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Mental Health Help-Seeking Intention and Organizational Climate in a Population of Military Service Members

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MENTAL HEALTH HELP-SEEKING
INTENTION AND ORGANIZATIONAL CLIMATE IN A
POPULATION OF MILITARY SERVICE MEMBERS

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2016

MENTAL HEALTH HELP-SEEKING BEHAVIORAL
INTENTION AND ORGANIZATIONAL CLIMATE IN A
POPULATION OF MILITARY SERVICE MEMBERS

By

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ABSTRACT

Historically, psychological effects of war such as Post Traumatic Stress Disorder (PTSD) have been understated and misdiagnosed throughout the world. Military members that displayed symptoms of PTSD such as anxiety, depression, and sadness were thought to lack the strength and courage necessary to be a soldier. As a result, many soldiers suffering from symptoms of PTSD would suffer in silence and not seek the requisite help for mental health care. This dissertation examines the mental health help-seeking intention of U.S. military service members using the Theory of Planned Behavior (TPB). Additionally, this dissertation considers the effects that leadership support climate and coworker support climate play in a soldier's intention to seek help for mental health care. This dissertation contributes to the literature in three ways. First, this dissertation contributes by applying a rigorously tested theoretical framework to the study of mental health help-seeking intention in U.S. military personnel. Second, this dissertation contributes by incorporating the constructs of leadership support climate and coworker support climate into mental health help-seeking literature. Third, this dissertation will introduce the concepts of leadership support climate and organizational support climate into the study of the theory of planned behavior. This dissertation concluded that the personal attitudes of military service members towards mental health help-seeking is significant in predicting their mental health help-seeking intention. Furthermore, the dissertation concluded that mental health help-seeking attitudes mediates the relationship between leadership support climate and mental health help-seeking intention. These results underscore the importance of role of leaders in influencing service members to seek help for mental health problems.

Keywords: Theory of planned behavior, leadership support climate, coworker support climate

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CHAPTER 1: INTRODUCTION

The most prominent factors associated with the cost of war are the death of soldiers, physical impairment, and the destruction of property. However, an important cost of war that has been historically overlooked is psychological distress (Gabriel, 2005). It took many years for psychiatrist and military leaders across the globe to recognize the psychological effects of warfare on soldiers (Gabriel, 2005). The psychological effects of war on soldiers have been categorized as Post-Traumatic Stress Disorder (PTSD). PTSD is defined as “an anxiety problem that develops in some people after extremely traumatic events, such as combat, crime, an accident or natural disaster” (American Psychological Association, 2015). The American Psychological Association formally recognized the diagnosis of PTSD in its Diagnostic and Statistical Manual of Mental Disorders in 1980 shortly after the war in Vietnam (Friedman, 2015; American Psychiatric Association, 1980). Prior to the formal diagnosis of PTSD, there was substantial documentation of psychological symptoms associated with soldiers engaged in combat dating back to the Battle of Marathon in 400 BC (Gabriel, 2005, Bentley, 2015). Physicians in Switzerland in the late 17th century were among the first to categorize a collection of symptoms and behaviors associated with the stresses of combat. These symptoms included depression, anxiety, sadness, and loss of appetite (Gabriel, 2005, Bentley, 2015). Symptoms of PTSD were attributed to soldiers being away from home too long and the term nostalgia was coined to this condition. Throughout the wars in history, many other names were associated with the symptoms of PTSD such as homesickness, battle shock, combat exhaustion, battle fatigue, and shell shock (Gabriel, 2005; Bentley, 2015). Irrespective of the name of this condition, psychiatrist and military personnel throughout many conflicts to include the Civil War, World War I, World War II, and Vietnam attributed the condition to men that were weak in character,

scared, or malingering (Gabriel, 2005). Even today after the Gulf War and the Global War on Terrorism, many of these beliefs about the psychological effects of warfare still exist (Britt, 2000; Espinoza, 2010). These perceptions are having an effect on the propensity for service members to seek care for psychological problems associated with combat.

Since September 11, 2001 and the beginning of the Global War on Terrorism, the U.S. military has reported a disturbing trend of combat veterans choosing not to seek help for mental health problems (Espinoza, 2010; Hoge, Messer, & Catro, 2004; Britt, 2000). Estimates indicate that over 300,000 service members are battling mental illness, but have yet to seek help (RAND, 2008). According to the Department of Defense (DOD) Task Force on Mental Health (2007), the most prominent and pervasive barrier to a military member seeking mental health care is the stigma associated with seeking help (DOD Task force on Mental Health, 2007; Mental Health Advisory Team (MHAT), 2008). Furthermore, service members perceive that negative consequences are associated with both having a mental illness and seeking mental health care (Zinzow, Britt, Pury, Raymond, McFadden, and Burnette, 2013; Espinoza, 2010; Hoge, 2004; Britt, 2000). These consequences range from being overlooked for job opportunities, security clearances (Britt, 2000; Espinoza, 2010) and promotions (Britt, 2000) to peers and leaders losing confidence in the abilities of service members that seek help (Zinzow et al., 2013; Hoge et al., 2004; Britt, 2000). The President's Commission on Care for America's Returning Wounded Warriors reported that the problem with help-seeking in the military is that service members believe that pursuing care is a sign of weakness and demonstrates a fundamental lack of discipline to succumb to the symptoms of psychological stress (Dole, 2007). Taken together, the above suggest that both attitudinal and normative factors may affect a service member's decision to seek help for mental illness.

Today, over 13 years later, the war in Iraq is over and the war in Afghanistan is coming to a close. Still, more than 55% of service members diagnosed with mental health disorders still do not seek help (Hines, Goodwin, Jones, Hull, Wessely, Fear, & Rona, 2014). This suggests that the problem with seeking help in the military for mental health problem is still as pervasive today as it was over a decade ago.

Since 2004, there have been a number of federally funded studies that have sought to gain a better understanding of why service members choose not to seek help for mental health care problems (MHAT, 2008; RAND, 2008; Dole, 2007). These federal reports identified many of the same negative consequences that were identified in the academic literature. Beyond the perception of negative consequences, the literature also identifies a number of barriers that contribute to mental health help-seeking for military members. Research suggests that military members do not know how to access mental health services (Zinzow et al., 2013; Hoge et al., 2004), are concerned about the ability to trust military medical and psychological staff members (Zinzow et al., 2013; Espinoza, 2010; Hoge et al., 2004), and that there are challenges getting time off of work to seek mental health services (Zinzow et al., 2013; Espinoza, 2010; Hoge et al., 2004). Furthermore, the culture of the military has been suggested as a possible contributor to the lack of mental health help-seeking behavior (Dole, 2007). That is, the culture, the values, and belief systems in the United States military may negatively contribute to service members not seeking help for mental health care. To begin to understand military culture, one must understand that the primary purpose for the military is to engage and defeat the enemy in combat. To carry out this purpose a military force must have a unique culture. The military must possess a culture that is focused on extreme discipline and the strict adherence to orders from superiors (Dorn, Graves, Umer, Collins, & Jacobs, 2000; Vega, 2013). Additionally, strict

adherence to discipline and the orders of superiors must be underpinned by a ridged values system (Dorn et al, 2000). The U.S. military services share many of the same values. Some of these values include honor, integrity, courage, duty, and selfless service (Dorn et al, 2000; Vega, 2013). All of these characteristics contribute to a strong and homogenous military culture that has a significant impact on the identity of service members. Additionally, a cultural component known as the warrior ethos—which can be described as the will to win under all circumstances and to never accept defeat—has been suggested as a component that contributes to the low levels of mental health help-seeking (Weiss, Coll, & Metal, 2011). All of these factors suggest that there may be organizational and cultural factors that may contribute to this problem. Given the challenges associated with the lack of mental health help-seeking in military members, it is extremely important to gain a new and interesting insight into what is contributing to this phenomenon. A novel approach is necessary to provide a unique insight into the problem of mental health help-seeking. Although much research has centered on the perceived consequences, beliefs, and barriers of seeking mental health care, little is known about the effects of organizational climate on mental health help-seeking.

The study of organizational climate is useful in gaining understanding into the factors that affect employees' attitudes and behaviors within a work environment (Litwin & Stringer, 1968). Organizational climate is defined as “a set of cluster of expectancies and incentives and represents, we propose, a property of environments that is perceived directly or indirectly by the individual in the environment” (Litwin & Stringer, 1968, p.29). Organizations with positive climates find that coworkers are more willing to discuss problems (Bennett, Lehman, & Reynolds, 2000). Furthermore, organizational climate, namely support climate, has been found to reduce combat stress in military service members (MHAT, 2008). Research has shown that

organizations with strong climates tend to have better organizational outcomes than those with weaker climates (Walter & Bruch, 2010; Carr, Schmidt, Ford, & DeShon, 2003). Ultimately, the organizational climate describes the characteristics of the organization which in turn impact individual behavior. When considering that organizational climates can affect levels of stress within an organization (MHAT, 2008), increase willingness of people to discuss problems (Bennett, Lehman, & Reynolds, 2000), and improve outcomes within organizations (Dickens, Suesse, Snyman, & Picchioni, 2014), organizational climate may be a factor that can either hinder or motivate service members from seeking mental health care.

When reviewing the research conducted on the lack of mental health help-seeking in the military, there have been a variety approaches to investigating the problem. These studies have expanded the knowledge base on help-seeking in the military; however, many have limitations. These limitations include the studies being mostly descriptive (Greene-Shortridge, Britt, & Castro, 2007; Espinoza, 2010), assessing simple bivariate correlations (Espinoza, 2010), or lacking a theoretical framework (Greene-Shortridge et al., 2007, Espinoza, 2010) to model the phenomena. Britt, Bennett, Crabtree, Haugh, Oliver, McFadden, & Pury (2011) was one of the first studies that attempted to utilize the Theory of Planned Behavior as a theoretical framework to describe mental health help-seeking behavior in a military population. The limiting factor in this study was that the researchers utilized a modified formulation of the TPB that did not include intention within the model. Assessing the intention within the TPB is the most critical component in the TPB framework (Fishbein & Ajzen, 2010). Additionally, a number of researchers have studied service member beliefs about seeking mental health care treatment in the military (Schaffer, Crabtree, Bennett, McNally, & Okel, 2011; Stecker, Fortney, Hamilton, Sherbourne, & Ajzen, 2010; Stecker, Fortney, Hamilton & Ajzen, 2007), as well as, barriers and

facilitating factors associated with seeking mental health treatment (Zinow, Britt, Pury, Raymond, McFadden, & Burnette, 2013). Although these studies identify the beliefs, barriers, and facilitating factors of seeking mental health care in military service members, these studies do not specifically test the antecedents as framed by TPB. Therefore, an exploration of the mental health help-seeking in military personnel could benefit through a thorough examination of the TPB that incorporates all of the constructs. This dissertation will address this fundamental concern.

As previously stated, climate is a construct that could provide some insight into the challenge of mental health help-seeking in military personnel. There are nine dimensions of organizational climate (Litwin and Stringer, 1968). These dimensions are structure, responsibility, risk, reward, warmth, support, structure, identity, and conflict. The study of climate in the context of TPB has focused exclusively on the safety dimension (Fogarty & Shaw, 2010) in assessing environmental factors in research. These safety climate studies have considered attitudes on driving on the Germany Autobahn (Gehlert, Hagemeister, & Ozkan, 2014), climates of safety in the workplace (Mohammadi, Pakpor, & Mohammadi, 2012), and the climate of safety in the aviation industry (Loosveldt & Storms, 2008). This dissertation will contribute to the literature by exploring the dimension of support climate in the context of the theory of planned behavior.

4.1 Research purpose

The purpose of this dissertation is two-fold. First, this dissertation investigates the effects of attitudes toward mental health help-seeking, subjective norms, and control factors in predicting mental health help-seeking intentions in military service members. Second, this dissertation investigates the effects of organizational climate factors, namely, leadership support climate and

co-worker support climate on mental health intention utilizing the Theory of Planned Behavior. This dissertation proposes that attitudes toward mental health help-seeking mediate the relationship between leadership support climate and mental health help-seeking intention. Also, this dissertation proposes that mental health help-seeking subjective norms mediate the relationship between co-worker support climate and mental health help-seeking intentions. Considering leadership support climate and organizational support climate in terms of the mental health help-seeking intention for military service members may provide insights into the context or how the organizational environment affects this phenomenon (Bacharach & Bamberger, 2007).

4.2 Contributions

This dissertation makes a contribution to the literature in three ways. First, this dissertation contributes by applying a theoretical framework to the study of mental health help-seeking intention in U.S. military personnel. Previous studies on mental health help-seeking in military personnel where qualitative (Zinzow, 2013), descriptive (Hoge, 2004), lacked a solid theoretical underpinning (Britt et al., 2011), studied belief about seeking mental health care (Schaffer, Crabtree, Bennett, McNally, & Okel, 2011; Stecker, Fortney, Hamilton, Sherbourne, & Ajzen, 2010; Stecker, Fortney, Hamilton & Ajzen, 2007), or studied barriers and facilitators of help-seeking (Zinzow et al., 2013; (Rickwood & Thomas, 2012 ; Hoge et al, 2004; Addis & Mahalik, 2003). This dissertation will utilize the Theory of Planned Behavior to explain mental health help-seeking behavior in a military population. Second, this dissertation will make a contribution by incorporating the construct of organizational climate into mental health help-seeking literature. While there are a number of studies that consider the types of treatment, characteristics of the provider, and the outcomes of mental health services, I have found no studies that consider

the effects of organizational climate on individual mental health help-seeking. This dissertation will make a contribution by describing how the contextual factors within an organization contribute to mental health help-seeking intention. This is important because perceptions of organizational climate are likely to have an impact beyond the variables in the TPB and because organizational leaders can impact organizational climate to obtain the desired behaviors of service members. Third, this dissertation will expand the literature that uses the concept of organizational climate within the context of the theory of planned behavior. The individual dimensions that make up organizational climate include structure, responsibility, risk, reward, warmth, support, identity, conflict, and standards. The current literature only addresses the component of risk in conjunction with the theory of planned behavior through research that addresses safety climate within organizations (Gehlert, Hagemeister, & Ozkan, 2014; Mohammadi, Pakpor, & Mohammadi, 2012; Fogarty & Shaw, 2010; Loosveldt & Storms, 2008). This dissertation builds on the existing literature by examining the effect of the support dimension in the context of the theory of planned behavior.

In terms of practical contributions, gaining a better understanding of the antecedents to mental health help-seeking intention, specifically in the context of the U.S. Army soldiers could lead to increased mental hygiene, decreased drug and alcohol abuse (Bennett and Lehman, 2001; Sonnenstuhl, 1990), decreased spousal and family abuse, and decreased suicides by military members. Furthermore, this research could contribute toward changing leader behaviors and beliefs about the importance of organizational climate in the context of mental health help seeking. The results of this study could influence leaders to take a prominent role in shaping the leadership support climate within their organization. Specifically, leader can actively implement policies that set a climate that encourages mental health help seeking. Leaders can also foster a

climate that ensures that soldiers that require help will not fear repercussions, the loss of job opportunities, or decreased promotion potential (Zinzow et al., 2013; Espinoza, 2010; Hoge et al., 2004). Organizational leaders can also influence their subordinated leaders to be receptive and encourage an environment conducive to mental health help seeking. Additionally, the results of this dissertation could shed light on the importance of coworker support behaviors in encouraging military members to seeking help for mental health problems. It is often the case that coworkers have more interaction with employees than leaders within the organization. Hence, the importance of coworkers being attuned to and having the ability to encourage those that may need mental health care to seek mental health care cannot be understated. Understanding the effects of organizational climate on the attitudes toward mental health help-seeking and subjective norms will give military leaders and additional tool to impact the mental health of service members, improve combat effectiveness, and ultimately ensure national security. Finally, understanding the effects of organizational climate on the attitudes toward mental health help-seeking and subjective norms will give military leaders and additional tool to impact the mental health of service members, improve combat effectiveness, and ultimately ensure national security.

4.3 Organization of Dissertation

The remaining three chapters of this dissertation proposal are structured as follows. In chapter two, I will conduct a thorough review of the literature on help-seeking, organizational climate, and discuss the theory of planned behavior. In chapter 3, I will present a conceptual model and I will make an argument for the formulation of my hypotheses that will be tested in predicting mental health help-seeking intention. In chapter 4, I will describe the measures that

will be used to capture the constructs within this dissertation. I will also describe the sample, design, and the procedures that I will use to collect and analyze the data for this dissertation.

CHAPTER 2: LITERATURE REVIEW

HELP-SEEKING

Help-seeking is defined as “any communication about a problem or troublesome event which is directed toward obtaining support, advice, or assistance in times of distress” (Gourash, 1978, p.414). Help-seeking is a concept that has implications within many scholarly domains such as medicine, law, psychology, sociology, and social work. However, the concept of help-seeking has not been applied extensively in studies in business and organizational settings (Bamberger, 2009). The four broad categories of help-seeking are instrumental (Caplan, French, Van Harrison, & Pinneau, 1975), informational (Caplan et al., 1975), affiliative (Baker, 2007), and emotional (Barrera, 1986). Instrumental help-seeking is focused on seeking help for issues tangible in nature and include help for equipment, money, tasks, or human capital (Caplan et al., 1975). Instrumental help-seeking is often associated with the workplace and related to goal attainment and the achievement of job responsibilities (Bamberger, 2009). Informational help-seeking is knowledge based and focused on seeking advice, direction, or guidance exchanged between individuals (House, 1981; Barrera, 1986). Informational help-seeking is also often time bi-directional and can be described as information that individuals either seek or provide to another person (Bamberger, 2009). Affiliative help-seeking is seeking help from peers or those that have mutual interests (Baker, 2007). Lastly, emotional help-seeking is the less tangible form and is not directly related to the achievement of a goal or job related task. Emotional help-seeking addresses various resources for seeking help involving personal problems or challenges. This type of help-seeking focuses on relationships, psychological well-being, and also focuses on intimate thoughts or feelings (Blau, 1977). These four types of help-seeking are often related and can coexist (Bamberger, 2009). In the section below, I will define mental health help-

seeking, review the mental health help-seeking literature, explore research on military help-seeking, discuss the costs of not seeking mental health care, and discuss strategies that encourage mental health help-seeking.

2.1 Mental Health Help-seeking

Mental health help-seeking is defined as, “an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern” (Rickwood & Thomas, 2012, p.180). Within the general population there is a high prevalence of mental health disorders as compared to the amount of available services (Rickwood & Thomas, 2012). The problem of shortage of services is exacerbated by the fact that stigma and barriers to care limit access to mental health care (Rickwood & Thomas, 2012). Irrespective of the economic development of a country or the level of access to care, many countries across the globe have citizens that are reluctant to seek help for mental health services (Rickwood & Thomas, 2012). Research on mental health help-seeking addressed the help-seeking patterns of a number of demographic groups. These demographics include mental health help-seeking for young adults (Armando, Nelson, Yung, Saba, Monducci, & Dario, 2012; Smith & Shochet, 2011), children (Godoy, Mian, Eisenhower, & Carter, 2014), African Americans (Lindsey, & Marcell, 2012; Murry, Heflinger, Suiter, & Brody, 2011), Masuda, Anderson, & Edmonds, 2012), sub-Saharan African immigrants, college students (Alemu, 2014; Bilican, 2013; D’Avanzo, Barbato, Erzegovesi, Lampertico, Rapisarda, & Valsecchi, 2012; Eisenberg, Hunt, & Speer, 2012; Barksdale & Molock, 2009), Indians (Leung, Cheung, & Tsui, 2012; Mishra, Nagpal, Chadda, & Sood, 2011), Chinese (Tieu & Konnert, 2014; Mo & Mak, 2009), and prisoners (Mitchell, & Latchford, 2010), Latinos (Liefland, Robers, Ford, & Stevens, 2014; Villatoro, Morales, & Mayes, 2014) to name a few.

Mental health help-seeking consists of five major components. These components are process, timeframe, source, type, and concern (Rickwood & Thomas, 2012). The process refers to the specific component of the behavioral process that is of interest to a researcher (Rickwood & Thomas, 2012). Process is composed of the generally accepted behavioral components of attitude, intention, and behavior (Rickwood & Thomas, 2012). Time frame addresses the temporal component and must be clearly specified to provide context to mental health help-seeking research (Rickwood & Thomas, 2012; Fishbein & Ajzen, 2010). The source refers to where help is sought such as formal sources (e.g., mental health or health professionals), semi-formal (e.g., teachers, supervisors, coaches), informal sources (e.g., friends, family, and co-workers) or self-help. Type of help refers to the specific type of support that is desired such as instrumental (Caplan et al., 1975), informational (Caplan et al., 1975), affiliative support (Rickwood & Thomas, 2012), and emotional support (Barrera, 1986). Finally, concern refers to the specific type of mental health issue (Rickwood & Thomas, 2012). In the following section, I will discuss some antecedents to mental health help-seeking.

2.2 Antecedents of Mental Health Help-seeking

There are a number of predictors that are associated with increased levels of help-seeking. Kaskutas, Weisner, and Caetano (1996) found that age and gender are significant predictors of help-seeking. Specifically, women on average are more likely to seek help than men and younger adults are more likely to seek help than older adults (Kaskutas et al., 1996). Other studies have found that, education level, age, and income also contribute to help-seeking (Gourash, 1978). That is, those with higher education levels, higher income levels, and—consistent with Kaskutas et al. (1996)—younger people are all more likely to seek help (Gourash, 1978). Furthermore, Wu, Stewart, Huang, Prince, and Liu (2010) found that a strong

social support network increases help-seeking propensity. Some additional factors include having knowledge about mental health problem, cultural factors, and the fear of seeking mental health care. I will elaborate on these factors below.

Smith & Shochet (2011) demonstrated that knowledge of mental health problems, known as mental health literacy, can contribute positively to mental health help-seeking intention. However, the knowledge about the importance of seeking help for mental health problems was not significant in predicting mental health help-seeking intentions (Smith & Shocket, 2011). This finding is also consistent with research conducted by Demyan and Anderson (2012) that showed that the use of media intervention through a public service announcement on the importance of seeking mental health care was not significant in predicting mental health help-seeking intentions. However, it was significant in predicting help-seeking intentions in people that have sought mental health care in the past. The amount of confidentiality that a patient has when seeking mental health services also contributes to mental health help-seeking intention (Smith & Shocket, 2011). Another contributing factor that predicts the intention to seek mental health care is a person with a mental health problem being encouraged by someone else that has sought mental health care in the past (Vogel, Wade, Wester, Larson, & Hackler, 2007).

Cultural and ethnic factors can also influence mental health help-seeking. Asian Americans have been found to be less likely to seek mental health help for emotional distress in comparison to Anglo-Americans (Kim, Hwang, & Takeuchi, 2002). Kim et al. (2002) demonstrated that high levels of conflict within Asian American families were positively correlated with help-seeking for emotional distress. Cultural factors also influenced help-seeking in Hispanic Americans for alcohol abuse. In terms of the effect of culture and values on mental health help-seeking, Ramos-Sanchez & Atkinson (2009) considered the relationships between

Mexican acculturation, Mexican values, and their intention to seek mental health care. The results suggested that Mexican Americans that are highly acculturated to the United States are more likely to have a positive attitude toward seeking mental health services than Mexican Americans that are less acculturated to the United States.

Another factor negatively correlated with mental health help-seeking is the fear of treatment (Zartaloudi & Madianos, 2010). The fear of being treated can be caused by actual or perceived factors. Most helpers expect that help seekers will seek care out of need, but fail to realize the impact of fear (Zartaloudi & Madianos, 2010). Based on this fact, those that provide help must realize and appreciate the fear and discomfort that is associated with mental health seeking help and take steps to alleviate the fear (Zartaloudi & Madianos, 2010). Bohns and Flynn (2010) suggest that the underestimation of the fear and discomfort of those needing help by helpers contributes to lower levels of help seeking. There are four reasons why seeking help is frightening for most people. First, individuals must admit that there is a shortcoming in their life which they cannot control. Second, individuals must have the desire to share this shortcoming with another person. Third, individuals must allow the informed person to tell them what to do or allow the informed person to do it for them. Finally, individuals must be willing to change themselves in some way. Most often people who are in need of help but who are afraid of the treatment realize that they do need help, but often adapt to the situation or convince themselves that the problem is temporary or otherwise manageable (Keith-Lucas, 1972). Women, however, are often more likely to admit a mental health problem and will seek out the necessary care (Addis & Mahalik, 2003). Gender differences play a significant role in whether a person will seek mental health care or not. The following section will address the effects of gender differences and mental health help-seeking.

2.3 Gender and Mental Health Help-seeking

Research has demonstrated that there are differences between men and women in how they seek professional psychological help (Addis & Mahalik, 2003). These differences have been attributed to a number of factors. Research suggests that it is not the physiological difference between men and women that explains the differences in help-seeking patterns between men and women but the underlying components of attitudes (Addis & Mahalik, 2003). Even with this explanation of gender differences in help-seeking patterns, there are conflicting study results. A number of studies have demonstrated that women have more positive attitudes towards psychological help-seeking (Fisher & Farina, 1995; Leong & Zachar, 1999; Ang, Lim, & Tan, 2004) while other studies have reported no significant difference between help-seeking attitudes of men and women (Furnham & Andrew, 1999; Galdas, Cheater, & Marshall, 2005). In response to the conflicting findings of these studies, Nam, Chu, Lee, Lee, Kim, & Lee (2010) conducted a meta-analysis of 16 research studies with over 5,700 observations. Nam (2010) and her colleagues found that attitudinal differences between genders were, in fact, a significant predictor of psychological help-seeking and that women have more positive attitudes toward help-seeking than men.

Another study investigates gender related psychological help-seeking by other attitudinal predictors such as stoicism, alexithymia, and openness to experiences (Judd, Komiti, & Jackson, 2008). Stoicism is the general lack of emotional involvement or emotion, alexithymia is characterized by the inability to show feelings or social attachment, and openness is the appreciation willingness to have new experiences (Judd et al., 2008). In this study women were found to be less stoic and more open to experiences compared to men. However, there were no significant gender differences in the alexithymia predictor (Judd et al., 2008). Ang, Lim, & Tan (2004) and Galdas et al. (2005) reported that belief system differences that men and women are

socialized into may contribute to their differences in help-seeking patterns. Ang et al. (2004) and her colleagues considered the effects of the constructs of masculinity and femininity on psychological help-seeking attitudes. Masculinity and femininity were measured using the Singapore Androgyny Inventory scale, proposed by Ware (2000), which suggests that both masculinity and femininity represent independent clusters. Ware (2000) used concepts such as decisive, forceful, and powerful to operationalize masculinity while the researchers used concepts such as innocent, kind, loving, and soft-spoken to operationalize femininity. Study participants who scored high on the measure of femininity were found to have more positive attitudes towards seeking help. However, there was no significant impact of masculinity on help-seeking attitudes.

2.4 Mental Health Help-seeking in Women

Bennett et al. (2010) considered women's beliefs that would lead them to have intentions to seek help for depression from their obstetrician or gynecologist (OBGYN). The premise of this research was that since women interact with their OBGYN physician on a relatively consistent basis, they might consider seeking help for depression from their OBGYN physician. The key finding, using the Theory of Planned Behavior, was that most women would not seek help from an OBGYN for depression. Two reasons were given for this finding. First, women's believed that an OBGYN physician was not the proper provider to seek help for depression. Second, women felt that the OBGYN environment was not a good setting to receive care for depression. Hunter, Grunfeld, & Ramirez (2003) also used the theory of planned behavior to predict women's intention to seek help for breast cancer. The authors measured help-seeking intentions in a self-report questionnaire inquiring into the likelihood of a woman seeking help from a health care provider for a range of breast cancer symptoms (Hunter et al., 2003). Hunter

et al., (2003) found that the significant predictors were help-seeking attitudes and perceived behavioral control. Hunter et al. (2003) demonstrated that having a positive attitude towards the behavior was the most important predictor of intention to seek help for breast cancer.

2.5 Mental Health Help-seeking in Men

Addis and Mahalik (2003) argued that men experience barriers to medical treatment when the man requiring treatment feels that other men have negative attitudes towards the treatment process. This is particularly true when the person that requires medical treatment considers the general views of other men as very important (Addis & Mahalik, 2003). A qualitative study by O'Brien, Hunt, & Hart (2005) conducted interviews with men in Scotland varying in age and illness to determine their views of seeking medical help in the context of masculinity. The study concluded that men have a reluctance to seek help for health related issues. Furthermore, help-seeking behavior in men was reported to be contrary to masculine norms. Men with depression attributed their condition to an excessive amount of stress as opposed to admitting to the 'unmanly' condition of depression (O'Brien et al., 2005). Men with long term mental health issues tended to take extraordinary measures to conceal their illness. Additionally, respondents reported that men should be able to tolerate a certain amount of pain or discomfort when dealing with both medical and mental health problems. However, there was no agreement on what constituted an appropriate amount of pain or discomfort. However, the participants indicated that after enduring a certain level of symptoms, that the influence of their spouse would solidify their decision to seek care (Cusack, Deane, Wilson, & Ciarrochi, 2003; O'Brien et al., 2005). A retrospective study of men that sought psychological help found that over 90% of men reported that general practitioners and intimate partners were the sources that most significantly influence their decision to seek help for mental health (Cusack, Dean, & Ciarrochi, 2006). Furthermore, a

strong emotional bond with the mental health care provider was a key factor in predicting future help-seeking intentions in men (Cusack et al., 2006).

The sections above addressed the literature on the effect of gender differences on help-seeking. The decision not to seek help for mental health problems comes with a significant cost. The section below will address the costs associated with not seeking mental health care when required.

2.6 Help-seeking Cost

In addition to antecedents of help-seeking, the literature has investigated the costs associated with not seeking help (Keith-Lucas, 1972). Nadler (1991, 1997) conceptualizes this as the “help-seekers dilemma”. This dilemma is the struggle within an individual to balance the benefits of seeking help with its associated costs. In the case of help-seeking for mental healthcare, some of the benefits include improved problem solving (Nadler, 1991) and improved task performance (Nadler, Ellis, & Bar, 2003). Some significant costs associated with seeking mental health care are social such as being stigmatized and discriminated against (Espinoza, 2010) and emotional such as negative impacts to self-esteem (Corrigan, 2000), feelings of shame (Rüsch, Müller, Ajdacic-Gross, Rodgers, Corrigan, & Rössler, 2014; Corrigan, 2004), and a loss of self-efficacy (Corrigan, 2004). Research also has demonstrated that the costs include the loss of self-esteem, indebtedness to the helper, a feeling of inequity and or embarrassment (Anderson and Williams, 1996). Another finding was that the quality of the relationship between the individual helping and the person receiving help contributes significantly to the whether people seek help (Anderson & Williams, 1996; Hoffman, Lei, & Grant, 2009). This relationship is mediated by the perceptions of the costs of seeking help (Anderson & Williams, 1996). To help in overcoming the battle between the costs and benefits associated with seeking mental health care, the literature has outlined a number of help-seeking strategies designed to assist the person

requiring mental health care to seek out treatment. The following section will discuss help-seeking strategies.

2.7 Help-seeking Strategies

The literature identifies a number of useful help-seeking strategies. First, Asser (1978) proposes two help-seeking strategies known as negotiating and didactic. People who utilize a negotiating strategy assume the responsibility of finding a solution to their problem and seek knowledge to inform their problem. Negotiating help-seeking is finding help on one's own while, conversely, didactic help-seeking is focused on soliciting help from others.

Second, Nadler (1998) identified autonomous and dependent help-seeking strategies. An autonomous help-seeker is focused on finding help to become more independent while the dependent help-seeker searches for help to simply address the immediate problem or issue. The autonomous help-seeker has the intention of learning the methodology or process whereas the dependent help-seeker has no interest in learning the process.

Third, help-seeking strategies can be maladaptive or adaptive (Nadler, 1998). These two strategies refer to the intensity in which an individual seeks help. A maladaptive style describes an individual who seeks external help from others at a level that is beyond socially acceptable levels of help-seeking. This style is characterized by an unacceptable reliance on others for help. This usually implies that the individual seeking the help lacks self-confidence (Nadler, 1998). An adaptive form of help-seeking is consistent with seeking help within the accepted social norms within an individual's environment (Nadler, 1998).

Up until this point in the literature review, I have covered a broad topic base in terms of mental health help-seeking. The topics included help-seeking in general, mental health help seeking, the antecedents of mental health help-seeking, gender and help-seeking, as well as, the

strategies necessary to promote mental health help-seeking behavior. In the following section, I will turn to the focus of the dissertation—the military community. Specifically, I will review the literature on mental health help-seeking in a military population.

2.8 Mental Health Help-seeking in Military Service Members

In this section I will discuss the literature on mental health help-seeking in the military. First, I will discuss the attitudes and beliefs towards seeking mental health in the military. Second, I will discuss the factors that contribute to seeking mental health and the barriers to seeking care. Lastly, I will discuss the cross-cultural component of mental health help-seeking.

There are a number of attitudes and beliefs about seeking mental health care in the military. Attitudes and beliefs are critical in understanding help-seeking behavior (Fishbein & Ajzen, 2010). The foundational article on the effects of combat duty in Iraq and Afghanistan on mental health was published by Hoge et al. (2004). The researchers concluded that only 38-45 percent of the population that met the screening criteria for mental health disorder expressed interest in receiving help. What is more disturbing is that only 23-40 percent of this population indicated that they received mental health care in the past year. This statistic suggested that large populations of service members are not seeking the necessary care once they return from combat duty (Hoge et al., 2004). Furthermore, service members who met the criteria for a mental disorder were twice as likely as those members that did not meet the criteria to express concerns about mental health stigma and other barriers to care (Hoge et al, 2004). Research has also demonstrated that service members felt more comfortable discussing medical problems as opposed to psychological problems (Britt, 2000). For example, service members felt that admitting a mental health problem would be far more stigmatizing than admitting a physical medical condition. However, service members felt more uncomfortable discussing

psychological conditions in a group versus individually (Britt, 2000). Additionally, more than 50 percent felt that admitting a psychological problem would negatively impact their military career as well as how they would be perceived by their peers (Britt, 2000). Britt (2000) discovered that a perceived consequence of admitting a mental illness is that their peers would not view them as previously and would demonstrate segregating behavior. Specifically, approximately 50 percent of participants implied that they felt that fellow soldiers would distance themselves from soldiers with mental illness. Other studies assessed the various beliefs that military members internalize about seeking mental health care while serving in the military in a part-time status (Stecker, Fortney, Hamilton, & Ajzen, 2007; Stecker, Fortney, Hamilton, Sherbourne, & Ajzen, 2010). Many of the themes identified by full-time military members were also reported by part-time service members. For example, part-time service members often shared similar concerns about stigma, negative consequences (Stecker et al., 2007), and concerns about their careers (Stecker et al., 2010). The part time military members also expressed concerns in regards to topics such as proper access to care and the perception of the negative impact of the administration of mental health medications (Schaffer, Crabtree, Bennett, McNally, & Okel, 2011). Many of these beliefs also extended to the special warfare community. Espinoza (2010) reviewed the attitudes and norms toward help-seeking in the military Special Forces community. Results concluded that the Special Forces members demonstrated higher levels of Post-Traumatic Stress Disorder (PTSD) as opposed to the general population. In addition, Espinoza (2010) also assessed possible barriers to care and the individual's decision on whether to seek care as opposed to refraining from care. Those service members that did not seek care were asked about their fear of potential consequences for seeking mental health care. A significant correlation was found among Special Forces soldiers that sought mental health care for PTSD with the perceived possible

consequences of ostracism, fear of losing their job, perception of being perceived as weak or as a coward (Espinoza, 2010). Furthermore, a study by Chapman, Elnitsky, Pitts, Figley, Thurman, & Unwin (2014) questioned if health care providers deployed in a combat setting would be more or less likely to seek help for mental health care than providers that have not served in a combat setting. The results of the study found that health care providers serving in a combat zone were more likely to seek help for mental health related problems (Chapman et al., 2014).

There are also a number of factors that exacerbate the likelihood of facing either barriers or facilitators of mental health help-seeking in the military. Zinzow et al. (2013) explored some of these factors within a population of military service members. The qualitative study sought to identify the perceptions of service members regarding the topic of seeking help for mental health treatment. The study used open ended questionnaires to gain an understanding of predisposing, enabling, and need factors associated with seeking help for mental health care (Zinzow et al., 2013). The researchers provided the questionnaire to two sample groups. The first group was a general sample of military personnel while the second group included a sample of military personnel that had sought help for mental health care problems (Zinzow et al., 2013). The researchers found that many of the beliefs and barriers experienced were similar to those factors reported in previous research including such topics as stigma and career concerns. However, the researchers also identified a number of additional beliefs not identified in the literature. These beliefs included the assumption that leaders consider soldiers that seek help for mental health conditions as malingerers. Additionally, military members foster the perception that leaders lack the appropriate knowledge of the symptoms and signs of mental illness and face concerns that leaders and peers will not keep the mental illness status of subordinates confidential (Zinzow et al., 2013). Lastly, military members were concerned that peers would not be supportive of a

service member with a mental health problem (Zinzow et al., 2013). Facilitators of mental health help-seeking behavior included positive leadership behavior and encouragement from social networks (Zartaloudi & Madianos, 2010). The most important factor that contributed to mental health help-seeking behavior was the support of peers and family members. Factors that enabled mental health help-seeking behavior included access to care, scheduling flexibility, leadership support, and social and family support (Zinzow et al., 2013).

Many of the belief systems regarding mental health care are shared in other military populations across the globe. These negative perceptions are also cross cultural. Studies of help-seeking among military service members from the Canadian military demonstrated similar barriers to help-seeking for mental health problems as those demonstrated in U.S. military studies (Sudom, Zamorski, & Garber, 2012). Military service members in the Canadian military forces were concerned with the stigma associated with seeking mental health care, discrimination, structural barriers to care, and negative attitudes within the Canadian military towards seeking mental health care (Sudom et al., 2012). Furthermore, in help-seeking studies in Australia, military veterans also reported relationship difficulties, anxiety, and depression (Bayer & Peay, 1997).

ORGANIZATIONAL CLIMATE

The study of organizational climate is critical for leaders as it provides a critical insight regarding how leadership, organizational procedures, social interactions, and practices affect individual behavior (Litwin & Stringer, 1968). The management of individual behavior can be accomplished directly with the employee or indirectly through motivating the employee through the climate of the work environment (Litwin & Stringer, 1968). In the seminal work *Motivation and Organizational Climate*, George H. Litwin (1968) proposed the concept of organizational

climate. Organizational climate “describes a set of cluster of expectancies and incentives and represents, we propose, a property of environments that is perceived directly or indirectly by the individual in the environment” (Litwin, 1968, p.29). The study of climate in organizations is essential to studying the determinants of behavior (Litwin & Stringer, 1968). Recent research on organizational climate included the safety climate of New York City fire departments post 911 (Bacharach & Bamberger, 2007), leadership and coworker support climate for lesbians, gay, and bisexuals (Ragins, Singh, & Cornwell, 2007), and leadership support climate in the military (Bliese & Castro, 2000). The original six dimensions of organizational climate proposed by Litwin and Stringer (1968) are structure, responsibility, risk, reward, warmth and support, and conflict. The structural component captures the employee’s perception of the rules, regulations, procedures, and constraints within the working environment. Responsibility represents the amount of individual responsibility or workplace autonomy maintained by members of the organization. The risk dimension accounts for the amount of risk or challenge associated with the working environment. Reward speaks to the organizations emphasis on rewards as opposed to punishments. The warmth and support dimension addresses the amount of help, cooperation, and fellowship that exists within the organization. Lastly, the feeling within the organization that organizational leaders are willing to settle differences within the workplace in an expedient manner or in a manner that is amenable to differing opinions is captured in the dimension conflict (Litwin & Stringer, 1968).

Litwin and Stringer (1968) later adapted the measure to include nine dimensions instead of the original 6 dimensions. The expanded measure separated warmth and support into two separate individual constructs and added the construct of identity and standards. Warmth and support were separated to reduce overlap and increase the independent validity of the two

measures. Furthermore, warmth is an indicator of friendliness while support is more indicative of task related support and the experience of encouragement by employees (Litwin & Stringer, 1968). The concept of standards was included to capture organizational focus on the emphasis that leadership placed on achieving high standards with organizational outcomes. Identity was included as a concept that focuses on an employee's feeling of belonging and participation within the organization (Litwin & Stringer, 1968). This study will consider only leadership support climate and coworker support climate in this dissertation. There are two reasons that are driving this decision. First, each of the dimensions of Organizational climate is a literature unto itself and would significantly broaden the scope of this dissertation as each dimension has its own literature. Second, the results of a study conducted by military researcher tasked to gain a better understanding of the phenomena of mental health care in the military found that the environment that leaders set and social factors in military organizations have an effect on improving unit cohesion and appear to lessen combat stress (MHAT, 2008). This study make recommendations that leadership and social factors need to be further explored in gaining a better understanding of soldiers being more resilient and gaining a better hold on mental health problems in the military (MHAT, 2008).

2.9 Organizational Climate in Promotion of Mental Health Care

There are many contextual factors that exist within a mental health care setting. These contextual factors include the influence of climate on such things as the provision of mental health care, provider mental health status, and the outcome of mental health services.

In the provision of mental health care a number of studies considered the effects of organizational climate in clinical work environments, academic settings, and in neighborhood community outreach services. In a study of the organizational climate of case management

teams in child welfare systems, case managers that were members of teams with supportive climates that espoused positive interpersonal relationships reported lower levels of work exhaustion, conflict, and provided more appropriate care (Glisson, Dukes, & Green, 2006). On the contrary, health care case management teams with poor team climates demonstrated more episodes of depression and anxiety disorders among personnel in a work environment (Sinokki, Hinkka, Ahola, Koskinen, Klaukka, & Kivimäki, 2009; Wright, Linde, Rau, Gayman, & Viggiano, 2008). In an academic environment, the positive climate within the classroom was associated with decreases in emotional and behavioral problems in students (Somersalo, Solantaus, & Almqvist, 2001). Research has also demonstrated that the social environment of a neighborhood community can have a positive effect of psychological well-being (Brown, Mason, Spokane, Cruza-Guet, Lopez, & Szapocznik, 2009)

The overall climate of a patient mental health ward is associated with higher patient satisfaction and outcomes for mental health patients (Dickens, Suesse, Snyman, & Picchioni, 2014). Organizational climate factors such as high levels of patient involvement, well directed goals and tasks, improved client comfort levels, and innovation treatment regiments contributed highly to mental health clinical outcomes (Larrison, Schoppelrey, Hadley-Ives, & Ackerson, 2008). In many cases, leadership is a key factor that drives organizational climate while transactional leadership has been shown to impact of quality of care and clinical outcomes in a mental health care setting (Green, Albanese, Cafri, & Aarons, 2012). The empirical evidence presented supports that leaders in health care environments can improve health care outcomes through effecting climate.

2.10 Organizational Climate and Employee Mental Health

The literature is robust in the domain of organizational climate's effect on the mental health of employees providing mental health services. In a number of studies it was found that a positive organizational climate was associated with lower levels of anxiety, burnout, and depression (Tummers, Steijn, & Vijverberg, 2014; & Bronkhorst, 2014) and increased innovation (Aarons & Sawitzky, 2006). Furthermore, in a comprehensive review of the literature by Tummer et al. (2014), positive interaction among employees within a health care setting also had a positive effect on the minimization of the stressors associated with providing mental health services. Lastly, a social climate among peers that provided mental health services was associated with higher employee satisfaction (Brady, Kinnaird, & Friedrich, 1980).

The provision of mental health services is a highly stressful occupation for health care providers. Subsequently, this high level of stress can result in high levels of employee turnover. Organizational climate has been found to be a significant predictor of staff turnover (Glisson et al., 2008; & Aarons & Sawitzky, 2006). For example, organizations with positive organizational climates experienced lower levels of employee turnover than those organizations with high negative climates (Glisson et al., 2008). Subsequently, in a study on military personnel returning from a deployments from Iraq and Afghanistan, service members reporting high levels of support climate were less likely to depart the military (Wright, Kim, Wilk, & Thomas, 2012). However, on the contrary, service members that reported mental health symptoms were also more likely to leave military service (Wright et al., 2012). In a similar manner, climate not only has an effect on employee turnover in the provision of mental health services, but also plays a role in the ability of those with mental health problems to remain employed. Research conducted by Kirsh (1999) considered the impact of climate in the workplace and its effect on those with mental health conditions ability remaining employed. The research found that it is critical that the

values of the organization and the values of the person with a mental health condition are in alignment. These respective findings have thus suggested that positive climate factors can impact the provision of mental health care services as well as the mental health status of those that provide mental health care services. The literature presented provides a valuable insight for those that provide health care services or those that have sought mental health treatment. However, further investigation is required to identify climate factors that contribute to and encourage those with mental health issues to seek mental health care. The concept of support is one of the nine components of organizational climate and will be explored through the constructs of leadership support climate and coworker support climate.

2.11 Leadership Support Climate

The first climate dimension that will be addressed in this dissertation is leadership support climate. Leadership support climate is the perception or belief by subordinates that “he[she] is cared for and loved, esteemed...” by superiors “...and a member of a network of mutual obligations” (Cobb, 1976, p.300). Organizations with strong leadership support climates are shown to have better organizational outcomes and are more successful at achieving their goals than organizations with weaker climates (Walter & Bruch, 2010). The climate dimension reiterates the process of how the behavior of an organizational leader affects the various environmental factors. The leadership support climate is a key component as leadership has an effect on both the performance of individuals as well as the groups within an organization.

2.12 Coworker Support Climate

Coworker support climate is the perception or belief by coworker that “he [she] is cared for and loved, esteemed...” by other coworkers “...and a member of a network of mutual obligations” (Cobb, 1976, p.300). Bacharach, Bamberger, and Vashdi (2005) demonstrated that

coworker support climate in racially diverse organizations plays a significant role in developing supportive relationships among racially and sexually diverse coworkers. Additionally, organizational members are more willing to discuss problems when there is a supportive coworker climate within the organization (Bennett, Lehman, & Reynolds, 2000). A strong support climate towards help-seeking for mental health care may lessen the perceived costs associated with seeking care often associated with military units.

2.13 Military Climate and Warrior Ethos

The world view of military members has been suggested to contribute to service members not seeking mental health care (Weiss, Coll, & Metal, 2011). Specifically, the Warrior Ethos and military values within the army are identified as contributing factors (Weiss et al., 2011). The Warrior Ethos and the Army Values are two codes that serve to guide the behavior of all soldiers (The Soldier's Manual, 2004). The Warrior Ethos is described as "the will to win" (The Soldier's Manual, p.1-11, 2004). The Warrior Ethos is the individual and collective quality of all military service members and describes the mentality that drives military members not to quit until the mission is accomplished. It compels soldiers to fight through all conditions to victory, no matter how long it takes and no matter how much effort is required. The Warrior Ethos is also the attitude that is instilled into soldiers to fulfill their obligations irrespective of obstacles (The Soldier's Manual, 2004). The Warrior Ethos fosters the attitude to never accept failure and to overcome adversity in all situations (The Soldier's Manual, 2004). The Warrior Ethos is echoed among many universally and regarded in the military as, "...I will always place the mission first... I will never accept defeat.... I will never quit...I am disciplined, physically and mentally tough..." (The Soldier's Manual, 2004). In total, the Warrior ethos provides every soldier the will to win. It also applies to situations of emotional stress and extreme conditions.

The Warrior Ethos “fuels the fire to fight through the worst of conditions to victory no matter how long it takes, no matter how much effort is required” (The Soldier’s Manual, p.1-4, 2004). The U.S. Army and other military organizations are guided by values (The Soldier’s Manual, 2004). These values are explicitly identified as loyalty, duty, respect selfless service, honor, integrity, and personal courage (The Soldier’s Manual, 2004). The Army values explicitly tell a soldier who they should be and the values serve as guide for moral decision making (The Soldier’s Manual, p.1-7, 2004). The warrior ethos and military values work together to contribute to culture and climate within military organizations (Weiss et al., 2011).

THEORY OF REASONED ACTION AND PLANNED BEHAVIOR

Over the last three decades the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) have been used to predict and explain behavior in a variety of disciplines. TPB seeks to explain and predict human intentions and ultimately behaviors (Fishbein & Ajzen, 2010). TPB is a well-supported theory and has been used to explain the intention for parent to use of car infant seats (Nelson, Modeste, Hopp, Marshak, & Hopp, 2015), anti-doping behaviors in elite athletes (Chan, Hardcastle, Dimmock, Lentillon-Kaestner, Donovan, & Burgin (2015), substance abuse treatment (Roberto, Shafer, & Marmo, 2014), excessive drinking in college students (Collins & Karey, 2007), changes in health behavior (Sheeran, Conner & Norman, 2001) and physical activity training (Cavallo, Brown, Tate, DeVellis, Zimmer, & Ammerman (2014).

The TPB (Fishbein & Ajzen, 1991) proposes that a person’s behavior is determined by their intention to perform a behavior. Furthermore, the TPB proposes that intention is driven by the attitudes, subjective norms, and perceived behavioral control that individuals have toward a behavior. Attitudes are defined as positive or negative feelings towards a specific behavior

(Fishbein & Ajzen, 1991; Fishbein & Ajzen, 2010). Subjective norms describe a person's perception of the beliefs of important others within his or her environment towards a specific behavior (Fishbein & Ajzen, 1991; Fishbein & Ajzen, 2010). Lastly, perceived behavioral control represents an individual's perceived ability to perform a behavior (Fishbein & Ajzen, 1991; Fishbein & Ajzen, 2010). Fishbein and Ajzen (2010) state that it is the combination of attitudes, subjective norms, and perceived behavioral control that form the intention to perform a behavior.

There is substantial quantitative support—through meta-analysis—for the use of the TRA and TPB as models for predicting behavior (Armitage & Conner, 2001). Mo and Mak (2009) used the theory of planned behavior to explain mental health help-seeking in a non-military Chinese population. In their study, attitudes, subjective norms and perceived behavioral control were shown to predict help-seeking intention. Additionally to conduct this study, Mo and Mak (2009) used the formulation developed by Ajzen (1991) to develop measures for mental health help-seeking intention. Similarly, Britt, Bennett, Crabtree, Haugh, Oliver, McFadden, & Pury, (2011) applied TPB to the problem of mental health help-seeking behavior in reserve component military members in the Army, Navy, and Marine Corps. Reserve component military members are part-time service members that train on a periodic basis and are activated to full-time status by the Department of defense when reserve forces are required. However, Britt et al., (2011) utilized a modified formulation of the TPB that did not include intention within the model, which is a critical component in the TPB. The military members that participated in this study had recently returned from deployment to combat areas in support of the global war on terrorism. The study measured the attitudes, subjective norms, and perceived behavioral control in predicting treatment seeking for mental health problems. However, as previously stated, the

study did not measure the critical TPB construct of intention. That is, attitudes, subjective norms, and perceived behavioral control were used as direct predictors of treatment seeking. The authors cited that intention was not measured in the study because “it [intention] could not be assessed at a time point meaningful for the entire sample” of participants in the study (Britt et al., 2011, p.85). The findings of this study revealed that attitude was the only TPB construct that predicted treatment seeking in the military service members. Subjective norms and perceived behavioral control were not found to explain significant variance in treatment seeking. The proper utilization of TPB requires that intention mediate the relationships between attitudes, subjective norms, perceived behavioral control and the behavior (Fishbein & Ajzen, 2010). This finding runs counter to the findings of Mo and Mak (2008) and may result from Britt et al. (2011) not including the construct of intention. The remainder of this section will proceed by first discussing the TRA and then discussing its evolution into the TPB.

The development of the Theory of Reasoned Action arose from the necessity to explain and predict behavior. Prior to the formulation of the TRA, attitudes alone were believed to predict behavior. However, much of the empirical research conducted on attitudes and their effects on behavior was mixed and inconclusive (Fishbein & Ajzen, 2010). The goal of Fishbein (1975) in developing the TRA was to establish a model in which attitudes would consistently predict behavior. The Theory of Reasoned Action seeks to explain and predict behavior through two antecedents and a mediator. These antecedents are (a) attitudes and (b) subjective norms and the mediator is (c) intention (Fishbein, 1975). For a diagram of TRA, see Figure 2.1. This formulation was novel in that it proposed that attitudes alone would not consistently predict behavior. Fishbein (1975) proposed that attitudes could only predict behavior through the construct of intention. The antecedents

identified in the TRA are discussed below.

Attitude is defined as “a person’s favorable or unfavorable evaluation of an object” (Fishbein, 1975, p.12). Attitude consists of the three distinct components of affect, cognition, and conation (Fishbein, 1975). Affect refers to the general mood that arouses emotions such as fear, pride, or anger (Fishbein & Ajzen, 2010). Cognition refers to beliefs about a behavior, and conation refers to how attitude affects the behavior towards an object (Fishbein & Ajzen, 2010).

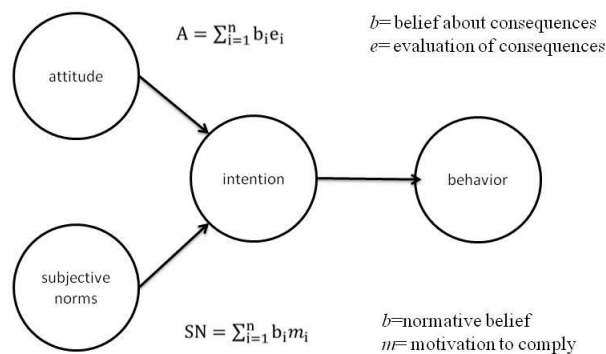


Figure 2.1 Theory of Reasoned Action

Subjective norms capture the impact of the social environment. Subjective norm “is the person’s perception that most people who are important to him (or her) think he (or she) should or should not perform the behavior in question” (Fishbein, 1975, p.302). Therefore, in general, subjective norms describe perceived social pressures to conduct a behavior.

Finally, intention is “a person’s readiness to engage in a behavior” (Fishben & Ajzen, 2010, p.43). Intention is the primary antecedent predicting behavior and the antecedents to intention are attitude and subjective norms. A person must have the intention to perform a behavior before performing the behavior.

The first concept of the TRA is attitude. Attitudes are “a person’s favorable or

unfavorable evaluation of an object” and are a function of individual beliefs about objects, actions, and events (Fishbein, 1975). These beliefs can be driven by personal observations or observations provided to the individual by others. Throughout life some of these beliefs become accepted by the individual and other beliefs may dissipate and new beliefs are formed. People can have a number of beliefs about objects, actions, and events; however, a relatively small number of these beliefs drive that person’s attitude. Fishbein (1975, p.73) writes under most circumstances that “a person’s attitude toward an object is primarily determined by no more than five to nine beliefs about the object”, action, or event. These five to nine beliefs are labeled as salient beliefs. It is factual that people with similar beliefs may have different attitudes; similarly, people with similar attitudes may have different beliefs. These differences can be attributed to both the salience of the belief and the strength of the belief. Salience can be determined by examining the hierarchy of the beliefs that they hold about objects, actions, or events. Strength of the beliefs is how much weight is attributed to a belief.

Subjective norms capture the social pressures within an individual’s environment and are determined by the perceived expectations of referent persons or groups and the amount of influence they have on the individual (Fishbein, 1975). Normative belief is a person’s belief that another individual or group desires him or her to behave in a specific manner in response to objects, actions, or events. The motivation to comply represents the individual’s desire to comply with the beliefs of the individual or group that desires a specific behavior (Fishbein, 1975). The concept of subjective norms is quantified as being proportionally related to the product of normative beliefs and an individual’s motivation to comply with normative pressures.

2.14 Intentions

Attitudes and subjective norms are antecedents to intentions. Intention is the personal motivation or the effort that people are willing to put forth to perform a particular behavior (Fishbein, 1975, p.12). This intention can be either strong or weak. A strong intention is represented by a high subjective probability that an individual will perform a behavior; conversely, a weak intention is represented by a low probability (Fishbein, 1975). The intention has a direct effect on a person's behavior (Fishbein, 1975). Intention is the critical mediating factor that links attitudes to behavior (Fishbein, 1975).

2.15 Perceived Behavioral Control and the Theory of Planned Behavior

In a critical review of the theory of reasoned action, Liska (1984) suggested performance of a behavior requires resources and opportunity. As a result, to account for the non-volitional behaviors, the theory of reasoned action was modified to include the additional construct of perceived behavioral control. The incorporation of this new construct resulted in the theory being renamed to the TPB (see Figure 2.2).

Fishbein and Ajzen (2010, p 64.) defines perceived behavioral control as “people's perceptions of the degree to which they are capable of, or have control over, performing a given behavior”. Perceived behavioral control addresses the level of ease or difficulty to perform a specific behavior. The value of perceived behavioral control also increases with the removal of barriers or obstacles in performing a particular behavior. Perceived behavioral control can be based on either past personal experience of performing the behavior or the experiences of others in performing a behavior (Ajzen, 1991). Perceived behavioral control is only a factor in the model when people vary on the amount of control that they have over a behavior. When there is a consistent degree of control by all people performing a behavior,

intention is sufficient to predict behavior. Although we cannot determine all of the factors that constitute actual control, it is reasonable to assume that an individual's perception of control is a reflection of their actual control.

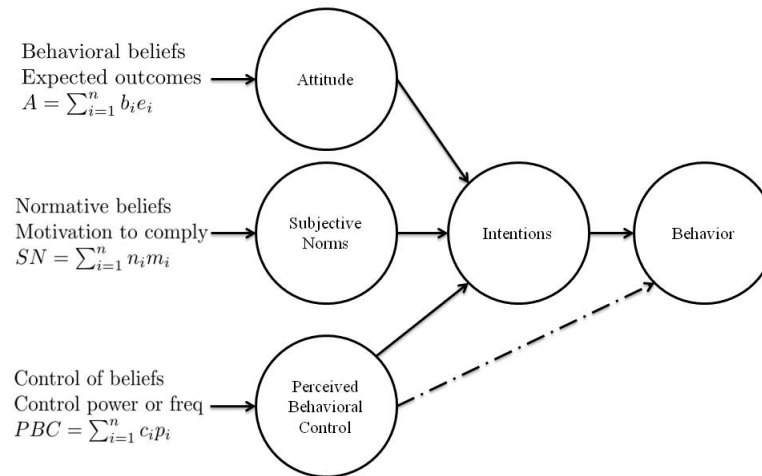


Figure 2.2 Theory of Planned Behavior

The concept of perceived behavioral control is quantified through control factors and power. Perceived behavioral control is based on the belief of the amount of resources and opportunities that are available to an individual. These resources and opportunities contribute to the ease or difficulty in performing a behavior (Ajzen, 1991; Fishbein & Ajzen, 2010). The ease or difficulty is expressed through the amount of power and control a person has over the behavior. Control indicates the belief that an external factor outside the control of the individual may be present or absent and affects the person's ability to perform the behavior. Power is within the person's influence and refers to the individual ability to affect the particular behavior. For example, a control factor in seeking mental health care may be the availability of an appointment in the hospital. Power can be the ability of the person to get transportation to the

appointment.

2.16 Sufficiency of the Theory of Planned Behavior

Fishbein and Ajzen (2010) make the assumption that all constructs that influence behavior in some form work through the three predictors of intention (i.e. attitude, subjective norms, and perceived behavioral control) within the Theory of Planned Behavior. This is known as the sufficiency assumption. Furthermore, Fishbein and Ajzen (2010) state that any variable not contained in the theory of planned behavior that affect intention should be mediated by attitudes, subjective norms, and perceived behavioral control.

CHAPTER 3: HYPOTHESIS DEVELOPMENT

The purpose of this dissertation is twofold. First, this dissertation seeks to examine the effects of attitudes, subjective norms, and perceived behavioral control on mental health help-seeking intentions in U.S. army service members. Secondly, this dissertation will explore the mediating effects of leadership support climate and coworker support climate in the Theory of Planned Behavior (TPB) model. Illustrations of the relationships that will be tested are diagramed in Figure 3.3 below. I will begin by discussing the development of the hypothesized relationships using the TPB.

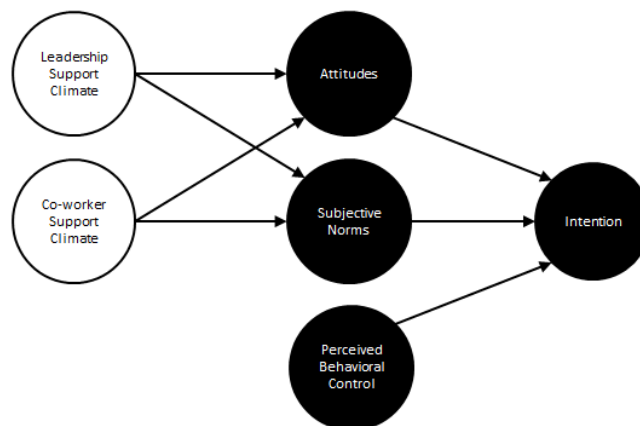


Figure 3.3 Theory of Planned Behavior and Climate Constructs

The TPB is a framework that has been used and empirically tested over the last two and a half decades (Fishbein & Ajzen, 2010). The relative contribution of attitude, subjective norms, and perceived behavioral control on intentions varies depending on the population, the individual, and the type of behavior that is evaluated (Fishbein & Ajzen, 2010). For example, one particular population may be affected more by attitudes than subjective norms in predicting behavior X; while another population may be affected more by subjective norms rather than attitudes in predicting the same behavior (Fishbein & Ajzen, 2010). Fishbein and Ajzen

(2010) proposed that attitudes are “a person’s favorable or unfavorable evaluation of an object” (p.75). The theory of planned behavior proposed that attitudes toward a behavior are based on positive or negative beliefs about the consequences of performing a particular behavior (Ajzen, 1991). The literature demonstrated that service members hold negative beliefs about the perceived consequences of seeking help for mental health care (Espinoza, 2010; Hoge et al., 2004; & Britt, 2000). These perceived consequences are the loss of security clearances, missed job opportunities, and failure to receive promotions (Britt, 2000; Espinoza, 2010). Service members also believe that seeking help for mental health care will result in the service member being perceived as weak by their peers and leaders (Espinoza, 2010, Hoge et al., 2004; & Britt, 2000). Therefore, consistent with the TPB, I expect mental health help seeking attitudes of military service members to be positively related to their mental health help-seeking intention. This is because soldiers with negative attitudes toward seeking mental health care link seeking help for mental health care to negative outcomes associated with receiving help for that care. Thus, individuals with negative attitudes about a behavior are less likely to have intentions to perform the behavior because they will want to avoid these negative outcomes. Similarly, individuals with positive attitudes towards a behavior associate positive outcomes with seeking help for mental health care. This will result in those with positive attitudes being more likely to have intentions to seek help for mental health care. Therefore, I propose the following hypothesis:

Hypothesis 1: Attitudes toward mental health help-seeking are positively related to mental health help-seeking intention.

The social environment has an effect on the behaviors of individuals (Fishbein & Ajzen, 2010). In the TPB, subjective norms capture the social environmental factors

associated with predicting intentions. The subjective norms toward a behavior are formed by an individual's beliefs about whether important others would approve or disapprove of the performance of a behavior, as well as, the individual's motivation to comply with the desires of important others (Fishbein & Ajzen, 2010). The norms and values of the military require that service members comply with the rules, regulations and orders in their environment. Failure to conform to the norms, values, and orders given in a military environment can result in severe punishment or even death of colleagues in a combat environment. Additionally, service members that conform to the norms and values in the military stand a better chance of promotion and acceptance by peers. Therefore, conforming to organizational norms and values is beneficial for service members. In terms of mental health care, if it is believed that others within the organization feel that those that seek mental health care are weak or will be discriminated against, the social pressure discourage soldiers from having intentions to seek mental health care. Therefore, I propose the following hypothesis:

Hypothesis 2: Mental health help-seeking subjective norms are positively related to mental health help-seeking intentions

Perceived Behavioral Control is an individual's perception of the amount of influence that he or she possesses over performing a behavior (Fishbein & Ajzen, 2010). Perceived Behavioral Control is based on the premise that personal difference in the perception of the amount of control someone possesses is important in understanding a person's behaviors (Fishbein & Ajzen, 2010). Perceived Behavioral Control is rooted in personal confidence, determination, willpower, and perceived ability (Fishbein & Ajzen, 2010). Therefore, service members with perceived ability, determination, confidence, and the requisite resources should have a stronger intention to perform a behavior. However, if individuals do not perceive that they

have control or the ability to influence the performance of behavior, there will not be a strong intention formed (Fishbein & Ajzen, 2010). The literature has demonstrated through qualitative methods that some service members feel that they are unable to get time off from work to seek help, as well, as they feel that they do not know where to seek help. This suggests that control factors can have an influence on whether a service member seeks help for mental health problems. Therefore, I propose the following hypothesis:

Hypothesis 3: Mental health help-seeking perceived behavioral control is positively related to mental health help-seeking intention.

Leadership support climate and coworker support climate can affect attitudes of individuals within an organization. Attitudes are determined by assessing positive or negative beliefs about an outcome, attribute, or consequence of a behavior (Fishbein & Ajzen, 2010). Leaders within an organization are required to make decisions that drive the environment within an organization. These leadership decisions affect outcomes, attributes, or consequence associated with performing a particular behavior within an organization. The ability of these leaders to influence and drive these factors will affect the attitude that an individual has towards a particular behavior. For example, we have established that there is a perception that seeking help for mental health care can negatively affect a soldier's ability to advance to key positions for promotion. If a leader sets a policy that hinders or forbids this type of negative consequence—consistent with the TPB—the attitudes of those requiring care will be effected. That is, soldiers should be more likely to seek help for mental problems. Similarly, coworkers can also affect the outcome, attribute, or consequences associated with performing a behavior within an organization. For example, the literature has demonstrated that service members perceive that they will be shunned by their coworkers if they seek help for mental health

problems. If the individual that requires mental health care perceives that there is not a negative consequence from coworkers for seeking mental health care, this too will affect the individual's attitude requiring mental health care. Therefore, based on the above, I propose the following hypotheses:

Hypothesis 4a: Attitudes toward mental health help-seeking mediate the relationship between leadership support climate and mental health help-seeking intention.

Hypothesis 4b: Attitudes toward mental health help-seeking mediate the relationship between coworker support climate and mental health help-seeking intention.

The concept of subjective norms will now be considered in the context of organizational climate. Subjective norms describe a person's perception of the beliefs of important others within his or her environment towards a specific behavior (Fishbein & Ajzen, 2010). Thus, the concept of subjective norms in the TPB describes the social pressure within an environment by significant others to perform a particular behavior (Fishbein & Ajzen, 2010). Subjective norms are driven by the service members' beliefs or personal observations regarding what others feel or what other as it pertains to a behavior. Social pressure can be driven by the leadership or coworkers within organizations (Eisenberger, Falsolo, & Davis, 1986). Additionally, leaders and coworkers can represent important others in a service members lives. The literature has demonstrated that service members are concerned about the perceptions of both organizational leaders and coworkers in their decision to seek out mental health care. Hoge et al. (2004) indicated that service members are consistently concerned about the perceived beliefs of fellow

soldiers and leaders regarding their weakness or inability to handle the stress of combat; should they choose to seek mental health care. Furthermore, the Warrior Ethos affirms that a service member should never quit and should never accept defeat by an enemy or the plausible defeat suggested by a mental health condition. These are all normative organizational climate factors that affect the service member's subjective norms and ultimately their intention to seek mental health care. This leads me to propose the following two hypotheses.

Hypothesis 5a: Subjective norms toward mental health help-seeking mediate the relationship between leadership support climate and mental health help-seeking intention

Hypothesis 5b: Subjective norms toward mental health help-seeking mediate the relationship between coworker support climate and mental health help-seeking intention

In conclusion, this chapter served to link the problem of service members not seeking mental health care services; to the theoretical framework of the theory of planned behavior and the concepts of leadership support climate and coworker support climate. I also utilized the evidence in the literature review on the TPB and organizational support climate to hypothesize potential relationships between the various TPB constructs. In the following chapter, I will discuss the methodology for testing these hypotheses.

CHAPTER 4: METHODOLOGY

4.1 Participants and Procedures

The Institutional Review Boards (IRB) approval was gained from the University of Texas at El Paso and the Army Medical Department prior to the start of data collection. The participants were service members in the Army Medical Department Center & School (AMEDDC&S) and in the Basic Non-commissioned Officers Course (BNOC) at Fort Sam Houston, Texas. All the participants work in the health care field from a variety of disciplines. Fort Sam Houston is the home of military medicine and is a training and educational center of excellence for the military. The AMEDDC&S and BNOC were selected because service members from around the globe come to these two programs to further their military education. Furthermore, choosing these two programs provides a balance of both officers and enlisted personnel to participate in this dissertation. This provide a unique opportunity to get survey data from military service members that serve in a variety of military units and a variety of locations across the globe .The service members that participated in this research were provided with background information on the importance and relevance of this dissertation. Additionally, they were informed that they were not required to participate. Neither the names nor any personal identifying information was collected from participants. The record of informed consent was gained electronically using the Qualtric survey tool. All electronic data was stored in a password protected electronic database. Upon completion of the consent form, the military member was directed to an electronic questionnaire. No compensation was provided to any of the participants.

4.2 Measures

Mental Health Help-seeking Intentions—Mental health help-seeking intentions was measured using a modification of the 3-items proposed by Mo & Mak (2009) using a 5-point Likert scale. I

modified the items proposed by Mo and Mak (2009) by prefacing their question with “If I had a mental health problem”. Additionally, I added the context component of being on active duty in the military. The remaining TPB constructs were measured using the same convention. A sample item that was used for is dissertation was, “If I had a mental health problem, I would intend to seek mental health services while on active duty in the military.” In this question the lowest score of 1 = definitely would not and the highest score of 5 = definitely would. The reliability of the mental health help-seeking intention used by Mo & Mak (2009) was 0.97. A complete list of items for this measure can be found in Appendix B. Additionally, a list of the Mo and Mak (2009) items can be found at Appendix G.

Attitudes towards Seeking Mental Health Care—Attitudes towards seeking mental health care were assessed using 4 items used by Mo and Mak (2009). These items were based on the guidelines identified by Fishbein and Ajzen (2010) and Ajzen (2006). The modified items were measured using a 5-point Likert scale (Fishbein & Ajzen, 2010; Ajzen, 2006). For the first question that measures attitudes toward seeking mental health care, participants were asked, “If I had a mental health problem, my seeking help while on active duty while in the army would be”. In this question the lowest score was 1 = very bad and the highest score was 5 = very good. There are 3 other measures that ask questions to the respondents that are on a 5 point Likert scale where the anchors are 1 = very unpleasant to 5 = pleasant, 1 = very harmful to 5 = very beneficial, and 1 = useless to 5 = useful. The reliability of the attitudes toward mental health help-seeking items used by Mo & Mak (2009) was 0.84. A complete list of items for the attitudes toward seeking mental health care can be found in Appendix B.

Subjective Norms towards Seeking Mental Health Care—Subjective norms towards seeking mental health care were assessed using 3-items that were modified from research conducted by Mo and Mak (2009) and was measured using a 5 point Likert scale. These items were slightly modified as previously indicated. A sample item that this dissertation used was, “If I had a mental health problem, most people who are important to me would think that I should seek help”. In this question the lowest score was 1 = totally disagree and the highest score was 5 = totally agree. Another example of an item used in the dissertation was, “If I had a mental health problem, most people that I respect and admire would seek help for a mental health problem”. For this question the lowest score was 1 = very unlikely and the highest score was 5 = very likely. The reliability of the attitudes toward mental health help-seeking items was 0.84 (Mo & Mak, 2009). A complete list of items for the attitudes toward seeking mental health care can be found in Appendix B.

Perceived Behavioral Control towards Seeking Mental Health Care—Perceived Behavioral Control towards seeking mental health care were assessed using a 3-item scale that was modified from the items developed by Mo and Mak (2009). The items were measured using a 5 point Likert scale. A sample item used in this dissertation was “If I had a mental health problem, I think I can decide whether to seek service or not”. In this question the lowest score was 1 = totally disagree and the highest score was 5 = totally agree. A complete list of items for the attitudes toward seeking mental health care can be found in Appendix B. The reliability of perceived behavioral control of seeking help for mental health care was 0.77 (Mo & Mak, 2009).

Leadership support climate. Leadership support climate was measured using the military six item measure developed by Marlowe (1986). This measure rated respondents on a 5 point Likert

scale ranging from 1 = strongly disagree to 5 = strongly agree. The internal consistency of the leadership support climate scale was 0.89. An example of the item used in this dissertation was “The leaders in my unit establish clear work objectives”. The remaining measures of the leadership support climate measure can be found at Appendix D.

Coworker support climate. Coworker support climate was measured by the four item measure developed by Caplan, Cobb, French, Van Harrison, & Pinneau (1975). This item was measured using a five point Likert scale. The internal consistency of this measure was 0.78. An example question used in this dissertation was “How much do coworkers go out of their way to do things to make your work-life easier for you? “. In this question the lowest score was 0 = not at all and the highest score was 4 = very much so. A complete list of items for coworker support climate can be found at Appendix E.

Control variables. The control variables that were selected for this dissertation were based on control variables that were used in other research studies that considered mental health help-seeking. Control variables for this dissertation included age and gender (Mo & Mak, 2009; Addis & Mahalik, 2003). Mo and Mak (2009) and Nadler (1998) demonstrated that socio-economic status (SES) had an effect on help-seeking. The military members rank in service was used as an indicator of socio-economic status. This variable will be dichotomous and will represent officers and enlisted personnel. Additionally, this dissertation collected data on years of military service (Espinoza, 2010), if the individual received mental health care in the past (Fishbein & Ajzen, 2010), marital status (Mo & Mak, 2009), and the number of combat deployments (Espinoza, 2010).

Perceived Organizational Support. Perceived organizational support was measured by the 8 item survey of perceived organizational support proposed by Eisenberger, Huntington,

Hutchison, and Sowa (1986). This construct was measured using a 7 point Likert scale. The internal consistency of this measure was .90. An example question used in this dissertation was “the organization values my contributions to its well-being”. In this question the lowest score was 0 = strongly disagree and the highest score was 6 = strongly agree. A complete list of these items can be found at Appendix F.

Self-reported past behavior of seeking mental health care. I collected a self-report measure of past help-seeking behavior. This self-report item was binary and asked if the participant had sought mental health care in the past (Fishbein and Ajzen, 2010). This independent variable controlled for soldiers that had a predisposition to seek help for mental health care (Fishbein & Ajzen, 2010).

4.3 Design and Analysis

I used a cross sectional design and analyzed the data using partial least squares regression (PLS) to test the proposed hypotheses in this dissertation. The PLS approach measured both the measurement of constructs (measurement model) and an analysis of path relationships between constructs (structural model). Both the structural and measurement model were measured using the Ordinary Least Squares approach through an iterative approach that estimates parameter values (Barclay et al., 1995). PLS did not require the assumption of multivariate normality to conduct the analysis. That is, the distribution of the variables were not required to have a normal distribution. Additionally, the use of PLS software lent itself to the analysis of data with small sample sizes and complex path structures (Barclay et al., 1995). The PLS software package used in this dissertation was WarpPLS 5.0 developed by Kock (2015). Descriptive statistics (i.e.

means and standard deviations) and bivariate correlations were computed for all control, dependent, and independent variables.

4.4 Power Analysis

Power calculations were a critical step in planning this dissertation. Conducting the power analysis assisted me in identifying the necessary sample size to increase the probability of detecting an effect (Rice, 2007). The power calculation depended primarily on the four parameters of (1) desired power, (2) the sample size, (3) the significance level, and (4) the effect size (Cohen, 1992, 2003). Cohen (1992) suggested an effect size of 0.80. In this dissertation I used an alpha level of .05 with 9 independent variables. The power table suggested by Cohen (1993) recommends a minimum sample size of 107 participants.

4.5 Mediation Test

Mediation is a relationship between three variables where the first variable (X) affects the second (M), and the second in turn affects the third (Y) (Barron & Kenny, 1986). The intervening variable between the first and the third variable, denoted as M below, is known as the mediator. Figure 4.1 below illustrates the mediation relationship.

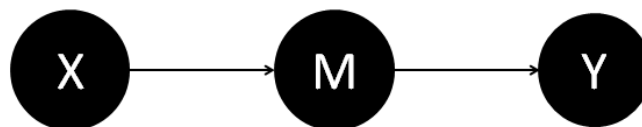


Figure 4.1 The Mediation Model

The Sobel (1982) test of mediation was used to test the mediating relationship in this dissertation. This analysis was conducted using Preacher and Leonardelli's (2006) interactive calculation tool for mediation tests. To conduct the mediation test proposed by Sobel (1982) a number of OLS regression results are required. These results included the unstandardized

regression coefficients, the standard errors, the coefficients of association that related the mediator to the dependent variable, and the standard error for the coefficients (Preacher & Leonardelli, 2006). These numbers were used to compute the critical ratio that determines if the indirect effect of the predictor variables on the dependent variable through the mediator is significant (Sobel, 1982).

4.6 Common Method Variance

Common method variance is a problem in social science research and is reported to affect measurement error when simultaneously collecting data on both predictor variables and outcome variables (Podsakoff, 2003). This measurement error is reported to impact the validity of the relationships between variables. Since this dissertation sought to capture data for both the predictor variables and the outcome variable from the same participants there is could be a concern of self-report bias. Self-report bias is suggested to increase covariance between the predictor and outcome variables. However, studies have suggested that common method variance is overstated (Spector, 2006). Research has also found that in many cases method variance among two variables that are measured at the same time can be reduced as opposed to increased (Williams & Brown, 1994). Common method bias was evaluated utilizing the single factor method proposed by Podsakoff (2003) and implementation in PLS by Liang, Saraf, Hu, & Xue (2007).

CHAPTER 5: RESULTS

This chapter will discuss the results of my analysis. All values were computed using the statistical analysis package WarpPLS 5.0 by ScriptWarp Systems. The chapter will include the results of descriptive statistics, measurement model, and the hypothesized structural model.

5.1 Descriptive Data

This section provides a description of the data collected from the survey. The data was retrieved from the Qualtrics website on September 20, 2015. The link to the survey was sent to 227 respondents. There were a total of 132 surveys that were opened. The response rate was 48%. There were three rounds of email messages that were sent out to participants. These email messages encouraged participants to participate in the dissertation by completing the survey. Out of the 132 respondents, 6 did not provide consent to participate in the study for a total of 126 usable surveys. There were 19 surveys where respondents did not complete the questionnaire and did not provide responses to a large portion of the survey. Those 19 surveys were omitted from the data set. I did not include surveys that had any missing data. This leave a total of 107 surveys that were considered in the analysis.

Descriptive statistics were computed using the WarpPLS software package. Of this population, the average age was 35.31 years old with an average of 12.82 years of service. The gender of the population included 77 (72%) male, 28 (26.10 %) female, and 2 (1.90 %) members who did not report gender. There were 91(85.04%) participants who reported that they were married, 15 (14.01) were not married, and 1 (0.9%) participant did not provide marital status. There were 31 (29%) participants who were enlisted service members, 75 (70.01%) officers, and 1 (0.9%) participant that did not provide their rank. The average number of combat deployments for the population was 2.61. The education level of the population included 12 (11.21%)

participants with a high school education or equivalent, 17 (15.90%) with an associate's degree, 30 (28.03%) with a bachelor's degree, and 48 (44.90%) members with a master's degree or higher. The two major papers that this research builds on is Mo and Mak (2009) and Britt et al. (2011). The population that I am studying is different from both Mo and Mak (2009) and Britt et al. (2011). The population by Britt et al. (2011) was a military population however, they were reserve soldier from the Northwest Pennsylvania National Guard. National Guard military members are not full time service members and are required to only provide service once a month and two weeks out of the year. This population was similar in that it was composed primarily of men and a large number had combat experience. The Mo and Mak (2009) study population consisted of Chinese citizens. Unlike this dissertation and the study conducted by Britt et al. (2011) there was a reasonable balance of males (44%) and females (56%).

In terms of the mental health care status, propensity to seek mental health care, access to healthcare resources, and information, the following descriptive statistics were reported. Out of 107 respondents, 40 (37.4%) sought mental health care in the past while 67 (62.6%) have never sought out mental health care. Furthermore, 16 (15.2%) of respondents have been diagnosed with a mental health care condition, 90 (84.1%) have not been diagnosed with a condition, and 1 (0.9%) did not respond. If a respondent displayed symptoms of a mental health condition, 88 (82.2%) stated that they would seek care while 19 (17.8%) would not seek mental health care. Respondents reported the following data in terms of resources to access mental health care. The entire sample of military service members (100%) reported that mental health services are available and that they know where to access services. Additionally, all service members

reported that they have access to mental health mental health care services and have been provide with information on where to access services.

5.2 Measurement Model

The measurement model was processed using the Partial Least Squares Regression technique. In evaluating the measurement model it was critical to evaluate the individual item reliability, internal consistency, and discriminant validity. The following sections provides detailed analyses of these three critical components of the measurement model.

5.2.1 Individual tem Reliability

Individual item loadings were assessed using PLS software program. When conducting principal component analysis the individual items of a measurement instrument should load on individual latent variables. The items that load on these latent variables should carry a loading factor that is greater than 0.7 are considered to be reliable (Barclay et al., 1995). Table 1 below illustrates the loadings of all the individual items used in this dissertation. All items load on their appropriate latent variables with loading factors above 0.7 except for one item which was close at 0.69. Additionally, item Att_1 loaded high on INT therefore, the ATT_1 variable was removed from the analysis. This results in the ATT measure to consist of only Att_2, Att_3, and Att_4.

Table 1. Combined Loadings and Cross Loadings of Measurement Items

	Mental Health Help Seeking Attitudes (ATT)	Mental Health Help Seeking Norms (SN)	Mental Health Help Perceived Control (PBC)	Coworker Support Climate (CS)	Leadership Support Climate (LSC)	Mental Health Help-seeking Intention (INT)	SE	P value
Att_1	0.756	-0.048	0.142	0.126	-0.128	0.672	0.079	<0.001
Att_2	0.920	0.007	-0.108	-0.102	0.125	-0.301	0.076	<0.001
Att_3	0.891	0.019	0.055	0.152	-0.117	0.036	0.076	<0.001
Att_4	0.918	0.014	-0.062	-0.149	0.095	-0.286	0.076	<0.001
SN_1	-0.077	0.691	0.013	0.015	-0.053	0.323	0.081	<0.001
SN_2	0.119	0.762	0.121	-0.106	-0.002	0.024	0.079	<0.001
SN_3	0.197	0.732	0.113	-0.124	0.048	-0.280	0.080	<0.001
PBC_1	-0.042	-0.027	0.822	-0.138	-0.107	-0.042	0.078	<0.001
PBC_2	-0.136	-0.176	0.800	0.128	0.122	0.022	0.078	<0.001
PBC_3	0.189	0.215	0.761	0.015	-0.013	0.022	0.079	<0.001
CS_1	-0.052	-0.033	-0.003	0.771	0.077	0.164	0.079	<0.001
CS_2	0.311	0.110	-0.086	0.719	-0.112	-0.140	0.080	<0.001
CS_3	-0.149	-0.021	0.035	0.919	-0.080	0.037	0.076	<0.001
CS_4	-0.053	-0.039	0.037	0.883	0.107	-0.068	0.077	<0.001
LSC_1	0.116	-0.007	0.062	-0.023	0.860	-0.068	0.077	<0.001
LSC_2	-0.013	0.044	0.000	0.015	0.919	-0.001	0.076	<0.001
LSC_3	0.101	-0.111	0.068	0.055	0.866	-0.129	0.077	<0.001
LSC_4	-0.178	-0.069	0.082	0.008	0.737	0.142	0.080	<0.001
LSC_5	-0.018	0.038	-0.075	-0.095	0.880	0.046	0.077	<0.001
LSC_6	-0.032	0.087	-0.118	0.040	0.901	0.029	0.076	<0.001
Int_1	-0.051	0.000	-0.005	-0.003	0.003	0.982	0.075	<0.001
Int_2	0.023	0.028	-0.029	0.013	0.015	0.984	0.075	<0.001
Int_3	0.028	-0.028	0.034	-0.011	-0.018	0.983	0.075	<0.001

5.2.2 *Internal Consistency*

Internal consistency is a methodology criteria that extends on the concept of individual item reliability and considers the shared variance of all the items in measuring a construct simultaneously (Singleton & Strait, 2010). The standard of measurement used to evaluate internal consistency is Cronbach's alpha. Cronbach alpha level above 0.90 are considered

excellent, measures ranging between 0.70 and 0.89 are considered good, and measures between 0.50 to 0.69 are considered poor to questionable (Cortina, 1993). The Fornell measure of internal consistency is also measured. This measure does not make an assumption that each item contributes equally to the construct and is regarded as a better measure of internal consistency (Barclay et al., 1995). **Table 2** below provides the measures of Cronbach's alpha and the Fornell measure internal consistency for mental health help-seeking TPB constructs, coworker support climate, and leadership support climate.

Table 2. The Cronbach Alpha and Number of Items for Mental Health Help-seeking Theory of Planned Behavior Constructs and Climate Constructs.

	# of Items	Alpha	Fornell
Mental Health Help-seeking Attitudes	4	0.90	0.93
Mental Health Help-seeking Subjective Norms	3	0.56	0.77
Mental Health Help-seeking Perceived Behavioral Control	3	0.70	0.84
Mental Health Help-seeking Intention	3	0.98	0.99
Coworker Support Climate	4	0.84	0.90
Leadership Support Climate	6	0.93	0.95

There were very strong measures of internal consistency for the measures of mental health help-seeking attitudes (0.90), mental health help-seeking intention (0.98), and leadership support climate (0.93). The measures for coworker support climate (0.84) and mental health help-seeking perceived behavioral control (0.70) were good measures of internal consistency. However, the measure for mental health help-seeking subjective norms (0.56) was not a strong measure of internal consistency. However, I also considered the Fornell measure of internal consistency which also uses the 0.70 threshold for a reliable measure of internal consistency (Barclay et al.,

1995). According to the Fornell measure of internal consistency, all measures provide a reliable measure of internal consistency.

5.2.3 Convergent and Discriminant Validity

There are two types of validity that are critical in evaluating survey measures. These two types of validity are convergent and discriminant validity. Convergent validity measures how well individual items within a measure work together to measure a specific construct (Singleton & Strait, 2010). Conversely, discriminant validity measures how well each individual construct considered within the model is not correlated with other constructs (Singleton & Strait, 2010).

Table 1 on page 56 provides a description of the convergent validity of the measurement items. Loading values for each individual item should be 0.50 or above to demonstrate good convergent validity (Singleton & Strait, 2010). All items below demonstrate strong convergent validity and range from 0.719 in the second item used to measure coworker support to 0.984 used to measure intention. However, the table shows that the first attitude item also loads very well on the intention construct at 0.672.

Discriminant validity measures how well each individual construct considered within the model is not correlated with other constructs (Singleton & Strait, 2010). **Table 3** below shows measures of discriminant validity using Average Variance Extracted (AVE). AVE measures the amount of variance shared between constructs. In the table 3 below, when comparing one construct to another, a construct that is compared with itself should have a higher AVE value than when compared against another. All constructs demonstrated good discriminant validity according to Barclay et al (1995).

Table 3. Correlation Matrix of Constructs and Average Variance Extracted (AVE)

	ATT	SN	PBC	CS	LSC	INT
ATT	0.874	0.317	0.285	0.039	0.239	0.704
SN	0.317	0.729	0.444	0.146	0.261	0.121
PBC	0.285	0.444	0.795	0.148	0.355	0.209
CS	0.039	0.146	0.148	0.827	0.435	0.066
LSC	0.239	0.261	0.355	0.435	0.862	0.137
INT	0.704	0.121	0.209	0.066	0.137	0.983

In **Table 4** below, the correlation matrix is presented. The table also includes the standard deviation, means, and the significance level of the correlations. There were a number of significant correlations when I considered the relationship between the predictor variables and the outcome variable. Consistent with the TPB, attitudes and subjective norms were both positively correlated with intention (Fishbein & Ajzen, 2010). However, inconsistent with the TPB the construct perceived behavioral control was not correlated with intention. Additionally, the correlation table demonstrated that access to information is negatively correlated with intention. Whether a service member would seek care if he or she had symptoms of mental health problem was negatively correlated with intention to seek mental health care.

Table 4. Means, Standard Deviations, and Correlations

	Mean	Std. Deviation	INT	ATT	SN	PBC	CS	LSC	POS	age	gender	YOS	rank	would seek care	edu	num deploy	married	have past care	where access	diagnosed	avail	feel avail	access info	Army	Navy	Air Force	High Dep	Asso Deg	Back Deg	Masters
INT	3.8256	1.0633	1																											
ATT	3.3668	0.8165	.734**	1																										
SN	3.3551	0.4153	.201*	0.176	1																									
PBC	4.0062	0.6005	0.181	.265**	.214*	1																								
CS	3.4673	0.8756	0.072	0.064	-0.011	0.147	1																							
LSC	3.7047	0.9318	0.142	.229*	0.106	.337**	.434**	1																						
POS	4.1036	0.5891	0.111	.210*	0.155	0.156	0.132	.256**	1																					
age	35.31	4.638	-0.125	-.240*	0.179	-0.001	0.063	0.016	0.006	1																				
gender	0.73	0.444	0.014	-0.031	0.106	-0.035	0.064	0.109	-0.023	0.152	1																			
YOS	12.82	4.177	-0.163	-0.163	0.037	-0.02	-0.108	-0.095	-0.104	.632**	0.142	1																		
rank	0.71	0.457	0.063	-0.024	0.106	-0.016	.236**	.212*	0.068	.233*	0.092	0.006	1																	
would seek care	0.82	0.384	.740**	.563**	0.163	.291**	0.151	0.138	0.16	0.009	0.052	-0.055	0.024	1																
edu	3.07	1.03	0.079	-0.037	0.077	-0.041	.298**	.223*	0.013	.267**	0.045	0.077	.813**	0.03	1															
num deploy	2.61	1.038	0.03	-0.047	0.015	0.014	-0.029	-0.035	-0.059	-0.01	.323**	0.066	-.201*	0.063	-.194*	1														
married	0.86	0.35	0.119	0.094	-.259**	-0.116	0.127	0.073	-0.039	0.111	0.183	0.161	0.096	0.022	0.061	0.084	1													
have past care	0.37	0.486	0.067	0.121	-0.025	0.003	-0.165	-0.105	0.053	0.13	-0.148	.200*	-0.056	0.056	-0.087	-0.048	-0.075	1												
where access	0.98	0.136	-0.023	0.084	0.119	0.078	0.015	0.052	-0.049	0.025	0.074	-0.072	-0.089	0.116	-0.126	0.082	0.143	-0.036	1											
diagnosed	0.15	0.36	0.136	0.11	0.017	0.042	-.232*	-.233*	-0.007	0.18	-0.042	.242*	-0.074	0.06	-0.075	0.028	-0.054	.553**	-0.135	1	.c									
avail	1	0	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c	.c								
feel avail	0.98	0.136	0.108	0.041	-0.104	0.001	-0.045	0.04	-.196*	0.009	0.074	0.06	-0.089	0.116	0.143	0.015	-0.056	-0.036	-0.019	0.058	.c	1								
access info	0.97	0.166	.233*	.268**	0.1	0.065	-0.023	0.035	0.03	-0.076	-0.103	-0.116	-0.11	.217*	-0.1	0.156	-0.069	0.014	.395**	-0.087	.c	-0.023	1							
Army	0.9159	0.2789	0.088	0.064	0.016	0.003	-0.038	-0.051	-0.133	0.004	-0.011	0.068	-.196*	-0.053	-0.112	.279**	-0.124	-0.114	-0.042	0.021	.c	-0.042	0.153	1						
Navy	0.0561	0.2312	-0.011	-0.01	-0.013	-0.025	0.032	0.039	0.156	0.034	0.034	-0.038	0.157	0.113	0.103	-0.145	0.099	0.148	0.034	0.03	.c	0.034	0.041	-.804**	1					
Air Force	0.0093	0.0967	0.108	0.046	0.073	0.162	0.059	0.127	0.004	-0.032	0.059	-0.159	0.063	0.045	0.089	-0.152	0.04	-0.075	0.013	-0.041	.c	0.013	0.016	-.321**	-0.024	1				
High Dep	0.1121	0.317	-0.007	0.113	-0.09	0.029	-.242*	-0.114	0.057	-.247**	0.066	-0.177	-.461**	0.01	-.716**	0.068	-0.128	0.093	0.049	0.182	.c	-0.17	0.06	0.108	-0.087	-0.035	1			
Asso Deg	0.1589	0.3673	-0.065	-0.094	-0.023	0.038	-0.072	-0.114	-0.071	0.027	-0.086	0.135	-.680**	0.001	-.452**	0.164	0.03	-0.019	0.06	-0.041	.c	0.06	0.074	0.132	-0.106	-0.042	-0.154	1		
Back Deg	0.2804	0.4513	-0.061	0	0.051	-0.03	-0.054	-0.084	-0.035	-0.131	-0.095	-0.023	.220*	-0.091	-0.04	0.033	0.075	0.034	0.086	-0.148	.c	-0.067	-0.02	-0.186	0.119	-0.061	-.222*	-.271**	1	
Masters	0.4486	0.4397	0.107	-0.002	0.028	-0.02	.255**	.232*	0.048	.257**	0.11	0.034	.585**	0.075	.822**	-.191*	-0.011	-0.076	-0.153	0.048	.c	0.124	-0.074	0.003	0.025	0.108	-.321**	-.392**	-.563**	1
** P < 0.01 *P < 0.05 .c Constant variable																														

Note: A description of all the variables listed in Table 4 can be found at Appendix H.

5.3 Structural Model

The partial least squares technique also provides path coefficient computations for the structural model. **Table 5** below provides information on the path coefficients, the standard error, and the significance level for each of paths of the latent variables. Additionally, in Figure 5 below the R^2 values for all the constructs of the TPB were reported. The model that is identified in Figure 5 includes controls for education, age, gender, having sought mental health care in the past, and the availability of resources. None of the control factors were statistically significant in the model.

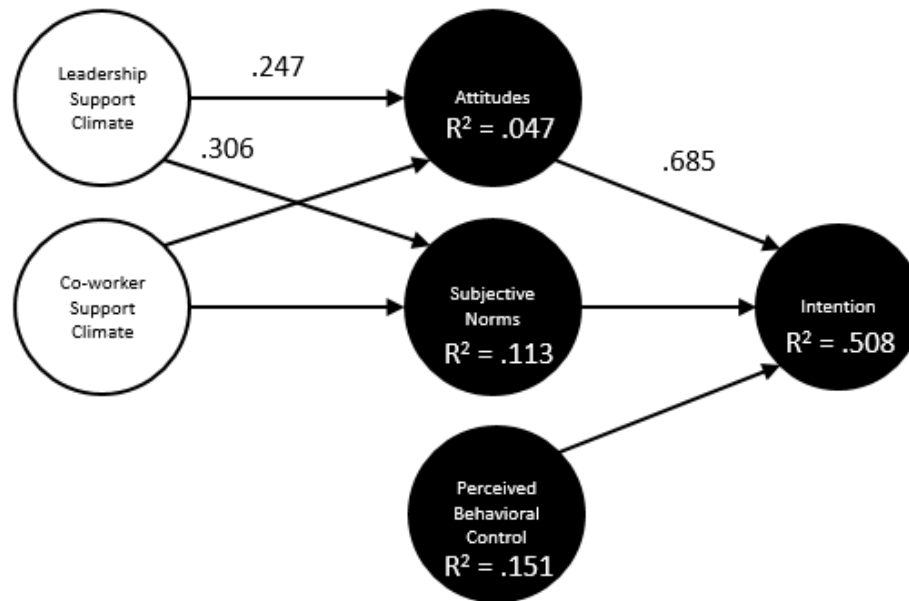
Table 5. Model Paths

Hypothesis	Path	Path Coefficient	SE	P-value
H1	Attitudes to Intention	0.685	0.081	<0.001
H2	Subjective Norms to Intention	0.021	0.096	0.413
H3	Perceived Behavioral Control to Intention	0.097	0.094	0.153
H4a	Leadership Support Climate to Attitudes	0.247	0.091	0.004
H4b	Coworker Support Climate to Attitudes	-0.116	0.094	0.11
H5a	Leadership Support Climate to Subjective Norms	0.306	0.089	<0.001
H5b	Coworker Support Climate to Subjective Norms	0.069	0.095	0.236

Figure 5 below provides an illustration that highlights the amount of explained variance in the PLS model. The amount of explained variance is represented by the value of R^2 . The figure shows that the hypothesized model proposed in this research results in a R^2 value of 0.508. This suggested that the model explains 50.8% of the variance in mental health help-seeking intention. Furthermore, Figure 5 provides the significant paths within the model and the associated regression weights. The PLS analysis of the data concluded that mental health help-seeking attitudes is significant in predicting mental health help-seeking intention (0.685, $P < .001$). The analysis also revealed that leadership support climate is statistically significant in predicting attitudes and subjective norms (0.247, $P < .05$). Leadership support climate was also significant

in predicting mental health help-seeking subjective norms (0.306, $P < .001$). Perceived behavioral control was not significant in predicting mental health help seeking intention.

Figure 5. Hypothesized Model Significant paths and R^2



5.4 Tests for Mediation

I used the Sobel (1982) test to examine the mediation relationship between constructs. The test was used to evaluate hypotheses 4a, 4b, 5a, and 5b. Hypotheses 4a proposed that that mental health help-seeking attitudes mediated the relationship between leadership support and mental health help-seeking intention. Hypotheses 4b proposed that that mental health help-seeking attitudes mediated the relationship between coworker support and mental health help-seeking intention. Hypotheses 5a proposed that that mental health help-seeking subjective norms mediated the relationship between leadership support and mental health help-seeking intention. Finally, hypotheses 5b proposed that that mental health help-seeking subjective norms mediated the relationship between coworker support and mental health help-seeking intention. Since the

relationship between mental health help-seeking attitudes and mental health help-seeking intention was the only significant direct relationship in the model, I only tested the mediation relationship for hypothesis 4a. **Table 7** below provides the results of the Sobel (1982) test.

Table 7: Test for mediation of the relationships

Relationship	Test Statistic	SE	P-value
Leadership Support Climate to Attitude to Intention	2.584	0.066	0.009**
Coworker Support Climate to Attitudes to Intention	-1.221	0.064	0.225
Leadership Support Climate to Subjective Norms to Intention	0.146	0.029	0.884
Coworker Support Climate to Subjective Norms to Intention	0.143	0.007	0.886

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

The analysis of hypothesis 4a found that mental health help-seeking attitudes mediates the relationship between leadership support climate and mental health help-seeking intention. The relationship was statistically significant (2.548, $P < .01$). Hypotheses 4b, 5a, and 5b were not determined to be statistically significant. That is, first, mental health help-seeking attitudes did not mediate the relationship between coworker support climate and mental health help-seeking intention. Second, mental health help-seeking subjective norms did not mediate the relationships between leadership support climate and mental health help-seeking intention or coworker support climate and mental health help-seeking intentions.

5.5 Testing for Perceived Organizational Support

The construct of perceived organizational support was also assessed in the prediction of mental health help-seeking intention. The measure POS was not significant in predicting mental health help-seeking intention with a path coefficient of 0.03 and $p = 0.36$. As mentioned earlier,

perceived organizational support was weakly correlated with leadership support climate ($r = 0.256$) and coworker support climate (0.132).

5.6 Test for Common Method Bias

To ensure that common method variance was not a concern in the analysis of the data, I tested for this bias using the common method factor approach suggested by Podsakoff et al. (2003). This method is commonly applied when analysis is conducted in structural equation modeling or partial least squares regression. The common method factor approach suggested by Podsakoff et al. (2003) allows individual items of a measure to load simultaneously on their theoretical construct and a latent common variance factor. This method allows the variance accounted for in each item to be segmented into a substantive component, a common method component, and error (Liang, Saraf, Hu, & Xue (2007).

The approach identified above in **Table 8** separated the variance into a substantive component and a method component (Williams, Edwards, & Vandenberg, 2003). Using this approach the PLS model computes a common method factor that includes all the principle construct items. The average of the squared variances of the methods loading is 0.139 in **Table 8**. The PLS model then calculates the variance for each item that is explained by the principle or substantive construct (Williams et al., 2003). The average of the squared variances of the substantive construct is 0.724 in **Table 8**. The ratio of the substantive construct to the common methods factor is 5 times larger so common method is not suspected to be a concern.

Table 8. Substantive Factor and Common Method Loadings in PLS

Construct	Item	Substantive Factor Loading (SF)	SF ²	Common Method Loading (CM)	CM ²
Attitude	1	0.756	0.572	-0.649	0.421
	2	0.92	0.846	0.406	0.165
	3	0.891	0.794	-0.102	0.010
	4	0.918	0.843	0.226	0.051
Subjective Norms	2	0.691	0.477	0.072	0.005
	2	-0.762	0.581	0.494	0.244
	3	0.732	0.536	0.682	0.465
Perceived Behavioral Control	1	0.822	0.676	-0.084	0.007
	2	0.8	0.640	-0.048	0.002
	3	0.761	0.579	0.142	0.020
Coworker Support Climate	1	0.771	0.594	0.185	0.034
	2	0.719	0.517	0.001	0.000
	3	0.919	0.845	-0.213	0.045
	4	0.883	0.780	0.059	0.003
Leadership Support Climate	1	0.86	0.740	-0.04	0.002
	2	0.919	0.845	-0.017	0.000
	3	0.866	0.750	0.189	0.036
	4	0.737	0.543	0.44	0.194
	5	0.88	0.774	-0.33	0.109
	6	0.901	0.812	-0.164	0.027
Intention	1	0.982	0.964	-0.748	0.560
	2	0.984	0.968	-0.793	0.629
	3	0.983	0.966	-0.402	0.162
Average		0.780	0.724	-0.030	0.139

5.7 Summary

This chapter of the dissertation outlined the results of the data analysis utilizing the PLS approach and the WarpPLS software. The first section provided the descriptive statistics of the data. The second section provided information of the measurement model to include assessments of item reliability, internal consistency, and discriminant validity. The results of the assessment of the measurement model concluded that the model was sufficient and the questionnaire items

loaded properly. Second, the hypothesized structural model was tested. The results concluded that three of the paths were significant in the model. These paths were (1) that mental health help-seeking attitudes predicted mental health help-seeking intentions, (2) that leadership support climate predicted mental health help-seeking attitudes, and (3) leadership support climate predicted mental health help-seeking subjective norms. The results also concluded that mental health help-seeking attitudes mediates the relationship between leadership support climate and mental health help-seeking intentions. Finally, the test of common method variance concluded that common method variance is unlikely to have confounded the results of this dissertation.

CHAPTER 6: DISCUSSION

There were two purposes for this dissertation. First, this dissertation investigated the relationship of the Theory of Planned Behavior in military service members to determine the effects on their mental health help-seeking intentions. Second, this dissertation explored the effects of leadership support climate and coworker support climate on the predictor constructs of the TPB. This dissertation used PLS analysis to test the proposed model and the associated hypotheses.

6.1 Summary of Findings

The overall model of the TPB proposed by Fishbein & Ajzen (2010) and Mo and Mak (2009) was partially supported. Specifically, mental health help-seeking attitude was a significant predictor of mental health help-seeking intentions. However, neither mental health help-seeking subjective norms nor mental health help-seeking perceived behavioral control were found to be significant predictors of mental health help-seeking intentions.

Two mediation relationships were hypothesized in this dissertation. These relationships considered the effects of organizational climate on the TPB. The two organizational climate factors were leadership support climate and coworker support climate. These relationships received partial support. Mental health help-seeking attitudes was shown to mediate the relationship between leadership support climate and mental health help-seeking intentions. Mental health help-seeking subjective norms was not found to mediate the relationship between leadership support climate and mental health help-seeking intention. In terms of coworkers support climate, neither moderating hypotheses were supported. Specifically, neither mental health help-seeking attitudes nor mental health help-seeking subjective norms mediated the

relationships between coworker support climate and mental health help-seeking intentions. I will now discuss in detail each of the hypothesized relationship in this dissertation.

6.2 Mental Health Help-seeking Attitudes

Mental health help-seeking attitudes in military service members was found to be significant in predicting mental health help-seeking intentions (H1). This finding is consistent with the findings in both Mo and Mak (2009) and Fishbein and Ajzen (2010). This finding is very useful because this type of research has not been conducted in a population of military service members. It validates that the attitudes of service members towards mental health help-seeking does impact their intention to seek mental health care. This finding provides critical information to leaders within the United States Army and the Department of Defense in that campaigns to shape attitudes towards mental health help-seeking could prove beneficial. These benefits will be expanded upon in the practical implications of this dissertation.

6.3 Mental Health Help-seeking Subjective Norms

Mental health help-seeking subjective norms was not found to be significant in predicting mental health help-seeking intentions in a population of military service members (H2). This finding is inconsistent with the finding of both Mo and Mak (2009) and Fishbein and Ajzen (2010). This finding may have occurred because the “relative contribution of attitudes, perceived norms, and perceived behavioral control to the prediction of intention is expected to vary from one person to another, from one group of individuals to another, and from one behavior to another.” (Fishbein & Ajzen, 2010, p.180). That is, the weighting of attitudes, subjective norms, and perceived behavioral control can differ in different populations where the TPB framework is applied. Subjective norms were most likely a weaker predictor of intentions than attitudes because this population was overall older and more senior military members. The average age

was about 35 years old and the average years of service was almost 13 years. Furthermore, 70% of the population was officers while 30% were enlisted personnel. These demographics suggest senior military members. These members may not be so much focused on the normative pressures of other military members. This would allow them to be more concerned with their own attitudes as opposed to the normative pressures from their peers or subordinates.

In this dissertation the correlation between subjective norms and intention is quite low at $r = 0.201$. This relationship may have been problematic due to the instrument used to measure mental health help-seeking subjective norms demonstrated a very low measure of internal consistency at $\alpha = 0.56$. This suggests that the individual items used to measure subjective norms may not have been in agreement in measuring the same construct. Fishbein and Ajzen (2010) also suggest that problems with finding statistical significance between the relationship of subjective norms and intention are most commonly attributed to the actual measurement of subjective norms. This is because the measurement of subjective norms should contain multiple items and account for both injunctive and descriptive norms (Fishbein & Ajzen, 2010). Injunctive norms are what important others think a person should do while descriptive norms are what other people actually do (Fishbein & Ajzen, 2010). The items used to measure mental health help-seeking subjective norms in this dissertation are multi-item and account for both descriptive and injunctive norms. However, perhaps adding additional items of both descriptive and injunctive norm could have provided a more reliable measure. The act of including additional items measures, according to Singleton and Straits (2010) can raise the reliability of a measure.

6.4 Mental Health Help-seeking Perceived Behavioral Control

Mental health help-seeking behavioral control was also not found to be statistically significant in predicting mental health help-seeking intentions (H3). This finding is also inconsistent with the findings of Mo and Mak (2009) and Fishbein and Ajzen (2010). This may be because of the difference in internal and external control factors in military service members (Fishbein & Ajzen, 2010). The concept of perceived behavioral control is a function of internal and external factors of control (Fishbein & Ajzen, 2010). Internal control factors are those factors that the soldier has the individual autonomy to control. That is, whether she personally has the desire and the internal drive to seek help for a mental health problem. Internal control factors can be distilled into the personal choice of the individual to seek mental health care (Fishbein and Ajzen, 2010). While the external factors of control are those factors outside of the personal control of the individual (Fishbein & Ajzen, 2010). External control factors can include factors such as the availability of mental health care resource, providers, and appointments. The external control factors that contribute to perceived behavioral control may not be a rationale for why service members are not seeking mental health care. Military members have access to a robust and free health care plan with multiple outlets to gain access to mental health care (TRICARE Health Plans, 2016). The internal control factors may be the contributing factor as to why this predictor was not statistically significant. Specifically, reports within the literature state that service members that seek mental health care can miss out on leadership and job opportunities, be shunned by their peers, and be considered weak (Zinzow et al., 2013; Espinoza, 2010; Hoge et al., 2004). As a result, service members may not have the internal desire or drive to seek out care. The service members do not want to miss out on the job opportunities or considered weak so the service member decides not to seek care. This lack of internal drive is affecting their personal control to seek out care.

6.5 Support Climate and Mental Health Help-seeking Intention

A major component of this dissertation was to examine the how organizational climate affects mental health help-seeking intention using the TPB framework. I considered the two constructs of leadership support climate and coworkers support climate within the organizational climate. This dissertation specifically tests the mediating properties of the TPB constructs of attitudes and subjective norms considering these climate constructs. Below I will discuss the findings of these relationships.

First, I examined the mediating role of mental health help-seeking attitudes in the coworkers support climate and mental health help-seeking intention relationship (H4b) and I examined the mediating role of mental health help-seeking subjective norms in the coworker support climate and mental health help-seeking intention relationship (H5b). Neither one of these relationships were supported. These findings are surprising because the literature is replete with articles that discuss how military service members are concerned about how they would be perceived by their peers (Zinzow, 2013; Britt et al., 2011; Hoge, 2004). However, coworker support climate is about being cared for or esteemed by your peers. The feeling of being cared for or esteemed by your peers is different from the concept of subjective norms. The concept of subjective norms in the context of the TPB deals the behavior of your peers or the behavior that your peers say that you should do (Fishbein & Ajzen, 2010). Coworker support deals with how your peers make you feel (Cobb, 1976). Coworker support climate was not a predictor of attitudes or subjective norm is because, as indicated by Bandura (1997) coworkers unlike leaders do not have any power over an individual. In the military the actions of military members are influenced primarily by some type of authority or power (Dorn et al, 2000; Vega, 2013). The two types of power identified by French and Raven (1959) are formal power and personal power. Formal power is based on the authority and position given in an organization (French & Raven,

1959). Personal is based more on intrinsic power within an individual (French & Raven, 1959). Since the military is an organization that is based on power, authority, and discipline, soldiers should be more responsive to formal power than informal power (Dorn et al, 2000; Vega, 2013). Therefore, the climate created by coworkers did not have an influential impact on a soldiers attitudes or contribute normative influence.

Second, I explored the mediating role of mental health help-seeking attitudes in the leadership support climate and mental help-seeking intention relationship (H4a). This relationship was significant. This mediation relationship was supported because the leadership support climate that the military leader sets for their organization has a strong effect on the individual attitudes of their subordinates. Theoretically, attitudes are influenced by beliefs (Ajzen & Fishbein, 2010). In this case, the military service members believe in a hierarchical military structure, required discipline and obedience, and the directives to comply with superiors (Dorn et al, 2000; Vega, 2013). Based on the service members' beliefs, which are rooted in the military values of honor, integrity, strict compliance with orders, and conforming to the wishes of superiors (Dorn et al, 2000; Vega, 2013), their attitudes are affected by the leadership support climate set by their leader. Therefore, leadership support climate that affects attitudes will theoretically affect their intentions. The service member understands that if they do not follow the direction of the leader based on the military values system, there will be consequences. Empirically, research has determined that organizational climate factors can improve employee satisfaction (Dickens, Suesse, Snyman, & Picchioni, 2014), patient satisfaction (Dickens, Suesse, Snyman, & Picchioni, 2014), and reduce stress and anxiety (Tummers, Steijn, & Vijverberg, 2014; & Bronkhorst, 2014). This research demonstrates that organizational climate and

specifically leadership support climate can affect a service member's intention to seek mental health care. This is a finding that adds to the mental health help seeking literature.

Third, this dissertation examined the mediating role of mental health help-seeking subjective norms in the leadership support climate and mental health help-seeking intention relationship (H5a). The mediation was not supported. This relationship should have been supported because the same influence that leaders have on individuals that affects individual attitudes and intentions could potentially translate to social pressure. However, Bandura (1997) states that peer or social pressure does not have an influence on an individual's behavior unless a penalty is associated. This is specifically related to leadership support climate because in most organizations and specifically in the military, leaders have the ability to punish while peers normally do not (Dorn et al, 2000; Vega, 2013, The Soldier Manual, 2004; Dorn et al, 2000). Penalties work as negative incentives to drive the behavior and actions of individuals (Bandura, 1997). It may be that the leader being in a position that has power and the authority to punish or reward incentivizes service members to be obedient to and follow their directives. The ability of leaders to punish or reward individuals may be the cause for individual attitudes to mediate the leadership support climate and intention relationship.

6.6 Perceived Organizational Support

Perceived organizational support (POS) is "the extent to which employees perceive that their contributions are valued by their organization and that the firm cares about their well-being" (Eisenberger, Huntington, Hutchison, & Sowa, 1986, p.501). POS is primarily concerned with the organization's commitment to their employees and how the organization values their employees (Eisenberger et al., 1986). POS is a belief by the employees that support will be given to individuals within the organization when it is required to implement necessary job

requirements (Eisenberger et al., 1986). There are a number of factors associated with perceived organizational support. First, POS should produce within an employee a feeling of obligation to care about the organization and a desire to achieve organizational objectives. Second, the support that an organization gives to their employees through POS provides individuals working within the organization a sense of identity. Third, POS gives employees a belief that the organization rewards positive outcomes toward the organizational goals (Rhoades & Eisenberger, 2002). The result of a positive perceived organizational support can be a heightened source of organizational commitment from individuals within the organization (Rhoades & Eisenberger, 2002). POS theory is based on the rationale that employees will assign human characteristics to organizations (Rhoades & Eisenberger, 2002). That is, the actions of the organization are interpreted as the intent of an organization as opposed to the intent of the agent administering the action for the organization (Rhoades & Eisenberger, 2002). Perceived organizational support differs from leadership support climate in that leadership support climate is embodied by the behaviors of a specific leader within the organization while in perceived organizational support the organization is the embodiment (Rhoades & Eisenberger, 2002; Cobb, 1976). Perceived organizational support is similar to leadership support climate and organizational support climate in that they are all factors that influence the environment of members of an organization through motivation or incentives (Litwin & Stringer, 1968). This dissertation considered the effects of perceived organizational support as a construct that may correlate with leadership support climate and organizational support climate. Neither leadership support climate ($r = 0.132$) nor coworker support climate ($r = 0.256$) was highly correlated with perceived organizational support. I will use leadership support climate and coworker support climate in the model because these

measures provided a specific assessment of how individuals within an organization (i.e. leaders and coworkers) affect the climate within an organization.

6.6.1 Building on Previous Research on Mental Health Help-seeking

There have been a number of studies that have considered why service members have not sought out mental health care in the military. Research that have considered why service member have not sought out mental health care include descriptive studies (Greene-Shortridge, Britt, & Castro, 2007) and sought to provide summary statistics that described the problem of mental health help-seeking in the military. A study by Espinoza (2010) considered why service members were not seeking mental health care and used a correlational design to ascertain bivariate correlations seeking mental health care and negative consequences that service members faced when deciding to seek mental health care. Another study by Britt et al. (2011) looked at the stigma of mental health care and help-seeking behavior. A number of research studies also considered the service member beliefs about seeking mental health treatment (Schaffer et al, 2011; Stecker et al., 2007) and were not grounded in a theoretical framework. A study by Zinzow et al. (2013) conducted a qualitative study using interviews on the barriers (e.g. concerns about not being promoted, military culture, and lack of availability of physicians) that service members face in seeking mental health care, as well as, facilitating factors (family support, leadership support) to seeking mental health care. These studies provide the groundwork for understanding the problem and provide context for further research.

This dissertation builds upon the previous research in the literature of mental health help-seeking by military personnel in three ways. First, this dissertation utilizes a theoretical framework, the theory of planned behavior that is widely used in social science research to make predictions about human behavior. Previous research was primarily descriptive and lacked a

fundamental framework. Second, this dissertation moves beyond descriptive analysis and bivariate correlations used in previous research by using quantitative analysis to predict a military member's intention to seek mental health utilizing the theory of planned behavior. Finally, this study makes a contribution by incorporating the constructs of leadership support climate and coworker support climate to gain a better understanding of environmental and organizational factors that may contribute to service members seeking mental health care. This dissertation supports qualitative interviews from military service members that suggested that good leadership could encourage service members to seek help for mental health problems. This dissertation is similar to previous research in that it considers individual beliefs and social norms and how they contribute to a service member's decision to seek mental health care. However, this dissertation determined quantitatively that individual attitudes and leadership support climate have a significant effect on whether service members will seek mental health care.

This dissertation builds on the research conducted by Mo and Mak (2009). The research conducted by Mo and Mak (2009) considers mental health help-seeking behavior in Chinese populations utilizing the theory of planned behavior. The researchers concluded that in the context of the theory of planned behavior that mental health help-seeking attitudes, subjective norms, and perceived behavioral control all significantly predicted mental health help-seeking intentions in a Chinese population. In this dissertation, attitudes was the only construct in the theory of planned behavior framework that was significant. Neither mental health help-seeking subjective norms nor perceived behavioral control were found to be significant in military service member in this dissertation. Fishbein and Ajzen (2010) suggest that in different populations that the contributions of attitudes, subjective norms, and perceived behavioral control can vary between differing groups. Furthermore, the population that was sampled in this

dissertation were generally older and more senior military personnel and normative pressures and perceived control factors may not play as much a significant roles as individual attitudes towards mental health help-seeking.

Research conducted by Britt et al. (2011) considered the effects of stigma, mental health help-seeking attitudes, subjective norms, and perceived behavioral control factors in military personnel in predicting treatment behavior. The results of their study were similar to the results in this dissertation. That is, Britt et al. (2011) found that only mental health help-seeking attitudes were significant when predicting treatment seeking behavior in military service members. Their research did not find subjective norms or perceived behavioral control as significant predictors. The finding that mental health help-seeking subjective norms and perceived behavioral control are not significant in military service members, but significant in a Chinese population (Mo & Mak, 2009), may suggest that a moderating factor needs to be included when considering normative and control factors in military service members.

6.6.2 Replications and Validation of Theories

A component of this dissertation used the constructs of the theory of planned behavior as a foundational paradigm to predict mental health help-seeking intention. This framework has been used in many studies to predict a variety of intentions (Fishbein & Ajzen, 2010) to include mental health help-seeking in a Chinese population (Mo & Mak, 2009). This dissertation used a replication format identified by Tsang and Kwan (1999) as empirical generalization by using the framework of theory of planned behavior. Empirical generalization is defined as applying the same framework or approach used in previous studies on a different population (Tsang and Kwan, 1999). These types of studies are growing in importance to management scientist because the generalizability of theories across different cultures and populations is critical in validating

theories (Singleton & Strait, 2010; Tsang & Kwan, 1999). This study used the research conducted by Mo and Mak (2009) as the foundational framework for this study. The research conducted by Mo and Mak (2009) found that all the constructs of the theory of planned behavior were significant in predicting mental health help-seeking intentions in a Chinese population. This dissertation considered the same constructs, but the constructs were applied to a population of military service members. In this study, the only construct that was found to be significant was mental health help-seeking attitudes. Mental health help-seeking subjective norms and perceived behavioral control were not found to be significant. This raises questions about the generalizability of the theory of planned behavior to military populations. However, this could suggest that an additional variable may need to be accounted for when using the theory of planned behavior in military populations. Further research should be conducted using theory of planned behavior on military populations.

6.6.3 Conservation of Resources and the Availability of Mental Health Services

The theory of conservation of resources (COR) is an organizational theory that is focused on stress through the availability and abundance of resources (Hobfoll, 1988). The major premise of COR theory is that people strive to maintain, obtain, employ, build and foster resources (Hobfoll, 1988; Hobfoll, 2011). This retaining of resources is for individual and collective betterment to include family, health, and overall betterment of an individual or group. Hobfoll (2011) states that resources can include material objects (e.g. homes, cars, or other objects), personal characteristics (knowledge or self-esteem), or conditions (e.g. employment or marriage). The availability of mental health services could also be a resource. The loss of any of the aforementioned resources could contribute to stress on individuals or groups (Hobfoll, 1988). A fundamental COR principle is that the loss of resources is more salient than the gaining of

resources. That is, stress can be caused by the loss of these resources (Hobfoll, 2011). Therefore, the loss of the availability of mental health services could contribute to additional stress in service members. In the military environment, service members move from one military location to another military location once every 2 to 3 years. When service member move to different military locations, the availability of mental health services often differ (Zinzow et al., 2013; Mental Health Advisory Team, 2008; DOD Task force on Mental Health, 2007). This could make help-seeking for mental health services difficult or some services may not be available. This could contribute to increased stress levels of service members with mental health challenges, therefore possibly contributing negatively to the mental health of service members. According to COR, this concept is referred to as the primacy of resource loss.

The COR theory has implications for mental health help-seeking intentions. The increase of mental health providers and mental health appointments could contribute to the increase of resources within a health care environment. According to COR, the increase of these healthcare resources could reduce the stress levels in service members. Conversely, the lack of providers and appointments has negative implications for the conservation of resources. Nakashima (2014) highlights the fact that there is a shortage of mental health providers in the military. This shortage, according to COR theory contributes to the problem of mental health help-seeking in the military. Additionally, this dissertation had demonstrated the importance of leadership support climate in influencing a service member's intention to seek mental health care. Leaders should also be aware of the importance of having an adequate amount of resources at all duty stations to service military members that require mental health care. The inability to manage and ensure that mental health services are provided in sufficient amounts could contribute to more stress in military service members suffering from mental illness.

6.7 Theoretical Implications

This dissertation makes contributions to the literature in two ways. First, this dissertation provides a theoretical look at mental health help-seeking in military service members through the use of the framework of the Theory of Planned Behavior. Second, it explores the organizational climate construct and incorporates it into the TPB framework.

This dissertation contributes to the literature by allowing theory to drive the formulation of hypothesis using the TPB framework in mental health help-seeking research in military members. Previous research conducted on mental health help-seeking in service members was purely exploratory or was quantitative and lacked theoretical underpinning (Britt et al., 2011).

The incorporation of the organizational climate construct in the theory of planned behavior marries two literatures. Theoretically, organizational climate works through motivating service members through their environment (Litwin & Stringer, 1968). This is accomplished through the incentives, punishments, and the set of expectations of individuals within the organization (Litwin & Stringer, 1968). Theoretically, this demonstrates that organizational climate is a conceptual antecedent to attitudes in the theory of planned behavior. Organizational climate has not been considered a theoretical construct in the theory of planned behavior literature (Fishbein & Ajzen, 2010). This is important because combining leadership support climate into the TPB demonstrates that the environment set by the leader influences the intention of a service member to seek mental health care. Leadership support climate is important when predicting behavior within organizations using the TPB framework because it underscores the conceptual importance of the influence of leadership. This can be generalized throughout society. Our society as a whole is challenged with encouraging people with mental health problems to seek mental health care. Our society should focus on creating an environment where leaders set a positive tone for seeking mental health care.

6.8 Practical Implications

The results of this dissertation have practical implications for individual soldiers and leaders in the military. The first implication addresses the finding that mental health help-seeking attitudes is significantly related with mental health help-seeking intention. The implication is that the military should make efforts to influence the attitudes of service members towards seeking help for mental health conditions. This can be accomplished through outreach campaigns using traditional media such as social media, television, newspapers, and radio, as well as, social media outlets such as Facebook and Twitter. The second practical implication addresses the finding that mental health help seeking attitudes mediates the relationship between leadership support climate and mental health help-seeking intention. This finding suggests that we should ensure that leaders fully understand their influence because the climate that they set for their organization has a direct effect on the intentions of their soldiers to seek mental health care. Leaders should take an active role in shaping their organizations environment. Leaders should ensure that all subordinates fully understand that their leader supports mental health help-seeking. This should be accomplished verbally by speaking to other organizational leaders and subordinates and explicitly identified in organizational procedures. Leaders should also set the environmental tone through written policy letters within their organizations in support of soldiers that seek mental health care. Also, at the highest levels of the military, professional education and mental health training events should be scheduled that promote a positive environment for seeking mental health care. What's more, the leader must fully demonstrate his or her support once a service member within his or her organization presents for a mental health issue. This can be accomplished by ensuring that the service member is not ostracized in the unit or placed in positions of lesser authority.

Finally, the practical implication for this dissertation is changing the attitudes of service members coupled with encouraging leaders to provide environments that are conducive and accepting of service members seeking mental health care ultimately leads to healthier military members which contributes to a stronger military force that ultimately affects the security of our nation.

6.9 Limitations

One of the major limitations of this dissertation is its cross sectional design. The process of help-seeking and the intention to seek help for mental health problems can take place over time. The most significant concern with cross sectional study designs is the problem with common method variance (Podsakoff et al., 2003). In this dissertation I test for common method variance and the results suggest that there is not a significant problem shared variance between predictor and outcome variables. The next evolution of this research will consider incorporating a temporal component.

Another possible limitation of this research is the final sample size of useable data. Although the sample size met the floor threshold required by Cohen (1992), a larger sample size would increase the probability of detecting an effect. However, a significant advantage of using the PLS approach is that meaningful results can be garnered using small sample sizes with complex models (Barclay et al., 1995).

This dissertation used an electronic survey instrument that was emailed out electronically to respondents. This approach raises the concern of non-response bias. Non-response bias occurs when the individuals that respond to a survey differ significantly from those that do not respond to a survey. The survey was emailed to 227 respondents and 132 opened the survey. This resulted in only 126 useable surveys. There is a possibility that there is a difference in the 6

participants that opened the survey and did not complete the survey and those that actually completed the survey. However, I did not test the difference because I did not have the necessary data on those that did not complete the survey to make an assessment. Furthermore, the 6 people that did not complete the survey would not provide enough information to draw any meaningful statistical inferences.

6.10 Future Research

Future research should build on this research by identifying the specific leadership traits, factors, or practices that contribute to a healthy and supportive environment for service members to desire to seek mental health care. Identifying these specific factors will arm military leaders with the specific tools to manipulate their environments to encourage mental health help-seeking. Future research should consider what leader interventions should be applied to effectively create a positive environment for mental health help-seeking, but I would offer the following as factors to consider.

Additionally, future research should consider the mental health help-seeking patterns in different types of military specialties. For example, are service members that serve in health care fields more likely to seek help for mental health problems than service members in combat branches such as infantry and armor. The premise for this approach is that service members that receive larger doses of combat may or may not have higher levels of mental health help-seeking than those in specialties that receive lower doses of combat.

This dissertation determined that the organizational climate factor, leadership support climate, works through mental health help-seeking attitudes in predicting mental health help-seeking intentions. It is reasonable to assume that such climate factors could also moderate the relationship between mental health help-seeking attitudes and mental health help-seeking

intention. Specifically, leadership support climate would strengthen the relationship between mental health help-seeking attitudes and mental health help-seeking intentions. This is proposed because the environment or climate that a leader sets could potentially strengthen an individual's intention to seek mental health care.

6.11 Conclusion

The following are the three main conclusions from this dissertation. First, the individual attitudes of service members towards mental health help-seeking plays a significant role in determining intention to seek mental health care in service members. Second, the environment that leaders shape for their followers has a significant impact on a service member's intention to seek mental health care. Finally, further research should further explore the relationship of organizational climate factors and mental health help-seeking in military service members.

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APPENDIX A: OPERATIONAL DEFINITIONS

Concept	Definition
<i>Attitudes toward mental health help-seeking</i>	A person's positive or negative evaluation of the belief about conducting the behavior of seeking help for mental health problems (Fishbein, 1975; Fishbein & Ajzen, 2010)
<i>Mental Health Help-seeking Subjective Norms</i>	A person's negative or positive beliefs or perceptions of how people who are significant or important in their lives (NOTE TO SELF: should you consider military and non-military???) feel about seeking help for mental health problems (Fishbein, 1975; Fishbein & Ajzen, 2010).
<i>Mental Health Perceived Behavioral Control</i>	A person's perceived ability or amount of control one possesses to seek out mental health care despite personal or external barriers (Fishbein & Ajzen, 1991; Fishbein & Ajzen, 2010).
<i>Help-seeking Intentions</i>	A person's internal drive, motivation, plan, or desire in making the conscious decision to seek help for mental health problems (Fishbein & Ajzen, 1991; Fishbein & Ajzen, 2010).
<i>Individual Identity</i>	A person's focus on individual and unique traits that differentiates them from other people (Brewer, 1996)
<i>Collective Identity</i>	A person's identification of self through membership, categorization, or inclusion in relevant social groups (Brewer, 1996)
<i>Organizational Support Climate</i>	Organizational support climate is an individual's perceptions of the environment in which they work (Kipelman, R., Brief, A., & Guzzo, R., 1990).
<i>Leadership Support Climate</i>	The perception or belief by subordinates that "he[she] is cared for and loved, esteemed..." by superiors "...and a member of a network of mutual obligations" (Cobb, 1976, p.300).

<i>Coworker Support Climate</i>	The perception or belief by coworker that “he[she] is cared for and loved, esteemed...” by other coworkers “...and a member of a network of mutual obligations” (Cobb, 1976, p.300).
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APPENDIX B: PRIMARY STUDY SURVEY INSTRUMENT

[illegible]

APPENDIX C: THEORY OF PLANNED BEHAVIOR CONSTRUCTS

Intention hypothetical situation: The following questions ask about your intention to seek mental health services, your attitude towards mental health services, the views of those that are important to you about mental health services, and your control factors towards seeking mental health services if you had a mental health condition. Please choose the most appropriate response.

Help-seeking Intentions						
If I had a mental health problem, I intend to seek mental health service while on active duty in the military						
Definitely would not	1	2	3	4	5	Definitely would
If I had a mental health problem, I will try to seek mental health service while on active duty in the military						
Very unlikely	1	2	3	4	5	Very likely
If I had a mental health problem, I plan to seek mental health service while on active duty in the military						
Totally disagree	1	2	3	4	5	Totally agree
Attitude towards help-seeking						
If I had a mental health problem, my seeking help while on active duty in the military would be						
Very bad	1	2	3	4	5	Very good
If I had a mental health problem, my seeking help while on active duty in the military would be						
Very unpleasant	1	2	3	4	5	Very pleasant
If I had a mental health problem, my seeking help while on active duty in the military would be						
Very harmful	1	2	3	4	5	Very beneficial
If I had a mental health problem, my seeking help while on active duty in the military would be						
Useless	1	2	3	4	5	Useful
Subjective Norms Toward Seeking Mental Health Care						

If I had a mental health problem, most people who are important to me think that I should seek help						
Totally disagree	1	2	3	4	5	Totally agree
If I had a mental health problem, most people who are important to me view mental health service very negatively						
Totally disagree	1	2	3	4	5	Totally agree
If I had a mental health problem, most people that I respect and admire would seek help for a mental health problem						
Very unlikely	1	2	3	4	5	Very likely
Perceived behavioral control						
If I had a mental health problem, I think I can decide whether to seek mental health service or not						
Totally disagree	1	2	3	4	5	Totally agree
If I had a mental health problem, seeking mental health service is dependent on my choice						
Totally disagree	1	2	3	4	5	Totally agree
If I had a mental health problem, I can seek mental health service if I like to do so						
Totally disagree	1	2	3	4	5	Totally agree

APPENDIX D: LEADERSHIP SUPPORT CLIMATE

1	2	3	4	5
Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

1. The leaders in my unit establish clear work objectives	1	2	3	4	5
2. The leaders in my unit are interested in my personal welfare	1	2	3	4	5
3. The leaders in my unit delegate work effectively	1	2	3	4	5
4. The leaders in my unit let soldiers know when they have done a good job	1	2	3	4	5
5. The leaders in my unit avoid micromanaging soldiers' work	1	2	3	4	5
6. The leaders in my unit are interested in what I think and how I feel about things	1	2	3	4	5

APPENDIX E: COWORKER SUPPORT CLIMATE

1	2	3	4	5
Not at all	Not much	Neither can or can't	Pretty much	Very much So

1. How much do coworkers go out of their way to do things to make your work-life easier for you?	1	2	3	4	5
2. How much could you rely on your coworkers to provide money or other things if you were in need?	1	2	3	4	5
3. When things get tough at work, how much can you count on your coworkers to listen, show understanding or show that they care?	1	2	3	4	5
4. When things get tough at work, how much can you rely on your coworkers for advice or information?	1	2	3	4	5

APPENDIX F: PERCEIVED ORGANIZATIONAL SUPPORT

0	1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

1 The organization values my contribution to its well-being.	0	1	2	3	4	5	6
2. The organization fails to appreciate any extra effort from me. (R)	0	1	2	3	4	5	6
3. The organization would ignore any complaint from me. (R)	0	1	2	3	4	5	6
4. The organization really cares about my well-being.	0	1	2	3	4	5	6
5. Even if I did the best job possible, the organization would fail to notice. (R)	0	1	2	3	4	5	6
6. The organization cares about my general satisfaction at work.	0	1	2	3	4	5	6
7. The organization shows very little concern for me. (R)	0	1	2	3	4	5	6
8. The organization takes pride in my accomplishments at work.	0	1	2	3	4	5	6

APPENDIX G: MO AND MAK (2009) SURVEY ITEMS

Help-seeking Intentions

I intend to seek mental health service.

I will try to seek mental health service.

I plan to seek mental health service.

Attitude towards help-seeking

For me to seek mental health service is:

Very bad -----Very good

Very worthless ---Very worthwhile

Very useless-----Very useful

Very foolish-----very wise

Very rare----very common

Subjective Norms

Most people who are important to me think that I should seek mental health service

Most people who are important to me view mental health service very negatively

Most people who are important to me will seek mental health service if they are in need

Perceived behavioral control

I think I can decide whether to seek mental health service or not

Seeking mental health service is dependent on my choice

I can seek mental health service if I like to do so.

APPENDIX H: EXPLANATION OF CORRELATION TABLE VARIABLES

No.	Variable Name	Description	Measure	Values
1	INT	Mental Health Help-Seeking Intentions	Scale	-
2	ATT	Mental Health Help-Seeking Attitudes	Scale	-
3	SN	Mental Health Help-Seeking Subjective Norms	Scale	-
4	PBC	Mental Health Help-Seeking Perceived Behavioral Control	Scale	-
5	CS	Coworker Support Climate	Scale	-
6	LSC	Leadership Support Climate	Scale	-
7	POS	Perceived Organizational Support	Scale	-
8	age	Age of the military service member	Scale	-
9	gender	Gender of the military service member	Nominal	1 = Male 2 = Female
10	YOS	Years of service of the military service member	Scale	-
11	rank	The rank of the service member	Ordinal	1 = "E4 or below" 2 = "E5 to E6" 3 = "E7 - E9" 4 = "O1 - O3" 5 = "O4 - O5" 6 = "O6 or above"
12	would seek care	If you had a memtal health problem, would you seek care?	Nominal	1 = Yes 2 = No
13	edu	Yeas of education	Ordinal	1 = High school 2 = Associates degree 3 = Bachelors degree 4 = Masters or higher
14	numdeply	The number of combat deployments	Nominal	1 = 0 deployments 2 = 1 deployments 3 = 2 deployments 4 = 3 deployments 5 = 4 deployments 6 = 5 or more
15	married	Marital status	Nominal	1 = Yes 2 = No
16	have past care	Have you sought mental health care in the past	Nominal	1 = Yes 2 = No
17	where access	Does the participant know where to access mental health care	Nominal	1 = Yes 2 = No
18	diagnosed	Has the service member been diagnosed with a mental health problem in the past	Nominal	1 = Yes 2 = No
19	avail	Does the participant feel as if mental health services are available	Nominal	1 = Yes 2 = No
20	feel access	Does the partiicpant feel as if they have access to mental health care	Nominal	1 = Yes 2 = No
21	access info	Does the participant feel as if they had information on how to access mental health care	Nominal	1 = Yes 2 = No
22	branch	Which branch of the military is the participant a member	Nominal	1 = Army 2 = Navy 3 = Air Force 4 = Marines 5 = Coast Guard 6 = Other

CURRICULUM VITA

Mishaw T. Cuyler was born in Austin, Texas and is the son of Dan Cuyler and Mary H. Cuyler. He was raised in a variety of military communities across the globe to include Italy, Greece, Oklahoma, Guam, and Georgia. He is a Lieutenant Colonel and Medical Service Corps officer in the United States Army. He attended Tuskegee University earning a Bachelor's of Science Degree in Mechanical Engineering. He also earned a Masters in Healthcare Administration from the Army-Baylor Program in Health and Business Administration. Mishaw T. Cuyler currently is a graduate faculty member at the Army-Baylor Program in Health and Business Administration where he teaches finance, business case analysis, and international business. He is married and has two children.

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