Determinants of veterans' help seeking intentions: an application of the theory of planned behavior

Tania Khan

University at Albany, State University of New York, tkhan@albany.edu

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DETERMINANTS OF VETERANS’ HELP SEEKING INTENTIONS: AN APPLICATION OF THE THEORY OF PLANNED BEHAVIOR

by

Tania A. Khan

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INTENTIONS: AN APPLICATION OF
THE THEORY OF PLANNED BEHAVIOR

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# Table of Contents

Table of Contents ........................................................................................................ iii

Abstract ....................................................................................................................... vi

Statement of the Problem and Review of Literature ...................................................... 1
    Veterans and Mental Health ....................................................................................... 2
    Veterans and Help Seeking ....................................................................................... 4
    Theory of Planned Behavior ..................................................................................... 5
    Gender and Masculinity ......................................................................................... 9
    Summary and Hypotheses ....................................................................................... 11

Method ......................................................................................................................... 12

Participants ................................................................................................................. 12
    Participant Characteristics .................................................................................... 13

Instruments .................................................................................................................. 14
    TPB Scales ............................................................................................................. 14
    Bem Sex-Role Inventory-Short Form .................................................................... 16
    Demographic Questionnaire ................................................................................ 16

Procedure .................................................................................................................. 17

Results ......................................................................................................................... 18

Preliminary Analyses ................................................................................................. 18
    Missing Values ..................................................................................................... 18
    Examination of Outliers ....................................................................................... 18
    Test of Order Effects ........................................................................................... 19
    Descriptive Statistics .......................................................................................... 19
Correlations between the demographic variables and Intentions .................. 20
Test of Assumptions ................................................................................... 21
Major Analyses ......................................................................................... 21
Discussion ............................................................................................... 23
Major Results ........................................................................................... 24
Theoretical Implications ........................................................................... 25
Practical Implications ............................................................................... 28
Limitations ............................................................................................... 30
Future Research ....................................................................................... 32
References ............................................................................................... 34
Appendices ............................................................................................... 48
  Appendix A – TPB Help Seeking Measures ............................................. 48
  Appendix B – Demographic Questionnaire ............................................. 50
  Appendix C – Email Recruitment ............................................................ 53
List of Tables

Table 1. Participants’ Characteristics.................................................................55
Table 2. Descriptive Statistics on the Major Variables by Participant Gender.........58
Table 3. Intercorrelations between Study Variables............................................59
Table 4. Summary of the Hierarchical Multiple Regression Analyses...............60
Abstract

Military veterans are often placed in mentally and physically challenging situations and may also endure stress when transitioning to civilian life after their military service, which can lead to many veterans experiencing mental health concerns (Bullock, Braud, Andrews, & Phillips, 2009; Cornish, Thys, Vogel, & Wade, 2014; Hoge, Auchterlonie, & Milliken, 2006; Seal, Bertenthal, Miner, Sen, & Marmar, 2007). Despite the increased risk, many veterans choose not to seek out professional mental health services (Kim, Britt, Klocko, Riviere, & Adler, 2010; Sharp et al., 2015).

The present study examined factors that may contribute to veterans’ intentions to seek professional help. Based on the Theory of Planned Behavior (TPB; Ajzen, 1985), the constructs attitudes, subjective norm, and perceived behavioral control were examined as predictors of veterans’ intentions to seek professional help. In addition, gender and masculinity were also investigated as possible predictors of intentions.

The sample consisted of 392 military veterans (301 men, 91 women) who had enlisted in the military in or after 1990 (Gulf War Era) and who were not under contract with the military at the time of participation. Hierarchical regression was used to test the hypotheses that attitudes, subjective norm, and perceived behavioral control, taken together, would predict veterans’ intentions to seek professional psychological help over and above the contributions of gender and masculinity. It was also hypothesized that female gender and less masculinity would significantly contribute to the prediction of higher intentions. Scales for the four TPB constructs were similar to those used by Mo and Mak (2009).

Due to poor internal consistency reliability, Subjective Norm was omitted from the analyses. The TPB predictors, Attitudes and Perceived Behavioral Control (PBC) were added to
the regression model after the addition of Gender, Masculinity, and one covariate, Currently Seeing Therapist (yes or no).

Although gender and masculinity were not predictive of intentions, the full model was significant and accounted for 50.4% of the variance. Together, Attitudes and PBC accounted for a unique 22.7% of the variance, partially supporting the TPB.

Despite the lack of gender differences in intentions, female participants were significantly more likely than their male counterparts to endorse positive help-seeking attitudes. These results are discussed in terms of their practical implications, limitations, and directions for future research.
STATEMENT OF THE PROBLEM AND REVIEW OF LITERATURE

The population of military veterans in the U.S. was recently estimated at 21.8 million (U.S. Census Bureau, 2014). Studies find that veterans may experience mental health concerns due to stressors they are exposed to during military service, including deployments, but that many veterans may choose not to seek professional psychological help even when distressed (Britt et al., 2011; Elbogen et al., 2013; Kim, Britt, Klocko, Riviere, & Adler, 2010; Milliken, Auchterlonie, & Hoge, 2007; Sharp et al., 2015). For this reason, it is important to understand factors that influence veterans’ intentions to seek professional help in order to inform providers who refer veterans for mental health care.

A person’s intention to seek help from a mental health provider is generally predicted by his or her attitudes toward mental health services (Mackenzie, Gekoski, & Knox, 2006; Reynders, Kerkhof, Molenberghs, & Van Audenhove 2014). Specifically, positive attitudes are associated with greater use of mental health care (ten Have, 2010), whereas negative attitudes are associated with a decreased likelihood of doing so (Jagdeo, Cox, Stein, & Sareen, 2009).

Attitudes toward seeking help are a predisposing characteristic of intentions to seek help and are a way to understand how individuals perceive their need for mental health services (Andersen, 1995). In particular, attitudes related to the stigma associated with help seeking for mental health concerns negatively impact intentions to obtain help (Britt et al., 2011).

To move research in this area forward, the current study investigated the relative contribution of specific aspects of Ajzen’s (1985) Theory of Planned Behavior to veterans’ intentions to seek professional help. The study was based on this theory due to substantial evidence supporting its validity for understanding how people in general decide to pursue a specific course of action (Giles & Rea, 1999; Hess & Tracey, 2013; Smith, Tran, & Thompson,
As well, the current study explored the contribution of gender and level of masculinity to help seeking intentions.

**Veterans and Mental Health**

According to the 2014 report of the U.S. Census Bureau, there are nearly 22 million veterans in the U.S. Post-traumatic stress disorder, depression, substance abuse, traumatic brain injury, and suicidality are cited as the most prevalent mental health conditions among veterans and are among the most widely studied (Hoge, Auchterlonie, & Milliken, 2006; Hoge et al. 2004; Seal, Bertenthal, Miner, Sen, & Marmar, 2007).

Studies show that rates of mental health conditions vary between veteran subpopulations (Riddle et al., 2007; Seal et al., 2009). For instance, combat veterans generally have higher rates of PTSD than other veterans, female veterans have higher rates of depression than men, men have twice the likelihood of substance abuse disorders than women, younger veterans (<40) are at a greater risk for PTSD and those in the 18-24 age range are at greatest risk (Seal et al., 2007; Seal et al., 2009). However, there may still be overlap between subgroups and prevalence of mental health conditions. For instance, while younger male combat veterans tend to have higher rates of PTSD, one study shows that older female veterans also have higher PTSD diagnoses (Maguen, Ren, Bosch, Marmar, & Seal, 2010). Overall, studies show high percentages (18.5% to 42.7%) of emerging mental health conditions, particularly amongst OEF and OIF veterans (Milliken, Auchterlonie, & Hoge, 2007; Seal, Bertenthal, Miner, Sen, & Marmar, 2007; Seal et al., 2009; Tanielian & Jaycox, 2008).

The variability in these percentages is likely due to differences in the samples obtained by different investigators. The military literature on help seeking for mental health concerns often reports the results of samples that include active duty personnel and combat veterans, in
particular. While there are several benefits from conducting research within these parameters, they can sometimes be limiting. Investigators who limit their samples to combat veterans cannot generalize their results to veterans who did not experience combat or to female veterans, and the population of veterans spans several generation. Also, the term ‘veteran’ can be used in different ways, with some using the term to refer to anyone who is currently or has served, while others use it to refer only to those service members who are no longer serving. Thus, researchers might refer to their samples as ‘veteran’ samples, although their sample may consist of those still serving. Investigators who sample active duty military, Reservists, and Guard members cannot be generalized to veterans who have separated from the military since confidentiality between service members and their medical providers differs in civilian settings (e.g., commanding officers can obtain information from military psychologists about their clients).

Since the veteran population is large and diverse, no information is available that definitively indicates whether there is a higher prevalence of mental health conditions among veterans than exists in the civilian population. However, it is clear that veterans are a unique population in which the risk and potential for experiencing mental health concerns is high, making it important to continue to study this population. For instance, researchers have investigated experiences and stressors that can result in psychological distress and contribute to the onset of mental health conditions. Examples include experiences of military sexual trauma (Kimerling et al., 2008; Suris & Lind, 2008), transitions back to family life and the civilian workforce (Bullock, Braud, Andrews, & Phillips, 2009; Cornish, Thys, Vogel, & Wade, 2014; Morin, 2011; Snyder et al., 2016), and loss of camaraderie. Veterans who feel that their friends and family members cannot fully relate to their military experience are particularly likely to experience loneliness and isolation (Erbes, Polusny, MacDermid, & Compton, 2008; Harkness &
Feelings of disconnection can cause veterans to be even less inclined to reach out to strangers, even mental health professionals, for help.

**Veterans and Help Seeking**

Several studies have investigated help seeking in veterans. More specifically, studies have investigated how stigma and negative attitudes about receiving mental health care decreases the likelihood of seeking mental health services (Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009; Stecker, Fortney, Hamilton, & Ajzen, 2007; Warner, Appenzeller, Mullen, Warner, & Grieger, 2008). Studies examining the utilization of mental health services among veterans yield mixed results. On the one hand, some studies show that veterans who entered into combat in Iraq and veterans who have PTSD have higher utilization than other veterans (Hoge, Auchterlonie, & Milliken, 2006). Other studies show that fewer veterans (13% to 40%), including those who saw combat in Iraq, tend to seek mental health care when faced with a mental health condition (Hoge et al., 2004; Kim, Britt, Klocko, Riviere, & Adler, 2011; Kim, Thomas, Wilk, Castro, & Hoge, 2010). While these percentages seem comparable or higher than the percentages reported in civilian populations, it is important to note that these figures are likely to not fully reflect help-seeking among veterans. That is, many of these studies sampled veterans who have not separated from the military. Many veterans returning from deployments are commonly mandated to have at least one appointment with a psychologist, so the literature does not fully reflect voluntary help seeking behaviors. In one study, while veterans newly diagnosed with PTSD attended some mental health appointments, fewer than 10% completed the recommended number of PTSD appointments (Seal et al., 2010). These findings highlight the importance of studying not only the veterans’ initial decision to seek help, but also the intention to complete an adequate course of treatment.
Thus, while some studies suggest certain subgroups may be accessing mental health services at higher rates, several others studies show that there are still many veterans who are not. Moreover, as noted earlier, factors such as stigma and attitudes can affect veterans’ willingness to seek help. Therefore, understanding factors that contribute to intentions to seek help may be helpful. The Theory of Planned Behavior (TPB; Ajzen, 1985), a well-established framework that has been used to understand help seeking intentions and behaviors, is a useful theory to use here.

**Theory of Planned Behavior**

The Theory of Planned Behavior (TPB; Ajzen, 1985) is a well-established framework for investigating factors that interact to predict the likelihood that a person will engage in a specific behavior. According to TPB, behaviors are preceded by behavioral intentions, or a readiness to engage in that specific behavior. In turn, behavioral intentions stem from three factors: attitudes, subjective norm, and perceived behavioral control (Ajzen, 1985). *Attitudes* account for whether the target behavior and its perceived outcome are viewed positively or negatively. *Subjective norm* refers to how an individual thinks that significant other people in his or her life perceive the target behavior. *Perceived behavioral control* refers to how much control an individual believes that he or she has to perform the target behavior (Ajzen, 1985, 1991).

The attitudes, subjective norm, and perceived behavioral control factors are unique for each target behavior. In applying TPB to the study of career concerns, for example, attitudes were defined as how participants thought different career options would make them feel, subjective norm as the specific careers that participants thought that important others in their life believed that they should pursue, and perceived behavioral control as how confident participants felt in pursuing these various career options (Giles & Rea, 1999).
The TPB predicts intentions and/or behaviors, as shown by several meta-analytic studies (Armitage & Conner, 2001; Mceachan, Conner, Taylor, & Lawton, 2011; Riebl et al., 2015; Topa & Moriano, 2010). For example, a meta-analysis conducted by Armitage and Conner (2001) of 185 TPB studies found that TPB factors (attitudes, subjective norm, and perceived behavioral control) on average accounted for 39% of the variance in intentions and 27% of the variance in behaviors. In another meta-analysis analyzing 35 studies investigating smoking behaviors, Topa and Moriano’s (2010) findings show that smoking behaviors were related to smoking intentions and that TPB factors were predictive of intentions. Thus, there is evidence to suggest that TPB is a sound model for investigating factors predictive of intentions and behaviors.

Over the past decade several studies have used TPB to investigate help seeking in the mental health domain (Hess & Tracey, 2013; Mo & Mak, 2009; Schomerus, Matschinger, & Angermeyer, 2009; Servaty-Seib et al., 2013; Skogstad, Deane, & Spicer, 2006; Smith et al., 2008). Skogstad et al. (2006), for example, sought to determine whether the TPB constructs, among other factors, would predict intentions to seek help for mental health problems among male prison inmates in New Zealand. All three TPB constructs predicted inmates help seeking for suicidality or other personal-emotional problems.

In a later study, Mo and Mak (2009) investigated help seeking intentions in a sample of 941 Chinese participants from Hong Kong using scales that were developed for each TPB component in relation to help seeking. Similar to the other TPB studies in this area, positive attitudes, positive subjective norm, and positive perceived behavioral control were significant predictors of participants’ intentions to seek help.
Most pertinent to the present study, TPB has also been used to study professional help seeking in military samples (Britt et al., 2011; Stecker, Fortney, Hamilton, & Ajzen, 2007; Stecker, Fortney, Hamilton, Sherbourne, & Ajzen, 2010). Studies by Stecker and colleagues supported the TPB variables of attitudes and perceived behavioral control in predicting help seeking intentions in National Guard soldiers (Stecker et al., 2007, 2010). In the former study, information was collected from participants via interviews rather than written measures (Stecker et al., 2007), whereas in the latter study, participants completed measures that were created using the recommended methods for TPB constructs (Stecker et al., 2010). Results from Stecker et al. ’s (2007) interviews showed that service members who believed that counseling could improve their symptoms, believed they had the time and transportation to get to appointments, and were comfortable with the idea of talking to a counselor were more likely to have intentions to seek help and to engage in the behavior of seeking help. Stecker et al. ’s (2010) findings showed that attitudes and perceived behavioral control were significant predictors of intentions to seek help.

In another TPB study with a military sample, Britt et al. (2011) investigated treatment seeking among service members from select military reserve components. Using a mixed models design, Britt et al. measured subjective norm and perceived behavioral control by adapting items from a previous study; attitudes were measured with a single item of the authors’ creation. It was found that attitudes accounted for significant unique variance in treatment seeking, but the results did not support the theory with respect to either subjective norm or perceived control. For the qualitative portion of the study, participants who identified having a psychological problem, but were not receiving mental health services for that problem, were asked to indicate why services were not being sought. A total of 120 participants responded to this question. The qualitative themes that emerged in the authors’ analysis suggested that participants’ reasons for not seeking
help included the perception that the problem was not severe enough or that they had insufficient resources, e.g., time and money, to do so.

Britt et al.’s (2011) study had several strengths, including a large sample ($N = 760$), but it also had limitations. The primary limitation was that the scales had poor internal consistency reliabilities, ranging from .43 to .61, calling into doubt the interpretability of the study. One limitation involved the inclusion criteria. That is, only participants who indicated that they were currently experiencing stress or an emotional problem were sampled. Since only individuals who were willing to admit that they had a psychological problem or condition were included in Britt et al.’s sample, the results did not account for individuals who struggle with stigma would keep them from admitting to having a problem. Indeed, Britt et al. (2011) found that scores on the six perceived stigma items were at the midpoint of the 5-point scale ($M = 2.83, SD = .97$), indicating participants’ scores on perceived stigma were relatively low and suggesting that those who chose to participate may have been those who felt comfortable admitting to having a psychological concern. Further, Britt et al. only sampled service members from reserve components, so that the results could not reliably be generalized to service members who had served as active duty personnel in the military. Therefore, there is a need for a study that investigates a more representative sample of veterans.

Additional factors that have not been adequately studied as contributors of not seeking mental health treatment among veterans are gender and masculinity. Among civilians, gender strongly contributes to help seeking attitudes (e.g., Mackenzie et al., 2006; Nam et al., 2010; Sheu & Sedlacek, 2004). This factor is particularly salient in the military population now that increasing numbers of women are enlisting and joining the veteran population after being deployed in combat areas overseas.
**Gender and Masculinity**

Gender is a strong predictor of seeking professional mental health treatment (Mackenzie et al., 2006; Nam et al., 2010; Sheu & Sedlacek, 2004) A recent meta-analysis of 5,713 young adults found that women were more likely to have positive attitudes toward seeking professional psychological help (Nam et al., 2010). What is not known is if women are more likely to seek help in the military. Since women in the military are exposed to a highly masculine environment for long periods of time, it is possible that over time they may adopt the attitudes of the men in that environment. Supporting this reasoning, results from a recent mixed-models study in a sample of female student veterans found no statistically significant gender difference in attitudes towards help seeking (DiRamio, Jarvis, Iverson, Seher, & Anderson, 2015).

A better predictor of intentions to seek help than gender may be masculinity. Female veterans who see themselves as highly masculine may be just as likely as their male counterparts to avoid seeking professional help, even when they are suffering a great deal with psychosocial concerns. Masculinity seems to be an important factor in help seeking for men as well as women. Nam et al. (2010) discussed their meta-analytic results regarding gender and help seeking in terms of gender role conflict (O’Neil, 1981). The theory of gender role conflict holds that since men and women are socialized differently based on the values that society associates with their respective genders, individuals who vary from the values assigned to their gender may experience a fear of being ostracized, as well as other psychological stressors (O’Neil, 1981). Consequently, if men endorse the view that being masculine requires being “tough” and not showing any emotions that imply weakness, such as sadness and fear, this view can inhibit their intention to seek professional help from mental health counselors (Courtenay, 2000), even when they are in great need of psychological services (Nam et al., 2010).
In previous studies, gender and gender role have been associated with the stigma that prevents many people from seeking professional help (Chandra & Minkovitz, 2006; Hammer, Vogel, & Heimerdinger-Edwards, 2013; Pederson & Vogel, 2007). Some research suggests that when men are concerned about how they are viewed by others for deciding to seek help, particularly if they view themselves differently from other men for doing so, these views can put them at risk for having negative attitudes toward help seeking (Deane & Todd, 1996; Pederson & Vogel, 2007). For example, Pederson and Vogel (2007) found that, in a sample of 575 undergraduate men, self-stigma, distress disclosure, and attitudes partially mediated the relationship between gender role conflict and willingness to seek counseling. When these three mediators were controlled for, there was still a direct relationship between gender role conflict and willingness. More specifically, participants who endorsed high gender role conflict also had greater self-stigma. Similarly, they were less likely to self-disclose distressing information and had fewer positive attitudes toward counseling.

Few studies, however, have investigated masculinity in terms of attitudes toward and willingness to seek help. One study (Berger, Levant, McMillan, Kelleher, & Sellers, 2005) found that men who endorsed higher levels of traditional masculinity ideology (i.e. “beliefs about the importance of the adherence to culturally defined standards for male behavior”) reported significantly more negative attitudes toward psychological help seeking (p. 74). Similarly, Smith et al. (2008) found that traditional masculinity ideology in a sample of male undergraduates was negatively associated with the intention to seek psychological help.

Due to evidence that traditional masculine socialization may decrease help seeking in men in the general population, Lorber and Garcia (2010) posited that this barrier to help seeking may be magnified among male veterans due to high exposure to an environment that endorses
traditional masculine roles. There are, however, few studies of masculinity in military populations. One study explored masculinity in male veteran students and active duty service members (Alfred, Hammer, & Good, 2014). Results showed that high endorsement of masculine norms was related to poor psychological well-being. No studies were located on masculinity as related to help seeking in women in general and in female veterans in particular.

Summary and Hypotheses

Among military veterans, the potential for mental health related concerns is high (Hoge et al., 2006; Hoge et al. 2004; Seal et al., 2007) and has been increasing in recent years. Many factors, including constructs from the Theory of Planned Behavior and gender and level of masculinity, are likely to contribute to a veteran’s intention either to seek or to avoid mental health services when needed. Although the available literature offers several explanations for the low rate of help-seeking among veterans, gender and masculinity have not been considered.

The current study addressed some of the limitations in these previous studies. First, the study investigated veterans’ willingness to seek help at any point in their lives when it seems necessary, thereby not excluding individuals who were unwilling to admit to having a problem at the time of data collection. Second, gender and masculinity were investigated as potential contributors to veterans’ intention to seek professional help. Third, the study used the well-defined sample of Gulf War Era veterans who were all separated from the military. Finally, the four TPB components (attitudes, subjective norm, perceived behavioral control, and intentions) were measured using items created by Mo and Mak (2009), who investigated help seeking based on the TPB framework and whose scales demonstrated strong internal consistency reliabilities.

First, based on Ajzen’s (1985) Theory of Planned Behavior, it was hypothesized that attitudes, subjective norm, and perceived behavioral control, taken together, would predict
veterans’ intentions to seek professional psychological help over and above the contributions of gender and masculinity. Second, it was hypothesized that gender and gender role (i.e., masculinity) would significantly predict veterans’ intentions to seek professional help. Specifically, (a) male veterans and (b) veterans of both genders who report relatively greater masculinity would be less likely to indicate an intention to seek professional mental health services than female veterans and veterans who report less masculinity. Finally, a research question was explored to identify which, if any, of these five factors might uniquely predict veterans’ intentions to seek mental health services when needed.

**METHOD**

**Participants**

The sample included 392 U.S. military veterans, 301 men (76.8%) and 91 women (23.3%), who agreed to participate in a study on “factors that contribute to veterans’ interest in mental health services.” Included were individuals who had enlisted in or were commissioned by the Air Force, Army, Marine Corps, Navy, or Coast Guard in or after 1990, but who were no longer obligated to any of these branches of the military. The 1990 cutoff was chosen because this year marks the beginning of a time period known as the *Gulf War Era*, which began with the start of the Gulf War and extends to the present day hostilities. Veterans from prior war eras were excluded because it was expected that generational differences with older veterans and differences in the era of the military in which the veterans served might weaken the study’s internal validity. Also excluded were individuals under active contract with the military, since current military service has different implications for both the availability and potential mandate of psychological help seeking.
An a priori power analysis (Cohen, 1992) was computed with $\alpha = .05$, anticipated power of .80, and a small effect size (0.1 – 0.3), based on previous research on help seeking attitudes (Britt et al., 2011; Nam et al., 2010). This analysis indicated that a sample of at least 240 participants would be sufficient. The current sample of 392 participants well exceeded this number.

**Participant characteristics.** As shown in Table 1, the average age of participants was 34 years ($M = 33.93$, $SD = 8.46$, range = 19 to 64). The percentage of women (23.2%) in the sample was more than twice the percentage of women in recent surveys (10.3%) of the overall veteran population (Women Veterans, 2013). In terms of race/ethnicity, participants identified as White/Caucasian (78.8%), Hispanic/Latino(a) (6.1%), Black/African descent (4.1%), East Asian/Southeast Asian/Pacific Islander (2.8%), Biracial or Multiracial (1.8%), Native American (1.5%), Caribbean Islander (0.5%), South Asian (0.5%), and other (2.3%). Participants reported residing primarily in the south (40.3%), midwest (23.5%), or northeast (21.9%) regions of the U.S. The majority reported having had some college experience, either without having earned a degree (34.4%) or having a bachelor's degree (23.7%). Roughly half the sample was married (47.4%) and had children (50.5%).

In terms of participants’ first branch of service, 41.3% were Army veterans. The remaining participants reported having served in the Marine Corps (25.3%), Air Force (16.3%), Navy (15.8%), or Coast Guard (1%). Most participants had spent ≤ 10 years in the military (76.8%) and were enlisted (90.8%), with 8.5% holding the rank of officer.

Most participants indicated having seen a mental health professional at least once in their lives (65.3%). On the other hand, most participants were not currently seeing a therapist (81.1%).
Instruments

TPB scales. When TPB is applied to a specific target behavior, it is necessary to develop items specific to the four TPB components and the specific research questions (Fishbein & Ajzen, 2010). The present study used the scale items created by Mo and Mak (2009), who investigated intentions to seek professional mental health services in a Chinese sample ($N = 941$) based on TPB. In their sample, the scales showed adequate to strong reliabilities for Intentions, Attitudes, Subjective Norm, and Perceived Behavioral Control with Cronbach alphas = .97, .84, .85, and .77, respectively. Although Mo and Mak did not study U.S. military veterans, their items were considered general enough to apply to most populations, including veterans.

Additionally, several veterans of the investigator’s acquaintance were consulted about potential TPB items, three of whom were specifically asked to comment on Mo and Mak’s items. Based on their feedback, all of Mo and Mak’s items were considered suitable for the veteran population.

As shown in Appendix A, help-seeking Intentions was measured by a three-item scale, one of which was, “I intend to seek mental health services.” Attitudes was measured using a five-item scale, one of which was, “For me seeking mental health services is very useful.” An example of an item to measure Subjective Norm (3 items) was, “Most people who are important to me think I should seek mental health services.”

Whereas the Attitudes, Subjective Norm, and Intentions scales in the present study were identical to those used by Mo and Mak (2009), the PBC scale was combined from Mo and Mak’s three-item Perceived Control and three-item Perceived Barriers scale. However, Fishbein and Ajzen (2010) defined perceived behavioral control in relation to both of these constructs, i.e., as individuals’ beliefs about their capability and control over engaging in a behavior, including
having access to information and other resources needed to perform the behavior, as well as beliefs about barriers that make it difficult to perform the behavior. For this reason, a single scale measuring perceived behavioral control seemed more appropriate to test this aspect of TPB. For purposes of brevity, the items that seemed most appropriate for veterans in each of Mo and Mak’s scales were selected in order to create one five-item PBC scale, an example of which is, “I can make the decision to seek mental health services.”

In responding to the survey, participants were instructed to imagine that they had a “stressor, emotional, psychological or social issue for which you would consider seeking counseling in the next three months.” Three months was selected because this time frame has often been used in measures created by the authors of the TPB, Fishbein and Ajzen (2010), who reasoned that three months is usually when change might occur.

Each item was rated on a 7-point Likert scale, where 1 = strongly disagree and 7 = strongly agree, with the exception of the Attitudes scale. As directed by Fishbein and Ajzen’s (2010) instructions on scale construction for TPB, Attitudes used a 7-point scale that ranged from a negative view to a positive one. For example, the item “For me seeking mental health services is…” had response options ranging from 1 = very useless to 7 = very useful.

Due to the differing numbers of items in each of the four scales, summed scores (after two items were reverse scored) were divided by the number of items in each scale, so that all four TPB variables ranged from 1 (low) to 7 (high). Higher scores indicated more favorable intentions, attitudes, subjective norm, and perceived behavioral control.

The internal consistency reliabilities in the current sample were Intentions = .98, Attitudes = .91, Subjective Norm = .24, and Perceived Behavioral Control = .71. Due to the low reliability for Subjective Norm, no analyses were conducted with this variable.
**Bem Sex-Role Inventory–Short Form.** The Bem Sex-Role Inventory–Short Form (BSRI–SF; Bem, 1981) is a widely used, 30-item, self-report questionnaire that measures masculine and feminine gender roles and was chosen due to its psychometric support. In contrast to some other measures, the BSRI-SF most closely captures masculinity and is structured in a way that is appropriate for both men and women.

The short form of the measure was derived from Bem’s (1974) original 60-item BSRI, which measures traits classified as either masculine, feminine, or androgynous (neutral). The BSRI-SF has 30 items (10 masculine, 10 feminine, and 10 neutral items). Items are rated on a 7-point scale (1 = *never true*, 7 = *always true*), with higher scores on each of the respective scales indicating greater masculinity or femininity. Examples include the adjectives *assertive* and *independent* (Masculine); *compassionate* and *tender* (Feminine). Although only the Masculine scale was included in the current analysis, the entire measure was administered to participants to ensure its validity.

Bem (1981) found high internal consistency reliabilities for both the Masculinity and Femininity scales, with alpha coefficients ranging from .84 to .87. In a later study, Campbell, Gillaspy, and Thompson (1997) also reported strong internal consistencies for the short form subscales, $\alpha_s = .89$ (Masculinity) and .82 (Femininity), among 791 graduate and undergraduate university students. In the same study, these authors conducted a confirmatory factor analysis, which supported the construct validity of the BSRI-SF. In the current sample, $\alpha_s = .84$ (Masculinity) and .93 (Femininity).

**Demographic questionnaire.** Participants were asked to complete a demographic questionnaire (Appendix B) to indicate their gender, race/ethnicity, age, marital status, children (yes or no), educational level, branch(es) of military served in (Air Force, Army, Marine Corps,
Navy, or Coast Guard), years in military service (including time in active duty and time in the National Guard or Reserves), years separated from the military, highest achieved grade (used in place of rank as rank is not uniform across all branches), geographic region of residence. Additionally, participants were asked to indicate whether they previously sought professional psychological help, whether they are currently seeing a therapist and, if so, whether they were self-referred or required to do so. The data obtained from this questionnaire was used to describe the sample and to determine if any continuous variables needed to be included as covariates in the final model.

**Procedure**

Recruitment e-mails (see Appendix C) were sent to student veteran liaisons at roughly 1,250 colleges and universities, to include institutions that have Student Veterans of America chapters and who listed their contact information in the chapter directory, across the country asking that they forward the request to their campus veterans as well as to any other eligible veterans of their acquaintance. Similar e-mails were sent to the investigator’s personal contacts, both veterans and non-veterans, with a request to forward the link to potential participants. Additionally, links to the study were posted on websites that provide information and support services to veterans. Flyers advertising the study were posted on bulletin boards at local VFW (Veterans of Foreign Wars) Posts and at local businesses such as Army/Navy Stores in northeastern NY.

The purpose of the study as described in the recruitment message was “to explore factors that contribute to veterans’ interest in mental health services.” The flyer contained the web address for the study on PsychData.com. Participants were also informed that, as an incentive, they had the opportunity to participate in a drawing to win one of six $50 gift cards.
Participants were informed that the study was voluntary and anonymous and that they had the right to withdraw at any point. Informed consent was assumed if the volunteer began to complete the survey.

The TPB scales and the BSRI-SF were counterbalanced to minimize order effects. All participants completed the demographic questionnaire last.

RESULTS

Preliminary Analyses

Missing values. A total of 427 participants started the online questionnaire, of whom 9 were omitted since they were currently serving in the military. Additionally, 3 participants who did not indicate their gender were omitted, and 23 other participants were omitted due to extensive missing data (either they did not respond to entire measures or had $\geq 5\%$ missing responses). Of the remaining 392 participants, there were 56 missing data points (3.2\%) in the 46 total items. For each item, missing data points ranged from 0.3\% to 2.3\%.

Little's MCAR test (Little, 1988) was used to determine whether the missing data points occurred at random. The test yielded nonsignificant results, $\chi^2(362) = 349.46, p = .67$, suggesting that the missing data points were missing completely at random. Thus, expectation-maximization, an iterative maximum likelihood approach in which missing data are estimated using estimated parameters based on observed data, was deemed the appropriate method of dealing with missing data (Schlomer, Bauman, & Card, 2010), and 56 data points were imputed.

Examination of outliers. Mahalanobis distances were used to assess for outliers. First, the critical chi-square value, based on 5 predictor variables, was 20.52 (Tabachnick & Fidell, 2013). With $\alpha = .001$, only one case (27.79) was above the critical value. However, since this
value was a single case, it was not expected to exert an undue influence on the results of the model.

Casewise diagnostics were also reviewed to check for any unusual cases. Two cases had standard residual values of -3.58 and 3.08, which are only slightly outside the expected range of -3.0 to 3.0. Cook’s Distance was checked to determine whether these cases had any undue influence. As the value (.055) was lower than 1, it was concluded that these cases would not pose a problem for the analyses (Tabachnick & Fidell, 2013).

Test of order effects. Two counterbalanced versions of the survey were administered randomly through Psychdata.com. In the final sample ($N = 392$), 211 (53.8%) participants were directed to version A (TPB scales, BSRI-SF) and 181 (46.2%) participants were directed to version B (BSRI-SF, TPB scales). A one-way between-groups MANOVA was used to test for group differences on the study variables by order of administration.

Levene's test for homogeneity of variance was not significant for any of the four dependent variables, indicating that the variances did not differ for the two groups. Wilks’s Lambda was examined to determine whether there was a statistically significant difference between the two groups on a linear combination of the variables. As this value (.56) was $p > .05$, this test was not significant.

Descriptive statistics. Table 2 shows the means and standard deviations for the study variables by gender and in the sample as a whole. In terms of total scores, participants’ Masculinity scores were somewhat high ($M = 53.21$, $SD = 8.31$, possible range = 10 to 70). The means for Attitudes ($M = 23.98$, $SD = 7.31$) and Perceived Behavioral Control ($M = 24.86$, $SD = 5.44$), where the possible range was 5 to 35, were also moderately high, whereas the Intentions mean ($M = 11.15$, $SD = 5.86$, possible range = 3 to 21) was moderate.
An independent samples *t* test was used to compare scores on Masculinity, Attitudes, PBC, and Intentions for male and female participants. Results showed no significant differences in scores for male and female participants on PBC, *t* (390) = -.45, *p* = .65, or Intentions, *t* (390) = -.91, *p* = .36. There were, however, significant gender differences for Masculinity, *t* (390) = 3.27, *p* = .001, and Attitudes, *t* (390) = -2.82, *p* = .005, with men scoring significantly higher on Masculinity and women scoring significantly higher on Attitudes.

Table 3 shows the intercorrelations among the five study variables: Gender, Masculinity, Attitudes, Perceived Behavioral Control, and Intentions. Relationships between the study variables were examined using Pearson product-moment correlation coefficients. A strong, positive relationship was found between Attitudes and Intentions, *r* = .62, *p* < .001.

**Correlations between the demographic variables and Intentions.** Pearson product-moment correlations were computed between the continuous demographic variables and the dependent variable, Intentions, in order to determine whether any variables should be included as covariates in the major analyses. Results indicated no significant differences for age or education and showed that only two variables were moderately to highly associated with Intentions. Specifically, participants’ responses to the questions “Have you ever seen a mental health professional for counseling or psychotherapy for any reason?” (1 = *yes* and 2 = *no*) and “Are you currently seeing a therapist?” (1 = *yes* and 2 = *no*) were significantly correlated with Intentions, *rs* = -.35 and -.53, respectively. A *z* test comparing the magnitude of these correlations indicated that Currently Seeing Therapist was significantly more highly correlated with Intentions. Thus, this demographic variable was included as a covariate in the major analysis and was also added to the table of intercorrelations of the study variables (Table 3).
Tests of assumptions. Several tests were done prior to proceeding with the planned hierarchical multiple regression to determine whether any assumptions were violated. The normal p-p plot of regression standardized residuals and the scatterplots were reviewed to check the assumptions of normality and homoscedasticity. The assumption of normality was assumed to have been met, since the points generally reflected a straight diagonal line. The assumption of homoscedasticity was assumed to have been met, since points on the scatterplot appeared within the recommended -3.3 to 3.3 values (Tabachnick & Fidell, 2013).

The assumption of independence of residual error terms was assessed using the Durbin-Watson test for autocorrelation, where the value suggesting non-autocorrelation is $d = 2$ and values significantly lower or higher than this value indicate a violation (Tabachnick & Fidell, 2013). This assumption was assumed to have been met, since $d = 1.97$.

Multicollinearity was assessed by reviewing tolerance and variance inflation factor (VIF). In this case, tolerance values for the predictor variables ranged from .817 to .962. The results indicated no multiple correlation among these variables, as values were well above .10. VIF values ranged from 1.040 to 1.224, well below the commonly used cut-off value of 10. Thus, it was concluded that the assumption of multicollinearity was not violated.

Major Analyses

The hypotheses were tested using hierarchical multiple regression, with $\alpha = .05$ at each of the three stages. In the first step, Currently Seeing Therapist (1 = yes and 2 = no) was entered as a covariate. In the second step, Gender (1 = male and 2 = female; 3 participants who declined to indicate their gender were omitted) and total Masculinity scores were entered as predictors, with Intentions as the criterion variable. In the third step, Attitudes and Perceived Behavioral Control were added to the equation. An $F$ test was used to determine the significance levels of the three
regression equations, and $R^2$ and adjusted $R^2$ were computed at each step to determine the variance accounted for by the total set of predictors, with the incremental $R^2$ identified in step 2 and step 3.

Table 4 summarizes the results of these analyses. At step 1 of the regression equation, Currently Seeing Therapist accounted for a significant 27.5% of the variance in Intentions, $F(1, 388) = 147.50, p = .000$, with participants who were currently in counseling scoring significantly higher on Intentions. After Gender and Masculinity were added in step 2, the model accounted for a total 27.7% of the variance, $\Delta F(2, 386) = 507, p = .603, R^2 = .277$ and adj. $R^2 = .272$. The incremental contribution of these two predictors to the equation was nonsignificant, $\Delta R^2 = .002, p = .603$, however. Thus, Hypothesis 2 was not supported.

When Attitudes and Perceived Behavioral Control added to the equation, the overall model accounted for a significant 50.4% of the variance, $F(5, 384) = 78.06, p = .000, R^2 = .50$ and adj. $R^2 = .50$. The two TPB variables accounted for a significant 22.7% increment in the variance in Intentions, $\Delta F(2, 384) = 87.77, p = .000, \Delta R^2 = .227$, Thus Hypothesis 1 was supported.

Finally, t tests of the beta weights were examined to determine the unique significance of each of the three predictors. As shown in Table 4, all three predictors were uniquely significant: Currently Seeing Therapist $\beta = -.36, t = -9.35, p = .000$, Attitudes $\beta = .53, t = 13.21, p = .000$, and PBC $\beta = -.08, t = -2.11, p = .035$. The valence of the beta weights indicated that, as hypothesized, participants who endorsed more favorable attitudes reported greater intentions to seek professional help. However, the beta weight for PBC was negative (-2.11), which contrasted with the positive bivariate correlation between PBC and Intentions (.12, $p < .05$; see Table 3).
Thus, PBC seemed to act as a suppressor variable, meaning that its contribution to Intentions was less substantive than the contribution of Attitudes.

**DISCUSSION**

Military veterans may be at higher risk for experiencing mental health concerns than the general population (Bullock et al., 2009; Cornish et al., 2014). Still, many veterans who might benefit from seeking help for these concerns choose not to do so (Kim et al., 2010; Milliken et al., 2007; Sharp et al., 2015).

The purpose of the present study was to gain an understanding of specific factors that contribute to veterans’ intentions to seek professional mental health services when needed. The study was based on Theory of Planned Behavior (Ajzen, 1985), whose constructs (Attitudes, Subjective Norm, and Perceived Behavioral Control) have been widely studied in order to understand people’s intentions to carry out a specific target behavior, including the intention to seek professional help in veteran (Britt et al., 2011; Stecker et al., 2007, 2010) as well as non-veteran samples (Hess & Tracey, 2013; Mo & Mak, 2009; Skogstad et al., 2006). To further understand veterans’ intentions, gender and masculinity were included in the model as additional predictors of intentions.

Specifically, based on TPB it was hypothesized that attitudes, subjective norm, and perceived behavioral control would jointly predict veterans’ intentions to seek professional psychological help beyond the contributions of gender and masculinity. Second, it was hypothesized that male veterans and veterans of both genders who reported relatively greater masculinity would be less likely to indicate an intention to seek professional mental health services when needed than female veterans and veterans who reported relatively less
masculinity. Finally, if the full model was significant, the unique contribution of each of the five predictors would be examined.

**Major Results**

The full model accounted for more than half the variance (50.4%) in Intentions. Results also showed that Attitudes and Perceived Behavioral Control together explained a unique 22.7% of the variance in Intentions. Furthermore, both of these TPB components were significant unique contributors to help-seeking intentions, although only Attitudes contributed substantively to the prediction of Intentions.

In general, participants in this sample had moderately high attitudes about help seeking and moderate intentions to do so if needed. Results further indicated that neither gender nor endorsement of the masculine gender role significantly predicted intentions to seek help, although the female participants scored significantly higher on attitudes toward help seeking. As would be expected, men reported significantly higher masculinity scores than did women, a finding that supports the validity of the BSRI-SF (Bem, 1981). In other words, despite these differences, neither gender nor masculinity played a substantive role in these participants’ intentions to seek professional help.

Since the three-item Subjective Norm (SN) scale showed a poor internal consistency ($\alpha = .24$), it was eliminated from the major analysis and, thus, this aspect of the Theory of Planned Behavior could not be reliably tested. The three subjective norm items used in the present study were those used by Mo and Mak (2009), who found a reliability of $\alpha = .85$ in a sample of 941 Chinese participants. It is possible that unknown characteristics of the present veteran sample may account for the notably lower reliability in the present study.
While not part of the original model or premise of the present study, the demographic variable Currently Seeing Therapist was included as a covariate in the regression analysis due to its high correlation with Intentions. By including this variable in the model, the resulting incremental variance in Intentions took into account whether or not participants were engaged in the target behavior in the study. As would be expected, this variable was a significant unique predictor of intentions, in that participants who indicated currently seeing a therapist indicated a greater willingness to seek help when needed. While this finding was to be expected, the inclusion of this covariate permits the conclusion that attitudes and perceived control were significant contributors to intentions regardless of participants’ Currently Seeing Therapist experience.

**Theoretical Implications**

With regard to TPB, the present findings show support for the theory in that two of the theorized components, Attitudes and Perceived Behavioral Control, significantly predicted the present participants’ intentions, accounting for a substantial proportion of the variance. Overall, these results indicate that TPB, even in the absence of Subjective Norm, provides an understanding of professional help seeking among veterans. Specifically, the findings suggest that attitudes and perceived behavioral control seem to be of particular importance, above and beyond other factors, in contributing to veterans’ intentions to seek help.

The results are consistent with previous studies that investigated help-seeking using TPB in military service members. More specifically, both studies conducted by Stecker and colleagues (2007, 2010) also found results supporting Attitudes and Perceived Behavioral Control as predictors of help seeking Intentions. Similarly, Britt et al. (2011) found support for
Attitudes, but not for Perceived Behavioral Control or Subjective Norm as predictors, perhaps since the latter two variables had relatively weaker reliabilities in their sample.

Interestingly, as discussed earlier, the Subjective Norm variable was not included in the final analyses of the present study. In earlier cited TPB studies with military samples, Subjective Norm was not a significant contributor to intentions (Britt et al., 2011; Stecker et al., 2007; Stecker et al., 2010). Taken together, results of these studies suggest that this factor might be a less important predictor of help seeking intentions than it is in predicting other target behaviors (Hess & Tracey, 2013), or that it may operate differently in military populations. However, it is important to note here that no assumptions or inferences can be made about what might have resulted in the poor Subjective Norm reliability in this sample. This review of prior literature simply suggests that perhaps the Subjective Norm variable might need to be investigated further and possibly measured in a different way for the veteran population.

The present findings related to gender were particularly interesting in as much as they are only partially consistent with previous literature on help seeking. That is, although no other studies with service members included gender as a variable of interest and no direct comparisons can be made, in much of the civilian literature women have reported more positive attitudes toward help seeking than men (Mackenzie et al., 2006; Nam et al, 2010; Sheu & Sedlacek, 2004) and a greater willingness to seek professional help (Addis & Mahalik, 2003). Thus, the present results, in which women had more favorable attitudes than men, but similar levels of help seeking intentions, were consistent with the previous literature on gender differences in attitudes, but not consistent with the previous literature on help seeking intentions.

It seems possible that the moderate level of help seeking intentions of the women in this sample may have been similar to that of their male counterparts due to the experience of working
and living in the male-dominated military. That is, once a person is exposed to military culture, the perceived stigma about mental health services (Cornish et al., 2014; Greene-Shortridge et al., 2007) may become ingrained and follow female as well as male service members upon discharge. Thus, female veterans who view counseling favorably may hesitate when it comes to being willing or having the intention to actually seek professional help for a psychological problem.

A recent mixed-models study by DiRamio et al. (2015), on help seeking among female student veterans might shed light on the lack of gender differences on intentions in the present sample. In the quantitative aspect of the study, contrary to the current findings, there were no significant differences in attitudes between male and female student veterans. On the other hand, DiRamio et al. reported the following three themes in the qualitative component of their study: Responsibility, Worth, and Pride. Illustrating these themes, many quotes from the female participants highlighted the complex nature of women’s experiences in the military. On the one hand, they reported experiencing a desire to fit in with their male counterparts and mirror a certain level of toughness; nonetheless, the women described inherent differences in their military experiences, particularly how they were treated compared to men, such as only recently being allowed to engage in direct combat and being exposed to sexual harassment. DiRamio et al. concluded that women in the military may experience some confusion around their roles and expectations that carries over to their help seeking attitudes.

While additional research is still needed to understand the experiences of female veterans, it is possible that the complex experiences described in DiRamio et al. (2015) are reflected in the results of the present study. That is, the TPB framework might only capture a few of the many factors that contribute to female veterans’ intentions to seek help. Furthermore, it
may be the case that while military men enter an environment that amplifies the male gender norms to which they are socialized since childhood, military women enter an environment that is distinctly different from female gender norms. Thus, this difference in how similar the military culture is from a person’s expected role may contribute to help-seeking intentions. If this is the case, TPB may not be sufficient to capture the complexity of this target behavior for people of both genders.

With respect to masculinity, the one study that included this variable as a predictor showed that this factor contributed significantly to help-seeking intentions (Smith et al., 2008). The present results, however, were not consistent with this finding. Although the men and women in the present sample endorsed significantly different levels of masculinity, as would be expected, intentions were not significantly predicted by self-reported masculinity. Moreover, the present participants’ masculinity scores were not associated with their help-seeking attitudes.

**Practical Implications**

With regard to clinical practice with veterans, the present results highlight the importance of attitudes and perceived behavioral control. In terms of attitudes, it seems important for facilities, particularly VA Medical Centers that provide mental health services to veterans, to create an environment that fosters positive attitudes with regard to seeking professional help. Since veterans often visit several medical VA clinics (primary care, pharmacy, etc.), it may be worthwhile for them to view media, such as posters or TV infomercials in the waiting room, that relay positive messages about help seeking for mental health concerns. The present findings and those from other similar studies indicate the need to continue and expand upon these efforts. As well, primary care teams in the VA (i.e., physicians and nurses) should explicitly encourage veterans with mental health concerns to visit the outpatient behavioral health clinic.
Similarly, since perceived behavioral control was somewhat important in the present study, medical providers in the VA and in the community should also be mindful of the many barriers to care for veterans. These barriers include problems with transportation, availability of information relevant to mental health services, ease of scheduling appointments, wait times to obtain appointments, veterans’ self-efficacy in their ability to engage in treatment, and ease of changing to a different care provider if a poor fit is perceived. Medical centers may also be able to reduce barriers to care by offering telehealth services to veterans who live at a distance, such as those who live in rural areas, and to veterans who have limited mobility. As well, ensuring that veterans are not waiting excessive periods of time before being seen by a provider seems important, along with making information about mental health services accessible and transparent, perhaps via the VA website or brochures in the primary care clinics.

Finally, understanding the specific needs of certain characteristics of veterans (e.g., women, older or younger veterans, student veterans, etc.) and the specific barriers faced by each group could be a useful first step for promoting favorable attitudes and intentions. As an example, a study by Vogt et al. (2006), which sought to understand barriers to VA care among female veterans, found that the most significant barrier was the lack of available services, particularly female-specific services, and logistical problems in obtaining initial appointments and continuous care.

In addition to efforts made by medical centers to promote positive attitudes and address barriers, understanding factors that influence help seeking in this population seems particularly important for mental health counselors. To this end, the work of Stecker, Fortney, and Sherbourne (2011) may be a useful guide. Stecker and colleagues used the TPB literature to develop a cognitive-behavioral intervention to modify veterans’ beliefs that might interfere with
help seeking. The interventions consisted of a 45-60 minute phone call targeting beliefs that seemed to be interfering with the veteran seeking help, such as, “Nothing will ever change so why bother even trying.” Throughout the intervention, veterans were informed about the differences between constructive versus destructive thoughts and how the type of thought can help or hinder a particular behavior. Results of pre- and post-tests showed that participants’ intentions to seek mental health services were significantly increased following the intervention (Stecker et al., 2011).

Stecker et al. (2011) noted that the intervention in their pilot study was manualized but allowed for the intervention to be highly individualized since each veteran’s target beliefs are unique. Thus, while the findings of the present study, as well as the overall support for TPB in the literature, help narrow the scope of problematic beliefs to target, it seems worthwhile for counselors to remember that the specific attitudes or perceived behavioral control are likely to vary from one veteran to another. For this reason, it seems that tailoring each mental health treatment to a client’s specific beliefs will likely yield the most positive results for veterans who are skeptical of mental health services.

The practical implications of this study are not limited to veterans who have separated from the military. Altering the negative messages about help seeking that active military personnel might be receiving may be an important prevention strategy. Undoubtedly, veterans might have a better mental health outlook long-term if they become comfortable with the idea of seeking help while still on active duty in the military.

Limitations

The current study had three primary limitations. First, there was no behavioral outcome. That is, although participants’ intentions were reported in the study, it cannot be concluded that
the participants who reported high intentions would actually seek help when needed. Second, the ex post facto design precluded inferences of causality. Third, the current study did not assess whether participants had any existing mental health problems or concerns. Thus, individuals who were not experiencing a mental health concern may not have been accurately able to assess the extent to which they would be willing to seek mental health services.

Other limitations include the fact that all measures were self-report. Common method variance and mono-method bias may play a role in addition to social desirability. Self-selection bias might be another threat to validity if only veterans who had an interest in or thoughts about seeking help from a counselor participated in the study. Indeed, the overrepresentation of women in the sample, relative to their number in the military, suggests the presence of self-selection.

Additionally, TPB requires investigators to create items specific to the research question of interest that reflect attitudes, subjective norm, and perceived behavioral control. In the current study, scales were used from a previous study that created help-seeking items based on TPB (Mo & Mak, 2009). While three of the four scales had sound reliabilities in the present sample, the reliability for Subjective Norm scale was quite poor, precluding its use in the present analysis. Thus, the full TPB model was not able to be tested in the present sample. Another limitation related to measurement of the TPB is that, while the model has been widely applied to various behaviors, the construct validity of the specific scales used in this study is unknown.

Finally, since random selection was not feasible, generalizability is limited to the characteristics of the sample. The findings are most generalizable to younger veterans who were enlisted for 2 to 10 years (76.8%). As many of the email listservs contacted for the recruitment process were for student veteran groups at universities and colleges, findings are also primarily generalizable to veterans who have had some college experience.
Future Research

As previously noted, one limitation of this study was the lack of a behavioral outcome. As further support for TPB, it may be helpful to add a follow-up component to determine whether veteran participants did, in fact, follow through with their intentions and seek out professional help when distressed. As well, it would be beneficial to include questions assessing whether or not participants are actually experiencing a mental health problem. Also, because the subjective norm variable was omitted from the major analyses, replication of this study should include a subjective norm scale with items that are first pilot tested on a veteran sample and show adequate internal consistency reliabilities.

As well, it might be helpful to conduct qualitative studies in order to gain a better understanding of factors that contribute to veterans’ willingness to seek help. Studies that incorporate interviews and focus groups may be able to provide richer data on factors that specifically contribute to veterans’ attitudes and perceived behavioral control. Additionally, interviews might allow veterans an opportunity to discuss other factors outside of the TPB that might also be important to consider in order to better understand their help-seeking intentions. Finally, it may be worthwhile to conduct similar survey and qualitative studies with active military to determine how closely their views on help seeking match those of veterans.

With regard to female veterans, the number of women in the military is likely to increase. Since research on this population is limited, it would be informative to investigate how female veterans compare to and differ from their male counterparts in terms of help seeking. Again, qualitative research may be a useful first step to gain a rich understanding of the unique experiences and needs of female veterans in order to help shape research questions for future studies.
Finally, the results showed that while the present female participants had significantly more positive attitudes toward seeking help than their male counterparts, they did not indicate a stronger intention to seek help if needed. This paradox may have to do with some aspects of military culture that may affect women and men in the same way. To explore this idea, it would be interesting to interview women about how their attitudes and help-seeking intentions may have changed over the course of their military experience.

Despite the limitations, this study added to the validity of TPB in veteran populations and provided an understanding of the components of TPB that were uniquely significant in predicting help-seeking intentions. Additionally, the study provided evidence suggesting that male and female veterans may need similar kinds of interventions to foster positive attitudes and intentions and to enhance their perceived control over the help seeking process.
References


intention to refer students to counseling. *Journal of College and University Student Housing, 39/40*, 48-69.


Appendix A

TPB Help Seeking Measures

Imagine that you have a stressor, emotional, psychological or social issue for which you would consider seeking counseling in the next three months. Even if you do not currently have such a concern, please respond to the items as if you do have an issue that could be addressed in counseling. Please respond to the questions even if you are currently seeing mental health provider and consider whether you will continue in counseling.

Please use the 7-point scale shown below to rate your level of agreement with the following statements. For example, if you strongly disagree with the statement, circle “1.” If you have no opinion on the statement, circle “4.” Please only circle one response.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>No Opinion</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1                              2          3                        4          5             6            7</td>
<td></td>
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</tr>
</tbody>
</table>

Attitudes

For me seeking mental health services is:


For me seeking mental health services is:


For me seeking mental health services is:


For me seeking mental health services is:


For me to seek mental health services is:


Subjective Norm

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

Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree
Most people who are important to me view seeking mental health services very negatively*

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

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

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

**Perceived Behavioral Control**

I can afford seeking mental health services

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

I can make the decision to seek mental health services

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

I know where to seek mental health services

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

I think I can get the information about seeking mental health services easily

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

The whole process of seeking mental health services takes a long time*

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

**Intentions**

I intend to seek mental health services

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

I will try to seek mental health services

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

I plan to seek mental health services

   Strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Strongly agree

---

* Note. * Reverse scored.
Appendix B

Demographic Questionnaire

What is your age? ____ years

With which gender do you identify?

___ Male
___ Female
___ Other

Which of the following most closely describes your background:

___ White/Caucasian, not Hispanic/Latino(a)
___ Black/of African descent
___ Caribbean Islander
___ Hispanic/Latino(a)
___ East Asian, Southeast Asian, or Pacific Islander
___ South Asian
___ Middle Eastern
___ Native American
___ Biracial or multiracial
___ Other (specify: ___________)

What is the highest level of education you have obtained?

___ Some high school, no diploma
___ High school graduate with diploma or equivalent (for example: GED)
___ College credit, no degree
___ Trade/technical/vocational training
___ Associate Degree
___ Bachelor’s Degree
___ Master’s Degree
___ Professional Degree
___ Doctorate Degree

What is your marital status?

___ Single, never married
___ Married or domestic partnership
___ Separated
___ Divorced
___ Widowed

Do you have children?
___ Yes
___ No

Which branch of the military did you serve in first?
___ Army
___ Air Force
___ Marine Corps
___ Navy
___ Coast Guard

If applicable, check any other branch(es) in which you served (check all that apply):
___ Army
___ Air Force
___ Marine Corps
___ Navy
___ Coast Guard

How long were you in the military (including any time in the Guard or Reserves)
___ 2 years or less
___ 3 to 5 years
___ 6 to 10 years
___ 11 to 15 years
___ 16 to 20 years
___ 21 to 25 years
___ More than 25 years

How many years have you been out of the military?
______ years

What was the highest grade you achieved in the military?

___ E-1  ___ O-1
___ E-2  ___ O-2
___ E-3  ___ O-3
___ E-4  ___ O-4
___ E-5  ___ O-5
___ E-6  ___ O-6
___ E-7  ___ O-7
___ E-8  ___ O-8
___ E-9  ___ O-9
___ O-10

In which geographic region do you currently reside:
____ Midwest (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI)
____ Northeast (CT, ME, MA, NH, NJ, NY, PA, RI, VT)
____ South (AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV)
____ West coast (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY)
____ Outside of the United States

Have you ever seen a mental health professional for counseling or psychotherapy for any reason?

____ Yes
____ No

Are you currently seeing a therapist?

____ Yes
____ No

If you answered yes to either of the previous questions, please estimate how long you were you or have been in counseling or psychotherapy? ____ months

If you answered yes to the previous question, which of the following best describes your decision to see a therapist:

____ I chose to seek help (self-referred)
____ I was required to seek help
Appendix C

Email Participation Request

Hello!

My name is Tania Khan and I am a student in the University at Albany’s Counseling Psychology Ph.D. program. In addition to being a student, I am also a military veteran who is interested in finding ways to serve other vets. For my dissertation research, I am investigating factors that influence veterans’ intentions to access mental health services. As you know, while many veterans seek mental health services when needed, others who could benefit from these services choose not to do so. Whether you do or do not anticipate seeking professional services, the information that you supply will add to our understanding of factors that contribute to veterans’ intentions to seek mental health services and can ultimately help counselors know how to best help all veterans get the help they need. Thus, I greatly appreciate you considering taking the time to complete this research survey, which should only take you about 15 minutes.

To participate in the study you must meet the following criteria:

- Be at least 18 years of age
- Be a U.S. military veteran
- Enlisted or were commissioned in or after 1990
- No longer under contract with the military (and no longer in the IRR)

If you meet the criteria and are interested in participating, please click on the link below or copy and paste the link into your web browser.

https://www.psychdata.com/s.asp?SID=166765

I know that your time is valuable and I greatly appreciate your help. As a “thank you” for taking part in this survey, you can choose to be entered into a drawing for a chance to **win a $50 gift card**. At the end of the survey, you will be able to provide your email address to enter into a drawing to win one of six $50 gift cards. Your email address will not be linked to your survey responses.

In participating in the study, you will be asked to fill out a short, anonymous survey. Please note that your participation in this study is voluntary, and you may decide to leave the study at any time. Also, you may choose not to answer any questions or portions of the survey that you wish and you can simply click on the "choose not to answer" option to indicate this. Your responses will be stored in a separate database from any email address you provide and the database will be password protected on a secure computer. Please note that absolute confidentiality cannot be guaranteed due to the limited protections of Internet access.

Research at the University at Albany involving human participants is carried out under the oversight of the Institutional Review Board (IRB). This research has been reviewed and approved by the IRB. If you have any questions concerning your rights as a research subject or if you wish to report any concerns about the study, you may contact the University at Albany Office of Regulatory & Research Compliance at 1-866-857-5459 or hsconcerns@albany.edu.

If you have any questions about this research study, you may contact me via email at tkhan@albany.edu or by phone at (518) 330-xxxx. You may also contact my faculty advisor, Dr. Myrna Friedlander, at mfriedlander@albany.edu or by phone at (518) 442-5049.

If you have any questions about this research study, you may contact me via email at tkhan@albany.edu or by phone at (518) 330-xxxx. You may also contact my faculty advisor, Dr. Myrna Friedlander, at mfriedlander@albany.edu or by phone at (518) 442-5049.
Additionally, if you are not a veteran or do not meet the criteria, but know veterans who do, please consider passing along this request to them!

Thank you for your time and consideration!!

Regards,
Tania A. Khan
Ph.D. Candidate
Division of Counseling Psychology
University at Albany, State University of New York
Table 1

Participants’ Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
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<tr>
<td><strong>Gender</strong></td>
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<tr>
<td>Men</td>
<td>301</td>
<td>76.8</td>
</tr>
<tr>
<td>Women</td>
<td>91</td>
<td>23.2</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White/Caucasian</td>
<td>309</td>
<td>78.8</td>
</tr>
<tr>
<td>Black/of African descent</td>
<td>16</td>
<td>4.1</td>
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<tr>
<td>Caribbean Islander</td>
<td>2</td>
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<tr>
<td>Hispanic/Latino(a)</td>
<td>24</td>
<td>6.1</td>
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<tr>
<td>East Asian, Southeast Asian, or Pacific Islander</td>
<td>11</td>
<td>2.8</td>
</tr>
<tr>
<td>South Asian</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Native American</td>
<td>6</td>
<td>1.5</td>
</tr>
<tr>
<td>Biracial or Multiracial</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>2.3</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>1.5</td>
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<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduate with diploma or equivalent</td>
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<td>3.6</td>
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<tr>
<td>College credit, no degree</td>
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<td>34.4</td>
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<td>Trade/technical/vocational training</td>
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<td>Associate degree</td>
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<td>Master’s degree</td>
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<td>Professional degree</td>
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<td>32.9</td>
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<td>Married or domestic partnership</td>
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<td>Separated</td>
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<td>Widowed</td>
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<td>0.3</td>
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<td>Branch of military</td>
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<tr>
<td>Air Force</td>
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<td>Coast Guard</td>
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<td>1.0</td>
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<td>Marine Corps</td>
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<tr>
<td>Navy</td>
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<td>0.3</td>
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<td>Time in service</td>
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<td>&lt; 2 years</td>
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<td>2 to 5 years</td>
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<td>11 to 15 years</td>
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<td>7.7</td>
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<td>16 to 20 years</td>
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<tr>
<td>21 to 25 years</td>
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<td>5.6</td>
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<tr>
<td>&gt; 25 years</td>
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<td>0.3</td>
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<tr>
<td>Rank</td>
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<td>E-5</td>
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<td>13.0</td>
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<td>4.8</td>
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<td>E-8</td>
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<td>1.5</td>
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<td>E-9</td>
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<td>O-3</td>
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<td>O-4</td>
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<td>1.8</td>
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Table continues
(Table 1 continued)

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<tr>
<th>Variable</th>
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<td>0.0</td>
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<td>0</td>
<td>0.0</td>
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<td>O-10</td>
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<td>0.3</td>
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<td>No response</td>
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<table>
<thead>
<tr>
<th>Residence</th>
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<tr>
<td>Midwest</td>
<td>92</td>
<td>23.5</td>
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<tr>
<td>Northwest</td>
<td>86</td>
<td>21.9</td>
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<tr>
<td>South</td>
<td>158</td>
<td>40.3</td>
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<tr>
<td>West</td>
<td>51</td>
<td>13.0</td>
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<tr>
<td>Outside the US</td>
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<table>
<thead>
<tr>
<th>Previous counseling</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>256</td>
<td>65.3</td>
</tr>
<tr>
<td>No</td>
<td>133</td>
<td>33.9</td>
</tr>
<tr>
<td>No response</td>
<td>3</td>
<td>0.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Currently seeing therapist</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>72</td>
<td>18.4</td>
</tr>
<tr>
<td>No</td>
<td>318</td>
<td>81.1</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reason for counseling</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chose to seek help (self-referred)</td>
<td>203</td>
<td>51.8</td>
</tr>
<tr>
<td>Required to seek help</td>
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<td>11.5</td>
</tr>
<tr>
<td>N/A (no previous counseling)</td>
<td>127</td>
<td>32.4</td>
</tr>
<tr>
<td>No response</td>
<td>17</td>
<td>4.3</td>
</tr>
</tbody>
</table>

*Note. N = 392.*
Table 2

**Descriptive Statistics on the Major Variables by Participant Gender**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Masculinity</td>
<td>53.95</td>
<td>8.28</td>
<td>50.74</td>
<td>7.96</td>
<td>53.21</td>
<td>8.31</td>
</tr>
<tr>
<td>Attitudes</td>
<td>23.42</td>
<td>7.29</td>
<td>25.86</td>
<td>7.09</td>
<td>23.98</td>
<td>7.31</td>
</tr>
<tr>
<td>Perceived Behavioral</td>
<td>24.79</td>
<td>5.41</td>
<td>25.09</td>
<td>5.56</td>
<td>24.86</td>
<td>5.44</td>
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<tr>
<td>Control Intentions</td>
<td>11.00</td>
<td>5.79</td>
<td>11.64</td>
<td>6.11</td>
<td>11.15</td>
<td>5.86</td>
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</tbody>
</table>

*Note.* $N = 392$. Masculinity = Masculine scale on the Bem Sex Roles Inventory-Short Form (Bem, 1981). $^{a,b}$ Means with the same superscript differed significantly; Masculinity $p = .001$, Attitudes $p = .005$. 
Table 3

**Intercorrelations of the Study Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Currently Seeing Therapist</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender</td>
<td>-.03</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Masculinity</td>
<td>-.01</td>
<td>-.16**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Attitudes</td>
<td>-.34**</td>
<td>.14**</td>
<td>-.04</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Perceived Behavioral Control</td>
<td>.15**</td>
<td>.02</td>
<td>.09</td>
<td>.27**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>6. Intentions</td>
<td>-.53**</td>
<td>.05</td>
<td>.03</td>
<td>.62**</td>
<td>.12*</td>
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</tr>
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</table>


*p < .05. **p < .01.
Table 4

Summary of the Hierarchical Multiple Regression Analyses

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>$t$</th>
<th>adj. $R^2$</th>
<th>$\Delta R^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently Seeing Therapist</td>
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<td>-12.15</td>
<td>.275</td>
<td>-.53</td>
<td>.000</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently Seeing Therapist</td>
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<td>-12.10</td>
<td>.272</td>
<td>-.52</td>
<td>.000</td>
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<tr>
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<td>.03</td>
<td>.445</td>
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<td>.77</td>
<td>.441</td>
<td>.03</td>
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<tr>
<td>Step 3:</td>
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<tr>
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<td>.000</td>
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<td>.000</td>
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<td>-.08</td>
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</tr>
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</table>

Note. $N = 392$. Currently Seeing Therapist: 1 = yes, 2 = no. Gender: 1 = male, 2 = female. Step 1: $\Delta F (1, 388) = \Delta F (1, 388) = 147.50, p = .000$; Step 2: $\Delta F (2, 386) = .507, p = .603$; Step 3: $\Delta F (2, 384) = 87.77, p = .000$. 
