SOCIAL SUPPORT AND PERSUADING INDIVIDUALS TO ENCOURAGE OTHERS TO SEEK MENTAL HEALTH HELP

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ABSTRACT

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People are often hesitant to seek professional help for mental health concerns. One barrier is the perception of stigma for seeking help or being labeled with a condition. For example, despite the availability of effective treatment, only about half of veterans who need professional help for combat stress (or PTSD) seek it. Research has demonstrated that perceptions of social support increase mental health help-seeking, and being encouraged to do so is associated with perceptions of social norms favoring decisions to seek help. Two areas of investigation stem from these ideas. Due to the lack of literature examining the types of messages people use to prompt or encourage others, the first reports the frequencies of messages that 201 survey participants reported that they would use if they were to encourage someone to seek mental health help. These messages were coded into the categories of emotional, tangible, informational, esteem, and network support. The most frequent type of support message was informational, making up about 60% of the messages provided.

The second study reports the factors that 96 military personnel reported that underlie persuasive messages targeting military service members to encourage others to seek mental health help for combat stress. Among other factors, fear of stigma has been cited in the literature as a barrier for military personnel to seeking mental health help. Stigma is rooted in social norms, as groups stigmatize by expressing disapproval of those who deviate. This research merges the Social Norms Approach with the Theory of Planned Behavior to predict intention to

encourage others to seek mental health help and evaluates the Social Norms Approach as a strategy for reducing perceptions of stigma. There was a discrepancy in the perceptions of norms and actual norms among these participants, with 96% of participants approving of encouraging others to seek help, while they perceived that about 70% of others would approve. The only significant predictor of intention to encourage others was subjective norm, and the interaction terms for attitude with societal injunctive norm and attitude with societal descriptive norm. Participants in the second study also rated the likelihood of using support messages for encouraging mental health help-seeking, with the network support message "I'm here for you" being the most highly rated message.

Dedication

I am forever grateful for all of the wisdom and support from Sandi Smith. Josh has been an incredible source of strength through the years of this process. I am also thankful to my mom, Grace, and Susan for their endless encouragement and love.

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Chapter 1

Introduction

Low rates of help-seeking for mental health problems have been documented in a variety of areas, including general help-seeking, in organizations' employee assistance programs, and among military members for combat stress/Post Traumatic Stress Disorder (PTSD). Concerns about being stigmatized or viewed negatively are a common factor preventing people from seeking help (Benbrow, 2007). Vogel et al. (2007) reported that being prompted by a friend or relative to seek mental health help was related to positive perceptions of norms about the behavior of seeking mental health help and beliefs about seeking help (Vogel et al., 2007). However, the content of messages and naturalistic language people use prompting or providing support for seeking mental health help has not been identified.

Despite lack of information about the types of messages used for prompting support or providing encouragement, the goal of some campaigns has been to persuade people to encourage others to seek mental health help as an avenue for reducing perceptions of stigma about mental health treatment. For example, the "Half of Us" campaign, sponsored by the Jed Foundation, "…encourages students to support friends who may be struggling emotionally" (Jed Foundation, 2008). Additionally, a campaign by the Substance Abuse and Mental Health Services Administration from the Department of Health and Human Services created a campaign called "What a difference a friend makes" (http://www.whatadifference.samhsa.gov/index.html) that has messages targeting friends of people with mental illness that dispel myths about mental illness and provide suggestions for how to provide support to friends.

One situation in which individuals may be hesitant to seek mental health treatment is military members experiencing combat stress. Helping service members with COSR[1] who are returning from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) is an important problem for the United States military today. According to Tanielian and Jaycox (2008), approximately 14%, or 300,000, of the service members returning from OIF and OEF have COSR (PTSD). However, just over 50% of those who need help seek psychological help although there are available and effective treatments. COSR (PTSD) has been associated with diminished quality of life in terms of suicide risks, domestic abuse, and unemployment (Tanielian & Jaycox, 2008; Hoge et al., 2004). Defense Secretary Gates recently argued that while the first issue with assisting veterans with COSR (PTSD) is developing treatment, "The second, and in some ways perhaps equally challenging, is to remove the stigma that is associated with PTSD and to encourage Sailors, Marines, and Airmen who encounter these problems to seek help" (Miles, 2008, p.1). Several studies support the assertion that the fear of stigma, a discrediting mark (Goffman, 1963) or perceived violation of social norms (Smith, 2007), prevents people from seeking psychological help (Tanielian & Jaycox, 2008; Corrigan, 2004; Hoge et al., 2004; Stecker, Fortney, Hamilton & Ajzen, 2007). The concept of stigma, rooted in social norms, occurs when groups stigmatize particular individuals to maintain group norms and demonstrate disapproval by punishing those who deviate. Thus, service members may perceive that others will stigmatize them for showing weakness by seeking help. In addition to perceived stigma, studies have also indicated other impediments to service members' help seeking behavior

[1] The Department of Defense (DoD Directive 6490.5) defines Combat and Operational Stress Reactions (COSR) as potential precursors to Post Traumatic Stress Disorder (PTSD). PTSD is a clinical diagnosis however COSR have a wide range of symptoms and severity. Consistent with the Army Field Manual No. 4-02.51 from Headquarters, Department of the Army, July 2006, the phrase COSR will be used throughout this paper, and when referring to literature that specifically cites "PTSD," it will be provided in parentheses after "COSR".

including access, financial costs, and perceived effectiveness of treatment (Tanielian & Jaycox, 2008; Hoge et al., 2004; Hoge, Auchterlonie, & Milliken, 2006; Stecker, et al., 2007). While prior literature in this area has examined perceptions of stigma relating to seeking help, the behavior of interest for this study is the use of messages that encourage others to seek help for combat stress. The logic here is that if the behavior of seeking help is stigmatized, then endorsing that behavior may also be stigmatized.

Each of these ideas form the foundation for an investigation examining the role of supportive encouraging messages as well as factors for persuading individuals to encourage others to seek mental health help. It is important to explore and clarify the specific types of supportive messages that messages senders use to encourage others to seek mental health help. Due to the lack of clarity in the help-seeking literature about social support and encouragement, the goal here is to examine the behavior of encouraging mental health help seeking (from a sender perspective) in terms of informational, emotional, tangible, esteem, and network categories of supportive communication (Cutrona & Suhr, 1992). It is also important to understand factors for persuading people to encourage others to seek mental health help, in this case, for combat stress. This research builds on prior focus group research by Clark-Hitt (2010) identifying factors that Soldiers associate with encouraging others to seek mental health help for combat stress.

There are several goals for the investigation of factors for persuading people to encourage others to get help for combat stress. The first is to determine whether there is a discrepancy between service members' perceptions of stigma, documented as injunctive norms (disapproval), regarding encouraging help seeking for COSR and actual stigma. Actual stigma is documented as actual injunctive norms, or disapproval, regarding encouraging help-seeking. Examining

whether there are discrepancies between these constructs will illuminate whether it will be appropriate to use the SNA to create persuasive messages aimed at reducing perceptions of stigma for seeking help. In this context, stigma will be considered present if more than 50% of respondents indicate disapproval of encouraging another to seek help. Perceived stigma will be documented as a perception of more than 50% of others disapproving of encouraging another to seek help for COSR.

The second goal is to investigate factors that service members associate with encouraging help-seeking help for COSR. The rationale for persuading service members to encourage others to seek help is twofold. First, because research has demonstrated that socially supportive encouragement predicts help-seeking behaviors, increasing peer encouragement should contribute to an increase in help seeking behaviors among service members. The second is that perceptions of support from one's military unit were a predictor of perceptions about mental health services (Pietrzak et al., 2009). Thus, receiving supportive, encouraging messages about seeking professional health services should reduce perceptions of stigma, which is widely viewed as a barrier to seeking help. Ultimately, this research will provide background information to design messages targeting military service members to encourage others to seek professional help for COSR.

The Theory of Planned Behavior (TPB) is used as the framework to examine attitudes, perceived behavioral control, and subjective norms to predict intent to encourage help-seeking. In focus groups with Soldiers, Clark-Hitt (2010) reported several beliefs that Soldiers associate with encouraging others to seek help for combat stress. For example, Soldiers reported that not knowing how to have a conversation to encourage someone would make it more difficult. Because of the normative nature of encouraging seeking help for COSR, the Social Norms

Approach (SNA) will be integrated with the TPB to assess intention to encourage seeking help, with Soldiers evaluating beliefs specified in the TPB from identified by Clark-Hitt (2010). This study examines whether there are five distinct types of norms, taking in to account four norm types in the SNA and the subjective norm from the TPB, regarding intention to encourage others to seek help. This project also examines whether the different norms moderate the relationships between the TPB predictors and intention to encourage others to seek help.

The paper begins with an overview of hesitance to seek mental health help across multiple contexts. Next is a discussion of how encouragement relates to the interpersonal communication area of social support and research questions are presented to investigate the types of messages that people report using to encourage others to seek help. Next, a background of COSR/PTSD is discussed, followed by discussions of stigma and mental health help-seeking, the SNA, encouragement and seeking mental health help, and the TPB. The method, results, and discussion sections follow.

Chapter 2

Hesitance to Seek Mental Health Help

Low Rates of Help-Seeking

According to Vogel et al. (2007), "less than 40% of individuals seek any type of professional help within a year of the onset of a psychological disorder" (p. 233). Andrews, Issakidis, and Carter (2001) also reported low prevalence levels of people consulting health professionals for mental disorder in the USA, the Netherlands, Canada, Australia, and the UK; in each of these countries fewer than 30% of people who screened positive for a mental disorder had sought a consultation. In particular, low rates of help-seeking for depression and anxiety are of concern because of their prevalence (Mechanic, 2007). One study reported that about 4% of people have depression at a given time, with about 17% having depression sometime in their lifetime (Blazer et al., 1994). The World Health Organiztion (WHO) reports that lifetime prevalence of any kind of psychological disorder affects nearly half of the population, yet only about 40% of those needing help seek it (World Health Organization Mental Health, n.d.).

Employee Assistance Programs (EAPs) are an area in which researchers have documented relatively low rates of mental health help-seeking. EAPs initially came about to address alcohol abuse among employees (Hartwell et al., 1996) but have expanded to include mental health services for distressed employees, covering issues such as depression, stress, and domestic abuse (Gerstein & Bayer, 1988; Hartwell et al, 1996). The purpose of EAPs is to help employees with problems that diminish organizational effectiveness in terms of productivity, attendance, and turnover (Gerstein & Bayer, 1988).

The contexts above illustrate common situations in which individuals may be hesitant to seek various forms of mental health help. People may be more inclined to seek mental health help, however, if they perceive support when they are encouraged by others.

Social Support

Social support from a communication perspective is defined as, "…specific lines of communicative behavior enacted by one party with the intent of benefiting or helping another" (Burleson & MacGeorge, 2002, p. 386). For this project, encouraging mental health help seeking will be conceptualized as social support because it is a communicative behavior in which the encourager has an intention of helping another seek and obtain needed professional mental health help.

Cutrona and Suhr (1992) discussed five types of social support commonly accepted in the literature: information support (e.g., advice or factual support), tangible support (e.g., offers for assistance with resources), emotional support (messages of caring or empathy), esteem support (expressing confidence in person's competence), and social network support (interactions with a group of similar others). Thus, encouraging mental health help-seeking may be conceptualized as social support in various ways, depending on how the sender, or person doing the encouraging, delivers the message. For example, encouragement may be provided in terms of informational support, such as "I think it would help you to see a counselor" or "a counselor can help you feel better," tangible support messages such as, "I will help you set up an appointment," emotional support messages such as "I hope you will get help because I care about you," and esteem support messages such as "Having to get help doesn't mean you're any less of a person." Network support may involve offers to help a person join a support group of similar others.

Prior Research on Social Support and Help-Seeking

Some studies have identified perceived social support as a predictor of psychological help-seeking. For example, Ullman and Breckin (2002) reported perceived social support (measured as perceptions of how much friends, family, and significant others care about you) to be one predictor of women's help seeking behaviors for PTSD from child sexual trauma. Norris et al. (1990) reported perceived social support (measured in terms of instrumental, advice, tangible, and emotional support) to predict mental health help-seeking among victims of violent crimes. Pietrzak et al. (2009) reported results of a survey of active duty and national guard/reserve veterans of the wars in Iraq and Afghanistan that perceived social support from one's unit was a negative predictor of perceptions of stigma about seeking mental health care, with lesser perceived support predicting greater perceptions of stigma. These studies did not, however, identify the messages used to communicate caring (i.e., Ullman & Breckin, 2002) or support (i.e., Norris et al, 1990; Pietrzak et al., 2009).

Vogel et al. (2007) examined whether an individual had been prompted by someone to get help and knowing someone who had sought help were related to whether they had sought mental health help, perceptions of risks and benefits of seeking help, and perceptions of social norms about seeking help. The study found that 13% of their sample (N = 780) reported that they had sought mental health help in the past, and among people who had sought services, three quarters had been promoted by a person they knew. Those who were prompted had more positive beliefs about the benefits of help-seeking and more positive attitudes toward seeking mental health help than those who had not been prompted. Additionally, those who had been prompted to seek help reported greater levels of perceived approval from people in their lives than those who were not prompted.

Similarly, research in the area of EAPs has examined the role of perceived social support and encouragement from supervision regarding willingness to seek or encourage others to seek mental health help. Reynolds and Lehman (2003) surveyed 909 employees from a large municipal workforce, asking them both how likely they would be to go to an EAP for help, and also "how likely would you be to recommend the EAP to a coworker who you thought needed help?" The study reported that feeling stronger group cohesion, awareness of EAP services, trust in management, and knowledge of how to get help predicted willingness to seek mental health help or recommend EAPs to others. Other research has examined subordinates' perceived social support and encouragement from supervisors regarding willingness to seek help or encourage others to seek help from EAPs. Delaney, Grube and Amer (1998) found that greater perceived support from coworkers, and the likelihood that the participant's supervisor would encourage EAP use, increased the likelihood that employees would use an EAP for alcohol problems.

While the literature deals with the receiver perspective in terms of the decision to seek mental health help based on support received, it is also critical to understand what types of messages senders use to encourage others, specifically, whether the messages they use involve elements of supportive communication, and if so, which types of support. Knowledge of the types of supportive messages will be useful for future research examining the relative effectiveness of these strategies. Thus, the first area to examine is which messages respondents report they would use to encourage others to seek help.

RQ1: What are the different types of supportive communication people use in messages to encourage others to seek help for psychological health issues (e.g., information, tangible, emotional, esteem, and social network support)?

Interpersonal Relationships and Encouragement

Socially supportive communication in the form of encouragement has implications for relational development and maintenance. The type of relationship (e.g., friend or coworker), may influence whether an individual is willing to encourage mental health help seeking and the type of encouraging message used. These two types of relationships are of particular interest here for the relationships among military personnel, the focus of the next study, are likely to be either co-worker or friend.

The act of encouraging may impact the trajectory of the relationship; for instance, it may serve as a turning point, defined as "…any event or occurrence that is associated with change in a relationship (Baxter & Bullis, 1986, p. 470 in Solomon, & Vangelisti, 2009; Golish 2000). With regard to encouraging mental health help seeking, it is possible that the relational partners feel closer to each other as a result of the message, or they may disintegrate the relationship because the act may be viewed as an insult or lack of confidence in the person being encouraged. Dunckel-Schetter et al. (1994) reported that individuals may perceive support attempts negatively, with two themes for unhelpful support, "…advice that conveys a negative attribution of the recipient, including attributions of blame, tend to be perceived by the support recipient as unhelpful," while a second type of unhelpful behaviors "…includes over-involvement, intrusiveness, over-solicitousness, and over-concern" (p. 97). Although the research cited here focuses on the receiver perspective, i.e., receivers' reactions to supportive messages, it is likely that message senders anticipate such receiver reactions and whether the relationship will be harmed. As a result, the message sender may consider whether or not to provide encouragement to seek mental health help, and if they do provide encouragement, concerns about the impact on the relationship may shape the type of message the sender uses. In sum, the literature cited here illustrates, from the receiver perspective, that supportive communication may influence

relationships. Interpersonal communication literature does not, however, address how relationship types relate to encouraging help seeking from the sender perspective.

Due to the lack of literature examining the interplay of relationships and encouraging help-seeking, one important first step is to examine whether people will encourage others, and if so, whether the types of messages people provide differ depending on the type of relationship with the message recipient. Thus, the following research questions address relationship type with regard to the message sender's choice of encouraging message type.

RQ 2A: Will the decision to encourage others to seek help differ by type of relationship (i.e., friend or co-worker)?

RQ 2B: Do messages chosen by the sender to encourage others differ by the type of relationship the sender is in with the message target?

Chapter 3 Combat Stress and Messages for Persuading Military Members to Encourage Others to Seek Help

While the section above deals with support for seeking mental health help in general, the next portion of this paper is concerned with one particular mental health concern, COSR among military personnel. Specifically, while the above sections were concerned with the messages people would send to encourage others to seek help, the following focuses on targeting military members with messages to persuade them to encourage others to seek mental health help for COSR.

COSR (PTSD) is an anxiety disorder that may occur following "…exposure to a terrifying event or ordeal in which grave physical harm occurred or was threatened. Traumatic events that may trigger COSR (PTSD) include violent personal assaults, natural or human-caused disasters, accidents, or military combat" (U.S. Department of Veterans Affairs, 2008c). While PTSD is a clinical diagnosis, COSR involves a large range of symptoms and levels of severity. COSR (PTSD) is a potential long- term consequence of combat and operational stress, thus this project aims to increase encouraging help-seeking for COSR.

There are several symptoms of COSR (PTSD) including re-experiencing the situation (flashbacks), hyper-arousal, emotional numbness, and avoiding situations that are reminders of the traumatic event (U.S. Department of Veterans Affairs, 2008c). Effective treatments exist for COSR (PTSD) including cognitive therapy, exposure therapy, and medication (Veterans' Administration, 2008a).

Outcomes Related to COSR

Depression, COSR (PTSD), and Traumatic Brain Injury (TBI) each increase suicide risk (Tanielian & Jaycox, 2008). Compared with other anxiety disorders, COSR (PTSD) has the

strongest association with suicide attempts and consideration of suicide. The suicide rate in the military has been increasing steadily over the past several years. The suicide rate for 2008 (20.2 per 100,000) was the first time the military rate has outpaced the civilian population rate (Kuehn, 2009). Before 2006, the military suicide rate had been about half of the civilian population rate (approximately 11 per 100,000) (Miles, 2006). As of June 2010, there were approximately equal numbers of service members killed in combat in Afghanistan and those who have taken their own lives (Tarabay, 2010).

In addition to suicide, a common finding is that those with COSR (PTSD) experience a lower quality of life, and alcohol and drug use disorders have strong prevalence among people with COSR (PTSD). In sum, COSR associated with exposure to traumatic events related to military combat has been linked with reduced quality of life. While there are many negative outcomes that may be alleviated by seeking treatment, a major barrier preventing many veterans from seeking treatment is perceived stigma. The concept of stigma and how it acts as a barrier to treatment is discussed in the next section.

Chapter 4 Stigma

Definitions of Stigma

Goffman (1963) defined stigma as "…an attribute that is deeply discrediting" (p. 3). Stigma involves a perceived violation of social norms (Smith, 2007), and operates as a "…central mechanism for enforcing social norms…by stigmatizing non-normative behavior" (Blume, 2003, p. 4). Similarly, Smith (2008) argued that stigma serves as a method for group members to protect group norms by: distinguishing individuals with particular attributes, categorizing them in a separate group, associating members of the categorized group with social or physical danger, and placing responsibility for the stigmatizing attribute on the individuals. Similarly, Link and Phelan's (2001) conceptualization of stigma posits that stigma involves labeling, stereotyping, separation, loss of status, and discrimination, but adds that all of these processes take place within the context of power, meaning that there must be a power differential between the party being stigmatized and the party perpetuating the stigma for stigma to occur; thus it is not possible for a low-power group to stigmatize a high-power group.

The fear of social stigma may lead individuals to engage in fear control such as avoidance rather than desired danger reduction behaviors such as seeking treatment (Smith, Ferrara, & Witte, 2007). The following discussion elaborates on how perceived stigma impedes seeking mental health treatment.

Stigma and Mental Health Treatment

Several investigators have discussed the important role of stigma in decisions to seek mental health treatment. Smith, Ferrara, & Witte (2007) cite fear of stigma as a factor leading to fear control rather than danger reduction within the context of the Extended Parallel Process Model. Whereas danger reduction is a positive reaction to prevent a threatening outcome or

illness, fear control is an outcome in which a person does not feel capable of engaging in the danger reduction behaviors. Thus, when an individual is confronted with the possibility of a stigmatizing illness, instead of seeking treatment, they may ignore the illness to prevent damage to his or her reputation. Corrigan (2004) also discussed stigma as an explanation for lack of help-seeking for mental health services, and pointed out that while mental health treatment and services have improved in the last 50 years, a large proportion of people choose not to seek treatment or do not adhere to treatment. Corrigan (2004) argued that stigma motivates people to avoid treatment. People are motivated by the fear of being labeled for seeking treatment, thus, many people with "concealable" stigmas conceal them to avoid social ramifications.

Mojtabai (2007) assessed public attitudes of Americans about seeking treatment for mental health using interview data from the National Co-morbidity surveys from 1990-1992 and 2001-2003. Among other measures, participants were asked questions to assess their perceived stigma associated with seeking mental health treatment. Perceived stigma was assessed by asking "How embarrassed would you be if your friends knew you were getting professional help for an emotional problem?" A comparison of responses from the two surveys showed that in the more recent survey, more respondents indicated they would not feel at all embarrassed if others found out they had sought treatment (40.3% for 2001-2003 vs. 33.7% for 1990-1992). The increase in the rate of those who indicated they would not be at all embarrassed is important for the present research because it demonstrates a decrease in perceptions of stigma about seeking mental health help. Despite the decrease, however, it is not yet a majority level who would not feel at all embarrassed.

COSR, Service members, and Stigma

While the literature cited above dealt with general issues of mental illness and stigma, other literature has specifically examined these topics regarding U.S. veterans. Hoge et al. (2004) examined the impact of the current wars in Afghanistan and Iraq on service members' mental health by anonymously surveying 6,201 members of three combat units either before deployment or after returning home from combat. The study measured symptoms of general anxiety, COSR (PTSD), major depression, as well as whether participants were currently feeling stress, problems with alcohol, family problems, and interest in obtaining help. Hoge et al. (2004) asked service members questions to screen them specifically for COSR (PTSD). Those who were classified as having COSR (PTSD) based on the screening questions "…were generally about two times as likely as those whose responses did not report concern about being stigmatized and about other barriers to accessing and receiving mental health services" (p. 16). The survey also asked participants to indicate whether they had procured professional help in the past month or past year and perceived barriers to mental health treatment. Barriers cited included stigma associated with mental health help. Hoge et al. (2004) found that those with the highest level of need of mental health services had the greatest concerns about being stigmatized. Stecker, Fortney, Hamilton, and Ajzen (2007) reported similar findings using part of the TPB to study beliefs of veterans from Iraq and Afghanistan. Interviews were conducted with veterans who screened positive for depression, generalized anxiety disorder, panic disorder, COSR, or alcohol abuse using the Mini International Neuropsychiatric Interview. When asked about the major disadvantage to seeking mental health treatment, the response was stigma. In the next section, the preceding discussion of stigma will be integrated with the SNA.

Chapter 5 Social Norms Approach

Integration of Stigma and Social Norms

Social norms are perceptions about how the majority of others think and act (Berkowitz, 2004). Social norms are commonly distinguished as descriptive norms and injunctive norms. First, descriptive norms are beliefs about how people in an individual's social group are behaving, or what they are doing (Berkowitz, 2005; Smith & Park, 2007). When individuals have a perception that a behavior is highly prevalent, they tend to believe that it is the norm, and something that they should achieve, too. Conversely, when they perceive that a behavior is not normative, such as seeking help for mental health treatment in the military, they are unlikely to engage in that behavior. Second, perceived injunctive norms "…refer to individuals' belief regarding approval or disapproval of the behavior in question by those valued others" (Park & Smith, 2007, p. 196). When people perceive that a behavior is widely approved of by others, they are more likely to engage in the behavior, and conversely when there are disapproving norms they are less likely to engage in the behavior.

As discussed earlier, stigma is applied to those who threaten the group by violating the group's social norms. Thus, perceptions of stigma are analogous to perceptions of injunctive norms, or perceptions of disapproval of particular behaviors. Therefore, perceived stigma will be operationalized as perceived disapproval through measurement of perceived injunctive norms, while actual injunctive norms/stigma will be documented as actual disapproval of seeking treatment for COSR. In other words, this study will ask participants to indicate the percentage of others that they believe disapprove of encouraging others (the perceived injunctive norm), and also to indicate whether they disapprove (the actual injunctive norm). The responses to these

questions will determine whether there is a discrepancy in which people believe that the majority disapprove, while in reality the majority approve.

Social Norms Approach

The goals of the SNA are to decrease harmful behaviors and increase protective behaviors by revealing accurate information about population or group norms to those who hold inaccurate perceptions of norms. The SNA revolves around a discrepancy between perceptions about social norms and actual social norms, leading to "misperceptions." The SNA has been widely studied with heavy drinking among college students, but it has been implemented in other contexts such as the spread of rumors (Cross & Peisner, 2009) and tax compliance (Wenzel, 2001). College students often over-estimate the degree to which peers drink heavily in comparison with peers' actual drinking behaviors. Extreme behavior is more easily noticed than moderate behavior, therefore people tend to form inflated views about what most people do based on extreme behavior they have witnessed (Perkins, 2003). In the context of college drinking, the SNA employs the strategy of communicating messages with the "…truth about peer norms in terms of what the majority of students actually think and do, all on the basis of credible data drawn from the student population that is the target" to correct these misperceptions (Perkins, 2003, p. 11). Thus, such messages are positive, showing that the actual norm is a more moderate level of behavior or attitude than the descriptive norm. The SNA posits that as people increasingly recalibrate their behavior to the norms in the message, the actual norm becomes more moderate (Perkins, 2003).

The behavior of encouraging others to seek help differs from the traditionally studied alcohol behaviors. Social norms alcohol interventions correct the misperceptions that the majority is drinking heavily (descriptive norm) and approves of heavy drinking (injunctive

norm). Conversely, it is expected that people perceive that the majority do not approve of encouraging help-seeking or would not encourage others to seek help. Thus, in the alcohol example the misperception is that the majority approves of and engages in the un-healthy behavior (drinking), whereas in the case of encouraging help-seeking, it is expected that the misperception is that the majority does not approve of or does not engage in the healthy behavior (encouraging others to seek help).

There are several steps for implementing an SNA intervention. First, data is collected to identify misperceived descriptive and injunctive norms and actual norms of the behaviors in question. Once norms data are gathered, norms must be compared with actual behavior (Olin Health Center & Health and Risk Communication Center, 2008). If the results show that 50%, or more, of the population is actually engaging in the desired behavior, then it is appropriate to produce messages and move forward with an SNA campaign. Based on this comparison, messages are designed to undermine the misperception, and then those messages are presented to the target population (Perkins, 2003). The results of such an intervention are predicted to be a lower level of exaggerated misperception of norms, leading to a reduced level of harmful behavior (Perkins, 2003). In this case, however, the goal is an increased level of the positive, desired behavior of encouraging others to seek help.

Two criteria must be met for the SNA to be applied (Olin Health Center & Health and Risk Communication Center, 2008). First, misperceptions must exist, with a significant difference between actual behavior and perceived behaviors, or between actual approval and perceived approval. There must be a perception that fewer engage in the desired behavior or approve of it than actually is the case. Second, the majority of the population must in fact engage in, or approve of, the desired target behavior. If the difference between actual behavior and

perceived norms complements the goals of the campaign, that information should be used in the campaign messages. Specifically, those items for which more than 50% of respondents engage in, or approve of, the desired behavior may be used in the messages. Several studies have demonstrated the effectiveness of the SNA for changing misperceptions of drinking norms and reducing drinking behaviors (Neighbors, Larimer, & Lewis, 2004; Mattern & Neighbors, 2004; DeJong et al., 2006).

Research Questions

This study identifies perceived injunctive and descriptive norms associated with encouraging others to seek help for COSR. The desired behavior is for service members to encourage others to seek professional help for COSR if needed. Encouraging help-seeking for COSR will be broadly defined to encompass help from a medical professional, counselor, psychiatrist, or religious leader.

Several research questions are advanced to evaluate whether social norms will be an appropriate avenue for approaching the general problem of stigma that impedes service members' encouraging others to seek help for COSR. First, injunctive norms, or approval of encouraging others to seek help for COSR will be investigated:

RQ3) What is the percentage of service members who approve of encouraging others to seek help for COSR if needed?

RQ4) What is the **perceived** percentage of service members who approve of encouraging others to seek help for COSR if needed?

The SNA is also concerned with perceived and actual descriptive norms about encouraging others to seek mental health help for COSR. Perceived norms are the estimates that participants have about the percentage of others who would encourage others to seek mental

health help for combat stress. The actual descriptive norm is the percent of participants who report intent to encourage others to seek mental health help. Research questions 3 and 4 identify the descriptive norms for whether service members would encourage others to seek help.

RQ5) What is the percentage of service members who would encourage others to seek help for COSR if needed?

RQ6) What is the **perceived** percentage of service members who would encourage others to seek help for COSR if needed?

Chapter 6 Encouragement/Social Support and Psychological Help-Seeking

Encouraging help-seeking for COSR is the outcome behavior of interest here.[2] The rationale for persuading service members to encourage other service members to seek help is twofold. First, several studies have indicated that perceived social support and encouragement are associated with psychological help-seeking. As a result, increasing peer encouragement may contribute to an increase in help seeking behaviors among service members. As discussed in study one, it is important to investigate the types of messages that senders use to encourage others, therefore, messages derived from study one will be examined by having participants rate the messages.

Second, research has demonstrated the effectiveness of indirect persuasion, or persuading a second party to talk with or encourage a target individual to engage in a health behavior. Morrison (2005) found that fear appeal messages were effective in persuading men to speak to important women in their lives to take part in self defense classes. Therefore, indirect persuasion (i.e., persuading service members to encourage others) may increase help-seeking among service members who need help. The theoretical bases for the formative research for persuading service members to encourage others are discussed below.

Theory of Planned Behavior & Social Norms Approach

To assess the wide range of factors that may contribute to service members' decisions to encourage others to seek help for COSR, the TPB and the SNA are employed to conduct research for designing persuasive messages.

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[2] Encouragement is used purposely as opposed to "referral" because within the military context "referral" connotes being officially required to seek professional help rather than seeking help based on free choice; rather, the goal here is to encourage Service members to seek help under their own volition.

The TPB is an expectancy-value theory, meaning that individual behaviors are influenced by the expectations these individuals have about the outcomes of the behavior, and the value they associate with those outcomes. The TPB proposes that attitudes, perceived behavioral control, and subjective norms together predict behavioral intentions. The TPB is an extension of the Theory of Reasoned Action (TRA) in response to the criticism that the TRA did not account for behaviors in which individuals do not have full volitional control; a person has volitional control if whether they perform the behavior is under their own control (Azjen, 1991), thus perceived behavioral control was added.

The theory predicts that behavioral intention will predict behaviors. Intention is central to whether a person will engage in a particular behavior because intention indicates how much a person is motivated to try to enact that behavior (Azjen, 1991). The theory posits that the greater an individual's intention to perform a behavior, the stronger the likelihood individual will engage in the behavior.

Meta-analyses have provided support for the TPB. Armitage and Connor (2001) performed a meta-analysis with 185 studies, and found that the combination of attitude, subjective norm, and PBC accounted for 39% of the variance with behavioral intention and 27% of the variance in behavior. Similarly, Azjen (1991) performed a meta-analysis of 16 studies and reported the variance accounted for by the combination of attitude, subjective norms, and PBC in predicting behavior to be between 18% and 88%, with an average of 50%. The TPB has been applied in prior research, for example, with health topics such as organ donation (Park & Smith, 2007), genetically modified food (Silk, 2003), and exercise (Azjen & Fishbein, 1980). Each of the constructs of the TPB is described in detail below, with findings reported in literature with respect to each construct.

Attitude

Attitude is "…a person's general feeling of favorableness or un-favorableness toward some stimulus object" (Fishbein & Azjen, 1975, p. 216). Azjen and Fishbein (1980) argued that attitudes are based on salient beliefs. According to the TPB, attitudes are composed of salient beliefs about particular behaviors. Attitudes are posited to be proportional to the summation of the products of behavioral beliefs and strength of behavioral beliefs; behavioral beliefs are beliefs regarding "…the likely outcomes of the behavior and the evaluation of these outcomes" (Azjen, 2006, p.1).

While a few studies have examined general attitudes and behavioral beliefs about seeking mental health treatment among members of the public, few have specifically examined military service members' attitudes toward seeking treatment for mental health issues, and to the author's knowledge, no literature has examined attitudes toward encouraging others to seek mental health help. Thus, research investigating general attitudes about seeking mental health help will be discussed, followed by findings regarding military members' attitudes toward seeking help for COSR.

Mojtabai (2007) assessed American attitudes about seeking treatment for mental health using interview data from the National Co-morbidity surveys from 1990-1992 and 2001-2003. Attitudes about mental health treatment seeking were measured by asking participants to rate their willingness ("If you had a serious emotional problem, would you definitely go, probably go, probably not go, or definitely not go for professional help?) and comfort level ("How comfortable would you feel talking about personal problems with a professional?"). In the more recent survey, more respondents indicated higher willingness to seek treatment if needed (41.4% vs. 35.6%) and being more comfortable talking to a health professional (32.4% vs. 27.1%). For

behavioral beliefs, the study assessed respondents' beliefs about the effectiveness of mental health treatment and the likelihood of recovery without seeking mental health treatment. The study indicated no significant change in either belief over time. Nearly 75% of respondents indicated that the majority of people who see a professional are helped, and approximately 28% believed that the majority of people who do not get help get better on their own. In sum, this study indicates that the attitudes of Americans regarding seeking mental health care have become more positive over time, and that while beliefs in the areas assessed have not changed, the majority hold positive beliefs about the effectiveness of treatment and the need for treatment.

While the study above examined attitudes of the general public toward mental health treatment, Stecker, Fortney, Hamilton, and Azjen (2007) used the TPB as a guide for studying the beliefs about mental health care of 20 National Guard veterans from Operation Iraqi Freedom. Using the Mini International Neuropsychiatric Interview instrument, the investigators selected veterans who screened positive for depression, generalized anxiety disorder, panic disorder, COSR (PTSD), or alcohol abuse to participate. The beliefs of the participants for each of the three areas of the TPB will be provided in the respective sections of this paper that address each type of belief.

For salient behavioral beliefs, the main advantage participants provided was "getting better" (80%), including improvement of symptoms such as losing sleep. Fifty percent of the sample indicated that being able to talk to someone about their problems was an advantage (as opposed to just being given pills), while 30% named being able to "return to normal" was an advantage (Stecker et al., 2007). Being able to return to normal included factors such as concentrating at work, and not being plagued by constant reminders of combat situations triggered by TV shows or particular scents. However, 70% reported that the major disadvantage

to seeking mental health treatment was stigma. Stecker et al. (2007) conceptualized two types of responses making up the stigma category, 1) fear of being labeled "crazy", and 2) fear of consequences to military career. Specifically, service members reported fear of losing leadership credibility among subordinates and fear of becoming non-deployable in the future.

While the literature above dealt with beliefs about seeking help, Clark-Hitt (2010) reported coded responses from active duty officers in focus groups regarding behavioral beliefs about the behavior of encouraging others to seek help. Participants indicated that the advantages of encouraging another to seek help are ensuring that the individual receives needed help and the overall well-being of the unit. Participants also indicated several disadvantages of encouraging another including stigma toward both the person seeking help and for the person encouraging help. In addition, participants discussed doubting the effectiveness of treatment, potential separation from the unit, and concerns with a self-fulfilling prophecy in which individuals believe they are permanently defective due to a diagnosis (Clark-Hitt, 2010).

The following research question addresses service members' behavioral beliefs about encouraging others to seek mental health help for combat stress.

RQ 7 What are service members' behavioral beliefs and what are the strengths of those beliefs about encouraging others to seek mental health help for combat stress?

Perceived Behavioral Control

The second predictor of behavioral intention in the TPB is PBC, which is defined as "…people's perception of the ease or difficulty of performing the behavior of interest" (Azjen, 1991, p. 183). PBC varies from situation to situation and between behaviors. According to the TPB, "The addition of perceived behavioral control should become increasingly useful as

volitional control over the behavior declines" (Azjen, 1991, p. 185). The TPB posits that PBC is proportional to the sum of the product of control beliefs and the strength of those beliefs.

Control beliefs and power of control beliefs are defined as beliefs about factors that may "…facilitate or impede performance of the behavior and the power of these factors" (Ajzen, 2006, p. 1). Several studies have reported on control beliefs and perceived barriers for veterans seeking treatment for COSR. Perceived barriers are typically referenced with regard to self-efficacy in Social Cognitive Theory. Self-efficacy refers to perceptions of ability to achieve an outcome (Bandura, 1977). Azjen (1990, p. 184) notes that the perceived behavioral control construct is closely compatible with the self-efficacy construct. Perceived barriers to self-efficacy are factors that "negatively influence one's perceived ability to perform an action" (Murray-Johnson & Witte, 2003). In the Azjen definition of perceived behavioral control, control beliefs refer to factors impeding or assisting with *performing* the behavior, while perceived barriers in Social Cognitive Theory are with regard to factors that negatively influence one's *perceived ability* to engage in the behavior. Although Azjen refers to control beliefs as factors that impede performing the behavior, in an article about military members and help-seeking for combat stress he referred to these as "barriers", thus, using the terms synonymously (Stecker, Fortney, Hamilton, & Azjen, 2007). Furthermore, much of the literature in the area of help-seeking for combat stress refers to "barriers" perceived by service members. Consistent with this literature, the term "barriers" was used in this research for the survey to elicit open-ended responses about factors that would make it more difficult for service members to encourage others to seek help.

The control beliefs, or barriers, identified in prior literature include feeling that they should be able to handle the problem on their own without having to seek external help (Stecker

et al, 2007) and difficulty obtaining time off from work (Stecker et al, 2007; Tanelian and Jaycox, 2008; Hoge et al., 2004). In the Tanelian and Jaycox (2008) study, participants reported that supervisors need to be aware of each unit member's whereabouts at all times, making it is impossible to keep mental health treatment confidential because appointments are only available during work hours (Hoge et al., 2004). Other factors included not knowing where to get help, the belief that it is difficult to schedule an appointment, the belief that treatment would cost too much money, not trusting mental health care professionals, fear of damage to the career, being seen as weak, members of the unit having less confidence in the individual, and being blamed for the problem by leadership (Hoge et al., 2004).

Several perceived factors that would make it more difficult to seek treatment were reported by the preceding literature. While the literature above focuses on the perspective of the individual needing help, Clark-Hitt (2010) reported coded responses from military officers in focus groups about factors that would make it more difficult or easier to encourage others to seek help. The most frequently mentioned factor was whether the command climate is supportive of seeking help for making the behavior easier or more difficult. A second barrier was concern about the target of encouragement suffering career damage such as being "chaptered out" or losing weapons privileges, and a third barrier was a lack of knowledge of recognizing symptoms that show that someone needs help. Further, not knowing how to have a conversation encouraging someone to get help was cited; respondents explained that having that type of conversation could be difficult because of the possibility that the recipient would be offended (Clark-Hitt, 2010). While the literature cited above identified several factors perceived by potential message recipients, this study is concerned with factors making it more difficult for those who are sending messages. Therefore, the factors identified by Clark-Hitt (2010) are the

focus of this study. The following research question addresses service members' control beliefs about encouraging others to seek mental health help for combat stress.

RQ 8 What are service members' control beliefs and the strengths of those beliefs about encouraging others to seek help for combat stress?

Subjective Norms

Subjective Norms are a person's belief that important others believe that that he or she should or should not engage in a particular behavior (Azjen & Fishbein, 1980). The subjective norm is determined by normative beliefs, which are the "…expectations of others and motivation to comply with these expectations" (Azjen, 2006).

Stecker et al. (2007) used the TPB as a theoretical guide, examining behavioral beliefs, control beliefs, and normative beliefs among 20 National Guard members about seeking mental health care. Regarding normative beliefs, 75% of participants reported that "everyone" would support their decision to seek care, and 75% indicated that the military would support their decision to seek mental health care. The 25% of respondents who did not believe that everyone would be supportive reported that family members would prefer that they get over it, or "suck it up" and not seek treatment (Stecker et al., 2007, p. 1360).

Clark-Hitt (2010) reported that active duty military participants named people of various types of relationships throughout the focus group discussions who might encourage help-seeking, including peers, commanders, spouses, and family members. Thus people in these roles could serve as normative referents.

The following research question addresses service members' normative beliefs about encouraging others to seek mental health help for combat stress.

RQ 9 What are service members' normative beliefs and motivation to comply with a normative referent about encouraging others to seek help for combat stress?

Social Norms Approach and Theory of Planned Behavior Norm Types

Due to the perceived stigma associated with seeking help for COSR as discussed previously, one of the goals of this study is to assess in detail the normative issues surrounding the act of encouraging others to seek professional help. It is important to thoroughly investigate the role of norms in predicting behavior for the future development of persuasive messages.

While the TPB addresses subjective norms as discussed previously, the SNA deals with injunctive and descriptive norms, which are further distinguished at the personal and societal levels. Personal level injunctive norms are beliefs about whether important others approve or disapprove of a behavior as opposed to the subjective norm where others believe one should or should not engage in the behavior. For example, a service member may perceive that other service members disapprove of encouraging others to seek professional help for COSR (injunctive norm), which is different from the situation in which a service member believes that other service members do not believe he or she should encourage others to seek help (subjective norm). Personal level descriptive norms are beliefs about the popularity of enacting particular behaviors by important others. Societal level injunctive norms, however, refer to what individuals believe society approves of, and societal level descriptive norms refer to what individuals believe is the popularity of a particular behavior in society (Park & Smith, 2007). Thus, the four different types of norms associated with the SNA, public and personal injunctive and descriptive norms, as well as the subjective norm from the TPB, are addressed below.

Several studies have examined the distinctiveness of these norms. Klein and Boster (2006) assessed the distinctiveness of subjective, injunctive, and descriptive norms regarding

binge drinking, gay marriage, and facial piercing, finding the three types of norms to be separate constructs. They found injunctive norms to be the strongest predictor of behaviors among the norm types.

Park and Smith (2007) and Park, Klein, and Smith (2007) extended injunctive and descriptive norms by specifying the personal level and societal level for both injunctive and descriptive norms. Park and Smith (2007) examined the TPB's subjective norm in conjunction with personal descriptive and injunctive norms, and societal level injunctive and descriptive norms regarding intention to perform two organ donation behaviors of family discussions and signing a donor card. These authors pointed out that for different types of health behavior, it is important to examine whether, and how, the five different types of norms "…have separate effects on each of the behaviors pertinent to the domain, and whether the different norms operate directly or as moderators" (p. 195). In this study, the five norms were conceptually distinct. Furthermore, this study examined the direct and moderating relationships among these five norms and the attitude and PBC components of the TPB using hierarchical regression. Attitude and personal descriptive norms (out of all seven predictors) were significant predictors of intent to sign the registry, and there were five significant two-way interactions between TPB predictors and the norm types. For intention to talk with family about organ donation, only attitude and subjective norms were significant, with three significant moderating relationships among the TPB predictors and norms on the outcome behavior. Park, Klein, and Smith (2007) also examined these norms and the TPB predictors for moderate drinking on college campuses, again finding that the five norms were distinct. All three of the TPB components were significant predictors of behavioral intention, and there were three significant two-way interactions

As shown in three studies, the patterns change for different health behaviors, therefore the following research questions will identify any moderating relationships among the norms and the TPB predictors, and the hypothesis will verify whether there are indeed five distinct normative dimensions for the behavior of encouraging help-seeking.

RQ10: What are the direct and moderating relationships among the norms, attitude, and perceived behavioral control with regard to behavioral intention to encourage others to seek help for COSR?

H1: Societal and personal level injunctive norms, societal and personal descriptive norms, and subjective norms are five distinct dimensions with regard to intention to encourage others to seek help for COSR.

Behavioral Intention

Behavioral intention is defined in the TPB as the likelihood of a person engaging in a certain behavior (Azjen & Fishbein, 1980). Intention is the most immediate predictor of behavior because the majority of social behaviors are under volitional control (Azjen & Fishbein, 1980). For this study, the behavior of interest is a service member's intention to encourage another service member to seek help for COSR. Help for COSR is broadly defined in terms of professional assistance including a medical professional, counselor, psychiatrist, or religious leader/chaplain.

Support Messages for Encouraging Others

Participants rated messages derived from study one. The most frequently used messages in each category from study one were used here. These messages were from the emotional, tangible, esteem, network, and informational social support categories. Messages were rated by service members for likelihood of use.

RQ 11: How do participants rate the likelihood that they would use emotional, informational, tangible, esteem, and network support messages to encourage another to seek help for combat stress?

Campaign Messages

Clark-Hitt (2010) reported ideas from active duty military personnel for message content used to persuade people to encourage others to seek help. Participants suggested that messages should provide information for how people can recognize symptoms in others, include success stories about people who have successfully sought help, and reduce stigma associated with seeking help. Participants noted that messages should have themes such as showing caring, e.g., "Help a buddy take a knee" and appeals to moral obligations, i.e., prior campaigns persuading people that it is not intruding in someone else's business to keep keys away when a friend is intoxicated with alcohol, thus it is appropriate for people to intervene if they believe someone needs help (Clark-Hitt, 2010).

RQ 12: How do service members rate the usefulness of campaign message content?

Chapter 7

Method

To investigate the research questions about support messages, 201 participants completed online surveys. The survey provided a scenario about having a friend or co-worker who needs counseling help. Participants were first asked whether they would encourage the person to seek help, and if so, to provide messages they would use to encourage in one of two types of relationships (friend or coworker). Participants were recruited and paid through an online research survey company.[3] Because one of the goals of the second study is to have military personnel evaluate the messages that are generated by this first study, the survey company obtained responses to reflect the proportion of males and females present in the military (approximately 85% male and 15% female), as well as the age demographic of the Army post sample for the second portion of this study in which service members are surveyed about encouraging others to seek help for combat stress, which is 30-45 years.

Coders established unitizing reliability using Guetzkow's U, were trained to apply codes based on the Cutrona and Suhr (1992) types of supportive messages, and established inter-coder reliability in applying those codes. Coders established unitizing reliability on a randomly selected 20% of the data with a value for Guetzkow's U=0.01 (Guetzkow, 1950). Coders unitized messages using independent clauses as the unit of analysis, i.e., independent thought units containing a subject and verb separated by coordinating conjunctions (Purdue Online Writing Lab, 2010). Coders each independently unitized half of the remaining data. The author double checked accuracy and any discrepancies were resolved through discussion. Unitizing yielded a total of 350 units.

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[3] Fellowship award money from Michigan State University Communication Arts and Sciences was used to pay for the survey research company services.

Coders trained for a week applying the support codes from the Social Support Behavior Code (Cutrona & Suhr, 1992). Once the coders were comfortable with the codebook, they independently coded just over 20% of the codes in the dataset. The coders achieved a Krippendorf's alpha value of 0.897. Any disagreements in coding were resolved through discussion. The coders each independently coded half of the remaining data.

There are several codes each within each of the five categories of support specified by the Social Support Behavior Code. Within the informational support category, there are four codes: advice, referral, situational appraisals, and teaching. Advice is defined as offering ideas or suggesting actions, referrals are defined as referring "the recipient to some other source of help," situational appraisals "reassess or redefine the situation," and teaching "provides detailed information, facts, or news about the situation or about skills needed to deal with the situation" (Cutrona & Suhr, 1992, p. 161).

Within the emotional support category, there are ten codes: relationship, physical affection, confidentiality, sympathy, listening, understanding/empathy, encouragement, prayer, expressing concern, and expressing reassurance. The relationship code is defined as messages stressing "the importance of closeness and love in relationship with the recipient," physical affection is defined as "offers physical contact, including hugs, kisses, hand-holding, shoulder patting," confidentiality is defined as "promises to keep the recipient's problem in confidence," sympathy is defined as expressing "sorrow or regret for the recipient's situation or distress," and listening is defined as "attentive comments as the recipient speaks" (Cutrona & Suhr, 1992, p. 161). Understanding/empathy is defined as expressing "understanding of the situation or discloses a personal situation that communicates understanding," encouragement "provides the recipient with hope and confidence," and prayer is defined as praying with the recipient (Cutrona

& Suhr, 1992, p. 161). The expressing concern code is defined as "inquiring after well-being," and the expressing reassurance code is defined as "non-specific comfort" (Cutrona & Suhr, 1994, p. 122).

The esteem support category has three codes: compliment, validation, and relief of blame. A compliment is defined when the sender "says positive things about the recipient or emphasizes the recipient's abilities," validation "expresses agreement with the recipient's perspective on the situation," and relief of blame "tries to alleviate the recipient's feelings of guilt about the situation" (Cutrona & Suhr, 1992, p. 161). For this study, an additional code was added stating there is no shame in seeking help; this code emphasizes that the message recipient should not feel shame or embarrassment associated with seeking mental health help. This code was added because when reading the responses before coding several respondents provided this type of message but no existing message within the Social Support Behavior Code provided an appropriate fit.

The network support category is made up of three codes: access, presence, and companions. Access is defined as "offers to provide the recipient with access to new companions," presence is defined as "offers to spend time with the person, to be there," and the companion code "reminds the person of availability of companions, of others who are similar in interests or experience" (Cutrona & Suhr, 1992, p. 161).

Finally, the tangible assistance support category has five codes: loan, direct task, indirect task, active participation, and willingness. The loan code is defined as "offers to lend the recipient something including money," the direct task code includes "offers to perform a task directly related to the stress," and indirect task is defined as "offers to take over one or more of the recipient's other responsibilities while the recipient is under stress" (Cutrona & Suhr, 1992,

p. 161). The active participation code is defined as "offers to join the recipient in action that reduces the stress," and the willingness code is defined as "expresses willingness to help" (Cutrona & Suhr, 1992, p. 161).

To address the research questions about the appropriateness of using a Social Norms Approach (research questions 3-6), a questionnaire was used to assess discrepancies between perceptions of injunctive and descriptive norms using open-ended questions for participants to indicate percentages. The survey also included questions for assessing the hypothesis that the five types of norms are distinct, as well as the significant predictors of behavioral intention and any significant moderating relationships among personal and societal level injunctive and descriptive norms and the TPB predictors. The survey asked participants to rate various beliefs about encouraging others to seek help, and it had an open ended question about what factors may make it difficult to encourage another to seek help in the military.

Participants

For research questions 3-12 and hypothesis 1, two survey collection procedures were used. First, an Army post distributed the survey via email invitation to Majors at the post, and second, a convenience sample was used to recruit participants from all military branches. For the convenience sample, participants were asked to complete an online survey with the chance to win one of four $25 gift cards. No incentive was provided for the Army Majors due to policies against it. Thirty five Army Majors were recruited for this study through the research office at the Army post at which this study was conducted, and there were 61 participants in the convenience sample for a total of 96 participants. Each participant completed an online survey that included a consent form.

Marital status, gender, age, and number of deployments are reported for the combined sample (N = 96). Seventy six point six percent were married, 17% single, and 6.4% were divorced. Ninety point five percent were male, 8.4% female, and 1.1% did not respond. Age ranged from 20 years to 50 years with a mean of 34.22 (*SD*=6.34). Participants had 1.5 to 25 years of service (M = 9.77, *SD* = 5.87). Five point two percent had been deployed five or more times, 17% had been deployed four times, 11.7% had been deployed three times, 29.8% had been deployed twice, 28.7% had been deployed once, and 7.4% had not been deployed.

Branch of service, enlistment vs. officer status, duty status, and rank are provided for the convenience sample (N = 61). Ten point five percent were from the Air Force, 68.4% Army, 2.1% Coast Guard, 4.2% Marines, and 14.7% Navy. Twenty eight point one percent were enlisted, 68.8% officers, 2.1% warrant officers, and one did not respond. Fifty six point seven percent were active duty, 20% active Reserve of National Guard, 8.3% inactive reserve, and 15% indicated "Other". The Army sample was exclusively active duty or active reserve Army Majors.

Comparison of Sample Collection Methods for Research Questions 3-12

Military service members were surveyed for research questions 3-12. T-tests were conducted to determine whether there were any differences among the two groups of participants for all variables in this study. There were three differences among the 53 survey items. There was one difference for the perceptions of norms (the percentage participants provided as estimates for how many people in their branch of the service would approve of encouraging someone to seek help), with the convenience sample providing a higher estimate (M = 76.25, *SD* = 22.12) than the Army sample (M = 65.59, *SD* = 22.21), t (92) = 2.242, p = 0.027.

There were two differences between groups in rating of likelihood of using support messages (the message stating that there is no shame in asking for help), t (93) = -2.659, p =

0.004, with the Army group providing responses with a higher likelihood of using the message stating there is no shame in seeking help (M = 4.15, SD = 0.702) than the convenience sample (M = 3.61, SD = 1.1). The second difference between groups in rating of support messages was for the message "Talking to a professional might be helpful for you" (t = -2.747, p = 0.008), with the Army group providing a more favorable rating of the likelihood of using this support message (M = 4.32, *SD* = 0.589) than the convenience sample (M = 3.77, *SD* = 0.990).

Measures

Most measures consisted of five-point, Likert items. These measures were scored with 5 indicating strongly agree. For measures not employing this format more details are provided in each respective section.

Independent Variables

The independent variables of interest in this study were attitude, subjective norm, and perceived behavioral control from the TPB, as well as personal descriptive norms, personal injunctive norms, societal descriptive norms, and societal injunctive norms from the social norms approach. The study also sought feedback about the likelihood that respondents would use particular supportive messages to encourage others to seek help derived from study one, and how useful they believed particular message content would be for future campaigns to persuade service members to encourage others to seek help.

Due to participants' limited time there was a pressing need to reduce the number of survey items, thus, single item measures were used for attitude, perceived behavioral control, and intention (Park, Smith, & Yun, 2009). As the result of a software error when the Army post distributed the survey, the measures for several norms, attitude, intention, and perceived behavioral control are missing from those 35 participants, thus only the 61 responses from the

other sample are used for those respective measures. The 96 combined responses, however, including the Army responses, are used for the norms percentage items, the likelihood of using support messages, and for rating usefulness of campaign messages.

Subjective Norms. Subjective norm was measured using three five-point Likert scale questions. The questions asked whether important others expected the participant to encourage another service member to seek help for combat stress (e.g., "Most people important to me think I should encourage another service member to seek help for combat stress.") Subjective norm had a mean of 4.01 (*SD* = 0.778) and an acceptable level of reliability (α = 0.776).

Personal Injunctive Norm. Personal injunctive norms were measured using three five-point Likert questions that included items such as "Most members of my unit would approve of me encouraging another to seek help." Personal injunctive norm had a mean of 3.754 (*SD* = 0.878) and a good level of reliability (α = 0.851).

Personal Descriptive Norm. Personal descriptive norm was measured using three items with a five-point Likert format that included "Most people in my unit would encourage another service member to seek help for COSR." Personal descriptive norm had a mean of 3.973 (*SD*=0.864) and a good level of reliability (α = 0.851).

Societal Level Injunctive Norm. Societal level injunctive norm was measured using three items with a five-point Likert format that included items such as "Most service members in my branch would approve of my encouraging another service member to seek professional help." Societal level injunctive norm had a mean of 3.78 (*SD* = 0.96) and a good level of reliability (α=0.853).

Societal Level Descriptive Norm. Societal level injunctive norm was measured using three items with a five point Likert format that included "A majority of service members in my

branch would encourage another service member to seek professional help for combat stress." Societal level descriptive norm had a mean of 3.978 (SD = 0.854) and a high level of reliability (α = 0.929).

Perceptions of descriptive and injunctive norms. To assess the appropriateness of a social norms intervention, participants were asked to provide the percentage of service members in their branch they believe approve of encouraging others to seek help (injunctive norm) and the percent of service members in their branch they believe would encourage another to seek help (descriptive norm). A blank text box was included below the question for them to write the percentage. Participants were also asked to indicate agreement with a statement that they approve of others encouraging service members to seek help.

Beliefs. Azjen and Fishbein (1980) argued there are direct and indirect measures for each of the three TPB predictors: behavioral, normative, and control beliefs. According to the TPB, behavioral beliefs determine attitude, normative beliefs determine subjective norm, and control beliefs determine perceived behavioral control. The direct measures (attitude, subjective norm, and perceived behavioral control) should be proportional to the sum of the products of the outcome of the belief multiplied by belief strength. These indirect beliefs were identified in data gathered from focus groups reported by Clark-Hitt (2010).

The behavioral beliefs associated with attitudes are advantages and disadvantages of encouraging others. Soldiers in focus groups reported the main advantage is the person needing help obtains help, while the disadvantage is stigma. Control beliefs are perceived barriers and factors that would make it easier to encourage others to seek mental health help. The factor making it easier is having a command climate supportive of help-seeking, while the barriers are concerns about career damage for the person seeking help, lack of knowledge of whether an

individual needs help, and not knowing how to have a conversation with someone about seeking help. The normative referents identified by Clark-Hitt (2010) were commanders, peers, significant others, and family; however, to reduce the survey length the most prevalent referent, commanders, was the only item used here.

The seven pairs of beliefs were assessed with 14 items using five-point scales. Participants rated beliefs on a scale of likelihood (e.g., "my encouraging service members to seek help for COSR aid them in getting the help they need") with 5 indicating very likely. Outcomes were evaluated on a scale of good to bad (e.g., receiving needed help is good/bad), with 5 indicating very good. Power of control beliefs were rated on a scale of ease and difficulty with 5 indicating much easier (e.g., "Not knowing how to have a conversation prompting someone to get help will make it easier/more difficult for me to encourage that person to get help"). All other belief items were rated for agreement with the standard 1-5 scale.

Perceived barriers were also assessed with an open ended question asking what factors would make it difficult for a service member to encourage another to seek mental health help. The responses were coded by trained coders after establishing inter-coder reliability. Two coders established reliability on a randomly selected sample of 20% of the responses, with Krippendorf's alpha values ranging from 0.77 to 1.0 for the variables. The unit of analysis was the individual response from each participant. Coders coded for the presence or absence of each code.

Support Messages. Participants were given ten support messages from study one and asked to rate how likely they would be to use each to encourage someone to seek mental health help for combat stress. These messages are from informational, tangible, emotional, esteem, and network support categories. The informational support messages were "Talking to a professional

might be helpful for you," "I'm concerned about you," "Have you considered talking to a professional/counselor?" "I think you should consider talking to a professional/counselor," and "Talking to a professional will give you skills for dealing with stress." The emotional support messages were "I care about you" and "I found if helpful talking to a counselor when I was having a difficult time" (participants were only given this message if they indicated they would talk about their own experiences). The esteem support message was "There is no shame in asking for help," the network support message was "I am here for you if you need me," and the tangible support message was "Can I help you find someone to talk to?"

Campaign Message Content. Participants were provided five messages containing content that service members in focus groups recommended (Clark-Hitt, 2010), and were asked to rate the usefulness of those messages. The instructions specified, "One purpose of this research is to learn about messages for persuading service members to encourage others to seek help for combat stress. In focus groups with service members, participants provided information they would like to see in such messages (Clark-Hitt, 2010). Please rate the types of message content below for how useful it would be in future campaigns." The items were, "Reducing stigma associated with seeking help," "Information about how to recognize symptoms of combat stress reactions in others," "Stories of people who have been successfully treated after seeking help for combat stress," "Messages encouraging people to show they care (e.g., 'Help a buddy take a knee')," and "It is not intruding in another person's business by encouraging them to get help."

Dependent Variables

Intention. A single item measure with a five point Likert scale was used for intention, "I intend to encourage another service member to seek help for combat stress" with 5 indicating strongly agree.

Likelihood of Using Message. Participants were provided ten support messages and asked to indicate the likelihood that they would use that message if they were encouraging someone to seek help, with 5 indicating very likely.

Usefulness of Message Content. Five items asked participants to rate the usefulness of message content for future campaign efforts provided by focus groups with other service members. The items had a five point response scale, with 5 indicating very useful.

Chapter 8

Results

Coding using the SSBC and a question about whether participants would encourage people of the two relationships was used to address research questions 1, 2A, and 2B. Hierarchical multiple regression was used to test the hypotheses regarding the predictors of intention to encourage another to seek help. Descriptive statistics, correlations, and regression were used for belief items. Coding was used for open-ended responses asking about barriers to encouraging others. Descriptive statistics and one-way analysis of variance are provided for how participants evaluated the likelihood they would use various messages and how useful they believe message content would be for future campaigns.

Demographic Data

There were 201 participants for research questions 1, 2A, and 2B. One hundred eighty males and 21 females participated, with a mean age of 36.6 years (*SD=5.01*) for males and 38.7 (*SD=4.62*) years for females. Among males, 30% reported having received counseling in the past, 69.4% had not received counseling, and 0.6% reported not being sure. Among females, 47.6% reported having sought counseling in the past, with 52.4% reporting having not had counseling. These values are higher than the percentage of U.S. adults who report having sought mental health counseling in the past year (13.8%) (NIMH, n.d.). In a survey assessing mental health attitudes conducted by SAMHSA and the CDC, 202,065 adults in 35 states were surveyed. Ten point eight percent of respondents reported they are currently receiving treatment for an emotional problem (Manderscheid, et al. 2010) and the National Survey on Drug Use and Health (NSDUH) reported that in 2008 alone, 13.4% of adults had received treatment for a mental health problem including inpatient or outpatient settings as well as prescription drug use

for mental or emotional issues (NIMH, n.d.). The much higher incidence of help seeing among these participants than the national population is likely partly due to the question asking about all past experience (not just this year), and that people with counseling experience may have been more likely to agree to participate in this study.

Eight point nine percent of males had served in the military, 91.1% of males had not served, while 9.5% of females had served and 90.5% had not. The most common education level for males and females was a college degree (48.9% of males and 57.1% of females), with 24% of males and 14.4% of females having post-graduate education, 16.7% of males and 28.6% of females having some college, 8.9% of males having a high school diploma, and 1.7% of males having some high school. All female participants had at least some college.

There were 95 participants in the friend condition who indicated "yes" that they would encourage their friend (97%), while 3 (3%) indicated "no". In the co-worker condition, 95 (92.2%) indicated yes, while 8 (7.8%) indicated that they would not encourage a co-worker to seek help.[4] Of the 5,380 people invited by the survey panel company to complete the survey, 507 (9.4%) started the survey, and 201 of the 5,380 completed the survey (3.73%).

Participants provided an average of 1.84 units (*SD=0.96*) per person for the friend conditions, with a range of units from 1 to 5. Participants in the co-worker condition provided an average of 1.84 units per person (*SD=1.03*) with a range of 1 to 5 units.

Research Question 1

The first research question asked what are the different types of supportive communication people use in messages to encourage others to seek help for mental health issues

[4] Using a chi-square test of independence, no difference between the friend and coworker conditions for whether or not a message sender would choose to encourage the target to seek mental health help was found.

(e.g., information support, tangible support, emotional support, esteem support, and social network support).

A Chi Square test for goodness of fit was performed to determine whether the frequencies of the categories differed from what would be expected by chance.[5] For the overall sample, there was a significant Chi Square value, X^2 (4, N = 309) = 468.8, p < 0.001, thus, one or more categories occurred more frequently than would be expected by chance. Informational support (N = 208) was the only one of the 5 categories with more occurrences than expected (expected N = 61.8).

The most frequent types of supportive messages used by participants were informational (N = 208, 59.4%) and emotional support messages (N = 65, 21%). Tangible support composed 7.1% of messages (N = 22), esteem support made up 2% of support messages (N = 7), and network support (N = 7) made up 2% of supportive messages.

Informational Support.

The most frequent types of messages were informational (N = 208). The support messages making up the informational support category are advice, referrals, situational appraisals, and teaching. Informational support messages included advice (N = 61), e.g., "talking to a professional can be helpful," referral (N = 45), e.g., "you should go talk to a professional," and situational appraisal (N = 68), e.g., "is everything ok?" or "You don't seem like yourself," and teaching (N = 34), e.g., "they (the counselor) will help you solve your problem."

Emotional

Emotional support was the second most commonly occurring category of messages, with most emotional support (N = 65) messages expressing concern (N = 24), e.g., "I am worried

[5] No difference between in the distribution of message types for the two types of relationships was found, therefore the distribution of messages is reported for the combined sample here

about you" and "I don't like seeing you like this," and expressions of understanding (N = 23), e.g., "Counseling has helped me." Other examples of emotional support were emphasizing the relationship by stressing the importance of closeness with the recipient (N = 10), e.g., "we are close" or "we are friends."

Tangible Support.

Tangible support was provided in 7.1% of supportive messages, with the most common tangible support message expressing direct task support (N = 12) e.g., "I can help you find a phone number." Six support messages provided active participation, e.g., offering to join the participant as in "why don't we go to see someone." Four support messages provided willingness to help, e.g., "I'd love to help out any way I can."

Network Support.

Network support messages made up 2.3% of supportive messages (N = 7), with offers to spend time with the person (presence) with one message, i.e. "come talk to me", or reminding the message recipient of companions (N = 6). While companion support is defined in terms of people with similar interests or backgrounds, messages were very general e.g., "we are here for you," "there are people who can help you get through it," and "there are caring people out there who can help you" and were thus classified as companion support rather than referrals because these messages did not specifically refer the target to a professional or specific source of help, but rather spoke ambiguously about people who can help.

Esteem Support.

Esteem support messages made up 2.3% of supportive messages. Three messages stated there is no shame associated with seeking help and emphasizing seeking help does not make the recipient less of a person, e.g., "there is nothing shameful in getting help." Two messages

provided compliments, e.g., "you have the right to lead a full life," and two messages provided validation, e.g., "I know things are tough right now."

Other Category.

Forty one units did not fit the five supportive message categories. Four were negative messages, with criticisms including name-calling, e.g., "Hey psycho." Eight messages were pleas for the message recipient to seek help, e.g., "Please get help now," two messages were appeals to get help for the sake of family, e.g., "Its for you and your family." Ten units were not actually messages as instructed, but rather descriptions of how people would seek out information to learn how to encourage an individual, e.g. "I would talk to them to figure out the best way to encourage them to get help." Thirteen units could not be coded because they were unintelligible and thus the meaning could not be determined, and for four units, individuals indicated that they wouldn't say anything despite having answered "yes" to the question of whether they would encourage someone to seek help.

Research Question 2A

Research Question 2A asked whether the decision to encourage others to seek help differed by type of relationship i.e., friend vs. co-worker. In the friend condition 95 participants indicated "yes" that they would encourage a friend to seek help and 3 indicated "no." In the co-worker condition 95 participants indicated "yes" that they would encourage a co-worker to seek help and 8 indicated "no." A chi-square test of independence X^2 (1, N = 201) = 2.15, p = 0.143 demonstrated no difference between the friend and coworker conditions for whether a message sender would choose to or not to encourage the target to get help. Thus, in this sample, the relationship type was not an important factor in determining whether an individual would encourage another.

Research Question 2B

Research question 2B asked whether messages chosen by the sender to encourage others differed by the type of relationship, friend or co-worker. A Chi-Square test of independence was conducted to determine whether there was a difference in the types of supportive messages provided for friends vs. coworkers. This test showed there was no difference in the frequency of the different types of supportive messages used based on relationship type (i.e., friend vs. coworker) X^2 (4, N = 309) = 6.67, p = 0.154.

Research Question 3

The third research question asked what percent of participants approve of encouraging others to seek help for COSR if needed (actual injunctive norm). Ninety six point nine percent approved of encouraging others to seek help, providing either "strongly agree" or "agree", with 35.8% indicating "agree" and 61.1% indicating "strongly agree." Conversely, 3.2% indicated neither agree nor disagree, and 0% indicated either strongly disagree or disagree. The vast majority of participants approve of encouraging someone else to seek help.

Research Question 4

The second research question asked what is the perceived percentage of service members who approve of encouraging others to seek help for combat stress (perceived injunctive norm). Participants perceived 72.4% of other service members in their branch would approve of encouraging others. While the majority of service members in this study perceived that others approve of encouraging others there is a substantial gap, however, between the 96.9% who approve and the perception that 72.4% of others approve.

Research Question 5

The third research question asked what percent of service members would encourage others to seek help for COSR (actual descriptive norm). Fifty four point one percent intended to encourage others to seek help, providing either "strongly agree" or "agree," (32.8% indicated "agree" and 21.3% provided "strongly agree") while 41% indicated neither agree nor disagree, and 4.9% indicated either strongly disagree or disagree. Thus, the majority of those surveyed indicated they would encourage another to seek help.

Research Question 6

The fourth research question asked what is the perceived percentage of service members who would encourage others to seek help for COSR if needed (perceived descriptive norm). Participants perceived that 70.1% of other service members would encourage another to seek help (N=61, *SD*=24.31).

In sum, for descriptive norms there is a discrepancy between perceptions and actual norms, in that while 54.1% indicated they would engage in the behavior, participants believed 70.1% of others would engage in the behavior. There is also a discrepancy for injunctive norms between actual norms and perceptions, with 96% approving of the behavior yet perceiving that 72.3% of others would approve. Also, participants indicated about 70% of others for both injunctive and descriptive norms, yet their own intentions and approval were not similar values, in that 54% intended to encourage others while 96% approved of encouraging others.

Consistent with the logic of a social norms intervention, a larger percentage indicated they personally approve of encouraging others than perceptions of what others would approve of (96% approved vs. perception that 72.3% approve). The opposite is true, however, of the descriptive norm, as substantially fewer participants would engage in the behavior (54.1%) than the percent of others who they believe would encourage others to seek help (70.1%).

Research Question 7

Participants were asked to rate their agreement with questions about behavioral beliefs. Means and standard deviations for the beliefs are provided in Table 6 and correlations between the belief pairs and their respective TPB predictors are provided in Table 7. Of the two pairs of behavioral beliefs assessed, the correlation between attitude and the beliefs about encouraging another leading them to receive needed help ($r = 0.439$, $p < 0.001$) was significant ("My encouraging service members to seek help for COSR aid them in getting the help they need" multiplied by "Getting needed help for COSR is good/bad") (Table 7). Intention to encourage others was regressed on the products of the belief pairs (Table 8), and the same product of the beliefs about a person receiving needed help was a significant predictor of intention ($\beta = 0.067$, $p = 0.007$). Thus, the more positive the beliefs about the outcome of encouraging someone to get help the greater the intention to encourage another.

Research Question 8

Participants were asked to rate their agreement with questions about control beliefs. Correlations between the control beliefs and perceived behavioral control are provided in Table 7, and intention was regressed on the products of the control belief and power of control belief pairs (Table 8). Participants also provided open-ended responses about factors that would make it difficult to encourage someone to seek help or for a person to seek help (Table 9).

For the four sets of control beliefs, there was only one significant correlation with perceived behavioral control, the product of the beliefs "Not knowing how to tell if someone needs help will make it easier/more difficult for me to encourage that person to get help" multiplied by "I expect it will be difficult to determine whether an individual needs help for combat stress" ($r = -0.273$). Further, the products of these beliefs predicted intention ($\beta = -0.057$,

p = 0.026) such that when participants had greater expectations about the difficulty of recognizing symptoms, the less likely they were to intend to encourage others to seek mental health help.

For the open-ended responses about factors that would make it more difficult to encourage others to seek help, 73 of the 96 participants (76%) provided responses about factors that might make it difficult for a service member to encourage another to seek mental health help.

The most commonly reported factors that would make it more difficult to encourage others were concern for career damage for the person needing help (19%), not being able to tell if someone needs help (16%), a command climate not supportive of seeking mental health care (16%), concerns the person needing help will be stigmatized (12%), concerns about maintaining a tough image (12%), and perceptions that it is intruding in someone's business by encouraging them to get help (7%). Other concerns were that beliefs that the system does not adequately address the needs of those requiring help (5%), distrust in mental health providers (3%), lost work productivity (3%), not being sure where to send someone to obtain help (1%), and the belief it will be difficult to persuade the person to seek help (1%).

Research Question 9

The normative belief about commanders was assessed ("My commander thinks that I should/should not encourage someone to get help for COSR" multiplied by "When it comes to encouraging others to seek help for combat stress I am concerned with what my commander wants me to do"). The product of these beliefs did not correlate significantly with subjective norm (Table 7), and it did not predict behavioral intention to encourage others to seek help (β = -0.006, p = 0.793) (Table 8).

Research Question 10

This research questions asked what are the direct and moderating relationships among the norms, attitude, and perceived behavioral control regarding intention to encourage others to seek mental health help for COSR. Means and standard deviations for these variables are in Table 10.

Regressions were performed with the three TPB independent variables in the first block (attitude, perceived behavioral control, subjective norm) and the four additional norm types in the second block (personal descriptive norm, personal injunctive norm, societal descriptive norm, and societal injunctive norm). The product terms of all seven independent variables were entered in the third block to examine moderating relationships. To avoid issues with multi-collinearity, the independent variables were mean centered (Jaccard & Turrisi, 2003).

The model including the first-order effect predictors (the three independent variables in the TPB: attitude, subjective norm, and perceived behavioral control) was significant, F_{change} (3, 57) =12.88, ($p < 0.001$), *Adj.* $R^2 = 0.373$ (Table 11). Among the three TPB variables in the first block, subjective norm was significant ($\beta = 0.520$, $p < 0.001$). Thus, the greater the perceptions that important others expect one to encourage another, the greater the intention to encourage another service member to seek mental health help. Attitude and perceived behavioral control were not significant predictors of intention.

The addition of the second block to the model (personal descriptive norm, personal injunctive norm, societal descriptive norm, and societal injunctive norm) did not significantly improve the model over the first block F_{change} (4, 53) = 0.680, $p = 0.609$, *Adj.* $R^2 = 0.358$. The addition of the product terms in the third block, however, significantly improved the proportion

of variation in intention explained by the independent variables F_{change} (12, 41) = 3.018, p = 0.004, *Adj.* R^2 = 0.559.

In addition to the significant direct effect of subjective norm (β = 0.520, p < 0.001), there were two significant interaction terms, the product term for attitude and societal descriptive norms (β =-1.469, p = 0.042), and the product term for attitude and societal injunctive norm (β = 1.117, p = 0.014).

The interaction in which societal descriptive norm moderated the relationship between attitude and intention (Figure 1) demonstrates that for those individuals with more positive perceptions of a societal descriptive norm, attitude is a stronger predictor of intention than for those with less positive perceptions of a societal descriptive norm.

The interaction in which societal injunctive norms moderated the relationship between attitude and intention (Figure 2) demonstrates that for those individuals with more positive perceptions of a societal injunctive norm, attitude is a stronger predictor of intention to encourage others to seek help for combat stress. Table 12 shows the slopes of attitude predicting intention at the mean, one standard deviation above, and one standard deviation below the mean for societal descriptive norms and societal injunctive norms.

Hypothesis 1

Hypothesis one predicted that the societal and personal level injunctive norms, societal and personal descriptive norms, and subjective norms are five distinct factors.[6] The alpha reliabilities for subjective norm are α= 0.776, personal injunctive norm (α = 0.851), personal

[6] When running the CFA in AMOS software the solution was labeled "not admissible" due to the small sample size. When a larger sample size is obtained prior to publication of this work the CFA will be performed.

descriptive norms (α = 0.851), societal injunctive norms (α = 0.853), and societal descriptive norms (α = 0.929).

Research Question 11

Participants were asked to rate how likely they would be to use the supportive messages provided by participants in the earlier part of this study if they were to encourage someone to seek help for combat stress (Table 13). There were five informational, 2 emotional, one esteem, one network, and one tangible support message (Table 14). All of the messages were rated relatively highly, with the lowest rated message, "I think you should consider talking to a professional/counselor" (informational support) (M = 3.76, *SD* = 1.039) and the highest rated message "I am here for you if you need me" (network support) (M = 4.18, *SD* = 0.855).

One-way analysis of variance tested for differences in ratings of likelihood of using the ten support messages. The likelihood of using messages differed significantly across them, F (9, 914) = 2.385, p = 0.011. Post hoc Tukey comparisons of the ten messages showed that participants rated a higher likelihood of using the message, "I am here for you if you need me" (network support) (M = 4.18, *SD* = 0.855) than the message, "I think you should consider talking to a professional/counselor" (informational support) (M = 3.76, *SD* = 1.039), p = 0.042 with all other ratings in the mid range between these two.

Research Question 12

Participants were asked to rate the usefulness of message content for future campaigns that military focus group participants provided. Usefulness was rated on a five point scale with 5 indicating very useful (Table 15). One-way analysis of variance tested for differences in ratings of usefulness of the five campaign messages. Ratings differed significantly across the five messages, F (4, 470) = 9.93, p < 0.001.

Post hoc Tukey comparisons showed significant differences among messages. Three messages were each rated significantly more highly than two of the messages. Participants rated the message content for reducing stigma associated with seeking help (M = 4.43, *SD* = 0.63), how to recognize symptoms (M = 4.41, *SD* = 0.66), and stories of people who had been successfully treated for combat stress (M = 4.33, *SD* = 0.764) significantly more highly than two messages: encouraging people to show they care (e.g., "help a buddy take a knee") (M = 3.92, *SD* = 0.895), $p < 0.001$, and it is not intruding in another person's business by encouraging them to get help (M = 3.96, SD = 0.898), $p < 0.001$.

Chapter 9

Discussion

This research has theoretical and practical implications. While studies have reported that social support, prompting, or encouraging help seeking are associated with greater intention and help-seeking from the receiver perspective and lower perceptions of stigma about mental health care, no studies have investigated the actual types of messages people would use to prompt or encourage others. This study fills that gap by investigating these types of messages in terms of the five types of social support. Furthermore, this study will be helpful for future studies that will test the effectiveness of various types of messages from the receiver perspective by providing examples of messages to be tested. Such future studies should investigate how receiving particular messages influences perceptions of norms and stigma about seeking help, as well as attitudes and intentions. The results of the research questions about persuading military members to encourage others to seek help for combat stress also have several implications for theory and practice.

Theoretical Implications

One of the goals of this study was to learn about the types of messages people would use to encourage a friend or coworker to seek mental health help. The vast majority of respondents indicated they would encourage a friend or co-worker to seek help. There was a significant difference in the frequency of message types in terms of supportive messages. Informational messages were the most common, and informational support was the only type of supportive message occurring with greater frequency than expected by chance.

The choice here to classify messages by supportive communication types was a useful method for classifying messages encouraging help-seeking, with 88.3% of messages being

classified in to one of the five types of supportive communication. Among the messages, 10.6% were classified as "other", including items that could not be coded, and 1.1% were negative messages.

Interestingly, ten people indicated that they would talk to the person needing help to first seek out information to learn how to encourage that person, for example, "I would talk to them to figure out the best way to encourage them to get help." These responses implicate two issues, the role of self-efficacy for encouraging others to seek help, as well as the role of different assumptions about the nature of interpersonal communication.

First, the response that people would seek more information demonstrates that they do not feel equipped to provide a message on the spot, but instead feel that they need to learn more before providing a message. The focus of questions in the part of this research surveying military personnel was on perceived behavioral control, or "people's perception of the ease or difficulty of performing the behavior of interest" (Ajzen, 1991, p. 183), with participants answering questions about factors that would make it more difficult or less difficult to encourage someone to seek help. While control beliefs and barriers were addressed in this paper, what may also be important for encouraging others to seek help is the related construct of self-efficacy. Self-efficacy involves "…beliefs in one's capabilities to organize and execute the courses of action required produce given attainments" (Bandura 1997, p. 3). People's beliefs about their self-efficacy influence "what they choose to do, how much effort they mobilize, and how long they persevere in the face of difficulties" (Bandura, 1990, p. 9). There is disagreement among researchers about the distinctions among the concepts of self-efficacy and perceived behavioral control. Some researchers distinguish between perceived behavioral control and self-efficacy as internal vs. external factors that constrain behavior, with perceived behavioral control referring

to external factors and self-efficacy referring to internal factors (Tavousi et al., 2009). Azjen (2002), however, disputes this distinction and argues instead that self-efficacy expectations and expectations about controllability (the degree to which performance of the behavior is up to the individual) over behavior can reflect both internal and external factors. Furthermore, Azjen (2002) argues that perceived behavioral control is second-order unidimensional, comprised of self-efficacy and controllability. An interesting future research direction would be to explore these possibilities, specifically, to assess the factor structure of perceptions of self-efficacy and perceived behavioral control with regard to encouraging others to seek mental health help. Research should also examine whether self-efficacy predicts intention to encourage others. In terms of message interventions, Murray-Johnson and Witte (2002) note that it is important for message designers to address both internal and external perceived barriers to self-efficacy. In sum, it may be beneficial to incorporate self-efficacy enhancing information into persuasive messages targeting individuals to encourage others to seek mental health help.

The second area of interest with regard to participants desiring more information and a lack of difference between messages used for coworkers and friends are the implications of the findings for interpersonal communication. This paper takes the Burleson message centered definition for interpersonal communication, which is the following (Burleson, 2009, p. 7):

> Interpersonal communication is a complex situated social process in which people who have established a communicative relationship exchange messages in an effort to generate shared meanings and accomplish social goals.

This definition is appropriate for this paper because it takes in to account the relationship between communicators (of interest here is how the type of relationship influences the senders' choice of message), the message is of high importance (i.e., the types of supportive or

encouraging messages), creating shared meaning (e.g., shared meaning that seeking help is beneficial, or approved of), and accomplishing socials goals (e.g., the goal here is for the target to seek professional help). A different definition for interpersonal communication, however, from Miller and Steinberg (1977), highlights different levels at which people make predictions about others in communication situations (cultural, sociological, and psychological levels). The cultural level involves beliefs, language, norms, and expectations of a large group, while the sociological level involves predictions based on receivers' roles such as friend or family member. The psychological level of prediction, however, accounts for insights about unique characteristics or idiosyncrasies of the other person, and is considered the only true form of interpersonal communication by these authors. The results of this study implicate several possibilities that show the importance of the definition for interpersonal communication used, for example, that people do not differentiate the roles of friend and coworker when considering messages at the sociological level. It could also be that the nature of the hypothetical questions led people to think of messages at a broader sociological, not psychological level, because they were not necessarily thinking of a particular person whose idiosyncrasies would dictate a more particular type of message. The finding that ten participants wanted to gather more information before producing a message also lends support to the importance of considering idiosyncrasies in interpersonal communication. Thus, it would be interesting for future research to ask questions of participants to elicit messages on a psychological level of interpersonal communication (e.g., by asking participants to think of a particular person when writing the message).

Support messages supplied by respondents in the first part of the study were used as sample messages in the second portion where messages were rated by military service members for likelihood of use. The rationale for asking service members to rate these messages is that

prior research has reported the perceived barrier of not knowing what to say in order to have a conversation encouraging someone to seek mental health help (Clark-Hitt, 2010). Thus, evaluating the likelihood of using these messages will provide insights for future investigations and campaign designers. Future investigations may evaluate how receivers perceive the different types of supportive messages and whether particular supportive messages types are more or less effective. Campaign designers may use information from such studies to provide sample messages to make it easier for the target audience to have ideas for having such a conversation. Campaigns such as those cited earlier, e.g., the "What a difference a friend makes," may benefit from such investigation.

There was a discrepancy between the frequency of message types provided in the first part of the study and the ratings of the likelihood of using those support messages in the second part of the study among military service members. For example, the most highly rated message in study two, "I'm here for you" (network), was also the least commonly used message in study one, making up 1% of messages in study one, while the most lowly rated message in study two, "I think you should consider talking to a professional" (informational) was the most commonly used message in study one, making up nearly 20% of responses. This raises two issues. First, it could be the case that when asked to produce a message, individuals produce particular messages, yet when given a choice of ideas for what messages to use, they prefer other types of messages. It is also possible that study one respondents (members of the general population) prefer different message types than military personnel surveyed in study two.

There were not enough messages that represented different categories of support (i.e., there was just one tangible, one network, and one esteem message) to draw any firm conclusions about categories of messages that participants would be more or less likely to use. Another area

for future investigation is the possibility that messages that do not tell the other what to do, but rather provide an offer of support, are seen as more appealing to message senders, e.g., "I'm here for you" may be seen as more desirable than messages with a focus on telling the message recipient what to do, e.g., "I think you should get help." Some supportive communication literature cites a distinction between emotion-focused and problem-focused support messages based on the intentions of the message sender. In emotion-focused messages, the message sender's goal is to reduce emotional distress in the message recipient, while for problem-focused support, the goal is to arrive at a solution for the problem (MacGeorge, 2001). Future research could classify messages encouraging mental health help-seeking as emotion-focused and problem-focused to see whether one form of support is preferred by message senders and receivers. Finally, future research should investigate whether those who have sought mental health counseling in the past are more prone to encourage others to seek help and whether they use different types of supportive messages. In this sample, there was a low response rate (around 4%) and among those who completed it, there was a disproportionately high percentage who had mental health counseling in the past. Thus, this sample may not be representative of the general population. In sum, future research should build on these findings and aim to provide suggestions for message content to address the barrier of not knowing what to say to encourage someone to seek help. Ultimately, this research will contribute to future studies examining hypotheses from the receiver perspective about supportive encouraging messages and perceptions of norms and stigma relating to seeking help. Furthermore, future research may investigate which types of messages identified here are more or less effective from the receiver perspective.

The results of the research questions examining factors for persuading military members to encourage others to seek help for combat stress have theoretical and practical implications.

First, they show the value of integrating the TPB and SNA for predicting behavioral intentions. Second, they explore the social norms approach for reducing perceptions of stigma. Third, they extend prior literature examining service members' perceived barriers to encouraging others to seek help, and the results have implications for campaign message strategies for persuading service members to encourage others to seek help for combat stress.

There are several theoretical implications for this work. First, when a larger number of responses are collected, if the hypothesis of five distinct social norms is corroborated, it will provide broader support for the five factor model for a health behavior other than organ donation or alcohol moderation as cited in prior work. Second, the two significant interaction effects among the TPB and norms variables provide additional support for the prior findings that the four additional norms (societal injunctive, societal descriptive, personal descriptive, and personal injunctive norms) interact with the TPB constructs in predicting behavioral intention. Two interaction terms were significant: societal injunctive and societal descriptive norms moderated attitude about encouraging others to seek mental health help such that for those with more positive perceptions of social norms, attitude was a stronger predictor of intention to encourage others.

A third area of interest is the finding that the subjective norm, or perceptions of what important others expect, predicts intention to encourage others to seek mental health help, while attitude and perceived behavioral control were not direct predictors. Subjective norm as a predictor of intention lends support to the arguments for this line of research that perceptions of norms are important factors predicting intention. Moving to the receiver perspective, it would be valuable to investigate whether receiving an encouraging message about seeking help influences perceptions of subjective norm, and in turn, intention to seek help. It is logical that receiving an

encouraging message would imply the encourager endorses the behavior and expects the message recipient to seek mental health help. It would also be useful to learn whether the different categories of support messages have differential influence on perceptions of norms and intention. Future work should also investigate whether the subjective norm and any other norms also predict intention to seek help.

This study also sheds light on stigma as a factor making it more difficult to encourage others to seek mental health help for combat stress. For this study, perceived stigma would be documented if a misperception existed such that the majority of participants approve of encouraging others, yet they believe that the majority of others do not approve. The perceptions of social norms held by service members in this study are not consistent with the definition adopted here for the presence of perceived stigma. Rather, 96% of participants approve of encouraging others to get help, yet they perceive that 72.4% of others approve. This discrepancy, while not the type of discrepancy specified here for perceived stigma or for a social norms intervention, may provide support for the idea that a discrepancy in perceived norms is driving perceptions of stigma. Despite the large percentage of perceived approval by others (72.3%), in open-ended questions and ratings of campaign message content, participants indicated that stigma is a barrier to encouraging others to get help and that campaign messages should include content to reduce stigma (however, the stigma people cited was primarily for the person seeking help, not for the person encouraging help seeking). While the majority of others are perceived to approve (72.4%), perhaps concerns over disapproval by a vocal minority may be enough to create a perception of stigma. It may be the case that for this behavior a larger majority must approve of the behavior for people to feel comfortable with it or to believe that there is no stigma attached. Another consideration is that according to Link and Phelan (2001), stigma must occur

within a context of power such that the group being stigmatized has less power than those doing the stigmatizing. It may be the case that for perceptions of stigma among military members, it is not so important whether the majority of service members approve, but rather whether those with power approve. One way to conceptualize power in the military is rank. For this sample there is no correlation, however, between rank and personal approval of encouraging mental health help-seeking ($r = 0.149$, $p = 0.156$). It would be useful, however, for future studies to examine this further with a larger sample. There may also be other ways that power operates, e.g., through those who are vocal in disparaging mental health help-seeking, therefore it would be useful for future work to examine that possibility.

There was an unanticipated discrepancy for descriptive norms in which a smaller percent of participants indicated they would personally encourage someone to get help (54%) than the percentage of others who they believe would encourage someone (70.1%). There are several explanations for this particular outcome. It is possible that the wording of the intention question, "I intend to encourage another service member to seek help" produced this outcome. Rather than being stated hypothetically, i.e., "I would encourage another service member to get help if needed."[7] The wording of the question may have only allowed those with a particular person in mind to indicate agreement. If this is the case, a proportion of respondents closer to (or higher than) the estimated descriptive norm of 70.1% may have indicated agreement had the question been worded hypothetically, and thus there may not be a discrepancy at all. Further, it is possible that there is an inconsistency in the attitudes and behaviors of participants such that they approve of the behavior, but would not actually engage in the behavior. They may believe that it is a good

[7] The item was originally worded this way in the proposal for this project, however the Army post that distributed the survey instructed that it should be worded "I intend to encourage another service member to seek help for combat stress."

behavior, but for various reasons would not feel comfortable engaging in it. For a social norms intervention, the conditions must be met that the majority of the population engages in the healthy behavior, yet there is a perception that a smaller proportion of the population engages in the behavior. The results for descriptive norms here do not support a social norms intervention because a greater number of others are perceived to engage in the healthy behavior than the number who would actually do so.

Another possible explanation of the results is that service members do not perceive a stigma about encouraging others to seek mental health help, but they do perceive a stigma about seeking mental health help. The results of the open-ended responses about barriers and the high rating of campaign message content for reducing stigma are generally consistent with this conclusion. While participants indicated that the majority of others approve of and would encourage others, in the open-ended responses about barriers they commonly indicated that the person needing help would be stigmatized. Additionally, one of the highest rated campaign message content items was reducing stigma. The high ratings for messages to reduce stigma corroborate literature claiming that stigma is an important barrier preventing individuals from obtaining help (Stecker et al., 2007; Hoge et al., 2004).

To further explore the relationships among norms and stigma, a useful future research direction would be to examine existing measures of stigma with perceptions of social norms. For example, Mojtabi (2007) measured perceived stigma with the question "How embarrassed would you be if others found out you had sought mental health care?" It would be useful to examine how well perceived approval from others correlates with other such measures of stigma.

Finally, it is possible that the results of this study are due to the small sample size. It would be valuable for studies with larger sample sizes to evaluate these perceptions of norms to learn whether they are in line with a social norms intervention.

Practical Implications

This study has practical implications for messages targeting service members to encourage others to seek help for combat stress. The interaction effects in which societal descriptive norms and societal injunctive norms moderated the relationship between attitude and intention may provide direction for audience segmentation in health campaigns. For example, if messages may be targeted at those with already positive attitudes, including information about the societal injunctive and societal descriptive norms may boost the persuasiveness of the message.

Beliefs associated with the TPB predictors may also provide useful content for message campaigns. The product of beliefs about a person receiving needed help and the outcome evaluation that receiving help is beneficial was a significant predictor of intention. Thus, one strategy may be to focus messages on benefits of seeking help and stories of people who had successfully sought help. This is consistent with participants' higher ratings for campaign message content with stories of people who had been successfully treated than other messages. These findings are also consistent with service members suggesting that messages provide testimonials and stories about people who have been successfully treated (Clark-Hitt, 2010) and the Stecker et al. (2007) finding that "getting better" is an important advantage of seeking help.

One surprising finding was that normative beliefs about commanders did not predict intention to encourage others to seek help. There are several possible explanations for this. Perhaps the relatively high rank of many participants accounts for this result because they are not

as worried about their commanders' expectations for this particular behavior as people at a lower rank. It is also possible that normative referents such as family members or peers are more important than commanders for this behavior; future research should explore these possibilities. Further, it is possible that participants do not consider this behavior as an official job function but as a behavior not dictated by the command structure and therefore they are not concerned with what commanders expect.

Other findings about beliefs in this study corroborate prior literature about factors making it more difficult to seek help. Concern about stigma was reported by 12% of participants in open-ended responses here; this concern for stigma is also reported by Stecker et al. (2007). The rating of agreement that encouraging someone to get help would lead that person to be stigmatized was not rated highly for agreement by participants here, however, with a mean of 3.16 (*SD* = 1.16). Concern about negative career consequences was cited by Stecker et al. (2007), and 19% of participants provided this response in open-ended response format. Participants here also had concerns about career damage for the person needing help. Distrust of mental health professionals was also a barrier cited in open ended responses by 3% of participants here, which was also reported by Hoge et al. (2004) and Stecker et al. (2007). Not knowing where to get help, cited by Hoge et al. (2004) was provided in open-ended responses by just 1% of participants in this study.

Beliefs about difficulty recognizing when someone needs help were correlated with perceived behavioral control and these beliefs predicted intention, corroborating the open-ended responses; the second most commonly provided open-ended response (16%) was not being able to tell if someone needs help. Clark-Hitt (2010) also reported that service members were

concerned with not knowing how to recognize signs in others. Thus, it may be valuable for campaign messages to provide information about recognizing signs in others.

Limitations

This research has certain limitations. Due to the hypothetical nature of the survey instructions, it is unknown whether nearly 90 % of people would, in fact, choose to encourage others to seek help as reported here and whether their message types and their relative frequencies would reflect those reported here. Individuals may customize messages depending on the situation or idiosyncrasies of the person they are encouraging, while providing more general support messages here. Surveys using a survey research company such as the one used in this study also create limitations because people with certain characteristics may have a greater propensity to seek out such surveys to complete.

For the investigation of message factors for persuading service members to encourage others to seek mental health help for combat stress, the procedures for recruiting participants provided a disproportionately large percentage of officers compared with enlisted personnel. People who are more interested in the issue of combat stress may have been more likely to complete the survey. The dropout rate of those not completing the survey was approximately 60% and it is unknown why people chose not to finish.

A further limitation is that some respondents are not active duty or active reserve (inactive reserve meaning recently left the service) thus they may perceive norms differently than those actively engaged with a military unit. For this sample a series of one-way ANOVAs showed no significant difference among participants with different duty status for any of the TPB or social norms variables. There were no differences among the three types of duty status groups for subjective norms $F(3, 56) = 0.334$, $p = 0.801$, for personal descriptive norm $F(3, 56) =$

0.494, p = 0.688, personal injunctive norm F (3, 56) = 0.457, p = 0.713, societal descriptive norm F (3, 56) = 0.198, p = 0.897, societal injunctive norm F (3, 56) = 1.396, p = 0.254, attitude F (3, 56) = 0.773, p = 0.514, perceived behavioral control F (3, 56) = 0.126, p = 0.514, actual injunctive norm F (3, 56) = 0.717, p = 0.546, perceived descriptive norm F (3, 56) = 0.798, p = 0.50, or perceived injunctive norm F (3, 56) = 0.315, p = 0.814. It is possible, however, that with a larger sample size differences may emerge.

It may also be the case that those in different military branches perceive norms differently due to different cultures in the various branches. Among all of the TPB and social norms variables, a one-way ANOVA showed two significant differences among participants of different branches. There were differences in perceptions of societal descriptive norms F (4, 55) = 3.958, p = 0.007, with participants from the Coast Guard having less positive perceptions than any of the other four branches, and a one-way ANOVA showed that fewer would approve of encouraging another (actual injunctive norm) F (4, 89) = 2.823, p = 0.03 among the Coast Guard respondents than all other branches. These findings must be interpreted with great caution, however, due to the small sample size (N = 2 Coast Guard, N = 2 Air Force, N = 4 Marines, N = 14 Navy) however, it will be useful for future research to investigate possible differences among branches with a larger sample.

A final limitation is that this research did not ask participants to rate a large enough number of support messages to be able to draw substantial conclusions about the types of support messages that may be perceived as more or less useful by message senders. Future research in this area should ask participants to rate a larger number of support messages for how likely they would be to use those messages.

In sum, there are several future research directions implicated here. Future research should comprehensively evaluate all categories of support messages by having people rate how likely they would be to send those messages. Research should also investigate how providing sample messages influences service members' perceptions of barriers about encouraging others to seek help, i.e., whether providing such messages increases intention to encourage others. Finally, research should examine whether receiving such messages influences perceptions of norms, stigma, or attitudes about seeking help, and whether it increases intention and mental health help seeking behaviors.

Conclusion

The findings of this research provide valuable information for the broader program of research investigating messages encouraging help-seeking for mental health. The types of messages that senders use to encourage others to seek help will inform future studies testing the effectiveness of messages from the perspective of the receiver of the encouraging messages. The findings about message factors for persuading service members to encourage others to seek help provides information for message design. There are several practical and theoretical implications in terms of integrating the TPB with the social norms approach for predicting intention. Finally, there are important implications for investigating norms as a route for reducing stigma associated with mental health help-seeking.

Table 1. Participant Age

Sex	N	Mean	SD
Males	180	36.6	5.01
Females	21	38.7	4.62

Table 2. Participant Education

	Post Graduate Education		College Degree		Some College		High School Graduate		Some High School	
Sex	N	%	N	%	N	%	N	%	N	%
Males	43	24	88	48.9	30	16.7	16	8.9	3	1.7
Females	3	14.4	12	57.1	6	28.6	0	0	0	0

Table 3. Experience with Counseling

	Yes		No		Not Sure	
Sex	N	%	N	%	N	%
Males	54	0.3	125	0.694	1	0.006
Females	10	0.476	11	0.524	0	0

Table 4. Participant Military Service

	Yes		No	
Sex	N	%	N	%
Males	16	8.9	164	91.1
Females	2	9.5	19	90.5

Table 5. Frequencies and percentages of support codes

Code	Friend	Coworker	Overall Frequency	Percent of five support categories	Percent of All Categories
INFORMATIONAL	**102**	**106**	**208**	**67.3%**	**59.4%**
Advice	27	34	61	19.7%	**17.4%**
Referral	25	20	45	14.6%	**12.9%**
Situation Appraisal	35	33	68	22.0%	**19.4%**
Teaching	15	19	34	11.0%	**9.7%**
TANGIBLE	**14**	**8**	**22**	**7.1%**	**6.3%**
Loan	0	0	0	0.0%	**0.0%**
Direct task	6	6	12	3.9%	**3.4%**
Indirect task	0	0	0	0.0%	**0.0%**
Active participation	5	1	6	1.9%	**1.7%**
Willingness	3	1	4	1.3%	**1.1%**
ESTEEM	**4**	**3**	**7**	**2.3%**	**2.0%**
Compliment	2	0	2	**0.6%**	**0.6%**
Validation	1	1	2	**0.6%**	**0.6%**
Relief of blame	0	0	0	**0.0%**	**0.0%**
Stating no shame	1	2	3	**1.0%**	**0.9%**
NETWORK	**6**	**1**	**7**	**2.3%**	**2.0%**
Access	0	0	0	**0.0%**	**0.0%**
Presence	1	0	1	**0.3%**	**0.3%**
Companions	5	1	6	**1.9%**	**1.7%**
EMOTIONAL	**28**	**37**	**65**	**21.0%**	**18.6%**
Relationship	8	2	10	3.2%	**2.9%**
Physical affection	0	0	0	0.0%	**0.0%**
Confidentiality	0	0	0	0.0%	**0.0%**
Sympathy	0	1	1	0.3%	**0.3%**
Listening	0	1	1	0.3%	**0.3%**
Understanding	2	21	23	7.4%	**6.6%**
Encouragement	1	3	4	1.3%	**1.1%**
Prayer	0	0	0	0.0%	**0.0%**
Express concern	16	8	24	7.8%	**6.9%**
Express reassurance	1	1	2	0.6%	**0.6%**
	Total Support Codes		**309**	**100.0%**	**88.3%**
NEGATIVE	**1**	**3**	**4**		**1.1%**
Complain	0	0	0		0.0%
Criticism	1	3	4		1.1%
Isolation	0	0	0		0.0%
Disagree/disapprove	0	0	0		0.0%

Table 5 (cont'd)

OTHER	**20**	**17**	**37**		**10.6%**
Pleading to get help	2	6	8		2.3%
Appeal for sake of family	1	1	2		0.6%
Not actual message; seeking info about how to encourage help-seeking	8	2	10		2.9%
Meaning of message cannot be determined	6	7	13		3.7%
Participant indicated they would not provide message	3	1	4		1.1%
	Total Codes All Categories		350		

Table 6. Means and standard deviations for beliefs about encouraging others to seek help for combat stress

Behavioral Beliefs and Outcome Evaluations	M	SD
My encouraging Service members to seek help for COSR will aid them in getting the help they need.	4.17	0.74
My encouraging a Service member to seek help will lead that person to be stigmatized.	3.16	1.16
Getting needed help for COSR is _____(good to bad).	4.56	0.6
Being stigmatized for seeking help is _____(good to bad).*	4.13	1.19
Normative Belief and Motivation to Comply		
My commander thinks that I _____ (should/should not) encourage someone to get help for COSR.	4.18	0.729
When it comes to encouraging others to seek help for combat stress I am concerned with what my commander wants me to do.	2.51	1.21
Control Beliefs		
The command climate will influence whether I encourage another Service member to seek help.	3.31	1.28
A command climate that supports people encouraging others to seek help for mental health issues would make it _____ (easier/more difficult) for me to encourage others to seek help.	4.24	0.75
Being concerned the individual will suffer career damage will make it _____ (easier/more difficult) for me to encourage someone to get help.*	3.51	0.91
I expect if I encourage someone to seek help they may suffer career damage.	2.76	1.37
Not knowing how to tell if someone needs help will make it _____ (easier/more difficult) for me to encourage someone to get help.*	3.54	0.99
Not knowing how to have a conversation prompting someone to get help will make it _____(easier/more difficult) for me to encourage that person to get help.*	3.47	0.94
I expect it will be difficult to determine whether an individual needs help for combat stress.	3.23	1.11
I expect it will be difficult to know what to say to someone who needs help for combat stress.	3.03	1.15
N=94		

*$p < 0.05$

Table 6 (con'td)
**p < 0.01
***p < 0.001
Note: A strongly agree to strongly disagree response format was used except where noted otherwise in each item.
*Items are reverse coded to show strength of belief, e.g., "being stigmatized for getting help" was rated from 1=very bad, 2=bad, 3=neither good nor bad, 4=good, and 5=good.
When reverse coded, the high mean (M=4.13) indicates that participants believe being stigmatized is bad. Similarly, the three control belief items about expecting the individual to suffer career damage, expecting it to be difficult to tell when someone needs help, and expecting it to be difficult to have the conversation were reverse coded such that a higher value indicates a greater perception of difficulty.

Table 7. Correlations between beliefs and Theory of Planned Behavior predictors

Belief Pair	TPB Predictor	N	M	SD
Encouraging another will lead to person receiving needed help X outcome evaluation for receiving needed help being	Attitude	94	19.2	4.8
Encouraging another will lead that person to be stigmatized X outcome evaluation of being stigmatized	Attitude	93	12.4	5.13
Expectation it will be difficult to tell if someone needs help X knowing how to tell will make it easier	Attitude	95	11.35	5.3
Expectation command climate will influence whether encourage other X having supportive command climate will make it easier	Attitude	95	14.1	6.2
Expectation that person will suffer career damage X being concerned about career damage making it more difficult	Perceived Behavioral Control	93	9.3	4.4
Expectation it will be difficult to know what to say X not knowing what to say will make it more difficult	Perceived Behavioral Control	94	10.2	4.7
Concern about what commander thinks X whether commander thinks should encourage other	Subjective Norm	95	10.4	5.4

*p < 0.05
**p < 0.01
***p < 0.001
Note: The items in each pair were rated on a five point scale. The range of possible means is 1 to 25 (e.g., 1x1=1 for two items with the lowest possible rating to 5x5=25 for two items with the highest possible rating).

Table 8. Intention regressed on product of beliefs

	N	*B*	SE	b	t	
Constant		2.723	0.781		3.5	**
Expectation that person will suffer career damage X being concerned about career damage making it more difficult	94	0.044	0.027	0.214	1.62	
Expectation it will be difficult to know what to say X not knowing what to say will make it more difficult	93	-0.014	0.027	-0.073	-0.522	
Expectation it will be difficult to tell if someone needs help X knowing how to tell will make it easier	95	-0.057	0.025	-0.324	-2.301	*
Expectation command climate will influence whether encourage other X having supportive command climate will make it easier	95	0.022	0.018	0.144	1.18	
Encouraging another will lead that person to be stigmatized X outcome evaluation of being stigmatized	93	-0.015	0.024	-0.084	-0.608	
Encouraging another will lead to person to receive needed help X outcome evaluation for receiving needed help	94	0.067	0.024	0.365	2.84	**
Concern about what commander thinks X whether commander thinks should encourage other	95	-0.006	0.023	-0.036	-0.264	

*p < 0.05
**p < 0.01
***p < 0.001

Table 9. Frequencies of open-ended responses for barriers to encouraging others to seek help and barriers for individuals seeking help

Perceived Barriers	Frequency	Percent of respondents (among those who provided any open ended responses)	Percent of respondents (among all survey respondents)	Krippendorf's Alpha
Concerns for career damage	14	19	14.5	100%*
Not being able to tell if someone needs help	12	16	12.5	1
Command climate that does not support seeking mental health treatment	12	16	12.5	1
Other	11	15	11.5	1
Stigma for person seeking help	9	12	9.4	1
Need to have tough image	9	12	9.4	1
Perception that it is intruding in other person's business	9	12	9.4	0.77
Not knowing what to say to encourage someone	5	7	5.2	0.77
Belief that the system is not adequate to address need	4	5	4.1	100%*
Distrust in the legitimacy of mental health providers	2	3	2.1	1
Lost work productivity	2	3	2.1	1
None or n/a	2	3	2.1	1
Not sure where to send someone	1	1	1	100%*
Belief it will be difficult to persuade someone to seek help	1	1	1	1
N=73				

Table 9 (cont'd)
*Percent agreement is provided for cases in which there were no occurrences of the variable in the randomly selected coding portion because the Krippendorf's alpha for those items is undefined.

Table 10. Means and Standard Deviations for TPB and Norms

Variable	Mean	SD
Perceived Behavioral Control	4.38	0.69
Intention	3.69	0.9
Attitude	4.59	0.62
Subjective Norm	4.01	0.78
Personal Descriptive Norm	3.97	0.86
Personal Injunctive Norm	3.75	0.88
Societal Descriptive Norm	3.98	0.85
Societal Injunctive Norm	3.78	0.96
N=61		

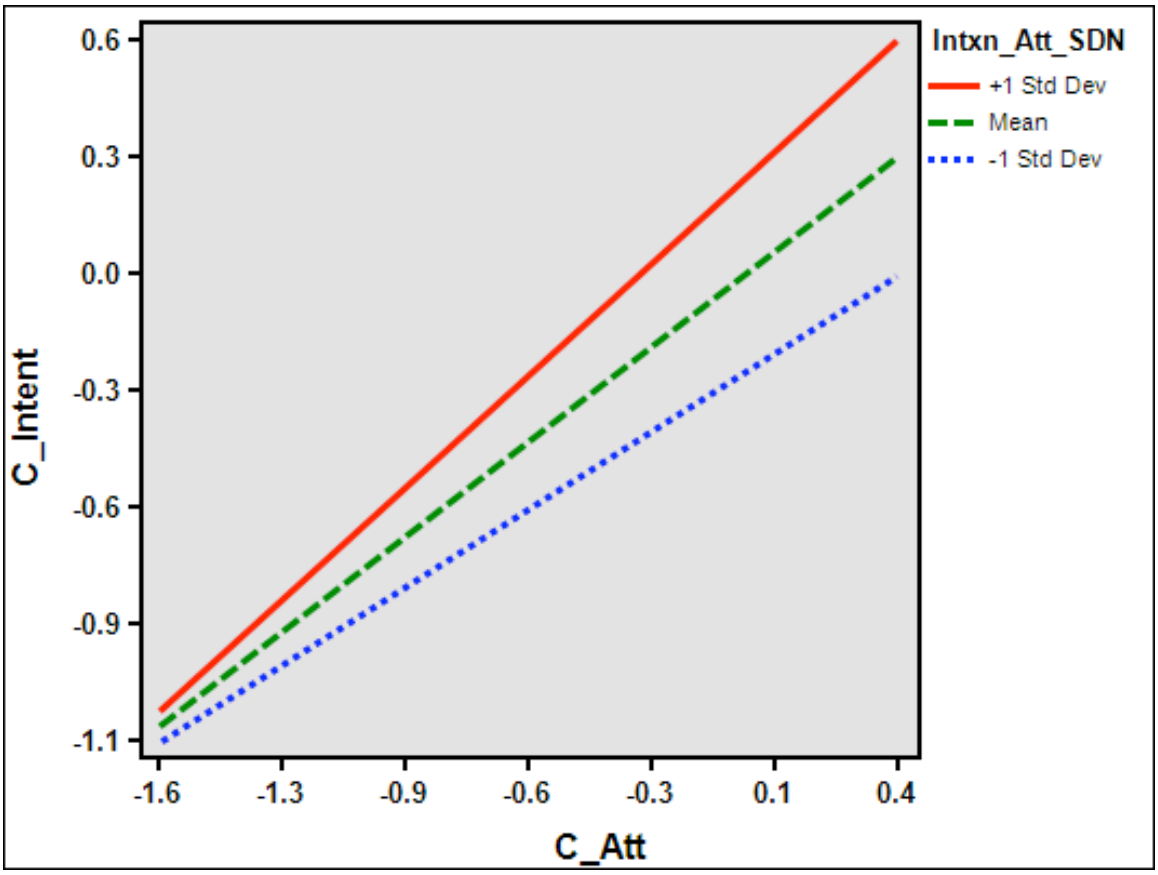
Items were rated on a 5 point scale with 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, and 5=strongly agree

Table 11. Regression of Intention on Theory of Planned Behavior and Norms Variables

	B	SE	b	t	
(Constant)	3.69	0.09		40.21	
Attitude	0.25	0.18	0.17	1.35	
Subjective Norm	0.61	0.16	0.52	3.82	***
Perceived Behavioral Control	0.02	0.17	0.01	0.09	
$F(3, 57) = 12.88$, $p<0.001$, $R^2 = 0.404$, Adj. $R^2 = 0.373$					
Second block					
(Constant)	3.69	0.09		39.76	***
Attitude	0.28	0.2	0.19	1.39	
Subjective Norm	0.64	0.18	0.55	3.55	**
Perceived Behavioral Control	0.05	0.19	0.04	0.26	
Personal Descriptive Norm	0	0.23	0	0	
Personal Injunctive Norm	-0.14	0.26	-0.14	-0.53	
Societal Descriptive Norm	-0.28	0.22	-0.26	-1.27	
Societal Injunctive Norm	0.26	0.22	0.28	1.22	
$F_{change}(4, 53) = 0.680$, $p = 0.609$, $R^2_{change} = 0.029$, Adj. $R^2 = 0.358$					
(Constant)	3.521	0.094		37.487	
Attitude	0.181	0.209	0.123	0.865	
Subjective Norm	0.511	0.176	0.439	2.909	**
Perceived Behavioral Control	0.137	0.188	0.104	0.731	
Personal Descriptive Norm	-0.301	0.225	-0.287	-1.339	
Personal Injunctive Norm	-0.037	0.298	-0.035	-0.123	
Societal Descriptive Norm	-0.259	0.231	-0.245	-1.124	
Societal Injunctive Norm	0.51	0.23	0.541	2.22	*
Attitude x Societal Descriptive Norm	-1.469	0.699	-1.459	-2.101	*
Attitude x Societal Injunctive Norm	1.117	0.437	0.956	2.554	*
$F_{change}(12, 41) = 3.018$, $p = 0.004$, $R^2_{change}=0.266$, Adj. $R^2=0.559$					

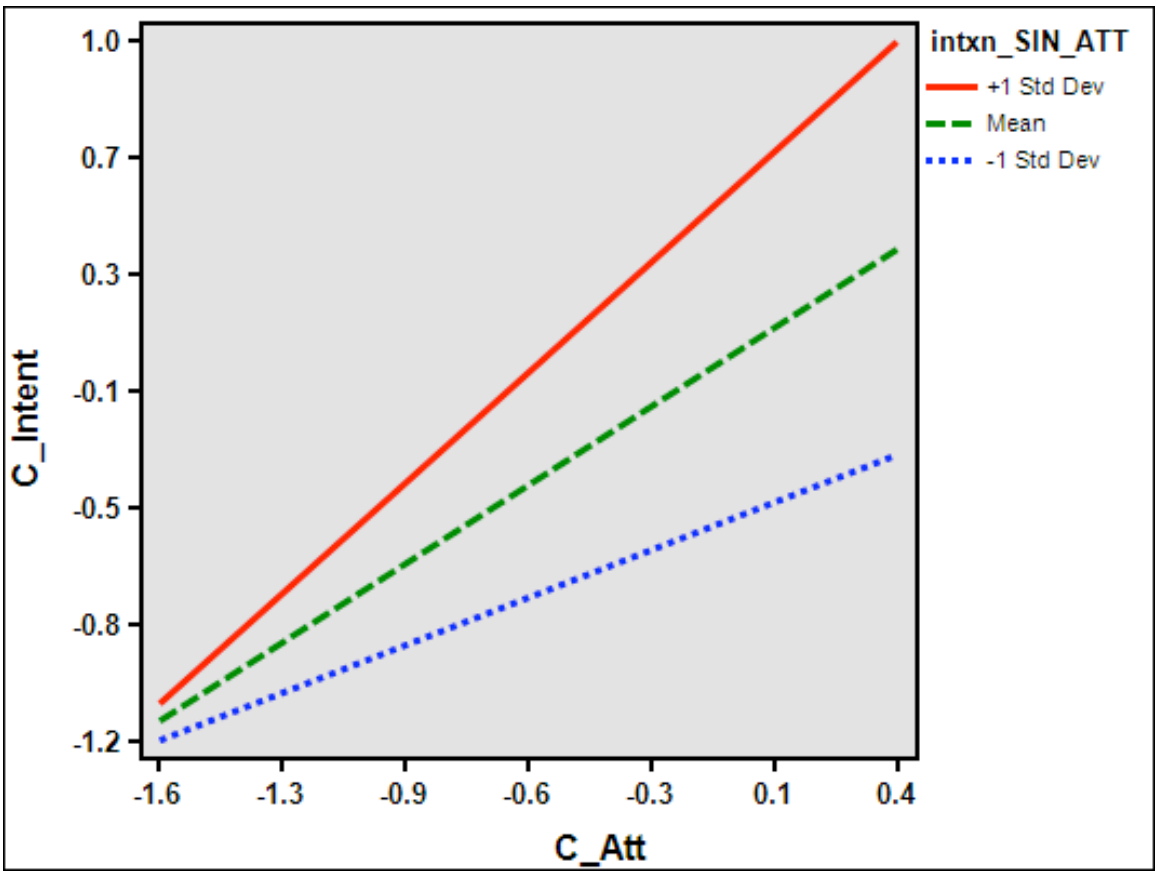
*p<0.05
**p<0.01
***p<0.001
Note: Items were rated on a 5 point scale with 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, and 5=strongly agree.

Figure 1. Interaction of Attitude with Societal Descriptive Norms



For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this dissertation.

Figure 2. Interaction of Attitude with Societal Injunctive Norms



For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this dissertation.

Table 12. Simple slopes at three points of moderators for significant interactions predicting intention to encourage others to seek help

		Simple Slopes at Three Points of Moderators		
Predictor	Moderator	1 SD above	Mean	1 SD below
Attitude	SDN	0.84**	0.72***	0.59*
Attitude	SIN	1.06***	0.76***	0.46

*p < 0.05
**p < 0.01
***p < 0.001
Note: SDN=Societal Descriptive Norm and SIN=Societal Injunctive Norm

Table 13. Ratings of likelihood of using supportive messages

Message	Support Type	M	SD
I am here for you if you need me	Network	4.18	0.855
Talking to a professional might be helpful for you	Informational	4.11	0.823
I found it helpful talking to a counselor when I was having a difficult time	Emotional	4.1	0.715
I'm concerned about you	Informational	4.06	0.959
Have you considered talking to a professional/counselor?	Informational	4.04	0.824
Talking to a professional will give you skills for dealing with stress	Informational	3.99	0.987
I care about you	Emotional	3.94	0.987
Can I help you find someone to talk to?	Tangible	3.8	1.006
I think you should consider talking to a professional/counselor	Informational	3.76	1.039

*Messages were rated for how likely participants would be to use them to encourage someone to seek help on a 5 point scale with 1=very unlikely, 2=unlikely, 3=neither likely nor unlikely, 4=likely, and 5=very likely

Table 14. Support categories and messages from study 1

Category of Message and Sample Message	Percent who used message in study 1
Informational	
Advice/suggestion	18%
Talking to a professional might be helpful for you	
Situational Appraisal	19%
Have you considered going to talk to a professional/counselor?	
I think you should consider talking to a professional/counselor	
Teaching	12%
Talking to a professional will give you skills for dealing with stress	
Tangible	
Direct task	3%
I can help you find someone to talk to	
Emotional	
Express Concern	7%
I'm concerned about you	
Understanding/empathy	3%
I found it helpful talking to a counselor when I was having a difficult time	
Relationship	3%
I care about you.	
Esteem	
No shame	1%
"There is no shame in asking for help"	
Network Support	
Presence	1%
I am here for you if you need me.	

Table 15. Ratings of usefulness of campaign message content

Message Content	M	SD
Reducing stigma associated with seeking help	4.43	0.63
Information about how to recognize signs of combat stress reactions in others	4.41	0.66
Stories of people who have been successfully treated after seeking help for combat stress	4.33	0.764
It is not intruding in another person's business by encouraging them to get help	3.96	0.898
Messages encouraging people to show they care (e.g., "help a buddy take a knee")	3.93	0.895
There is no shame in asking for help	3.8	1.006

Note: Messages were rated on a 5 point scale with 1=not useful at all, 2=not useful, 3=neither useful nor not useful, 4=useful, 5=very useful.

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