to be a key contributing factor in the video's influence on outcome changes, thus difficulty identifying with the source may have biased male mean scores, most likely in the negative direction. Furthermore, there was no reference to the exact mental health problem experienced by the main character that led her to seek counseling. This was intentional, so as to increase personal applicability for the majority of participants. However, the lack of

specification may have enabled viewers to more easily reject identification with the “vaguely and significantly distressed” character.

Another limitation is that the sample was not diverse in terms of ethnicity, education level, or age. First, participants were recruited from undergraduate courses in a small mid-western town that is predominantly European American. As a result, the results found may differ in more ethnically diverse samples. For example, Christopher, Skillman, Kirkhart, and D’Souza (2006) found that students of collectivist cultures reported significantly greater intention to seek professional psychological help after being exposed to persuasive information relating to normative beliefs than personal outcome beliefs. As a result, one could predict an increase in norm changes in a more ethnically diverse sample given that the present study’s intervention video targeted such normative beliefs in its design and resulted in significant changes with a presumably individualistic sample. Furthermore, this video was developed in the United States and tested primarily on European American college students. Subsequent effectiveness research should consider revising the original model used in this study to accommodate and tailor future interventions towards processes underlying differences between independent and inter-dependent-based cultures. For example, studies systematically evaluating the impact of alternative videos with different themes on the beliefs, intentions, or behaviors of the target audience may help clarify these issues. In terms of the representativeness of sample, college students tend to be more educated than the general population as well, which may have affected their level of thought elaboration. Finally, participants’ age was predominantly between the ages of 18–30 and future research should consider using a non-undergraduate or non-student population.

Several methodological limitations should be noted as well. First, the study relied on self-report data. This introduced the possibility that reporter biases might have distorted estimates of intervention effects. For example, self-presentation biases and demand characteristics may have come from participants recruited for a psychology study in a psychology class. This could have inflated positive attitudes or beliefs towards counseling, which would skew the results and limit the range of responses necessary to detect significant effects. Future studies may benefit from multiple data sources, combining structured questionnaires with qualitative interviews. This has potential to better understand existing attitudes from the participant's point of view, which can guide future attitude change interventions. Second, this study was not conducted in an experimental setting and instead, took place online. Although real-world settings are known to enhance generalizability and it has been observed that adults give approximately 60% more attention in normal television viewing environments (Anderson, Lorch, Field, Collins, & Nathan, 1986), non-experimental settings pose limits to internal validity due to diminished control over the procedures and compliance with instructions. Although manipulation checks were designed to counter for the possibility of decreased attention, there is no way of knowing for sure whether participants actually viewed the videos as many times as they reported.

Another limitation towards internal validity exists in the information that participants did not report. First, previous media-related experiences with mental illness or counseling may have influenced viewer's perception of persuasive media messages. Along these lines, past and present experience with counseling was assessed but the smaller sample size inhibited the ability to validly test such information as moderator variables or covariates.

Similarly, other information, such as knowing a family member who has mental health issues, gone through counseling, or who is a professional in the field may be important to assess. Testing these variables would have required a larger and broader sample. Future research may specifically wish to sample clinical populations, as this will likely increase perceived personal relevance, which research shows could have a big impact on how health promotion behavior messages are received (Fishbein & Yzer, 2003) as well as strengthening the small to moderate association between attitude and behavior (*r = .39;* Krauss, 1995).

Although the results of the present study extend past most previous studies in conducting a six-week follow-up, this time period still makes it difficult to know whether the intervention effects on peer norms would persist over a longer period of time. Similarly, the study did not validly test the effects of the intervention video on actual behavior change. It is well recognized that the assumed correspondence between self-reported attitude change and behavior change is not supported by the data (Leventhal, 1970; Petty & Cacioppo, 1981). If the ultimate goal of this study was to improve utilization of services, attitude change is only as useful as it is predictive of behavior change. Although participants were asked about help-seeking behaviors in all surveys, there is no ethical way to objectively measure help-seeking behaviors.

Conclusion

Overall, the present study's intervention video leads to significantly differential effects on peer norms when viewed repeatedly. When compared to a control video, these effects are maintained over time and when compared to a single exposure, an effect is found but it does not persist over time. These findings point to repeated exposures as a necessary

factor for such shorter-term and longer-term changes to occur. It also lends support for the design of the video in its ability to change people's cognitions regarding the utilization of counseling services among peers. While peer norms was the only outcome for which an effect was found, norms happens to be one of the three key determinants of behavior change according to The Theory of Reasoned Action (TRA). This information can be used to help guide future effectiveness research on pro-counseling video interventions aiming for help-seeking attitude and behavior change. Given the controversy over outcome criterion in mass communication and health behavior research, this study can serve as an example of which theories influence some outcomes under a repeated measures design but not others and how effectiveness can be variably defined depending on the relationship between theory and outcome.

APPENDIX A. SONA DESCRIPTION

This is a four part study designed to better understand how media presentations can influence attitudes. Each part will take less than 50 minutes and consist of taking attitude surveys and in some cases, watching videos. By participating, you will be contributing to a scientific analysis of entertainment. You will receive one extra credit point for each part completed. There is an option to receive a fifth point for completion of all four parts. Participation is completely voluntary and you may discontinue participation at any time without penalty. If you do so, you will receive credit for all parts completed up to that point.

At this time we would like to thank you for your participation. If you have any questions about this project feel free to contact either of the two primary investigators on this project, Scott A. Kaplan, skrattoe@iastate.edu or 515-294-8784, or Dr. David Vogel, dvogel@iastate.edu or 515-294-1582.

If you have any questions about the rights of research subjects or research-related injury, please contact Janice Canny, IRB Administrator, Research Assurances, 1138 Pearson Hall, 515-294-4566 (jcs1959@iastate.edu), or Diane Ament, Director, Research Assurances, 1138 Pearson Hall, 515-294-3115, (dament@iastate.edu).

Link to survey: http://www.surveymonkey.com/s.aspx

Scott A. Kaplan M.S.

Doctoral Student

Psychology Department

APPENDIX B. PRETEST SURVEY QUESTIONNAIRE

Please fill in the blank or check the one response that best describes you.

Your age: _____

Biological Sex (circle one)

Male Female

Classification or year in school (circle one)

Freshman Junior

Sophomore Senior

Other (please specify) _____

College major (fill in the blank): _____

Email address (fill in the blank): _____

Race/Ethnicity (check as many as apply for you):

____Black/African American ____Asian American/Pacific Islander

____Hispanic/Latino(a) ____Native American

____White or European American ____Other (please specify) _____

Are you familiar with the Real World Key West? (circle one)

Yes No

Did you watch episodes from the Real World Key West? (circle one)

Yes No

Are you familiar with the character Paula from The Real World: Key West, Season 17? (circle one)

Yes No

Have you ever sought mental health counseling at some point in the past? (circle one)

Yes No

Are you currently seeking mental health counseling for a psychological problem? (circle one)

Yes No

Are you currently experiencing a problem for which you would consider seeking help? (circle one)

Yes No

DASS21 *Name:* *Date:*

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3

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

Please read each statement and ***circle*** the response corresponding to the number that indicates how much the statement applied to you.

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
22. Seeing a psychologist for depression carries social stigma.	1	2	3	4	5
23. It is a sign of personal weakness or inadequacy to see a psychologist for depression.	1	2	3	4	5
24. People will see a person in a less favorable way if they come to know that he/she has seen a psychologist for depression.	1	2	3	4	5
25. It is advisable for a person to hide from people that he/she has seen a psychologist for depression.	1	2	3	4	5
26. People tend to like less those who are receiving professional psychological help for depression.	1	2	3	4	5

Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you.

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
27. Most people would willingly accept a former mental patient as a close friend.	1	2	3	4	5
28. Most people would believe that a person who has been in a mental hospital is just as intelligent as the average person.	1	2	3	4	5
29. Most people believe that a former mental patient is just as trustworthy as the average citizen.	1	2	3	4	5
30. Most people would accept a fully recovered former mental patient as a teacher of young children in a public school.	1	2	3	4	5
31. Most people believe that entering a mental hospital is a sign of personal failure.	1	2	3	4	5
32. Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time.	1	2	3	4	5
33. Most people think less of a person who has been in a mental hospital.	1	2	3	4	5
34. Most employers will hire a former mental patient if s/he is qualified for the job.	1	2	3	4	5
35. Most employers will pass over the applicant of a former mental patient in favor of another applicant.	1	2	3	4	5
36. Most people in my community would treat a former mental patient just as they would treat anyone.	1	2	3	4	5
37. Most young women would be reluctant to date a man who has been hospitalized for a serious mental disorder.	1	2	3	4	5
38. Once they know a person has been in a mental hospital, most people will take his or her opinions less seriously.	1	2	3	4	5

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

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
39. I would feel inadequate if I went to a therapist for psychological help.	1	2	3	4	5
40. My self-confidence would NOT be threatened if I sought professional help.	1	2	3	4	5
41. Seeking psychological help would make me feel less intelligent.	1	2	3	4	5
42. My self-esteem would increase if I talked to a therapist.	1	2	3	4	5
43. My view of myself would not change just because I made the choice to see a therapist.	1	2	3	4	5
44. It would make me feel inferior to ask a therapist for help.	1	2	3	4	5
45. I would feel okay about myself if I made the choice to seek professional help.	1	2	3	4	5
46. If I went to a therapist, I would be less satisfied with myself.	1	2	3	4	5
47. My self-confidence would remain the same if I sought professional help for a problem I could not solve.	1	2	3	4	5
48. I would feel worse about myself if I could not solve my own problems.	1	2	3	4	5

Imagine you needed to seek treatment with a mental health professional. If you sought mental heath services, to what degree do you believe that the people you interact with would _____. Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you.

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
49. React negatively to you	1	2	3	4	5
50. Think bad things of you	1	2	3	4	5
51. Believe you were intelligent	1	2	3	4	5
52. See you as seriously disturbed	1	2	3	4	5
53. Think of you in a less favorable way	1	2	3	4	5
54. Be scared of you	1	2	3	4	5
55. Please put 4 as a response to this item.	1	2	3	4	5
56. React positively towards you	1	2	3	4	5
57. Think you posed a risk to others	1	2	3	4	5
58. Think you were crazy	1	2	3	4	5
59. Want to socialize with you	1	2	3	4	5
60. Think that you can take care of yourself	1	2	3	4	5
61. Think of you in a positive way	1	2	3	4	5
62. Feel pity for you	1	2	3	4	5
63. Feel sorry for you	1	2	3	4	5
64. Feel concern for you	1	2	3	4	5
65. Worry about you	1	2	3	4	5
66. Feel sympathy for you	1	2	3	4	5

Below is a list of issues people commonly bring to counseling. How likely would you be to seek counseling/therapy if you were experiencing these problems? Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you.

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
67. Relationship differences	1	2	3	4	5
68. Concerns about sexuality	1	2	3	4	5
69. Depression	1	2	3	4	5
70. Conflict with parents	1	2	3	4	5
71. Difficulties dating	1	2	3	4	5
72. Difficulties sleeping	1	2	3	4	5
73. Inferiority feelings	1	2	3	4	5
74. Difficulty with friends	1	2	3	4	5
75. Self-understanding	1	2	3	4	5
76. Loneliness	1	2	3	4	5

Please read each statement and *circle* the response corresponding to the extent that which you agree or disagree with the statements below:

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
77. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	1	2	3	4	5
78. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	1	2	3	4	5
79. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.	1	2	3	4	5
80. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.	1	2	3	4	5
81.I would want to get psychological help if I were worried or upset for a long period of time.	1	2	3	4	5
82. I might want to have psychological counseling in the future.	1	2	3	4	5
83. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.	1	2	3	4	5
84. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	1	2	3	4	5
85. A person should work out his or her own problems; getting psychological counseling would be a last resort.	1	2	3	4	5
86. Personal and emotional troubles, like many things, tend to work out by themselves.	1	2	3	4	5

Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you. Please answer the following using the scale:

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
87. How difficult would it be for you to disclose personal information to a counselor?	1	2	3	4	5
88. How vulnerable would you feel if you disclosed something very personal you had never told anyone before to a counselor?	1	2	3	4	5
89. If you were dealing with an emotional problem, how beneficial would it be to disclose personal information about the problem to a counselor?	1	2	3	4	5
90. How risky would it feel to disclose your hidden feelings to a counselor?	1	2	3	4	5
91. How worried about what the other person is thinking would you be if you disclosed negative emotions to a counselor?	1	2	3	4	5
92. How helpful would it be to self-disclose a personal problem to a counselor?	1	2	3	4	5
93. Would you feel better if you disclosed feelings of sadness or anxiety to a counselor?	1	2	3	4	5
94. How likely is it that you would get a useful response if you disclosed an emotional problem you were struggling with to a counselor?	1	2	3	4	5

For the following items, please choose the response that most accurately reflects your perceptions:

1 = None 2 = A few 3 = Some 3 = More than half 5 = Most

95. Of students your own age, how many do you think have ever sought mental health counseling?

96. Of students your own age, how many do you think are currently seeing a mental health counselor?

97. Of students your own age, how many do you think would consider seeking mental health counseling?

Please rate the following item from (1) strongly agree to (5) strongly disagree

98. People who are important to me would think that I should seek help from a mental health professional if I were experiencing a personal problem

99. How likeable do you find Paula, the blonde girl from the video? (circle one)

1 (not at all) 2 (a little bit) 3(considerable amount) 4 (very much)

100. How typical do you find Paula, the blonde girl from the video? (circle one)

1 (not at all) 2 (a little bit) 3(considerable amount) 4 (very much)

101. Did you watch the video?

Yes No

APPENDIX C. FEEDBACK QUESTIONNAIRE

The following questions relate to the video you just watched. There is no right or wrong response. We are simply looking for thoughtful feedback about how we can make the video more entertaining. All responses are helpful. Thank you for your time and efforts.

1) Which aspects of the video did you like?
2) What do you think was the most realistic aspect of this video?
3) How realistic were the friendships portrayed in the video?
4) How effective do you think Paula's (the main character) friends were at expressing concern and support for her?
5) What kind of language did characters use when discussing personal issues?
6) If you were a producer and looking to make a video that was attention grabbing, what part of the video would you definitely keep and why? What part of the video would you definitely cut and why?
7) Media research has shown a link between emotion and entertainment value, so we are wondering which aspects of the video evoked any kind of emotional reaction?
8) Sometimes we are able to identify with characters on television and it is believed that this adds to the entertainment value. How well could you identify with the character(s) in this video? In what way?
9) Which scenes/lines left the most lasting mark and why?

Thank you for your feedback. Please remember that in order to receive the third allotment of extra credit you need to participate in part 3 of this study next week. We will send you a 2 reminder emails in the week before part 3 begins with detailed instructions about your participation.

APPENDIX D. COVER STORY

Thank you for watching the video. By watching the video and taking our questionnaire, you are contributing to a scientific analysis of entertainment. As you may have been thinking, these kind of studies help people figure out what kind of television programming will be popular. For example, whether you like or dislike reality television, it has been popular hasn't it? Don't reality shows differ in how well they realistically address issues common to all?

In this study, we are investigating the salience of media content and viewing patterns. Specifically, we are looking at how repeated viewing impacts a person's opinions so we can get a better idea about ways to maximize entertainment value.

Please watch the video again. Pay careful attention to relationship dynamics in the video, social skills, what the characters are saying, what words they use, and how they are saying it. Think about how realistic the portrayals are. Afterwards, you will be asked to provide open-ended feedback to questions about the video.

APPENDIX E. POSTTEST TIME 3 SURVEY QUESTIONNAIRE

Please fill in the blank or check the one response that best describes you.

Your age: _____

Biological Sex (circle one)

Male Female

Classification or year in school (circle one)

Freshman Junior

Sophomore Senior

Other (please specify) _____

College major (fill in the blank): _____

Race/Ethnicity (check as many as apply for you):

____Black/African American ____Asian American/Pacific Islander

____Hispanic/Latino(a) ____Native American

____White or European American ____Other (please specify) _____

Were you familiar with the Real World Key West before the study? (circle one)

Yes No

Did you watch episodes from the Real World Key West before or during this study? (circle one)

Yes No

Were you familiar with Paula from the Real World Key West before this study? (circle one)

Yes No

Have you sought mental health counseling anytime between October and right now? (circle one)

Yes No

Are you currently seeking mental health counseling for a psychological problem? (circle one)

Yes No

Are you currently experiencing a problem for which you would consider seeking help? (circle one)

Yes No

DASS21 *Name:* *Date:*

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3

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

Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you.

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
22. Seeing a psychologist for depression carries social stigma.	1	2	3	4	5
23. It is a sign of personal weakness or inadequacy to see a psychologist for depression.	1	2	3	4	5
24. People will see a person in a less favorable way if they come to know that he/she has seen a psychologist for depression.	1	2	3	4	5
25. It is advisable for a person to hide from people that he/she has seen a psychologist for depression.	1	2	3	4	5
26. People tend to like less those who are receiving professional psychological help for depression.	1	2	3	4	5

Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you.

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
27. Most people would willingly accept a former mental patient as a close friend.	1	2	3	4	5
28. Most people would believe that a person who has been in a mental hospital is just as intelligent as the average person.	1	2	3	4	5
29. Most people believe that a former mental patient is just as trustworthy as the average citizen.	1	2	3	4	5
30. Most people would accept a fully recovered former mental patient as a teacher of young children in a public school.	1	2	3	4	5
31. Most people believe that entering a mental hospital is a sign of personal failure.	1	2	3	4	5
32. Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time.	1	2	3	4	5
33. Most people think less of a person who has been in a mental hospital.	1	2	3	4	5
34. Most employers will hire a former mental patient if s/he is qualified for the job.	1	2	3	4	5
35. Most employers will pass over the applicant of a former mental patient in favor of another applicant.	1	2	3	4	5
36. Most people in my community would treat a former mental patient just as they would treat anyone.	1	2	3	4	5
37. Most young women would be reluctant to date a man who has been hospitalized for a serious mental disorder.	1	2	3	4	5
38. Once they know a person has been in a mental hospital, most people will take his or her opinions less seriously.	1	2	3	4	5

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

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
39. I would feel inadequate if I went to a therapist for psychological help.	1	2	3	4	5
40. My self-confidence would NOT be threatened if I sought professional help.	1	2	3	4	5
41. Seeking psychological help would make me feel less intelligent.	1	2	3	4	5
42. My self-esteem would increase if I talked to a therapist.	1	2	3	4	5
43. My view of myself would not change just because I made the choice to see a therapist.	1	2	3	4	5
44. It would make me feel inferior to ask a therapist for help.	1	2	3	4	5
45. I would feel okay about myself if I made the choice to seek professional help.	1	2	3	4	5
46. If I went to a therapist, I would be less satisfied with myself.	1	2	3	4	5
47. My self-confidence would remain the same if I sought professional help for a problem I could not solve.	1	2	3	4	5
48. I would feel worse about myself if I could not solve my own problems.	1	2	3	4	5

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	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
49. React negatively to you	1	2	3	4	5
50. Think bad things of you	1	2	3	4	5
51. Believe you were intelligent	1	2	3	4	5
52. See you as seriously disturbed	1	2	3	4	5
53. Think of you in a less favorable way	1	2	3	4	5
54. Be scared of you	1	2	3	4	5
55. Please put 4 as a response to this item.	1	2	3	4	5
56. React positively towards you	1	2	3	4	5
57. Think you posed a risk to others	1	2	3	4	5
58. Think you were crazy	1	2	3	4	5
59. Want to socialize with you	1	2	3	4	5
60. Think that you can take care of yourself	1	2	3	4	5
61. Think of you in a positive way	1	2	3	4	5
62. Feel pity for you	1	2	3	4	5
63. Feel sorry for you	1	2	3	4	5
64. Feel concern for you	1	2	3	4	5
65. Worry about you	1	2	3	4	5
66. Feel sympathy for you	1	2	3	4	5

Below is a list of issues people commonly bring to counseling. How likely would you be to seek counseling/therapy if you were experiencing these problems? Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you.

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
67. Relationship differences	1	2	3	4	5
68. Concerns about sexuality	1	2	3	4	5
69. Depression	1	2	3	4	5
70. Conflict with parents	1	2	3	4	5
71. Difficulties dating	1	2	3	4	5
72. Difficulties sleeping	1	2	3	4	5
73. Inferiority feelings	1	2	3	4	5
74. Difficulty with friends	1	2	3	4	5
75. Self-understanding	1	2	3	4	5
76. Loneliness	1	2	3	4	5

Please read each statement and *circle* the response corresponding to the extent that which you agree or disagree with the statements below:

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
77. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	1	2	3	4	5
78. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	1	2	3	4	5
79. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.	1	2	3	4	5
80. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.	1	2	3	4	5
81.I would want to get psychological help if I were worried or upset for a long period of time.	1	2	3	4	5
82. I might want to have psychological counseling in the future.	1	2	3	4	5
83. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.	1	2	3	4	5
84. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	1	2	3	4	5
85. A person should work out his or her own problems; getting psychological counseling would be a last resort.	1	2	3	4	5
86. Personal and emotional troubles, like many things, tend to work out by themselves.	1	2	3	4	5

Please read each statement and *circle* the response corresponding to the number that indicates how much the statement applied to you. Please answer the following using the scale:

	Strongly Disagree	Disagree	Agree and Disagree equally	Agree	Strongly Agree
87. How difficult would it be for you to disclose personal information to a counselor?	1	2	3	4	5
88. How vulnerable would you feel if you disclosed something very personal you had never told anyone before to a counselor?	1	2	3	4	5
89. If you were dealing with an emotional problem, how beneficial would it be to disclose personal information about the problem to a counselor?	1	2	3	4	5
90. How risky would it feel to disclose your hidden feelings to a counselor?	1	2	3	4	5
91. How worried about what the other person is thinking would you be if you disclosed negative emotions to a counselor?	1	2	3	4	5
92. How helpful would it be to self-disclose a personal problem to a counselor?	1	2	3	4	5
93. Would you feel better if you disclosed feelings of sadness or anxiety to a counselor?	1	2	3	4	5
94. How likely is it that you would get a useful response if you disclosed an emotional problem you were struggling with to a counselor?	1	2	3	4	5

For the following items, please choose the response that most accurately reflects your perceptions:

1 = None 2 = A few 3 = Some 3 = More than half 5 = Most

95. Of students your own age, how many do you think have ever sought mental health counseling?

99. Of students your own age, how many do you think are currently seeing a mental health counselor?

100. Of students your own age, how many do you think would consider seeking mental health counseling?

Please rate the following item from (1) strongly agree to (5) strongly disagree

101. People who are important to me would think that I should seek help from a mental health professional if I were experiencing a personal problem

99. How likeable do you find Paula, the blonde girl from the video? (circle one)

1 (not at all) 2 (a little bit) 3(considerable amount) 4 (very much)

100. How typical do you find Paula, the blonde girl from the video? (circle one)

1 (not at all) 2 (a little bit) 3(considerable amount) 4 (very much)

101. Did you watch the video?

Yes No

APPENDIX F. DEBRIEFING DOCUMENT

Title of Study: Media and Attitudes Study

Investigator: Scott A. Kaplan, M.S.

Thank you for your participation. The study you just participated in was designed to better understand how media presentations can influence attitudes. Specifically, we were looking at the effects of media content, repeated viewing, and entertainment value on attitudes about seeking help for a psychological problem. Increased understanding of help-seeking behavior may help raise awareness of and reduce negative perceptions of counseling.

As mentioned before, all responses will be kept confidential and identifying information (i.e., names) will be removed at the end of your participation today. Your data will also be combined with the data of other participants to further ensure anonymity. These data will be secured online and any paper copies kept in a locked cabinet, in a locked office.

If you have any concerns about the study you just participated in, please email one of the experimenters. If participation in this study raised personal concerns that you would like to discuss with a counselor, there are community resources listed below.

You are encouraged to ask questions at any time during this study. For further information about the study, contact the primary investigators on this project, Scott A. Kaplan, skrattoe@iastate.edu or 515-294-8784, or Dr. David Vogel, dvogel@iastate.edu or 515-294-1582. If you have any questions about the rights of research subjects or research-related injury, please contact Janice Canny, IRB Administrator, Research Assurances,1138 Pearson Hall, 515-294-4566 (jcs1959@iastate.edu), or Diane Ament, Director, Research Assurances, 1138 Pearson Hall, 515-294-3115, (dament@iastate.edu).

Community Referrals

Student Counseling Services. 2223 Student Services Building. Ames, IA. 294-5056.

Marriage and Family Therapy Clinic. 4380 Palmer HDFS Building, Ames, IA. 294-0534.

Richmond Center. 125 South 3rd Street. Ames, IA. 232-5811.

APPENDIX G. FOLLOW-UP CONTACT EMAIL (FOR PART 1)

Dear Student:

Recently, you took an online survey through SONA and expressed interest in continuing the four-part study on media content and attitudes. Further participation consists of watching online videos and taking questionnaires. In doing so, you will be helping people predict what kind of television programming will be popular. Participation is completely voluntary and you may discontinue participation at any time without penalty. You will be asked to provide your email address on the survey because that's how you get credit! In NO way will your email address or any other personal information be tied to your responses or used for any other purposes.

GO HERE FIRST: Link to video: (website)

Link to survey: http://www.surveymonkey.com/s.aspx

At this time we would like to thank you for your participation. If you have any questions about this project feel free to contact either of the two primary investigators on this project, Scott A. Kaplan, skrattoe@iastate.edu or 515-294-8784, or Dr. David Vogel, dvogel@iastate.edu or 515-294-1582.

If you have any questions about the rights of research subjects or research-related injury, please contact Janice Canny, IRB Administrator, Research Assurances, 1138 Pearson Hall, 515-294-4566 (jcs1959@iastate.edu), or Diane Ament, Director, Research Assurances, 1138 Pearson Hall, 515-294-3115, (dament@iastate.edu).

Thanks for your participation,

Scott A. Kaplan M.S.
Doctoral Student
Psychology Department

Please note: If you do not wish to receive further emails from us or if you feel you have received this message in error, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

Reminder Email 1

Dear Student:

Remember the study about media content and attitudes? Our records indicate that you already participated in part (1,2,3) and are scheduled to participate in part (2,3,4) in the next week. If you did NOT participate and are NOT signed up to do so, *stop reading here.* If you have participated and still intend on continuing, let this serve as a friendly reminder that you must complete part (2,3,4) in the next week.

Please go online to (view the video first and then) take the questionnaire. Remember to put your email address on the survey because that's how you get extra credit! In order for extra credit to be processed, the survey will need to be completed by (Time), (Day/Month/Year). In NO way will your email address or any other personal information be used for any other purposes.

Link to video: (Website)
Link to survey: http://www.surveymonkey.com/s.aspx

To be clear, you are under no obligation to participate in part (2,3,4). Again, your participation is completely voluntary and you may discontinue at any time without penalty. If you have any questions about this project feel free to contact either of the two primary investigators on this project, Scott A. Kaplan, skrattoe@iastate.edu or 515-294-8784, or Dr. David Vogel, dvogel@iastate.edu or 515-294-1582.

If you have any questions about the rights of research subjects or research-related injury, please contact Janice Canny, IRB Administrator, Research Assurances, 1138 Pearson Hall, 515-294-4566 (jcs1959@iastate.edu), or Diane Ament, Director, Research Assurances, 1138 Pearson Hall, 515-294-3115, (dament@iastate.edu).

Thanks for your participation,

Scott A. Kaplan M.S.
Doctoral Student
Psychology Department

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

Reminder Email 2

Dear Student,

According to our records, you recently received a reminder email about participation in the study on media content and attitudes. This message was sent because you expressed intent to complete part (2,3,4) after completion of part (1,2,3). If you already participated in part (2,3,4), thank you. If you have not yet participated but intend to do so, let this serve as another friendly reminder that you must complete part (2,3,4) in the next week.

Please go online to (VIEW THE VIDEO FIRST and then) take the questionnaire. Remember to put your email address on the survey because that's how you get extra credit! In NO way will your email address or any other personal information be used for any other purposes. In order for extra credit to be processed, the survey will need to be completed by (Time), (Day/Month/Year).

Link to video: (Website)
Link to survey: http://www.surveymonkey.com/s.aspx

To be clear, you are under no obligation to participate in part (2,3,4). Again, your participation is completely voluntary and you may discontinue at any time without penalty. If you have any questions about this project feel free to contact either of the two primary investigators on this project, Scott A. Kaplan, skrattoe@iastate.edu or 515-294-8784, or Dr. David Vogel, dvogel@iastate.edu or 515-294-1582.

If you have any questions about the rights of research subjects or research-related injury, please contact Janice Canny, IRB Administrator, Research Assurances, 1138 Pearson Hall, 515-294-4566 (jcs1959@iastate.edu), or Diane Ament, Director, Research Assurances, 1138 Pearson Hall, 515-294-3115, (dament@iastate.edu).

Thanks for your participation,
Scott A. Kaplan M.S.
Doctoral Student
Psychology Department

Please note: If you do not wish to receive further emails from us or if you feel you have received this message in error, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

APPENDIX H. INFORMED CONSENT

This is a research study. Please take your time in deciding if you would like to participate. Please feel free to email questions at any time. A copy of the informed consent document will be made available upon request.

INTRODUCTION

The purpose of this study is to better understand how media can influence attitudes.

DESCRIPTION OF PROCEDURES

This is a four-part study. If you agree to participate in this study, you will have an option to participate in each part. Each part will be less than 50 minutes and consist of an online questionnaire. Additionally, some parts will include a viewing an online video.

RISKS

We do not anticipate that these procedures will cause you any harm, but if you experience discomfort you may email the investigators about your concerns. You are free to skip any question that you do not wish to answer or that makes you feel uncomfortable. You are also free at any time to choose to end your participation. There will be no negative effects if you choose to skip a question or discontinue your participation in the study.

BENEFITS

While there are no direct benefits to participants in this study, participation in this project will help society as a whole learn about how media influences attitudes.

COMPENSATION

You have the opportunity to receive up to five points extra credit for participation in this four-part study. You will receive one extra credit point for each part completed. There is an option to receive a fifth point for completion of all four parts.

You will get one credit after you initially sign-up and take the first survey. This will automatically register electronically because you went through SONA to sign-up. After the first part, you will receive an email with a link to a video and survey for the rest of the parts. On the surveys, you will provide your email, which will be used to assign you credit manually in the SONA system for each additional part you complete.

PARTICIPANT RIGHTS

Your participation in this study is voluntary and you may refuse to participate or leave the study at any time. If you decide to not participate in the study or leave the study early, it will not result in any penalty or loss of benefits to which you are otherwise entitled.

CONFIDENTIALITY

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. In addition, precautions will be taken to protect your privacy including: (a) assigning you a unique code number that will be used instead of your name; (b) combining your data with the data collected from other participants so that no individual information will be identifiable. Federal government regulatory agencies the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy our records for quality assurance and data analysis. These records may contain private information.

QUESTIONS OR PROBLEMS

You are encouraged to ask questions at any time during this study. For further information about the study, contact the principal investigators, Scott A. Kaplan, M.S., skrattoe@iastate.edu or 515-231-6740 or Dr. David Vogel, dvogel@iastate.edu or 294-1582. If you have any questions about the rights of research subjects or research-related injury, please contact Janice Canny, IRB Administrator, (515) 294-4566, jcs1959@iastate.edu, or Diane Ament, Director, Office of Research Assurances (515) 294-3115, dament@iastate.edu.

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