# CAREER-RELATED DECISION-MAKING DIFFICULTY AND PSYCHOLOGICAL DISTRESS AMONG STUDENT SERVICE MEMBERS/VETERANS

by
Victor R. Bullock

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|---|---|
| Valerie S. Leake | 6/30/2020 |
| Valerie S. Leake, Ph.D.<br>Dissertation Chair | Date |
| Ruth Riding-Malon | 6/30/2020 |
| Ruth Riding-Malon, Ph.D.<br>Committee Member | Date |
| Benjamin Biermeier-Hanson | 6/16/2020 |
| Benjamin Biermeier-Hanson, Ph.D.<br>Committee Member | Date |

**Abstract**

Student service members/veterans (SSM/V) are a unique population who may come to higher education with a host of life experiences. Potentially due to some of the experiences of SSM/V, they often present with certain forms of psychological distress at greater rates than their non-SSM/V counterparts. Despite this fact, previous research has not investigated how vocational factors may contribute to an SSM/V's distress, particularly vocational decision-making. This is potentially due to a historical dichotomy between vocational issues and mental health, which has resulted in little research being conducted on the relationship between the two. Recent research is beginning to bridge this gap; however, research is lacking on the relationship between career decision-making and vocational distress among SSM/V. The present study utilized a sample of SSM/V to quantify the relationship between career decision-making difficulty and three forms of psychological distress (i.e., depressive symptoms, anxiety symptoms, and trauma symptoms), in addition to attempting to find evidence of what career resources may buffer the relationship between career decision-making difficulty and psychological distress. Results indicated significant positive relationships between career decision-making difficulty and all three measures of psychological distress and that scores on a measure of career decision-making difficulty can significantly impact scores for all three psychological distress measures. The findings offer several future research directions, practice implications, and policy implications for universities and organizations serving service members and veterans.

Victor R. Bullock, M.A.
Department of Psychology 2020
Radford University

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## Chapter 1: Overview

Thousands of service members and veterans (SM/V) attend college each year, making up 4% of the total undergraduate population (Molina, 2014). Student service members/veterans (SSM/V) may begin their higher education careers with a host of life experiences that impact their time in higher education. Despite having more life experiences than their non-SSM/V counterparts, some SSM/V need help with making career decisions and express feeling anxiety about making career-related decisions (Howe, 2017). Any increases in the levels of psychological distress for SSM/V are concerning as SSM/V experience certain psychological disorders, such as (a) major depressive disorder, (b) generalized anxiety disorder, and (c) post-traumatic stress disorder, at greater rates than what is found in the general population on college campuses (Fortney et al., 2016). Despite the finding that SSM/V experience higher rates of certain psychological disorders than non-SSM/V, vocational research has not investigated whether a relationship exists between vocational factors and SSM/V's mental health.

Over 20 years ago, researchers in the field of vocational psychology recognized that difficulty with making career decisions was related to changes in mental health (Krieshok, 1998). Since that time, few research studies have been conducted to examine the relationship between difficulty with making career decisions and mental health. The few studies that have examined this relationship have found positive relationships between career decision-making difficulty and mental health symptoms (Anghel & Gati, 2019; Kulcsár et al., 2020). However, no studies have attempted to examine if a relationship between career decision-making and psychological distress exists for SSM/V or what variables may moderate this relationship. There is then a need to gain an understanding of how severity of mental health symptoms is related to difficulty with career-related decisions among SSM/V.

The goal of the current study was to explore the relationship between career decision-making difficulty and psychological distress among SSM/V and whether the relationship is buffered by the availability of career transition resources. For the purposes of the current study, SSM/V will be used to refer to anyone who has or is currently serving in the military and is currently enrolled at a higher education institution. The results of the current research have the potential to advocate for the place of vocational interventions for service members prior to receiving treatment for psychiatric disorders.

## Literature Review

### SSM/V

SSM/V may differ from traditional college students in several ways including (a) age (Olsen et al., 2014), (b) marital status (Olsen et al., 2014), (c) mental health status (Fortney et al., 2016), and (d) maturity status (Olsen et al., 2014). SSM/V may have joined the military directly after high school, thus delaying their entry into postsecondary education. The average age of SSM/V when starting postsecondary education is 25 (Molina, 2014) compared to many non-SSM/V college students who are between 18 and 22 (Fortney et al., 2016). In addition, 44% of SSM/V are married, and 52% have a child (Molina, 2014). SSM/V are also more likely than their non-SSM/V counterparts to experience depression and trauma symptoms (Fortney et al., 2016). There is also a higher prevalence of generalized anxiety disorder in SSM/V than in non-SSM/V (Fortney et al., 2016). All of these challenges can make integrating into postsecondary education settings challenging.

Once on campus, SSM/V are faced with socializing with civilians who can be different than themselves. Some of the challenges SSM/V experience are created in the daily interactions with other college students (Herren, 2013; Olsen et al., 2014). The lack of time spent with the

other college students can make forming social relationships difficult (Olsen et al., 2014). Part of the difficulty is that the relationship SSM/V have with non-SSM/V is different compared with how the SSM/V interacted with members of their unit in the military, where they spent the majority of their time with the individuals in their unit (Olsen et al., 2014). Some SSM/V also report a decline in quality and quantity of time spent with other SM/V they bonded with during their military career (Herren, 2013). The lack of contact with individuals with similar experiences is a potential reason that SSM/V report greater challenges in forming social networks (Borsari et al., 2017) and report having a harder time fitting in while at college (Smith et al., 2017).

### *Career Choices*

SSM/V are in a career transition that has the potential to expand their career options, offer clarity on their career plans, and/or provide skills and knowledge related to the SSM/V's future career (Doenges, 2011). However, some SSM/V report that they have little knowledge about how to select their career path in the civilian world (Howe, 2017). Knowledge deficits such as not knowing how to transfer their skills from the military into civilian life or not knowing how to research different career options are possible explanations for SSM/V's difficulties (Hayden et al., 2014). Getting assistance with these challenges may help SSM/V to make career-related decisions in college, such as selecting a major. The challenges SSM/V experience with making these decisions are consistent with the taxonomy of career decision-making described by Gati et al. (1996), which hypothesizes that individuals struggle with making career-related decisions when they do not have enough information, lack readiness, or have inconsistent information.

This difficulty with making career-related decisions is concerning since vocational difficulties are cited as the third leading psychosocial concern among veterans (Strong et al., 2014). Despite the importance of vocational concerns and the high prevalence of psychiatric disorders among veterans, few studies have been conducted to examine the relationship between difficulty making career decisions and an SSM/V's mental health.

**Career Decision-Making and Mental Health**

There is a growing research base on the relationship between career decision-making and psychological distress. For example, Pisarik et al. (2017) interviewed seven students at various stages of their college careers and found that most of the participants reported an increase in several mental health symptoms when thinking about making career-related decisions. Some participants reported physical changes such as hot flashes, unease, tension, and sleep trouble. Others reported feeling anger, fear, and frustration. Changes in thought patterns were also noted, such as negative self-talk, self-blame, all-or-none thinking, negative predictions about the future, and a lack of control over these thoughts. Whereas all of the changes participants reported were attributed to anxiety, several of the symptoms also overlap with depressive and trauma symptoms. Additionally, Helkowski et al. (2004) identified feeling anxious or depressed as indicators of career choice confusion in *The College Student Counseling Treatment Planner*, which may further indicate that professionals might expect a change in the distress levels of individuals experiencing vocational issues.

The emerging quantitative literature is also beginning to connect career decision-making difficulty with psychological distress. Difficulty with making career decisions has been found to be positively related to (a) general negative dysfunctional emotions (Kulcsár et al., 2020), (b) anxiety symptoms (Anghel & Gati, 2019), and (c) depressive symptoms (Anghel & Gati, 2019).

As can be inferred by the dates of the studies examining career decision-making and psychological distress, until recently the relationship between vocational factors and mental health has been an area ignored by vocational researchers. More studies are needed to determine the consistency of the findings from past research and whether other psychological disorders are related to career decision-making. Furthermore, researchers need to examine what factors might alter the relationship between career decision-making difficulty and mental health (Anghel & Gati, 2019).

## Vocational Resources

The need to make career decisions often occurs during the course of a transition, which can require a host of internal psychological resources (Coetzee & Esterhuizen, 2010). Five proposed resources individuals rely on to help during a transition are (a) readiness, (b) confidence, (c) personal control, (d) support, and (e) decision independence (Heppner, 1998). The presence of these resources is believed to help reduce the amount of difficulty individuals experience with a transition that may keep them stuck (Heppner, 1998). A brief overview of each of these resources is provided below with research that supports how the constructs are related to mental health.

### *Readiness*

Readiness is similar to motivation and preparedness (Heppner et al., 1994). Individuals with readiness are believed to have adopted the perspective that they can take proactive steps to prepare for the career transition (Santisi et al., 2018). Studies that have examined the relationship between readiness and depression have found that higher levels of readiness significantly predict lower scores in depressive symptoms at varying intervals (Ebert et al., 2017). For anxiety symptoms, high levels of motivation have been found to be associated with lower levels of trait

anxiety (Barberis et al., 2019). It might be argued that the recognition that one is preparing for a challenge may buffer against anxiety and depressive symptoms. For trauma symptoms, however, increases in preparedness have been associated with increases in trauma symptom severity for individuals experiencing forced relocation (Tuval-Mashiash & Dekel, 2012). Researchers hypothesize that this may be due to the impact of having felt prepared and then still experiencing negative outcomes despite one's preparations, thus creating more doubt about one's ability to prepare. It is then possible that prior to an incident, feeling prepared may actually exacerbate trauma symptoms.

### *Confidence*

Confidence is similar to self-efficacy and refers to individuals' perceptions that they have the ability to complete the necessary tasks to successfully finish the career transition (Heppner et al., 1998). Self-efficacy has been negatively correlated with depressive symptoms (Blackburn & Owens, 2015) and trauma symptoms (Chung et al., 2017; Wagner et al., 2017). High self-confidence has also been proposed to be a buffer against the negative effects of anxiety (Hanton et al., 2004), by preventing a person from negatively interpreting the physiological arousal. These findings indicate that feeling confident in one's ability to be successful may buffer the negative impact of depressive, trauma, and anxiety symptoms.

### *Control*

Control is similar to locus of control and is meant to assess how much individuals believe that they can affect change in the career transition process (Heppner et al., 1994). Control has been negatively correlated with several mental health symptoms. For example, the less control individuals believe that they have, the more depressive symptoms they report (Yu & Fan, 2016). Increases in anxiety symptoms and trauma symptoms have also been correlated with increases in

perceptions of an external locus of control (Thakur et al., 2018). For these reasons, an internal locus of control may buffer the negative effects of depression, trauma, and anxiety by encouraging individuals to accept their power for making changes to their situation.

### *Support*

Support refers to the amount of help individuals believe they receive from others (Heppner et al., 1994). Support during a career transition is similar to the social support a person may receive at other times. However, support during the career transition specifically refers to feeling that other individuals support one's ability to successfully complete the transition process. Perceptions of social support have been found to be negatively correlated with depressive symptoms (Campbell & Riggs, 2015; Cox et al., 2017), anxiety symptoms (Campbell & Riggs, 2015), and trauma symptoms (Sripada et al., 2015; Weinberg et al., 2017). Support may then buffer the negative impact of decision-making difficulty for these three forms of psychological distress.

### *Decision Independence*

The final resource of decision independence reflects how much individuals believe that they can make decisions without having to consult with others during the transition process (Heppner et al., 1994). High levels of independence may not always be positive, as lack of communication with others may lead to increases in sources of stress (Gysberg et al., 1998). It is possible that a balanced level of independence and dependence are more adaptive than complete dependence or independence. Because a more balanced score may reflect a more balanced level of independence in a career transition, it is unclear how independence may affect the relationship between decision-making difficulty and psychological distress.

## Vocational Theories and Mental Health

One of the only vocational theories to explicitly include mental health is the psychology of working theory (PWT; Blustein, 2006). While a complete review of PWT is beyond the scope of this article, interested readers may wish to read Blustein (2006) for a complete overview of PWT. In PWT, mental health is the result of having work that provides (a) survival needs, (b) social connection, and (c) self-determination (Blustein, 2006). Aside from work providing these three outcomes, Blustein (2006) also hypothesizes that difficulty with vocational factors may affect mental health by increasing a person's susceptibility to symptoms. One hypothesis that can may be generated from PWT is that vocational factors may be able to account for some of a person's mental health symptoms. Because PWT does not directly explain what a person may experience when making vocational decisions during a transition, another model will help guide the research questions in this study.

Ebaugh (1988) developed a model of role exit based on a series of interviews with people making various transitions, including job transitions. For a complete overview of how Ebaugh's model applied to vocation, see Ashforth (2012). Ebaugh's model has been updated to include a theoretical explanation of how mental health may be affected by job transitions (Ashforth, 2012). During a work transition, individuals may encounter a phase where they are transitioning identities and during which individuals may experience an increase in anxiety and depression (Ashforth, 2012). Similar to PWT, Ebaugh's model also indicates that vocational changes can impact mental health.

## Current Study

Currently no study has attempted to examine how difficulty with career decision-making is related to psychological distress for SSM/V. The present study seeks to fill this gap in the

literature by examining the relationship between career decision-making difficulty and depressive, anxiety, and trauma symptoms among SSM/V. In addition, the current study seeks to examine if the strength of the relationship between career-related decision-making and psychological distress is buffered by the presence of career transition resources. The current study was guided by the following research questions and hypotheses.

1. There is a significant relationship between career-related decision-making difficulty and depressive symptoms.
    a. Career decision-making difficulty will be able to account for a significant proportion of change of depressive symptoms.
    b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and depressive symptoms?
2. There is a significant relationship between career-related decision-making difficulty and anxiety symptoms.
    a. Career decision-making difficulty will be able to account for a significant proportion of change of anxiety symptoms.
    b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and anxiety symptoms?
3. There is a significant relationship between career-related decision-making difficulty and trauma symptoms.
    a. Career decision-making difficulty will be able to account for a significant proportion of change of trauma symptoms.

b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and trauma symptoms?

## Method

### Participants

A total of 460 responses from SSM/V currently enrolled at a higher education institution were recruited as participants. The current study identified an SSM/V as a person who was enrolled in a higher education institution and was either a member of the active duty, reserve, National Guard, or retired military population. Of the 460 participants, 105 participants were removed due to random response patterns and completion of less than 50% of the survey. The final sample consisted of 355 participants. Table 1 provides an overview of the study's sample.

**Table 1**

*Sample Demographics*

| Variable | *n* | Percentage |
|---|---|---|
| Gender | | |
| Male | 209 | 58.87% |
| Female | 143 | 40.28% |
| Transman | 1 | 0.28% |
| Transwoman | 1 | 0.28% |
| Gender Queer | 1 | 0.28% |
| Race | | |
| White | 273 | 76.90% |
| Black or African American | 31 | 8.73% |
| American Indian or Alaska Native | 1 | 0.28% |
| Asian | 5 | 1.41% |
| Native Hawaiian or Pacific Islander | 2 | 0.56% |
| Hispanic | 13 | 3.66% |
| Other | 5 | 1.41% |
| Two or more races selected | 25 | 7.04% |
| Relationship Status | | |
| Single | 69 | 19.44% |

| | | |
|---|---|---|
| Dating – non-committed relationship | 16 | 4.51% |
| Dating – committed relationship | 82 | 23.10% |
| Married | 163 | 45.92% |
| Separated/divorced | 23 | 6.48% |
| Widowed | 2 | 0.56% |
| Current official class standing | | |
| Undergraduate freshman | 31 | 8.73% |
| Undergraduate sophomore | 57 | 16.06% |
| Undergraduate junior | 49 | 13.80% |
| Undergraduate senior | 81 | 22.82% |
| Graduate student – Master's degree program | 64 | 18.03% |
| Graduate student – Doctoral degree program | 58 | 16.34% |
| Non-degree seeking | 10 | 2.82% |
| Missing | 5 | 1.41% |
| Highest level of education attained | | |
| Some college, no degree | 133 | 37.46% |
| Associate degree | 65 | 18.31% |
| Bachelor's degree | 82 | 23.10% |
| Master's degree | 57 | 16.06% |
| Doctoral degree | 3 | 0.85% |
| Other | 13 | 3.66% |
| Missing | 2 | 0.56% |
| Current enlistment status | | |
| Active duty | 26 | 7.32 |
| Reserves/national guard | 73 | 20.56% |
| Veteran | 254 | 71.55% |
| Missing | 2 | 0.56% |
| Branches served in or currently serving in* | | |
| Army | 136 | 38.31% |
| Marines | 62 | 17.46% |
| Air Force | 40 | 11.27% |
| Navy | 51 | 14.37% |
| Coast Guard | 8 | 2.25% |
| Army Reserves | 32 | 9.01% |
| Marine Reserves | 3 | 0.85% |
| Air Force Reserves | 8 | 2.25% |
| Navy Reserves | 8 | 2.25% |
| Coast Guard Reserves | 0 | 0.00% |
| National Guard | 61 | 17.18% |

| | | |
|---|---|---|
| Ever deployed to an active warzone | | |
| Yes | 168 | 47.32% |
| No | 185 | 52.11% |
| Missing | 2 | 0.56% |

*Note*. The total number of participants was 355. Percentages may not add up to 100 due to rounding.

* = participants could have selected more than one option; therefore, total will not add up to 355.

## Measures

To answer the research questions, the present study used two vocational measures and three measures of psychological distress.

### *Career Transition Measures*

Two vocational measures were used to determine the participants' level of difficulty with making career decisions and the participants' perceptions of career transition resources.

**Career Decision-making Difficulties Questionnaire.** Career-related decision-making difficulty was measured using the Career Decision-making Difficulties Questionnaire (CDDQ; Gati et al., 1996). The CDDQ is a 34-item measure of difficulties individuals encounter when deciding on a career path that uses a 9-point Likert scale. The CDDQ has demonstrated an overall reliability of .92 (Gati & Saka, 2001). In the current study, the CDDQ had a reliability of $\alpha = .94$. The CDDQ has three subscales, Lack of Readiness, Lack of Information, and Inconsistent Information, that each have an adequate reliability among student veteran samples (LaVeck, 2018). Higher scores on the subscales indicate that the individual is experiencing more difficulty with that area.

**Career Transitions Inventory.** Career transition resources were measured using the Career Transitions Inventory (CTI; Heppner et al., 1994). The CTI is a 40-item measure of a person's perception of the presence of psychological resources during a career transition

measured on a 6-point Likert scale. Cronbach's alphas with the CTI ranged from .61 (Independence) to .82 (Confidence) when used with a student veteran population (Ghosh & Fouad, 2016). In the current study, the alphas for the scales ranged from .62 (Decision Independence) to .76 (Readiness). Higher scores on the CTI suggest a self-perception of having more psychological resources for the career transition process (Heppner et al., 1994).

***Psychological Distress.***

One measure was used for each type of psychological distress (depressive, anxiety, and trauma symptoms).

**Depressive Symptoms.** The Patient Health Questionnaire-9 (PHQ-9; Kroenke et al., 2001) was used to measure depressive symptoms. The PHQ-9 is a nine-item measure of depressive symptoms. Depressive symptoms are measured on a 4-point Likert scale (Kroenke et al., 2001). Scores on the PHQ-9 range from 0-27 with higher scores indicating more severe depressive symptoms. The PHQ-9 demonstrated good reliability of .89 in a study of 3,000 adults (Kroenke et al., 2001). In the current study, the PHQ-9 had a reliability of $\alpha = .88$.

**Anxiety Symptoms.** The Generalized Anxiety Disorder-7 scale (GAD-7; Spitzer et al., 2006) was used to measure anxiety symptoms. The GAD-7 is a seven-item measure of anxiety symptoms. Anxiety symptoms are measured using a 4-point Likert scale (Spitzer et al., 2006). Scores on the GAD-7 range from 0-21 with higher scores indicating more severe depressive symptoms. The GAD-7 demonstrated good reliability of .92 in a study of 591 adults (Spitzer et al., 2006). In the current study, the GAD-7 demonstrated a reliability of $\alpha = .91$.

**Trauma Symptoms.** The PTSD Checklist for the *Diagnostic and Statistical Manual-5* (PCL-5; Blevins et al., 2015) was used to measure trauma symptoms. The PCL-5 is a 20-item measure of severity of PTSD symptom (Blevins et al., 2015). Items on the PCL-5 are rated on a

5-point Likert scale that participants use to rate the degree to which their experience of the symptom bothers them (Blevins et al., 2015). The PCL-5 previously demonstrated good reliability of .95 in a sample of 278 adults (Blevins et al., 2015). In the current study, the PCL-5 demonstrated a reliability of $\alpha = .96$. Scores on the PCL-5 range from 0-80 with higher scores indicating that a person is experiencing more severe trauma symptoms (Blevins et al., 2015).

As part of the PCL-5, participants completed the Life Events Checklist-5 (LEC-5). The LEC-5 asked participants about the 17 types of traumatic experiences that the participants may have directly experienced, witnessed, learned about, and/or was part of their job (Weathers et al., 2013). The LEC-5 was used to focus participants on a specific traumatic experience before completing the PCL-5.

**Procedure**

A recruitment e-mail containing details of the study was sent out to the Student Veterans of America (SVA) student leader, chapter advisor, and the chapter e-mail (if applicable) of various universities. The recruitment e-mail requested that the e-mail be forwarded on to that college/university's SSM/V population and allowed for SSM/V to forward the recruitment e-mail to other SSM/V.

Participants gave consent and completed the demographic questionnaire, the CDDQ, PHQ-9, GAD-7, PCL-5, and the CTI. In total, participants completed no more than 147 questions (including demographics). All participants were provided with the phone number for the veteran's crisis line and a weblink for a website sponsored by the Veterans Administration (VA) to assist veterans with locating a person's nearest VA facility at the end of the survey. Participants were compensated by being entered into a drawing to win one of 10, $20 Amazon gift cards.

## Analysis

Data were cleaned according to guidelines identified in Hair et al. (2018). Any participants who did not complete at least 50% of the survey items had their data excluded from the final analysis. Participants with less than 50% of their data missing had their data screened for other indicators that may indicate careless or insufficient response patterns. A negative binomial regression was conducted due to the positive skew of the data and the relationship between the variance and the standard deviation for each dependent measure. A Bonferroni corrected *p*-value of .016 was used to determine statistical significance to control for Type I error due to the use of multiple regressions. The impact of CTI scale scores to buffer the relationship between the measures of psychological distress and the CDDQ was also explored. To reduce the chance of a Type I error for the moderation analyses, a Bonferroni corrected *p*-value of .003 was used as a cutoff for significant results.

## Results

A series of analyses were conducted to determine if any of the demographic variables may have influenced participants' scores on the measures of psychological distress. Scores on the PHQ-9 were correlated with enlistment status ($r_s(353) = .22$, $p < .001$) and class standing ($r_s(350) = -.15$, $p = .01$). The GAD-7 was correlated with enlistment status ($r_s(353) = .26$, $p < .001$) and class standing ($r_s(350) = .18$, $p = .001$). The PCL-5 correlated with enlistment status ($r_s(315) = .21$, $p < .001$), class standing ($r_s(313) = -.13$, $p = .02$), and gender ($r_s(317) = .13$, $p = .02$). Although these correlations were significant, due to the weak strength of the relationships, no changes were made to the analyses. In addition, due to several participants withdrawing from the study before completing the PCL-5, a t-test was conducted to determine if there were any

differences in distress between participants who completed the PCL-5 and those who did not. No significant differences were found, t(353) = -.64, $p$ = .52, CI[-1.88, .96].

A Spearman's correlation was conducted to determine how career decision-making difficulty correlated with depressive, anxiety, and trauma symptoms. Career decision-making difficulty was positively related to depressive symptoms ($r_s(353) = .39$, $p < .001$), anxiety symptoms ($r_s(353) = .38$, $p < .001$), and trauma symptoms ($r_s(315) = .33$, $p < .001$). Depressive symptoms also correlated positively with anxiety symptoms ($r_s(353) = .72$, $p < .001$) and trauma symptoms ($r_s(315) = .64$, $p < .001$). Anxiety symptoms and trauma symptoms also correlated positively ($r_s(315) = .65$, $p < .001$).

**Depressive Symptoms**

The likelihood ratio chi-square test indicated that the full model was significant, $\chi^2(1) = 41.62$, $p < .001$, indicating that the current model is significantly better than a model with no predictors. Career decision-making difficulty is a significant predictor of a person's depression score ($b$ = .32, $SE$ = .05, $p < .001$, 95% CI [.22-.41]; see Table 2). The results indicated that for every one unit increase on career decision-making difficulty, the predicted log depression score increased by .32. In more practical terms, this would mean that for every one unit increase in career decision-making difficulty, a person's depression score increased by a factor of 1.37, or 37%.

**Table 2**

*Negative Binomial Regression Predicting Depressive Symptoms*

| Variable | *b* | 95% Wald CI for *b* | | *SE* | Exp(*b*) | *p*-value |
|---|---|---|---|---|---|---|
| | | *LL* | *UL* | | | |
| Constant | -.08 | -.46 | .31 | .20 | .93 | .69 |
| Career decision-making difficulty | .32 | .22 | .41 | .05 | 1.37 | <.001 |

| | | | | | |
|---|---|---|---|---|---|
| Negative Binomial | 1.63 | 1.31 | 2.03 | .18 | |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

No constructs measured by the CTI scales were able to moderate the relationship between depressive symptoms and career decision-making difficulty, $p \geq .003$.

**Anxiety Symptoms**

The likelihood ratio chi-square test indicated that the full model was significant, $\chi^2(1) = 32.25$, $p < .001$, indicating that the current model is significantly better than a model with no predictors. Career decision-making difficulty is a significant predictor of a person's anxiety score ($b = .30$, $SE = .05$, $p < .001$, 95% CI [.20-.40]; see Table 3). The results indicated that for every one unit increase on career decision-making difficulty, the predicted log anxiety score increased by .30. In more practical terms, this would mean that for every one unit increase in career decision-making difficulty, a person's anxiety score increased by a factor of 1.35, or 35%.

**Table 3**

*Negative Binomial Regression Predicting Anxiety Symptoms*

| Variable | *b* | 95% Wald CI for *b* | | *SE* | Exp(*b*) | *p*-value |
|---|---|---|---|---|---|---|
| | | *LL* | *UL* | | | |
| Constant | -.03 | -.44 | .38 | .21 | .97 | .89 |
| Career decision-making difficulty | .30 | .19 | .40 | .05 | 1.35 | <.001 |
| Negative Binomial | 1.96 | 1.58 | 2.44 | .22 | | |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

No constructs measured by the CTI scales were able to moderate the relationship between anxiety symptoms and career decision-making difficulty, $p \geq .003$.

**Trauma Symptoms**

The likelihood ratio chi-square test indicated that the full model was significant, $\chi^2(1) = 23.05$, $p < .001$, indicating that the current model is significantly better than a model with no

predictors. Career decision-making difficulty is a significant predictor of a person's trauma symptom severity score ($b$ = .24, $SE$ = .05, $p$ < .001, 95% CI [.14-.34]; see Table 4). The results indicated that for every one unit increase on career decision-making difficulty, the predicted log trauma severity score increased by .24. In more practical terms, this would mean that for every one unit increase in career decision-making difficulty, a person's anxiety score increased by a factor of 1.27, or 27%.

**Table 4**

*Negative Binomial Regression Predicting Trauma Symptoms*

| Variable | *b* | 95% Wald CI for *b* | | *SE* | Exp(*b*) | *p*-value |
|---|---|---|---|---|---|---|
| | | *LL* | *UL* | | | |
| Constant | 1.65 | 1.27 | 2.04 | .20 | 5.22 | <.001 |
| Career decision-making difficulty | .24 | .14 | .34 | .05 | 1.27 | <.001 |
| Negative Binomial | 1.90 | 1.60 | 2.25 | .17 | | |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

No CTI scales were able to moderate the relationship between trauma symptoms and career decision-making difficulty, $p \geq .003$.

## Discussion

There has been a historical dichotomy in the literature between vocational issues and mental health (Blustein et al., 2019), with recent studies bridging this gap. Qualitative studies have found that when students experience difficulty making career-related decisions, they also experience changes in mental health symptoms (Howe, 2017; Pisarik et al., 2017). Recent quantitative studies have found that as students experience career decision-making difficulty, they also report experiencing more mental health distress (Anghel & Gati, 2019; Kulcsár et al., 2020). However, these findings need to be explored with different populations and careful attention should be given to what factors may alter the relationship between career decision-making difficulty and psychological distress.

Results from the current study build upon previous literature by providing quantitative evidence of the relationship between career decision-making difficulty and three forms of psychological distress among SSM/V. The results from the current study support the notion that there is a positive relationship between career decision-making difficulty and depressive symptoms, anxiety symptoms, and trauma symptoms. The strongest of the relationships with career decision-making difficulty were for depressive symptoms, followed by anxiety symptoms, and finally trauma symptoms. There are several possible explanations for the findings from the current study.

Kwok (2018) proposed that career decision-making difficulty can contribute to an increased sense of ambiguity about one's future that triggers stress, which in turn increases a person's susceptibility to certain forms of psychological distress. This idea plays into the diathesis-stress model, in which a stressor creates stress that increases a person's likelihood of activating psychological problems (Eberhart & Hammen, 2010) and would support Blustein's (2006) hypothesis about how vocational factors affect mental health. Many studies have found correlations between stress responses and depressive symptoms (Mello et al., 2015; Rintala, 2005), anxiety symptoms (Smith & Vale, 2006), and trauma symptoms (Boals & Banks, 2012). Based on the hypothesis that career decision-making difficulty may increase an individual's susceptibility to psychological distress, a future research direction may be to examine the role of stress as a potential moderating variable between career decision-making difficulty and the three forms of psychological distress.

**Depressive Symptoms and Career Decision-making Difficulty**

Despite theoretical explanations linking vocational transitions to depressive symptoms, depression has been left out of many empirical studies of career transitions. Ashforth (2012)

proposed that individuals are likely to experience anxiety and depression as they transition from one occupation to another due to the lack of having an identity. Gadassi et al. (2015) found that among college seniors, having difficulty with forming a self-identity could predict higher depression scores. It is possible that difficulty with forming an identity may explain the relationship found in the current study between career decision-making and depressive symptoms. The issue with identity may be particularly salient for SSM/V who have to adapt their military/veteran identity to the civilian setting, a challenge often noted by SSM/V when adapting to college (Borsari et al., 2017). SSM/V can experience a lack of direction about how to go about selecting a new career when they transition to the civilian world (Howe, 2017). This lack of direction can leave some SSM/V feeling confused or stuck when trying to figure out how to proceed. The feeling of being stuck, which has been characterized as an expression of a persistent depressive episode (Gask et al., 2011), combined with the importance of an occupation as a source of identity among military populations (Meyer, 2013), may lead to the depressive symptoms.

**Anxiety Symptoms and Career Decision-making Difficulty**

The finding that career decision-making and anxiety are related is likely unsurprising. Much of the past research on mental health and vocational factors has examined this relationship and found that they correlate. Qualitative research has found that SSM/V who experience difficulty with making career-related decisions also reported experiencing anxiety and feeling stuck in their thought process (Howe, 2017). Additional symptoms college students experience when faced with career decision-making difficulties include hot flashes, nervousness, tension, insomnia, and fear that is future based (Pisarik et al., 2017). These are common features of many anxiety disorders, such as panic disorder and generalized anxiety disorder (American Psychiatric

Association, 2013). The current research expands on the findings from qualitative research by finding a quantitative relationship between anxiety symptoms and career decision-making difficulties. Although the finding from the current study indicates a weak relationship, the finding is statistically significant and may suggest that a model of career exploration developed by Jiang et al. (2019) may be more cyclical with career decision-making decisiveness (an outcome of career exploration) contributing to anxiety (an antecedent to career exploration).

**Trauma Symptoms and Career Decision-making Difficulty**

Career decision-making difficulty was also able to predict significant changes in trauma scores. One explanation for the ability of career decision-making difficulty to predict trauma scores may be due to feelings of being stuck. Difficulty with making career decisions is a form of being stuck, in a cognitive way as opposed to a physical restraint. When there is high difficulty, individuals are unable to make a choice that will allow them to continue along their journey. Similarly, some researchers have proposed that traumatic disorders are disorders of becoming cognitively stuck (Holman & Silver, 1998). Therefore, when SSM/V get stuck when making career-related decisions, this may activate or reaffirm trauma-related beliefs about themselves, such as “I am no good.” Conversely, being able to make career decisions may begin to break this cognitive pattern of being stuck and thus reduce SSM/V’s trauma score.

Several other trauma symptoms may also be partially addressed as SSM/V overcome career indecision. Some of the symptoms that Pisarik et al. (2017) attributed to anxiety could also be characterized as trauma symptoms (e.g., sleep changes, difficulty with concentration, and anger). Therefore, if these symptoms increase when individuals experience career decision-making difficulty then we might expect them to also experience decreases in trauma symptoms as their decision-making difficulty decreases. Whereas this finding helps to understand why there

may be an exacerbation in trauma symptoms when a person experiences career decision-making difficulty, it is important to recognize that all of a person's trauma symptoms cannot be accounted for by career decision-making difficulty.

## Moderation Analyses

One possibility for the lack of moderation effects is that the low reliabilities of the CTI scales affected the results (MacKinnon, 2011). When moderator variables have a low reliability, the chance of committing a Type II error increases (Harring et al., 2015). Thus, the low interitem correlation for the items in the CTI may be the reason that non-significant results were found. To overcome this issue, future research may want to continue to investigate career transition resources as potential moderators using measures with better psychometric properties.

## Limitations

The present study is not without limitations, including potential concerns with the sample, terminology, and included factors.

### *Sample*

The sample population poses one challenge to the generalizability of the results. The sample in the present study consisted of SSM/V with a wide range of experiences at universities, with 3 years being the average number of years participants spent at their current institutions. It is possible that during their time at their universities, participants were exposed to knowledge and resources that have helped them to reduce any career decision-making difficulties. Research supports that individuals over the age of 25 (the mean age was 33 in the current study) experience significantly less career decision-making difficulty than individuals under 24 (Levin et al., 2020). In addition, 174 (49.01%) participants indicated that they discharged from the military between 2011 and 2019, meaning that almost half of the participants likely engaged in

the military's vocational transition program and would have been exposed to a program that was designed to reduce vocational difficulty after leaving the military. These limitations could be overcome by either limiting the sample inclusion criteria to only SSM/V who have less than a year in higher education or by recruiting service members who have not discharged from the military but are considering a change in career, which may help to gain a better sense of the challenges service members experience when beginning the transition to college.

### *Terminology*

It is also possible that the low CDDQ scores are reflective of the difference between career and job. Literature on vocational counseling has identified that "career" represents "a series of choices or forced transitions that individuals make over a life span" (Fouad, 2007, p. 544), while job indicates "a specific position held over a defined period of time" (Lent & Brown, 2013, p. 8). Use of the term "career" may have focused participants on a broad pattern of possible choices. The use of a measure that would have focused on making difficulties in decisions about jobs may have more accurately reflected the vocational challenge this sample was experiencing.

The intention of the study was clearly stated in the informed consent and recruitment materials. Therefore, it is possible that participants responded in a manner that would provide socially desirable results or conform their answers to the researcher's expectations. Future research may want to include a measure of socially desirable responding to check this assumption or alter the recruitment materials in a manner that would provide accurate and honest informed consent but conceal the researcher's hypotheses.

### *Measures*

Finally, the reliability for each of the CTI subscales was in the marginal or acceptable range (Barker et al., 2016). Other research using the CTI with SSM/V has also found low reliabilities (see Ghosh & Fouad, 2016). It is likely that the CTI may need to undergo further psychometric analyses to determine (a) whether it is an appropriate instrument to continue using with SSM/V and/or (b) what is the best factor structure for SSM/V. The low reliability of the CTI subscales may have increased the chance of a Type II error in the moderation analyses and therefore future studies may want to continue to examine what transition variables may moderate the relationship between career decision-making difficulty and psychological distress.

### *Structure of the Survey*

The overall structure of the survey may have posed some challenges for participants. For example, the length of the survey may have contributed to participant fatigue as well as early withdrawal from the survey. In addition, the inclusion of trauma symptom measures might have further contributed to the participant dropout. Several participants withdrew from the current study before completing the PCL-5. With avoidance being a common reaction to the experience of trauma symptoms (Resick et al., 2014), it is possible that participants' decision to withdraw may reflect coping by participants who have the self-awareness to know their own limitations or a desire to avoid thinking about their symptoms and traumatic experiences.

## Future Research Directions

Based on the findings, there are several possible future directions for research, including a focus on mediating variables, special populations, vocational measures, and contextual factors.

### *Mediating Variables*

Several possible mediating variables have been identified. Perhaps one of the most salient is the role of stress. Future researchers may investigate how stress mediates the relationship using self-report measures of perceived stress or by investigating biological processes (e.g., the hypothalamic-pituitary-adrenal axis) that activate when individuals experience stress.

### *Population*

Another option is to expand the population being studied. Future researchers may want to consider examining this relationship using a more traditional college population or adolescents in high school. Both of these groups would fall into the younger age bracket that experiences significantly more career decision-making difficulty than the current sample (Levin et al., 2020) and would allow for replication of the studies conducted by Anghel and Gati (2019) and Kulcsár et al. (2020). In addition, future researchers should investigate whether the relationship between career decision-making difficulties and psychological distress exist for other special populations (i.e., women and individuals with low-income) and if contextual factors need to be included as forms of stress or contributors to decision-making difficulty.

### *Measures*

An additional research direction would be to improve vocational measures. For example, the CTI demonstrated a low reliability in the current study and in another study with SSM/V (see Ghosh & Fouad, 2016). Improved psychometric properties may also improve the inferences that can be made from the CTI. Additionally, future research may want to conduct factor analyses to reduce the number of items in certain vocational measures. Lengthy measures may result in participant fatigue and be less practical in practice settings.

### *Contextual Factors*

Finally, there is the option to include contextual factors. There has been a shift over the course of vocational counseling's history to incorporate contextual factors in vocational research, with Phillips and Imhoff (1997) calling for any research study to include contextual factors. PWT is one vocational theory that incorporates these types of vocational factors (Blustein, 2006). While the current study was loosely based on an idea from PWT (i.e., that vocational issues can affect mental health), it did not consider the place of contextual factors as influences of career decision-making difficulty. Future studies may want to investigate how contextual factors (i.e., racism, sexism, and ableism) affect a person's career decision-making.

## Practice Implications

There are several implications for this research. Perhaps one of the most evident is the application to the counseling process. If SSM/V have concurring symptoms of a mental health disorder and difficulty with making career decisions (i.e., selecting a major), working on reducing their decision-making difficulty will likely help to reduce some of their mental health symptoms. Based on the literature, it would seem that other vocational professionals believe that mental health affects vocational factors (Lenz et al., 2010) and should thus be addressed before vocational issues. However, due to the high stigma around seeking mental health services and mistrust of providers (Vogt, 2011) and concerns about sharing highly emotional content with a stranger (Cornish et al., 2014), SSM/V may not be willing to seek out mental health services first. Talking about career plans may seem less threatening for the SSM/V and allow a provider to begin to establish a relationship before offering different services or referring the SSM/V to a mental health professional. Since any professional can offer insight, including faculty at the SSM/V's university, there are also increased opportunities to engage with SSM/V.

Research has consistently demonstrated that career counseling can have a positive impact on career decision-making difficulties (Masdonati et al., 2009; Perdix et al., 2012; Whiston et al., 2017). One study by Gati et al. (2013) found that a 5-day career workshop that included discussion of how life would be different once they left the military, exploration of their values that affected their vocational aspirations, completion of a vocational inventory, psychoeducation about decision-making, and engagement in role plays resulted in a significant decrease in participants' overall decision-making difficulty score. The workshop may be one that the military could implement for service members preparing to leave the military or it could be conducted by universities over the course of a semester for SSM/V who are unsure of what career trajectory they want to follow.

Additional components of individual interventions that have been found to have large effects in reducing career decision-making difficulty include (a) in-session written exercises, (b) individualized feedback on career choices, (c) providing information about occupations, and (d) management of barriers to selecting careers (Milot-Lapointe et al., 2018). Any intervention for reducing career decision should also include a focus on common factors, such as the working alliance. Focusing on maintaining a strong working alliance has been shown to improve the effectiveness of providing feedback and written exercises (Milot-Lapointe et al., 2018). Therefore, interventions to address career issues should include evidence-supported intervention components, such as these.

Vocational research, such as the current study, also has policy implications for various organizations working with SSM/V. Universities with vocational programs and existing programs for SM/V, such as the Transition Assistance Program, may have additional benefits beyond improving SM/V's vocational pursuits. The current study provides evidence that

targeting vocational issues can impact a broad range of areas of functioning. Therefore, funding for programs that target SSM/V's vocational concerns should be seriously considered and possibly made a priority.

**Summary**

The current study set out with a goal to quantify the relationship between career decision-making difficulty and three forms of psychological distress (i.e., depressive, anxiety, and trauma symptoms) among SSM/V and identify what career transition factors may buffer this relationship. The results of the study indicated that there is a positive relationship between career decision-making difficulty and all three measures of psychological distress, and that career decision-making difficulty can account for a portion of a person's psychological distress score. The results from the current study expand findings of previous researcher studies to SSM/V and strengthen evidence supporting the connection between vocational factors and mental health, thus providing a more holistic perspective of an individual. With researchers beginning to take an interest in the relationship between mental health and vocational issues, there are several research directions that have yet to be explored.

# Chapter 2: Literature Review

The current study seeks to provide evidence of the relationship between career decision-making difficulty and psychological distress among student service members/veterans (SSM/V). This study also seeks to provide empirical evidence of how scores on a measure of career decision-making can account for change in scores on measures of depressive symptoms, anxiety symptoms, and trauma symptoms.

The current chapter begins with a review of today's military, including challenges service members/veterans (SM/V) may experience when leaving the military to raise awareness for the need to focus on SM/V's vocational challenges. Next, a review of the literature related to vocational issues and mental health is provided to raise awareness of how career decision-making has not been recently researched in the vocational psychology literature. Finally, theories and models of the relationship between vocation and mental health are presented to provide evidence of the directionality of the relationship between career-related issues and psychological distress.

## Today's Military

The United States (U.S.) military is composed of a combination of active duty service members, reservists, and civilian employees (Defense Manpower Data Center, 2018). Active duty service members are "military full-time, may live on a military base, and can be deployed at any time" (U.S. Department of Veterans Affairs, 2015), while reservists (including those in the National Guard) are not employed full-time but can be deployed when needed (U.S. Department of Veterans Affairs, 2015). Active duty service members serve in either the Army, Marine Corps, Navy, Air Force, and/or the Coast Guard (Defense Manpower Data Center, 2018). Reservists may serve in the Army National Guard, Army Reserve, Navy Reserve, Marine Corps Reserve,

Air National Guard, Air Force Reserve, and/or the Coast Guard Reserve (Defense Manpower Data Center, 2018). Cumulatively, these individuals comprise the total number of service members in the U.S. military.

As of June of 2018, the total number of active duty and reserve service members in the U.S. military was over two million (Defense Manpower Data Center, 2018). Of those two million, over one million were active duty and over 700,000 were reservists serving in the United States (Defense Manpower Data Center, 2018). Service members may have served in recent active duty conflicts such as Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and/or Operation New Dawn (OND; U.S. Department of Veterans Affairs, 2012). In addition to active duty and reserve service members, there are also those who have discharged from the military.

**Veterans**

Veterans are defined as those who served in active duty military service and left the military without a dishonorable discharge (U.S. Code 38 §101, 1958). The total number of service members (both officers and enlisted members) who have retired from the military has increased almost every year (Department of Defense [DoD] Office of the Actuary, 2016). In 2015 alone, almost two million service members retired from the military (DoD Office of the Actuary, 2016). In 2017, there were over 18 million veterans living in the United States (DoD Office of the Actuary, 2016). These veterans served in conflicts such as World War II, the Korean War, the Vietnam War, the Gulf War, the War in Afghanistan, and the War in Iraq. Due to the requirements of their job, veterans are more likely than individuals in the general population to have exposure to stressors that may increase the risk of obtaining certain psychological disorders.

## Post-traumatic Stress Disorder

Researchers have found that between 4-17% of U.S. Iraq War veterans experience post-traumatic stress disorder (PTSD; Richardson et al., 2011). However, this may be a low estimate of veterans with PTSD as veterans may underreport severity of the impact of their combat exposure (Brenner et al., 2015). PTSD is not unique to service members from recent conflicts. There is an extensive history of service members experiencing trauma symptoms, dating prior to any formal diagnosis of PTSD.

### *History of PTSD*

Some scholars document that formal diagnosis of symptoms that are similar to the modern diagnosis of PTSD date to the Civil War when the symptoms were collectively known as "soldier's heart" (Friedman, 2018). Soldier's heart was predominately the somatic symptoms of the modern diagnosis of PTSD (e.g., rapid heartbeat and disturbed sleep); however, around the time of World War I (WWI), medical professionals recognized that many of these physical symptoms were related to the mental processes soldiers were experiencing (Dyde, 2010). Soldier's heart was renamed "shell shock" during WWI as it was first believed that the symptoms were the result of brain damage caused by explosions; however, this changed as soldiers not exposed to explosions demonstrated similar symptoms as those soldiers who had been exposed to explosions (Friedman, 2018). During World War II (WWII), "shell shock" was renamed "combat stress reaction," and was thought to be due to soldiers becoming exhausted after prolonged exposure to combat, and included symptoms such as feeling as if one was re-experiencing combat (Andreasen, 2010; Friedman, 2018). Toward the end of WWII, an idea was gaining more attention that exposure to stressful situations other than combat exposure could produce symptoms similar to the symptoms in the combat stress reaction diagnosis (Andreasen,

2010). A movement then occurred within the Veterans Administration that prompted the American Psychiatric Association to publish the first *Diagnostic and Statistical Manual* (henceforth referred to as DSM-I), which included the diagnosis of gross stress reaction (Andreasen, 2010).

In the DSM-I (American Psychiatric Association, 1952), a person had to have experienced an extreme physical or mental stressor and demonstrated that he or she had relatively healthy functioning prior to the incident to be diagnosed with gross stress reaction (Andreasen, 2010). The problem with the DSM-I diagnosis was that the symptoms could only last a few weeks before another diagnosis had to be assigned (Andreasen, 2010; Friedman, 2018). Gross stress reaction was not included as a diagnosis in the second edition of the DSM (DSM-II; Andreasen, 2010; Friedman, 2018) published in 1968. However, a diagnosis of "adjustment reaction to adult life" was included in the DSM-II (American Psychiatric Association, 1968), but only included exposure to three types of trauma as part of its criteria (Friedman, 2010). In the third edition of the DSM (DSM-III), the diagnosis of PTSD was added and included several of the modern criteria for PTSD. Similar to the DSM-I version of gross stress reaction, according to the DSM-III (American Psychiatric Association, 1980), individuals had to experience either a mental or physical stressor (Andreasen, 2010). However, the DSM-III criteria (a) no longer required individuals to demonstrate "normality" prior to exposure to the traumatic event, (b) organized the symptoms into three categories (re-experiencing, numbing of responsiveness, and cognitive/autonomic symptoms), and (c) allowed for delayed onset of symptoms (Andreasen, 2010). Re-experiencing symptoms included feeling as if the traumatic event was reoccurring or experiencing nightmares related to the event. Numbing of responsiveness included symptoms such as having the inability to experience positive emotions.

Cognitive/autonomic symptoms included symptoms such as excessively blaming oneself for the trauma.

The fourth edition of the DSM (DSM-IV; American Psychiatric Association, 1994) further broadened the types of stressors that would fulfill Criterion A to include indirectly experiencing the stressor (Andreasen, 2010). This meant that a person who witnessed a traumatic event, such as witnessing a violent attack, could meet criteria for PTSD. The DSM-IV also included a new diagnosis of acute stress disorder to help differentiate severity of stressors and reactions to an event (Andreasen, 2004). The current version of the DSM (DSM-5) reflects continued research into PTSD.

### *DSM-5 PTSD Criteria*

The DSM-5 version of PTSD has eight criteria that must be met for an adult to qualify for a diagnosis of PTSD; however, the criteria are different for children younger than 6 (American Psychiatric Association, 2013). The first criterion, Criterion A, is "exposure to or threatened death, serious injury, or sexual violence" (American Psychiatric Association, 2013, p. 271). As in previous versions, a person may directly experience the trauma, witness the trauma, learn about traumatic events that occurred to somebody whom the person was close to, or be repeatedly exposed to the details of a traumatic event. Criterion B is a collection of intrusive symptoms. Examples of intrusive symptoms include recurrent memories, distressing dreams of the trauma, flashbacks, intense psychological distress when exposed to internal cues (e.g., thoughts or emotions) or external cues (e.g., other individuals, places, and things), and physiological reactions when exposed to those cues. To meet Criterion B, an adult only needs to experience one of the symptoms but may experience any combination of them. Criterion C consists of two avoidance symptoms; however, an adult only needs to experience one of the

symptoms to fulfill Criterion C. The first is avoidance of internal cues (e.g., thoughts, feelings, memories) and the second is avoidance of external cues (e.g., individuals, places, and things). Criterion D consists of a cluster of alterations in cognition and mood. Examples of these alterations include negative beliefs about oneself, irrational blame of others or oneself for the trauma, anger, guilt, loss of interest in significant activities, subjective feelings of detachment from others, and the inability to experience positive emotions. In order to meet Criterion D, a person must experience at least two of the symptoms listed. Criterion E consists of symptoms that demonstrate a change in arousal and reactivity. Examples include outbursts with little to no provocation, self-destructive behavior, hypervigilance, increased jumpiness, problems with concentration, and sleep problems. An adult must have two or more of these symptoms to meet Criterion E. For Criteria B through E, the symptoms must either begin after the traumatic event or worsen after the event.

There is also a minimum length of time that symptoms must persist to meet criteria for a diagnosis of PTSD. Criterion F sets a time limit on how long a person must experience the symptoms. If an adult meets criteria B-E for a period of one month, then Criterion F is met (American Psychiatric Association, 2013). However, if symptoms have not lasted for one month, then a diagnosis of acute stress reaction can be assigned until the symptoms are present for the 30-day period. There must also be some form of impairment in a major life task, such as impaired ability to work, to meet Criterion G (American Psychiatric Association, 2013). Finally, Criterion H is that the symptoms are not the result of substance use. Although PTSD is a well-known diagnosis among veterans, other disorders are also found among veterans (American Psychiatric Association, 2013).

### *Prevalence of PTSD*

Potentially due to exposure to intense combat situations, higher rates of PTSD symptoms are found in veterans than are found in the general population (American Psychiatric Association, 2013). In OIF/OEF veterans, PTSD rates range between 11-20% for the 12-month prevalence of PTSD symptoms (Veterans Health Administration, 2018) and as high as 11.2% in veterans who served in the conflict in Afghanistan (Peterson et al., 2016). This means that in the span of a calendar year, it is possible that up to 20% of veterans from those conflicts experience symptoms that qualify for a diagnosis of PTSD. In the general population, the 12-month prevalence of symptoms due to a trauma is 4.7% (Kilpatrick et al., 2014).

Whereas combat is one potential reason that veterans experience PTSD at higher rates than civilians, there is also the potential for other types of trauma, such as military sexual trauma, that may affect veterans. It is estimated that 55% of women and 38% of men experience sexual harassment in the military and 23% of women experience a sexual assault while in the military (Veterans Health Administration, 2018). Due to the military culture of valuing perseverance, symptoms may go undetected while the service member is still exposed to the trauma (Drebing et al., 2016). These numbers do not include traumas that a service member may have experienced outside of the military, which may increase the rate of exposure to traumatic events among service members. However, PTSD is not the only mental health issue that service members experience.

## Generalized Anxiety Disorder

The second most prevalent psychiatric diagnosis among service members is generalized anxiety disorder (GAD; Kessler et al., 2014). A diagnosis of GAD can be assigned if six criteria are met as outlined in the DSM-5 by the American Psychiatric Association (2013). To meet

Criterion A, a person must experience worry/anxiety about a variety of things for the majority of days over the course of 6 months. Criterion B is met if the person finds it difficult to control the worry. Criterion C is met if at least three symptoms out of six are present. These six symptoms are physical sensations that individuals may experience such as (a) restlessness, (b) quickly losing energy, (c) difficulty concentrating, (d) irritability, (e) feeling tense, and (f) difficulty with falling asleep or staying asleep. Criteria D, E, and F state that the previously mentioned symptoms must cause impairment in the person's life, not be the result of substance use or a medical condition, and cannot be better explained by another diagnosis in the DSM-5, respectively.

### *Prevalence of GAD*

The 30-day prevalence rate of GAD among service members is 5.7% (Kessler et al., 2014), although this number does not include deployed service members and those in basic training. This means that in the past 30 days, it is likely that 5.7% of service members experienced symptoms that would meet criteria for GAD. This rate is larger than the 1.6% 30-day prevalence of GAD among the general population in the United States (Ruscio et al., 2017).

## Major Depressive Disorder

Another leading psychiatric diagnosis for veterans is major depressive disorder (MDD; Rytwinski et al., 2013). The American Psychiatric Association (2013) set the criteria for a diagnosis of MDD in the DSM-5. The diagnosis of MDD has five major criteria with a variety of ways that a combination of symptoms can meet criteria. To meet Criterion A, a person must experience at least five of the following symptoms for 2 weeks: (a) depressed mood, (b) lack of interest in activities that were once enjoyable, (c) unintended weight loss, (d) sleep difficulty, (e) feeling restless or feeling as if one is moving in slow motion, (f) lack of energy to get tasks done,

(g) feeling worthless, (h) concentration issues, and (i) reoccurring thoughts of death or a suicide attempt. Most of these symptoms need to be present nearly every day with the exception of the reoccurring thoughts of death/suicide attempt. At least one of the symptoms must be either depressed mood or lack of interest in activities that were once enjoyable. Criterion B states that these symptoms must cause some form of impairment. Criteria C, D, and E set guidelines that the symptoms listed in Criteria A are not due to the use of substances, a medical condition, part of the course of a psychotic disorder, or part of the course of bipolar disorder.

***Prevalence of MDD***

Among military populations, there is a high risk of a veteran having comorbid PTSD and MDD (Rytwinski et al., 2013), which means the veteran meets criteria for both PTSD and MDD. In the general population, the comorbidity rate of PTSD and MDD is around 52% (Rytwinski et al., 2013). This means that 52% of individuals that qualify for a diagnosis of PTSD will also qualify for a diagnosis of MDD at the same time. In the military population, the comorbidity rate is often higher than the 52% found in the general population (Rytwinski et al., 2013). Although MDD is often comorbid with PTSD, MDD can exist without PTSD. The 30-day prevalence rate of MDD among service members is 4.8% (Kessler et al., 2014), which is below the 30-day prevalence of MDD among the general U.S. population (6.3%; Ohayon & Schatzberg, 2010).

The effects of experiencing these psychological disorders can have a profound impact on the process of reintegrating into civilian life and may be exacerbated by other biological or social issues (Whiston et al., 2016). For this reason and the high prevalence of these three disorders, the current study will focus on depressive symptoms, anxiety symptoms, and trauma symptoms.

## Service Member Transitions

Transitioning back into civilian life, even for short periods of time, can be challenging for SM/V. Three different areas (biological/physical, psychological, and social) that may present challenges for veterans will be discussed in the next sections. These three areas comprise the biopsychosocial challenges of the transition process. Although each area will be discussed separately, challenges in one area may contribute to growing or diminishing challenges in others (Whiston et al., 2016). For example, challenges with finding work may result in changes in the severity of psychiatric symptoms (Blustein, 2006; Fitzgerald et al., 2018).

### Biological/Physical Challenges

Some veterans will return from military service with biomedical injuries such as fractures, sprains, instability of the joints, musculoskeletal injuries, and/or back injuries from their time in the military (Jones et al., 2010). One diagnosis that has become a distinct characteristic in SM/V from the Wars in Iraq and the War in Afghanistan is traumatic brain injury (TBI; Taylor et al., 2012). TBI is "a disruption in the normal function of the brain that can be caused by a bump, blow, or jolt to the head, or penetrating head injury" (Center for Disease Control, 2017). Potentially due to the part of their job that involves exposure to explosions, 6.7% of service members experience TBI (Taylor et al., 2012). TBI is comorbid with PTSD, depression, and anxiety with comorbidity rates of 73%, 45%, and 22%, respectively (Taylor et al., 2012). These injuries can negatively affect a SM/V when attempting to find employment. For example, traumatic brain injury can make it difficult to concentrate for long periods of time and/or cause impairment with recall of information (Brenner et al., 2015).

Whereas veterans with physical injuries, such as TBI, experience worse long-term physical and mental health outcomes than veterans who do not have physical injuries (Swan et al., 2018), TBI will not be the focus of the current study.

**Psychological challenges**

In a review of the literature on the psychological adjustment process of veterans, Romaniuk and Kidd (2018) found three major interconnected themes. The first theme was the loss of culture/community. When leaving the military, veterans lost their sense of support and the closeness that they had experienced with their fellow service members. The military provided veterans (a) clarity about one's role, (b) direction, (c) safety, and (d) comfort while on active duty. Once service members left the military, they were no longer in a setting with collectivist values that emphasized hierarchy, structure, conformity, and comradery. This difference between civilian and military style of life contributed to veterans' "culture shock" (p. 67) when interacting with civilians. The lack of shared experiences with civilians made it difficult for veterans to form close relationships with civilians. The second theme was a loss of identity. The identity of the veterans was built around their experiences in the military. They came to know themselves within the military context so when they left the military, they lost this identity and some experienced distress. Veterans also described confusion about how to rebuild their identity while simultaneously grieving their lost military identities once out of the military. The final theme was a loss of purpose. Some veterans lost the sense that they were a part of something bigger than themselves and felt that they were no longer contributing to society in a meaningful way. Some veterans experienced this loss as contributing to a loss of motivation to do their civilian work or study.

### *Impact of Psychological Disorders*

Another part of the psychological transition process may also involve coping with psychological disorders. Three of the most prevalent psychiatric disorders for SM/V are PTSD, MDD, and GAD (Rytwinski et al., 2013). PTSD symptoms may compound difficulty with the transition process in numerous ways. PTSD symptoms have been negatively correlated with a belief in one's own ability (Chung et al., 2017; Wagner et al., 2017). Increases in PTSD symptoms have also been correlated with an increase in an external locus of control (Smith et al., 2018; Wagner et al., 2017), which is the belief that other individuals are in control of situations or outcomes. Individuals who have an external locus of control may be more susceptible to PTSD, since individuals who perceive an external locus of control experience significantly more severe PTSD symptoms than individuals who have an internal locus of control perspective (Smith et al., 2018). Both perceptions of social support and the ability to prepare for upcoming challenges are also correlated with PTSD symptom severity. Individuals who experience more severe PTSD symptoms also perceive fewer social supports (Sripada et al., 2015; Weinberg et al., 2017). There is evidence to support that this correlation grows stronger over time if a person does not receive treatment (Weinberg et al., 2017). Tuval-Mashiach and Dekel (2012) also found that PTSD symptoms were found to be positively correlated with instrumental preparedness, meaning that as PTSD symptom severity increased, so did a person's belief he or she had taken concrete steps to prepare for future challenges. Similar patterns have been found for both anxiety symptoms and depressive symptoms. Depressive symptoms have been found to negatively correlate with social support (Campbell & Riggs, 2015; Cox et al., 2017), self-efficacy (Blackburn & Owens, 2015), and external locus of control (Yu & Fan, 2016). These studies indicate that the more depressive symptoms a person experiences, (a) the less support a person

perceives from other individuals, (b) the less belief a person has in his or her own ability, and (c) the less control a person believes he or she has over an outcome. Similarly, a negative correlation has been found between anxiety symptoms and social support (Campbell & Riggs, 2015). Increases in anxiety symptoms have also been correlated with increases in perceptions of an external locus of control (Thakur et al., 2018).

Several of these studies provide support for the correlational relationships between the symptom severity of three of the most common psychological disorders among veterans and self-efficacy, locus of control, preparation, and perceptions of social support (Blackburn & Owens, 2015; Campbell & Riggs, 2015; Cox et al., 2017; Tsai et al., 2012; Weinberg et al., 2017). While these resources have been identified in some studies as protective factors against the negative impact of psychiatric disorders, no studies have examined if these resources could be helpful in managing distress that may be created by career decision-making difficulty. Researchers have recently recognized the study of what factors may reduce distress that is related to career decision-making difficulty as a research direction (Anghel & Gati, 2019).

**Social Challenges**

Social transition challenges can vary from reintegrating as a member of a family to finding civilian employment (Strong et al., 2014). Many SM/V find family to be a source of strength during the transition process. Other SM/V may struggle to find their role within the family as the family renegotiates roles once the SM/V returns home (Glynn, 2012). PTSD may further disrupt the family dynamic as the veteran uses defense mechanisms, such as emotional numbing, when stressful situations arise (Straits-Troster et al., 2012). Some of these same strategies may also affect the SM/V when interacting with individuals other than family members who do not have military experience. The veteran may experience less patience and

feel uneasy around individuals who do not have a military background due to a lack of common experiences (Brenner et al., 2015). These interpersonal difficulties have the potential to further impact the SM/V's transition into the civilian workforce (Kukla et al., 2015).

### *Vocation*

Work is one area that provides meaning to identity and contributes to a sense of life's purpose for many veterans (Kukla et al., 2015). Therefore, transitioning into the civilian workforce after leaving the military may be paramount to maintaining a healthy sense of purpose for veterans. Whereas the interpersonal aspects of working can be challenging due to several of the already mentioned factors, there are several other aspects of transitioning into the civilian workforce that can be challenging for veterans. One difficulty for service members transitioning into the civilian workforce is dealing with the culture in a civilian workplace (Ainspan et al., 2012; Kukla et al., 2015). Veterans may feel isolated in the office environment when coworkers discuss challenges, such as a bad commute, which are perceived as trivial compared to experiencing combat (Ainspan et al., 2012). The civilian work environment may not offer as much structure, organization, rigidity to the rules, or efficiency as the veteran is used to receiving in the military (Kukla et al., 2015). Also, while some employers will hold a job for the veteran during a deployment, other employers who are unfamiliar with what it means to be deployed may struggle to work with the veteran's deployment schedule (Kukla et al., 2015). Reserve members, who have been deployed in recent conflicts more than in any other conflict (Amara & Hendricks, 2016), are potentially at risk of experiencing greater challenges finding work because of having to discuss the potential for deployments with employers who may be unwilling to accommodate for the absence.

The transition to the civilian workforce is not always negative. Veterans who can find a work environment that aligns with their values may be able to find new ways to cope with trauma symptoms, regain a sense of control, and be better able to relate to others (Ainspan et al., 2012; Ainspan & Smith-Osborne, 2016). Some veterans can do this with relative ease; others initially have a lot of confidence in their ability to find a job, then realize the difficulty of trying to find work in the civilian workforce, and others feel ill-prepared to use the skills they learned in the military in the civilian workforce (Kukla et al., 2015). Potentially due to veterans' frustration with separating from the military with little preparation (Kukla et al., 2015) and the 7.48% unemployment rate for veterans in 2010 (United States Census Bureau, n.d.), the military instituted a mandatory program, known as the Transition Assistance Program, in 2011, to help ease service members' transition out of the military (Ainspan & Smith-Osborne, 2016).

**Vocational programs for SM/V.** There are several vocational programs that highlight the importance of vocation for SM/V. Two of those programs will be highlighted here.

***Transition Assistance Program.*** The Transition Assistance Program (TAP) was created in 2011 as part of the Veterans Opportunity to Work (VOW) and Hire Heroes Act of 2011. TAP is mandatory for all service members from each of the five branches (Ainspan & Smith-Osborne, 2016) and is available to spouses of service members (Ainspan et al., 2012). Service members must complete TAP 90 days prior to separating from the military (Department of Defense, n.d.). During TAP, service members are prepared for continuing their careers outside the military even if the service member's immediate plan is to seek education (Department of Defense, n.d.). Parts of TAP include identifying career needs of the service member, learning how to use Veterans Affairs benefits, and learning how to apply for a job in the civilian workforce, including how to build résumés and improve interviewing skills (Department of Defense, n.d.). Service members

who indicate that they are planning on pursuing education after separating from the military must also complete additional tasks such as completing a college application and researching higher education institutions (Department of Defense, n.d.). The modules that are part of the TAP curriculum are available to service members and their families throughout the duration of their military service and after their service via online resources (Ainspan & Smith-Osborne, 2016). In 2018, 95.9% of service members separating from active duty were compliant with completing TAP (Defense Personnel and Family Services Center, Transition to Veterans Program Office, 2018). While TAP is available for service members who are preparing to leave the workforce, additional services are available through military-based organizations once a service member has discharged from the military.

***Compensated Work Therapy.*** Compensated Work Therapy (CWT) is an evidence-based vocational rehabilitation program for veterans experiencing mental and physical impairments that interfere with gaining and maintaining employment (Veterans Health Administration, 2018). Veterans involved in CWT are provided with short-term employment, vocational assessment services, and case management in order to help the veteran find competitive employment in the community (Ainspan et al., 2012). A counselor works with local employers to either modify an existing job or create a new job that fits the needs of the veteran as part of the CWT program (Ainspan et al., 2012). The CWT program works with the veteran to develop job skills and the employer to provide information about how accommodations can be made to currently existing positions.

Close to 30% of veterans coming into vocational programs at the Veteran's Affairs Medical Centers (VAMC) report seeking services to help manage work transitions as their primary concern (Drebing et al., 2012). Many of those seeking services report waiting an average

of 3.5 years for a variety of reasons (Drebing et al., 2012). Since there are certain psychological disorders that impact SM/V at higher rates than the general population, knowing how difficulty with the transition process can affect psychological distress levels may be helpful in advocating for increased awareness of the benefits of engaging in vocational services. Engagement in vocational programs, such as CWT, has the potential to help even those with psychiatric disorders achieve competitive employment in the community (Drebing et al., 2002). It seems that the amount of effort put into creating these programs demonstrates the importance the military has placed on helping SM/V be successful outside of the military.

### *SSM/V*

Not all service members will enter the civilian workforce directly after leaving the military. Some service members will go on to pursue higher education degrees after leaving the military (Schiavone & Gentry, 2013). Other SM/V will begin working on higher education degrees while still in the military in order to prepare for a career outside the military (Schiavone & Gentry, 2013). Access to college has expanded for veterans with the passage of the GI Bill by reducing the financial burden of earning a post-secondary degree for SM/V (Cate, 2014). This may contribute to the rise in prevalence of SSM/V on college campuses (VITAL, 2014). In total, SSM/V comprise 4% of the total undergraduate population (Molina, 2014).

**SSM/V Characteristics.** SSM/V may differ from traditional college students in several ways including (a) age (Olsen et al., 2014), (b) marital status (Olsen et al., 2014), (c) maturity status (Olsen et al., 2014), and (d) prevalence of mental health disorders (Fortney et al., 2016). SSM/V may have joined the military directly after high school, thus delaying their entry into postsecondary education. Due in part to the delay, the average age of SSM/V when starting postsecondary education is 25 (Molina, 2014) compared to the majority of non-SSM/V college

students who are between 18 and 22 (Fortney et al., 2016). In addition, 44% of SSM/V are married, and 52% have a child (Molina, 2014). SSM/V often cite difficulty relating to their peers due to a noticeable difference in maturity status (Falkey, 2016). In addition, SSM/V are more likely than their non-SSM/V counterparts to experience depression and PTSD (Fortney et al., 2016). There is also a higher prevalence of generalized anxiety disorder in SSM/V than in non-SSM/V (Fortney et al., 2016).

**SSM/V Transition Challenges.** SSM/V may face several of the challenges experienced by service members separating from the military, in addition to some challenges that are unique to the experience of transitioning to the role of a student. For some SSM/V, the process of seeking out higher education is a part of their career transition plan. Attending a college/university allows the SSM/V to gain specialized knowledge for a career outside of the military (Schiavone & Gentry, 2013), interact with individuals who are interested in similar career options, and gain a more thorough understanding of the process for attaining the career they want (Doenges, 2011). Some SSM/V report that they have difficulty with selecting a major and feel anxiety over this decision-making process (Howe, 2017).

Even before starting college, SSM/V must consider how to pay for their education. Whereas many college students experience financial challenges, for SSM/V this may be the first time that they are responsible for paying for their own living expenses (Olsen et al., 2014). Since not every SSM/V receives educational assistance prior to payment being due (Molina, 2014), many may have to pay tuition costs out of their own pocket until they receive their educational assistance (Borsari et al., 2017). Since SSM/V are often financially independent from their families (Olsen et al., 2014), around 40% of SSM/V work full-time while attending college (Molina, 2014).

The lack of time spent with the other college students can make forming social relationships challenging and be vastly different than the way the SSM/V engaged with individuals in the military. The lack of time spent with other students on campus can contribute to feeling isolated (Olsen et al., 2014). Some SSM/V also report a decline in quality and quantity of time spent with other SM/V with whom they bonded during their military service (Herren, 2013). However, using social media has helped some SSM/V remain connected with other veterans (Herren, 2013). These differences may be a few of the reasons that SSM/V report greater challenges in forming social networks (Borsari et al., 2017) and report having a harder time fitting in while at college (Smith et al., 2017) compared to their non-veteran counterparts.

One of the frequently written about challenges faced by SSM/V is the culture of college campuses. SSM/V may feel the need to intentionally monitor the way they interact with others because the direct communication style that was useful in the military may be interpreted as rude when interacting with faculty and students who do not have military experience (Olsen et al., 2014). Even learning how the instructional material is taught can take some adjustment for SSM/V. Many colleges utilize an autonomous approach to learning through the use of assignments that promote students taking initiative to learn the material on their own and then discussing the material in class, whereas the military teaches through experiential training (Borsari et al., 2017). Even if SSM/V can learn how to study for one class, they may need to develop a different strategy for another class due to different teaching styles, which varies from the uniform structure the military uses to teach service members (Borsari et al., 2017). Although learning to be adaptive to different teaching styles can be difficult, SSM/V can rely on some of the skills they learned in the military to help them be successful (Herren, 2013; Olsen et al., 2014).

As can be found in the previous discussions of physical, psychological, and social challenges veterans may face, the effects of these challenges during the transition process are interconnected. There are several challenges that the SM/V faces during the transition process, but there are also resources that the SM/V can use to help with this process. Much of the research that focuses on the transition process utilizes qualitative methods to describe relationships between physical, psychological, and social challenges that comprise the transition process. The current study seeks to address this gap by providing quantitative evidence of the relationship between career-related decision-making difficulty and psychological distress for SSM/V.

## Vocation and Mental Health

The impact of vocational factors on health cannot be ignored if a practitioner wishes to take a holistic perspective of a client (Whiston et al., 2016). The relationship between vocation and mental health will be discussed, beginning with an overview of the relationship between employment status and mental health, and ending with a discussion of how career-related decision-making is related to mental health.

### Employment and Unemployment

The relationship between employment status and mental health is well-documented in the literature. Several studies have documented the positive impact of employment (Hergenrather et al., 2015; Paul & Moser, 2009). Individuals who are employed report significant improvements in overall mental health, mood, and quality of life, while also demonstrating decreased psychological distress, including depression and anxiety (Hergenrather et al., 2015; Paul & Moser, 2009). These improvements and better subjective physical health ratings are also found in individuals who gain employment (Hergenrather et al., 2015; McKee-Ryan et al., 2005). In low income single mothers, the benefits of employment are seen in the form of a 27% reduction in

the odds of meeting criteria for depression compared to low income single mothers who are unemployed (Zabkiewicz, 2010). Overall, these studies provide evidence that employment is positively related to functioning in several areas.

Paul and Moser (2009) conducted a meta-analysis on the relationship between employment and mental health using 237 cross-sectional and 87 longitudinal studies. In the cross-sectional portion of their study, significant and small to medium effect sizes for the relationship between employment and depression ($d$ = .50), anxiety ($d$ = .40), subjective well-being ($d$ = .51), and self-esteem ($d$ = .45) were found. However, studies that had more female participants demonstrated smaller effect sizes. The difference in effect size for studies based on gender suggests that gender may play a moderating role in the relationship between employment status and mental health. In addition, blue-collar work status and the amount of time a person was unemployed were also identified as moderator variables. The longer individuals were unemployed, the worse their psychological distress scores were, which may indicate that difficulty with progressing in the transition process may impact the severity of mental health symptoms.

In the examination of the longitudinal studies, Paul and Moser (2009) found similar relationships among employment status and the measures of psychological health. They were also able to provide evidence that employment status was a contributing factor for the change in ratings of psychological health scores due to the change in scores on the measures of psychological health when employment status changed. Furthermore, the researchers concluded that unemployed individuals who engaged in an intervention program had lower scores on measures of psychological distress (e.g., anxiety and depression) than unemployed individuals who did not participate in an intervention program. The results from this meta-analysis provide

support that the relationship between employment status and mental health does exist. It also seems to indicate that the direction of this relationship may exist such that vocational variables can influence psychological distress levels.

Several researchers have studied the relationship between various specific aspects of working, such as job satisfaction (Pearson, 1998), role overload (Pearson, 2008), and career thought dysfunction (Walker & Peterson, 2012), and found that they are related to psychological health and functioning. Job satisfaction has been positively correlated with psychological health in both male (Pearson, 1998) and female samples (Pearson, 2008). In a meta-analysis, Bowling et al. (2010) found that job satisfaction also positively correlated with overall life satisfaction using 53 studies and happiness using 15 studies.

Whereas the benefits of engaging in work have been well documented in the literature, the consequences of unemployment or employment difficulties have also been documented. In fact, most studies that have examined the relationship between some type of well-being and employment have included a measure of mental health (McKee-Ryan et al., 2005). Unemployment or losing one's job is related to (a) lower overall mental health ratings, (b) higher ratings of psychological distress in the forms of anxiety and depression, (c) lower marital and family satisfaction, (d) worse objective markers of physical health, and (e) lower subjective well-being ratings compared to the ratings of individuals who are employed (Hergenrather et al., 2015; McKee-Ryan et al., 2005). Among college students, dysfunctional career thoughts (e.g., I get so depressed about choosing a field of study or occupation that I can't get started) have been related to increases in overall depressive symptom severity (Walker & Peterson, 2012). Regression analyses with college students demonstrated that scores on decision-making conflict could account for 26% of variability in scores for depression (Walker & Peterson 2012).

**Transitions**

Whereas the beneficial and harmful mental health effects of employment status are well-documented in the literature, recently there has been little written about how the transition process is related to mental health. This is particularly concerning as 60% of individuals who seek vocational counseling report being psychologically distressed prior to beginning vocational counseling (Multon, et al., 2001).

Making career-related decisions during a transition may be less difficult for some individuals, but for others it can be the source of psychological distress (Anderson et al., 2011; Krieshok, 1998; Sepich, 1987). Individuals who view the transitioning process as overwhelming may feel increases in anxiety (Anderson et al., 2011; Anghel & Gati, 2019; Sepich, 1987) and depression (Anghel & Gati, 2019; Ashforth, 2012). Bobek et al. (2013) proposed that the increase in psychological distress is due in part to the financial strain and job uncertainty individuals experience when transitioning jobs. Similarly, Blustein (2006) proposed that the stress created by difficulty with making vocational decisions may be the reason for changes in distress levels. Although not conducted using a sample of SM/V, McLean et al. (2017) found that as teachers progressed in their career transition, they reported an increase in both depressive and anxiety symptoms. Miller and Rottinghaus (2014) as well found a statistically significant relationship between career indecision and anxiety ($r$ = .40) in a sample of college students. These results provide evidence of how perceived challenges with making progress while transitioning to another vocation may contribute to the development of psychological distress.

Literature on career transitions has focused on how the decision-making process relates to adjustment (Ross et al., 2018), negative career thoughts (Welsh, 2015), and personality factors (Di Fabio et al., 2014). A person’s self-esteem and confidence are likely to continue to decrease

the longer a career transition goes on without progress (Bobek et al., 2013), which initially may have served as a protective resource during the transition process. One study that examined the relationship between the job search aspect of a transition and depressive symptoms found that there was a small yet statistically significant negative correlation between job search self-efficacy and depressive symptoms ($r$ = .20; Pfeifer & Strunk, 2016). Another study conducted by Anghel and Gati (2019) found a significant correlation between career decision-making difficulty and depressive symptoms ($r$ = .35), anxiety symptoms ($r$ = .31), and stress ($r$ = .37). Although these correlations are small, they are important to consider as mental health issues and vocational issues are believed to be related (Lenz et al., 2010; Whiston et al., 2016). With vocational researchers just beginning to examine the relationship between vocational issues and mental health, it is important that more research is conducted on this topic.

SSM/V who enroll in college are in the midst of an occupational change as the duties they performed in the military are often different than the duties they perform in college (Howe, 2017). Becoming a student may help to improve SSM/V's career transition process as they expand career options, gain clarity on career plans, and build skills and knowledge related to their future career (Doenges, 2011), especially when it comes time to select a major. Enrolling in college can help the SSM/V with future career plans, even if those plans involve staying in the military (Vance, 2015).

For many students, selecting a college major is a part of their career process (Pisarik et al., 2017). Because of the importance of this decision, making the choice may result in an increase in psychological distress for some students. In fact, Helkowski et al. (2004) identified feeling anxious or depressed as indicators of career choice confusion in *The College Student Counseling Treatment Planner*. Pisarik et al. (2017) interviewed seven students at various stages

of their college career and found that most of their participants reported an increase in several symptoms when thinking about career-related decisions. Some participants reported physical changes such as hot flashes, unease, tension, and sleep trouble. Others reported feeling anger, fear, and frustration. Changes in thought patterns were also noted, such as negative self-talk, self-blame, all-or-none thinking, negative predictions about the future, and a lack of control over these thoughts. Whereas Pisarik et al. related these issues with anxiety, several of the symptoms mentioned overlap with depressive and trauma symptoms as well.

Some SSM/V report that they come to college with little knowledge about how to select their career path in the civilian world (Howe, 2017). This could be due to knowledge deficits such as understanding how to transfer their skills from the military into civilian workforce or knowing how to research different career options (Hayden et al., 2014). The challenges SSM/V report experiencing with career-related transitions are consistent with the taxonomy of career decision-making described by Gati et al. (1996).

Gati et al. (1996) hypothesized that there are three main categories that comprise difficulty with a career decision. The first category encompasses an aspect of the decision-making process that occurs before a person begins exploring different options and was labeled lack of readiness. Individuals who struggle with lack of readiness may have a lack of motivation, unreasonable expectations of the career process, and lack of information about what steps to take next. It has been found that younger veterans experience more difficulty with readiness than older SSM/V (LaVeck, 2018). The second category proposed by Gati et al. (1996) was labeled lack of information. Individuals who struggle with lack of information may not have enough information about themselves, various occupations, and how to obtain more information. The third category proposed by Gati et al. (1996) was labeled inconsistent information. Individuals

who struggle with inconsistent information may have unreliable information, internal value conflicts, and interpersonal conflicts that affect their decision-making process. These are not the only parts of a transition process; other researchers have described different resources that are important to the transition process. Overall, the scale developed by Gati et al. (1996) based on the taxonomy has demonstrated having a small yet statistically significant positive correlation with anxiety (Anghel & Gati, 2019; Lancaster et al., 1999).

### *Transition Resources*

Transitioning to a different vocation often requires a host of internal psychological resources (Coetzee & Esterhuizen, 2010). Five proposed resources individuals rely on to help during a transition are (a) readiness, (b) confidence, (c) personal control, (d) support, and (e) independence (Heppner, 1998). Readiness is similar to motivation and includes taking the perspective that a person can take proactive steps to prepare for the career transition (Heppner, 1991; Santisi et al., 2018). Confidence is similar to self-efficacy, in that confidence refers to individuals' perception that they can do the tasks necessary to make it through the career transition. Control is similar to locus of control and is meant to assess how much individuals believe that they can affect change in the career transition process (Heppner 1994). Support refers to the amount of help individuals believe they will receive from others (Heppner, 1994). The final resource of independence reflects how much individuals believe that they can make decisions without having to consult with others during the transition process (Heppner, 1994). Heppner (1994) developed the Career Transitions Inventory (CTI) to measure the prevalence of these career transition resources. To date, few studies have examined how internal psychological resources are related to a SM/V's distress level.

Shue (2018) examined the relationship between these career transition resources and depressive symptoms using an SSM/V sample as part of her study. Using the Patient Health Questionnaire-8 (PHQ-8) and the CTI, Shue found that there were statistically significant weak to moderate negative correlations between the PHQ-8 and the Confidence, Control, and Perceived Support subscales of the CTI. These correlations ranged from -.30 (Control) to -.50 (Confidence). There were no significant results found between the PHQ-8 and the Readiness and Decision Independence subscales of the CTI. This study is one of the few that specifically provides empirical support for the relationship between transition process resources and psychological distress. The current study seeks to examine whether the presence of these career-related resources can change the intensity of the relationship between career decision-making difficulty and psychological distress.

Mental health and career issues cannot be separated (Lenz et al., 2010). Often transition difficulties and mental health are discussed in terms of mental health symptoms contributing to work transition difficulty (Bobek et al., 2013), yet mental health symptoms and vocational difficulties exist in a more cyclical relationship (Whiston et al., 2016). Therefore, interventions that target one part of the cyclical pattern are likely to impact the other part. It may be worth initially working with clients on vocational issues, especially for populations with a large stigma against seeking mental health services, such as SM/V (Vogt, 2011). With a study finding up to 40% of veterans seeking vocational counseling services and up to 83.5% of veterans engaging in vocational services reporting unemployment as their main vocational problem (Drebing et al., 2012), it could be beneficial to gain a greater understanding of how the process of transitioning vocations can impact a veteran’s mental health (Whiston et al., 2016).

One potential explanation for the existence of these relationships is that individuals gain a sense of identity and purpose from work (McKee-Ryan et al., 2005). Other researchers have proposed that the relationships between mental health and employment exist if there is an incongruence between the person's current work status and work commitment (Paul & Moser, 2006). This would mean that a person who is working would experience increased psychological distress if the individual does not consider work a main part of his or her identity. However, these are not the only explanations that have been offered for why employment and various aspects of a vocation are statistically related to a person's mental health. Several other researchers have proposed reasons for why these relationships might exist and provide explanations about why the relationships may exist at various times in a person's transition.

## Vocational Theories

Only a few vocational theories explicitly include a focus on the relationship between vocational factors and psychological health. The following section will begin with a brief overview of three prominent vocational theories that do not address psychological health. The section will then conclude with an overview of one theory and one model that include explanations of why the relationship between vocational factors and psychological health exists. Whereas neither the theory nor the model is being directly tested in the current study, they do further provide theoretical evidence of why vocational factors may influence psychological health.

### Person-environment Vocational Theories

Two vocational theories that focus on the fit between a person and an environment are the Minnesota theory of work adjustment and Holland's theory of vocational choice and adjustment (Nauta, 2013; Swanson & Schneider, 2013). In a person-environment model, it is

assumed that individuals have a set of skills/values that are better suited for jobs that need individuals who have that skill/value. Under person-environment theories, a person is both influenced by the environment and influences the environment (Swanson & Schneider, 2013).

### *Minnesota Theory of Work Adjustment*

Under the Minnesota theory of work adjustment (TWA), congruence between a person's skills and the skills required by the job is one factor that can lead to satisfactoriness (Swanson & Schneider, 2013). Congruence between a person's values and the ability of a job environment to reinforce those values can lead to satisfaction (Swanson & Schneider, 2013). For example, a person who values family time would feel satisfied in a job where taking time off for family events (e.g., kids' soccer games) is encouraged. When there is an incongruence between a person's skills/values and the skills/values required by a job, then a person experiences dissatisfaction and begins to look for ways to change his or her job environment (Swanson & Schneider, 2013).

Some components of TWA are supported by findings in the literature. Foley and Lytle (2015) found that individuals who experienced low levels of work satisfaction were more likely to be in the process of looking for a new job than individuals who were satisfied with their job. In addition, Lyons and O'Brien (2006) found that perceptions of the person-environment congruence and job satisfaction were significantly correlated for African Americans. In the same study, the most frequently given response for what type of work environment aligns with the participants' values was the ability of a work environment to provide comfort.

### *Holland's Theory of Vocational Choice and Adjustment*

In Holland's theory of vocational choice and adjustment, it is assumed that individuals and jobs can be classified based on their personality type (Nauta, 2013). Personality types are

composed of combination of the following typologies: (a) Realistic, (b) Investigative, (c) Artistic, (d) Social, (e) Enterprising, and (f) Conventional (Nauta, 2013). The ranking of these six personality types composes a person's RIASEC code (Nauta, 2013). A work environment's personality can be developed based on the personalities of the individuals working in that environment (Nauta, 2013). If a person's RIASEC code and a job's RIASEC code align, then a person is likely to report more job satisfaction (Tsabari et al., 2005).

Tsabari et al. (2005) conducted a meta-analysis of 53 studies that examined the relationship between congruence (match between a person's RIASEC code and a work environment's RIASEC code) and satisfaction. Overall, they found that there was a small positive correlation between congruence and satisfaction. Another study using Holland's theory found that healthcare professionals who were high in the artistic and social typologies were less susceptible to burnout affecting their commitment to their career (Orkibi, 2016).

Whereas the Minnesota theory of work adjustment and Holland's theory of vocational choice and adjustment provide an explanation of why a person may feel satisfied in his or her occupation and when a person may seek out another job, they do not provide information about what an individual may psychologically experience when leaving a position. Furthermore, these theories do not include how mental health may influence or be influenced by career issues.

**Life-Span Life-Space Theory**

Life-span life-space theory uses a developmental perspective to explain different stages individuals may be in depending on their ages (Hartung, 2013). In ascending order, those stages are (a) Growth, (b) Exploration, (c) Establishment, (d) Maintenance, and (d) Disengagement (Hartung, 2013). Each stage has a series of tasks that need to be resolved in order to continue progressing through the stages. Individuals may shift between the stages as they choose different

jobs and learn more about themselves (Hartung, 2013). In addition, it is assumed that individuals are developing in six different life roles that may vary in importance depending on personal and situational factors (Hartung, 2013).

What is lacking in this model is a set of testable hypotheses (Hackett et al., 1991). This lack of testable hypotheses has limited the testing of the theory (Hartung, 2013). However, from this theory several instruments have been developed. The Adult Career Concerns Inventory (Super et al., 1985), Values Scale (Nevill & Kruse, 1996), and Role Salience Inventory (Nevill & Calvert, 1996) are valid and reliable measures of attitudes toward completing the career stages, work values, and the importance of different roles, respectively (Hartung, 2013).

Life-span life-space theory provides one explanation of how individuals may behave during a transition between jobs. For example, a person may be in the maintenance stage and then move to the exploration stage when considering a job change. This person would then need to work on the various tasks associated with the exploration stage. What life-span life-space theory does not address is how psychological distress may change as a person moves through the process.

**Social Cognitive Career Theory**

Social cognitive career theory (SCCT) incorporates several elements from the previously mentioned theories such as a focus on personal factors that influence career choice (Lent, 2013). However, SCCT also includes an explicit focus on how factors like financial barriers influence a person's career choice and incorporates a focus on how (a) personal factors, (b) lived experiences, (c) available resources, (d) current opportunities, and (e) barriers impact how a person makes vocational choices (Lent, 2013). Personal factors in SCCT include (a) self-efficacy, (b) outcome expectations, and (c) personal goals (Lent, 2013). In addition, SCCT

incorporates a focus on how environmental barriers (e.g., gender role socialization) can either broaden or limit the occupations a person may pursue (Lent, 2013). As individuals' personal factors develop and their environments promote certain paths, they will be able to choose different paths (Lent, 2013). There are also performance models and satisfaction models within SCCT that utilize personal and environmental factors to determine what influences an individual's performance and satisfaction within certain jobs (Lent, 2013). For an overview of these models, see Lent, 2013.

SCCT is one of the first theories to incorporate contextual factors (e.g., racism) and current factors (e.g., financial concerns) that may impact an individual's vocational choice (Lent, 2013). Whereas this is a more holistic perspective of an individual, SCCT does not address how mental health may be impacted by vocational issues.

**Psychology of Working Theory**

Psychology of working theory (PWT) is one of the few vocational theories that explicitly includes mental health as an outcome of work and may therefore help to explain why there may be a relationship between vocation and mental health. PWT was developed out of David Blustein's psychology of working perspective to address how contextual and individual factors impact a person's vocational decisions (Blustein, 2014). PWT is the guiding theory for the current project because within the PWT model, psychological well-being is a central outcome of work (Blustein, 2014; Duffy et al., 2016). The other vocational theories do not include psychological well-being in their models and may be inadequate to provide further understanding of the relationship between career-related factors and psychological health. To understand how PWT conceptualizes the relationship between vocation and psychological health, an overview of

PWT will be provided along with how PWT can be supplemented by another model to deepen the understanding of how psychological health can be impacted by the career transition process.

### *Decent Work*

The PWT model can be divided into two halves with decent work separating the two halves (Duffy et al., 2016). Under PWT, decent work is defined as "(a) physical and interpersonally safe working conditions (e.g., absent of physical, mental, or emotional abuse), (b) hours that allow for free time and adequate rest, (c) organizational values that complement family and social values, (d) adequate compensation, and (e) access to adequate health care" (Duffy et al., 2016, p.130). In order for individuals to gain decent work, both contextual and individual factors are important to consider (Blustein, 2006).

### *Contextual and Individual Factors*

At the forefront of the PWT model are contextual factors and individual factors (Duffy et al., 2016). Social marginalization and economic constraints are the two contextual factors (Duffy et al., 2016). According to PWT, individuals who experience more marginalization or have more economic constraints are likely to have less resources to help with securing decent work (Duffy et al., 2016). These two contextual factors impact a person's work volition and career adaptability, which are the individual factors (Duffy et al., 2016). Work volition refers to the amount of freedom in choice individuals have in selecting the type of work they do (Blustein, 2006). Career adaptability refers to being prepared with the proper resources for sudden changes in work status (Hartung, 2013). Having high work volition and career adaptability are key components to securing decent work (Duffy et al., 2016). PWT further proposes that a proactive personality, critical consciousness, social support, and economic conditions can moderate the relationship between any of the contextual and individual variables (Duffy et al., 2016). Whereas

this piece of the model is not being examined in the current study, future research could examine how experiences with these variables affect service members leaving the military.

***PWT Outcomes***

Whereas the primary outcome of decent work is psychological health (Blustein, 2014), there are also three needs met by attaining decent work that promote psychological health (Duffy et al., 2016). The first needs that decent work fulfills are survival needs such as providing money to secure necessities such as food and shelter (Duffy et al., 2016). Perhaps one of the reasons that this contributes to psychological health can be explained using Maslow's (1943) hierarchy of needs. In Maslow's hierarchy of needs, basic survival needs that promote physical health, such as food and shelter, must be secured before a person can work on improving psychological health. Securing survival needs helps to explain the relationship between decent work and psychological health (Duffy et al., 2016). The other two outcomes of decent work are fulfillment of social connection needs and self-determination needs (Blustein, 2014), both of which are proposed to contribute to psychological health (Duffy et al., 2016). The need for social connection can be fulfilled through either direct contact with individuals or indirectly by increasing feelings of connection with broader communities and groups (Blustein et al., 2014). Depending on the qualities of these relationships, they can improve or diminish psychological health (Blustein et al., 2014). Self-determination needs are fulfilled through engaging in activities that are meaningful to that individual (Duffy et al., 2016). Both needs are proposed to contribute to psychological health by mediating the relationship between decent work and psychological health, the same way that fulfillment of survival needs does (Duffy et al., 2014). In addition, Blustein noted that work may relate to mental health by affecting a person's stress

level. Because PWT does not directly explain the transition from one job to another, another model will help guide the research questions in this study.

## Role Exit

Ebaugh's (1988) model of transitions provides a theoretical overview of changing roles and how a person's decisions, behaviors, and thoughts may be influenced during the process. This model was developed based on the results of interviews with individuals who went through various role transitions such as job changes, divorces, sexual identity transitions, and loss of children (Ebaugh, 1988). Ashforth (2012) expanded this theory by explaining how it could be used to understand how an individual's identities and psychological health can be shaped by his or her work role, role exit, and micro-role transitions (Ashforth, 2012). An overview of this model will be provided including a discussion of how the model helps to explain why psychological distress may increase during a career transition.

This model can be used to explain the process of leaving one role, such as a job, and engaging in another role (Ashforth, 2012). Role exit focuses on both the psychological processes and some of the behavioral steps that individuals go through in order to separate from a role (Ashforth, 2012). External variables that can influence someone's decisions are also covered (Ebaugh, 1988).

### *Stage One: First Doubts*

The first stage of Ebaugh's (1988) model is termed first doubts. First doubts typically occur after individuals experience a precipitating event that produces a realization that their current job is not a long-term position, causing a person to reevaluate their commitment to the job (Ashforth, 2012). Changes in organizational structure, burnout level, changes in relationship status with other coworkers, upcoming events, and/or reaching milestones may cause individuals

to begin to doubt remaining in their current position (Ashforth et al., 1988; Ebaugh, 1988). Reasons veterans have given for leaving the military include examples from all the categories. Impending events such as deployment, changes in relationships with superior officers, and organizational changes, such as dissatisfaction with the direction of their specific branch of the military, are all reasons veterans have given for preparing to leave the military (Ebaugh, 1988; Kelley et al., 2001). Even events such as completion of a contract or the anticipation of completion of a contract may result in doubts about the longevity of a career (Ashforth, 2012). This can be particularly salient for service members who may serve under a contract for anywhere from 2 to 6 years (U.S. Army, 2018).

During the first doubts period, individuals will begin to look for confirming and disconfirming evidence that their doubts about the longevity of their current career are real (Ebaugh, 1988). They may go to other individuals to gather evidence (Ashforth, 2012). If those doubts are reinforced by the evidence or by other individuals, then they will begin to interpret subsequent events in a manner that continues to build the doubts (Ebaugh, 1988). Activities that were once enjoyable may then be interpreted as minor irritants, thus confirming the thought that leaving the job is a better solution than staying. This stage can vary in length depending on how much control individuals have over the situation and structural barriers (Ebaugh, 1988). For example, in the military, doubts may occur early in a service member's career and may continue as the service member nears the end of his or her contract.

***Stage Two: Seeking Alternatives.***

The second stage of the model is seeking alternatives (Ebaugh, 1988). This process is characterized by weighing the pros and cons of leaving the role and consciously thinking of other roles to engage in (Ebaugh, 1988). Part of this stage involves individuals considering their "side

bets" that are attached to their current role (Ebaugh, 1988 p. 94). Side bets are factors such as financial commitments, social networks developed as a part of the role, and/or status given to the person based on the current job (Ebaugh, 1988). Examples of side bets that veterans include in their decision-making process include health care benefits, job security, and travel (Kelley et al., 2001). SSM/V have reported that part of their time at college involves learning more about what career they want to pursue (Howe, 2017), which highlights that SSM/V in college may be in stage two of this model.

The duration of the seeking alternatives stage can vary just as the first doubts stage did (Ebaugh, 1988). Factors that can affect the length of time someone is in this stage include workplace environment (team vs. individual oriented work style) and social acceptance of leaving the position (Ebaugh, 1988). If a person's choice to leave the role is growing, then he or she begins to mentally shift groups and engage in role rehearsals (Ebaugh, 1988). Mentally shifting groups means that the person begins to deidentify with the current role by no longer adhering to the values and expectations associated with the current role as a metric for accomplishment. Instead, he or she begins to use the anticipated role as a new standard for measuring accomplishments (Ebaugh, 1988). This process allows the person to create a psychological distance from the old role (Ashforth, 2012). SSM/V may struggle with creating this psychological distance. For example, SSM/V who have made the transition from active duty service member to student have noted difficulty with taking the stress of exams seriously (a stressor for many college students) when they had to deal with the stress of undetected explosives (Schiavone & Gentry, 2014). SSM/V who are currently still in the military may have difficulty transitioning to the mindset of a student as they need to maintain a military mindset until they have officially separated from the military. Even after separating from the military, the

values and expectations the service member learned while in the military may remain with the service member (Ainspan & Smith-Osborne, 2016; Ainspan et al., 2012).

The other process that a person is engaging in at this stage is role rehearsal, which can be done imaginarily or by trying out the role in real life (Ebaugh, 1988). Service members may engage in imaginary role rehearsals by observing friends or others who are engaged in the perspective role. For SM/V who want to transition to the role of a student, they may watch other veterans who are students or non-SM/V friends who are college students. This provides SM/V with a deeper understanding of the experience of taking on the new role and what skills they already have that can be used in this new role (Ashforth, 2012; Ebaugh, 1988). The other option is for the service member to take some classes while still in the military. With the advancement of online courses, some colleges have adapted to make online courses more available for the active duty service members to gain some experience adapting to the expectations of a student and completing requirements for an advanced degree (Oguntyinbo, 2014).

***Stage Three: Turning Points***

The third stage in Ebaugh's (1988) model is turning points. During this stage, individuals go through the process of officially, physically and psychologically, separating from the old role (Ebaugh, 1988). Turning points can be categorized as occurring due to either (a) specific events, (b) the last straw, (c) time-related factors, (d) justifications, or (e) personal decisions (Ebaugh, 1988). One turning point for many active duty service members may be the end of their contract. Turning points are meant to serve three basic functions: (a) to make others aware of the decision, (b) to reduce cognitive dissonance, and (c) to prepare social and emotional resources needed to make the exit (Ebaugh, 1988).

Although the turning point is meant to reduce the negative impact on a person, there is still the chance that the person may experience anxiety about the uncertainty of the future (Ebaugh, 1988). Feelings of loss, discomfort, insecurity, uselessness, loneliness, and purposelessness are particularly present among individuals making career transitions (Ebaugh, 1988). Many veterans cite this loss of purpose as a factor when leaving the military (Kukla et al., 2015; Romaniuk & Kidd, 2018). Ebaugh (1988) described this kind of loss of identity as "the vacuum" (p. 143) and noted that it can occur during any time in the process of leaving a role. When in the vacuum, a person may find the future to be frightening due to the loss of familiar activities (Ebaugh, 1988). Since work is such a central part of a veteran's identity (Kukla et al., 2015), the loss of identity due to leaving a job could contribute to an increase in psychological distress (Ashforth, 2012; Ebaugh, 1988; Kukla et al., 2015).

Ashforth (2012) described the vacuum as liminality when the vacuum occurs prior to physically leaving a job. The negative impact of this lack of identity can be made even worse if a person does not have or expect to have another role that can provide a sense of identity, especially if work is central to that person's identity (Ashforth, 2012). Rapid changes, whether real or perceived, between work roles may not provide the time for a person to psychologically cope with the outcomes of the vacuum, thus contributing to feelings of a loss of purpose and increased psychological distress (Ashforth, 2012). Despite the military's implementation of a separation process, some service members report feeling ill-prepared to transition into the civilian workforce (Kukla et al., 2015).

### *Fourth Stage: Creating the Ex-Role*

The fourth and final stage of Ebaugh's (1988) model is creating the ex-role. At this point a person has usually physically separated from his or her old role and now must finish

psychologically creating a new role (Ebaugh, 1988). This does not mean that a person no longer identifies with the old role, but instead means that the person has learned to simultaneously maintain pieces of the old identity and the new identity (Ebaugh, 1988). Some individuals maintain many pieces of the old identity. For example, veterans may continue to enjoy being around other SM/V due to shared experiences and values (Romaniuk & Kidd, 2018). Other individuals may also contribute to a veteran maintaining his or her military identity by continuing to refer to the veteran as if the individual is in that role (Ebaugh, 1988). For veterans, this may take place when other individuals thank them for their service, on special holidays such as Veteran's Day, and when they wear military paraphernalia (Herren, 2013).

Ebaugh's model provides theoretical evidence of why there is expected to be a relationship between transition difficulty and psychological distress. Whereas this model has been critiqued for ignoring quick role changes (e.g., being terminated overnight) or failing to account for institutional factors that affect role change (Wacquant, 1990), the current study focuses on the impact of a transition as opposed to the causes of a transition.

## Current Study Goals

The current study seeks to provide empirical evidence of the relationship between career decision-making difficulty and psychological distress (i.e., depressive symptoms, anxiety symptoms, and trauma symptoms). In addition, the current study sought to examine if the relationship between career decision-making difficulty and psychological distress is buffered by the presence of career transition resources.

### Research Questions and Hypotheses

1. There is a significant relationship between career-related decision-making difficulty and depressive symptoms.

   a. Career decision-making difficulty will be able to account for a significant proportion of change of depressive symptoms.
   b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and depressive symptoms?

2. There is a significant relationship between career-related decision-making difficulty and anxiety symptoms.
   a. Career decision-making difficulty will be able to account for a significant proportion of change of anxiety symptoms.
   b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and anxiety symptoms?
3. There is a significant relationship between career-related decision-making difficulty and trauma symptoms.
   a. Career decision-making difficulty will be able to account for a significant proportion of change of trauma symptoms.
   b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and trauma symptoms?

## Summary

Transitioning out of the military is not always a smooth process for service members. Some service members attend college during their military career or afterwards to help facilitate career changes. Difficulty with making career-related decisions, such as choosing a college

major or selecting a career path, may lead to increases in anxiety and even depression. With higher rates of some psychiatric disorders among SSM/V and some SSM/V reporting that they experience difficulty with selecting a career path, it is vital that vocational psychologists examine the relationship between career decision-making and psychological distress for SSM/V. The current study seeks to provide evidence of the relationship between career decision-making difficulty and psychological distress among SSM/V. Additionally, this study attempts to examine if the relationship between career decision-making difficulty and psychological distress is buffered by the presence of career transition resources. For the purposes of this study, SSM/V will be used to refer to anyone who has served or is currently serving in the military and is currently attending a higher education institution.

## Chapter 3: Method

The present study sought to examine if there is a relationship between career decision-making difficulty and depressive symptoms, anxiety symptoms, and trauma symptoms. The current chapter will provide an overview of the sample, measures, and procedure used in the study to answer the research questions. The following research questions and hypotheses guided the current research:

1. There is a significant relationship between career-related decision-making difficulty and depressive symptoms.
    a. Career decision-making difficulty will be able to account for a significant proportion of change of depressive symptoms.
    b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and depressive symptoms?
2. There is a significant relationship between career-related decision-making difficulty and anxiety symptoms.
    a. Career decision-making difficulty will be able to account for a significant proportion of change of anxiety symptoms.
    b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and anxiety symptoms?
3. There is a significant relationship between career-related decision-making difficulty and trauma symptoms.

a. Career decision-making difficulty will be able to account for a significant proportion of change of trauma symptoms.
b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and trauma symptoms?

## Participants

SSM/V currently enrolled at a higher education institution were participants in the current study. The definition of SSM/V for this study came from Brown and Gross (2011). Brown and Gross defined a student veteran as "a student who is either a member of the active duty, reserve, National Guard, or retired military population, or a spouse or primary dependent of one of these students" (p. 46). The current study excludes those that are "a spouse or primary dependent of one of these students" (Brown & Gross, p. 46). Although SSM/V have in some ways already begun the transition process, many may still experience the career-related challenges discussed in the literature review. Based on the analysis proposed in the current study, it was estimated that at least 200 participants would be required to complete the current study.

A total of 460 responses were recorded. Due to random response patterns and completion of less than 50% of the total survey, 105 participant responses were deleted. The final sample consisted of 355 participants. The mean age of the sample was 33.63 ($SD$ = 10.14). Of the 355 participants, 209 (58.87%) reported their gender as male, 143 (40.28%) reported their gender as female, one (0.28%) reported their gender as transman, one (0.28%) reported their gender as transwoman, and one (0.28%) reported their gender as gender queer. Participants also reported their race. Two hundred and seventy three (76.90%) participants reported their race as White, 31 (8.73%) reported their race as Black/African American, one (0.28%) reported their race as

American Indian and Alaska Native, five (1.41%) reported their race as Asian, two (0.56%) reported their race as Native Hawaiian/Pacific Islander, 13 (3.66%) reported their race as Hispanic, five (1.41%) reported their race as Other, and 25 (7.04%) reported their race as more than one option.

Participants reported their current relationship status. Sixty-nine (19.44%) reported their relationship status as single, 16 (4.51%) reported their relationship status as dating-in a noncommitted relationship, 82 (23.10%) reported their relationship status as dating-in a committed relationship, 163 (45.92%) reported their relationship status as married, 23 (6.48%) reported their relationship status as separated/divorced, and two (0.56%) reported their relationship status as widowed.

Participants reported their official class standing at their current university. Thirty-one (8.73%) reported their class standing as undergraduate freshman, 57 (16.06%) reported their class standing as undergraduate sophomore, 49 (13.80%) reported their class standing as undergraduate junior, 81 (22.82%) reported their class standing as undergraduate senior, 64 (18.03%) reported their class standing as graduate student in a master's degree program, 58 (16.34%) reported their class standing as graduate student in a doctoral program, 10 (2.82%) reported their class standing as a non-degree seeking student, and five (1.41%) did not report their class standing.

Participants reported the highest level of education they completed to date. One hundred and thirty-three (37.46%) reported their highest level of education as some college no degree, 65 (18.31%) reported their highest level of education as associate's degree, 82 (23.10%) reported their highest level of education as bachelor's degree, 57 (16.06%) reported their highest level of education as master's degree, three (0.85%) reported their highest level of education as Doctoral

degree, 13 (3.66%) reported their degree as other, and two (0.56%) did not report their highest level of education. Participants reported the total amount of time they have spent at their current university. Ninety-one (25.63%) participants reported having spent less than a year at their current institute and four (1.13%) participants did not answer. Of the remaining 260 participants, the average amount of time they had spent at their current university was 3.17 years (*SD* = 1.70).

Participants also provided demographic information regarding their military service. Of the 350 (98.59%) participants who had spent one year or more in the military, the average length of time participants spent in the military was 9.01 years (*SD* = 6.72). Four (1.13%) participants reported being in the military for less than a year and one (0.28%) participant did not answer how long they had been in the military. Information regarding current enlistment status, military branches served in, and deployment to an active warzone can be found in Table 5.

**Table 5**

*Sample Demographics*

| Variable | *n* | Percentage |
|---|---|---|
| Gender | | |
| Male | 209 | 58.87% |
| Female | 143 | 40.28% |
| Transman | 1 | 0.28% |
| Transwoman | 1 | 0.28% |
| Gender Queer | 1 | 0.28% |
| Race | | |
| White | 273 | 76.90% |
| Black or African American | 31 | 8.73% |
| American Indian or Alaska Native | 1 | 0.28% |
| Asian | 5 | 1.41% |
| Native Hawaiian or Pacific Islander | 2 | 0.56% |
| Hispanic | 13 | 3.66% |
| Other | 5 | 1.41% |
| Two or more races selected | 25 | 7.04% |
| Relationship Status | | |
| Single | 69 | 19.44% |

| | | |
|---|---|---|
| Dating – non-committed relationship | 16 | 4.51% |
| Dating – committed relationship | 82 | 23.10% |
| Married | 163 | 45.92% |
| Separated/divorced | 23 | 6.48% |
| Widowed | 2 | 0.56% |
| Current official class standing | | |
| Undergraduate freshman | 31 | 8.73% |
| Undergraduate sophomore | 57 | 16.06% |
| Undergraduate junior | 49 | 13.80% |
| Undergraduate senior | 81 | 22.82% |
| Graduate student – master's degree program | 64 | 18.03% |
| Graduate student – doctoral degree program | 58 | 16.34% |
| Non-degree seeking | 10 | 2.82% |
| Missing | 5 | 1.41% |
| Highest level of education attained | | |
| Some college, no degree | 133 | 37.46% |
| Associate's degree | 65 | 18.31% |
| Bachelor's degree | 82 | 23.10% |
| Master's degree | 57 | 16.06% |
| Doctoral degree | 3 | 0.85% |
| Other | 13 | 3.66% |
| Missing | 2 | 0.56% |
| Current enlistment status | | |
| Active duty | 26 | 7.32 |
| Reserves/national guard | 73 | 20.56% |
| Veteran | 254 | 71.55% |
| Missing | 2 | 0.56% |
| Branches served in or currently serving in* | | |
| Army | 136 | 38.31% |
| Marines | 62 | 17.46% |
| Air Force | 40 | 11.27% |
| Navy | 51 | 14.37% |
| Coast Guard | 8 | 2.25% |
| Army Reserves | 32 | 9.01% |
| Marine Reserves | 3 | 0.85% |
| Air Force Reserves | 8 | 2.25% |
| Navy Reserves | 8 | 2.25% |
| Coast Guard Reserves | 0 | 0.00% |
| National Guard | 61 | 17.18% |

| | | |
|---|---|---|
| Ever deployed to an active warzone | | |
| Yes | 168 | 47.32% |
| No | 185 | 52.11% |
| Missing | 2 | 0.56% |

*Note*. The total number of participants was 355. Percentages may not add up to 100 due to rounding.

* = participants could have selected more than one option; therefore, total will not add up to 355.

## Measures

Participants provided demographic information and completed six measures via Qualtrics software (Version 2020), an online survey management tool. Participants completed a demographics questionnaire, the Career Decision-making Difficulties Questionnaire (Gati & Saka, 2001), the Patient Health Questionnaire-9 (Kroenke et al., 2001), the Generalized Anxiety Disorder-7 (Spitzer et al., 2006), the Life Events Checklist for the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition* (Weathers et al., 2013), the PTSD Checklist for the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition* (Blevins et al., 2015), and the Career Transitions Inventory (Heppner et al., 1994).

### *Demographics*

Demographic information was collected to provide information regarding the characteristics of the current sample.

**Age.** The participants specified their age in years.

**Gender.** The participants specified their gender. Gender was coded as either 1 (*male*), 2 (*female*), 3 (*transman*), 4 (*transwoman*), or 5 (*gender queer*).

**Race.** The participants specified their race. Categories for race in this study were consistent with the categories listed by the U.S. Census Bureau. Race was coded as 1 (*White*), 2 (*Black/African American*), 3 (*American Indian and Alaska Native*), 4 (*Asian*), 5 (*Native*

*Hawaiian/ Pacific Islander*), 6 (*Hispanic*), and/or 7 (*Other*). Participants were able to select multiple options to most accurately describe their race. Participants were allowed to fill in their race if they selected other.

**Current Relationship Status.** The participants indicated their current relationship status. Relationship status was coded as 1 (*single*), 2 (*dating - in a noncommitted relationship*), 3 (*dating - in a committed relationship*), 4 (*married*), 5 (*separated/divorced*), and 6 (*widowed*).

**Current Class Standing.** The participants specified their official current class standing at their current university. Class standing was coded as 1 (*Undergraduate Freshman*), 2 (*Undergraduate Sophomore*), 3 (*Undergraduate Junior*), 4 (*Undergraduate Senior*), 5 (*Graduate Student – master's degree program*), 6 (*Graduate student – doctoral degree program*), and 7 (*Non-degree seeking*).

**Highest Level of Education Attained.** The participants indicated their highest level of education completed. Level of education was coded as 1 (*Some college no degree*), 2 (*Associate degree*), 3 (*Bachelor's degree*), 4 (*Master's degree*), 5 (*Doctoral degree*), and 6 (*Other*). Participants who selected other were allowed to write in a short description of their highest level of education.

**Length of Time at Current College/University.** The participants specified the amount of time they have been enrolled at their current college/university. The participants used number of years to indicate length of time. Enrollment was coded as 0 (*less than one year*) or the number of years the participants have been enrolled at their current college/university.

**Current Enlistment Status.** The participants specified their current enlistment status. Current enlistment status was coded as 1 (*Active Duty*), 2 (*Reserve/National Guard*), and 3 (*Veteran*). For the purposes of this study, active duty was defined as working full time with the

possibility of deployment at any time. Reserve/National Guard was defined as groups that participate in "one weekend a month and two weeks per year" of training (U.S. Department of Veterans Affairs, 2015). Veteran was defined as "a person 18 years old or over who has served (even for a short time), but is not now serving, on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard" (U.S. Census Bureau, n.d.). Participants were provided with these definitions at the time of selecting their enlistment status.

**Branches Served.** The participants specified the branches of the military that they served in from the following list: Army, Marine Corps, Air Force, Navy, Coast Guard, Army Reserves, Marine Reserves, Air Force Reserves, Navy Reserves, Coast Guard Reserves, and National Guard. Participants selected all of the branches that they served in throughout their military service.

**Length of Time in the Military.** The participants specified the number of years that they were in the military. Participants who have served for less than one year indicated so by entering a "*0.*"

**Year of Discharge.** The participants specified the year that they discharged from the military. Participants who had not discharged from the military indicated if this was their situation by selecting "*I am currently serving in the armed forces.*"

**Deployment to an Active Warzone.** The participants indicated if they had ever been deployed to an active warzone. Deployment to an active warzone was coded as 1 (*Yes*) and 2 (*No*).

### *Career Transition Measures*

Two vocational measures were used to determine (1) the participant's level of difficulty with making career decisions and (2) the participant's perception of career transition resources.

**Career Decision-making Difficulties Questionnaire.** Career decision-making difficulty was measured using the Career Decision-making Difficulties Questionnaire (CDDQ; Gati et al., 1996). The CDDQ was developed based on a proposed taxonomy that career decision-making difficulty could occur before a transition and during a transition (Gati et al., 1996). The current study used the 38-item version of the CDDQ (Gati & Saka, 2001), which is a measure of difficulties individuals encounter when making career-related decisions. The CDDQ uses a 9-point Likert-type scale ranging from 1 (*Does not describe me*) to 9 (*Describes me well*). Scores on the CDDQ are calculated by averaging all the items except items seven and 12. Items seven and 12 are embedded validity items. Higher scores on the CDDQ indicate that a person is experiencing more difficulty with decision-making in the career process. A person's overall CDDQ total score has been used as a measure of broad career decision-making difficulties in previous research (Gati et al., 2013).

The entire CDDQ score has demonstrated strong Cronbach's alpha reliability ratings ranging from .94 (Osipow & Gati, 1998) to .96 (Lancaster et al., 1999). The CDDQ has demonstrated convergent validity through strong statistically significant correlations with a measure of career decision-making ($r$ = .77; Osipow & Gati, 1998) and career decidedness ($r$ = -.58; Lancaster et al., 1999). These results indicate that the CDDQ is likely a valid and reliable measure of career decision-making difficulty.

Gati and Saka (2001) validated the 34-item CDDQ using two samples of individuals who spoke either Hebrew or English. Since the current study used an English-speaking sample, only the psychometrics for the English-speaking sample will be presented. Gati and Saka (2001) validated the internet-based English version of the CDDQ using 182 American college students.

The CDDQ had an overall internal reliability of .92 using a Cronbach's alpha (Gati & Saka, 2001).

The Lack of Readiness cluster of items had a Cronbach's alpha of .60 (Gati & Saka, 2001). Higher scores on the Lack of Readiness cluster indicate that a person may feel a lack of motivation, feel indecisive, or have unreasonable expectations about making career decisions (Gati et al., 1996).

The Lack of Information cluster of items had a Cronbach's alpha of .93 (Gati & Saka, 2001). Higher scores on the Lack of Information cluster indicate that a person may not have information about how to make career-related decisions, know enough about him or herself to make a decision, know about different occupations, or know where to find additional sources of information (Gati et al., 1996).

The Inconsistent Information cluster of items had a Cronbach's alpha of .83 (Gati & Saka, 2001). Higher scores on the Inconsistent Information cluster indicate that a person may be receiving conflicting information, experiencing intrapersonal conflict about what is important, or experiencing conflicted feelings about how his or her decision may affect others (Gati et al., 1996). The CDDQ subscales have demonstrated adequate reliability in studies using student veteran populations. LaVeck (2018) found that reliabilities for the CDDQ ranged from .71 (Lack of Readiness) to .96 (Lack of Information).

The CDDQ was selected as the measure of career transition difficulty since it is a measure of difficulties individuals may experience before making a transition and during the transition (Gati et al., 1996). Since SSM/V may be in the midst of a career transition, the CDDQ is an appropriate measure to capture the breadth of where SSM/V may be in their career transition process. The overall CDDQ score was used as a measure of career decision-making

difficulty in the current study to capture the difficulties that can occur during the entire career decision-making process.

**Career Transitions Inventory.** Career transition resources were measured using the Career Transitions Inventory (CTI; Heppner et al., 1994). The CTI is a 40-item measure of a person's psychological resources during a career transition. The CTI uses a 6-point Likert-type scale from 1 (*Strongly Agree*) to 6 (*Strongly Disagree*). Heppner et al. (1994) validated the CTI on two samples of adults who were experiencing career transitions. The entire CTI demonstrated a Cronbach's alpha of .90 and a 3-week test-retest reliability of .84. These scores indicate that the items on the CTI are all strongly related and that scores were consistent over a 3-week period. Higher scores on the CTI suggest individuals perceive themselves to have more psychological resources during their career transition process (Heppner et al., 1994). Scores on the CTI and its subscales are calculated by averaging the items.

Heppner et al.'s (1994) initial factor analysis revealed five subscales. The first subscale consists of 13 items and was labeled Readiness. The Cronbach's alpha for the Readiness subscale was .87 and the test-retest reliability over a 3-week interval was .74 (Heppner, 1994). Higher scores on the Readiness scale suggest individuals are more motivated to engage in the behaviors that will help them be successful in the career transition process (Heppner, 1998).

The second subscale consists of 11 items and was labeled Confidence. The Cronbach's alpha for the Confidence subscale was .83, and the test-retest reliability over a 3-week interval was .79. Higher scores on the Confidence scale suggest individuals have more belief in themselves to be successful in the career transition process (Heppner, 1998).

The third subscale consists of six items and was labeled Control (Heppner, 1998). The Cronbach's alpha for the Control subscale was .69 and the test-retest reliability over a 3-week

interval was .55 (Heppner, 1994). Higher scores on the Control scale suggest a person has a greater sense of control over the career transition process as opposed to the career transition process being the result of external forces (Heppner, 1998). Scores on the Control subscale have also demonstrated a positive correlation with overall life satisfaction among a sample of military members ($r$ = .31; Robertson, 2013). This indicates that service members who believe they have more influence over their transition process may also indicate higher life satisfaction.

The fourth subscale consists of five items and was named Perceived Support (Heppner, 1998). The Cronbach's alpha for the Perceived Support subscale was .66 and the test-retest reliability over a 3-week interval was .77 (Heppner, 1994). Higher scores on the Support subscale suggest individuals perceive that they have support from other individuals during the career transition process (Heppner, 1998).

The fifth subscale consists of five items and was labeled Decision Independence (Heppner, 1998). The Cronbach's alpha for the Decision Independence subscale was .67, and the test-retest reliability for Decision Independence over a 3-week interval was .83 (Heppner, 1994). Higher scores on the Decision Independence scale suggest individuals believe that the choices they are making are based on personal reasons and not due to influence from familial obligations (Heppner, 1998). Cronbach's alphas with the CTI were relatively similar to the Cronbach's alphas in the original validation study when used with student veterans, ranging from .61 (Independence) to .82 (Confidence; Ghosh & Fouad, 2016).

In addition, Heppner et al. (1994) validated the CTI by examining its correlations with My Vocational Situation subscales (MVS; Holland et al., 1980) and the Hope Scale subscales (Snyder et al., 1991). The CTI significantly correlated with the MVS Vocational Identity subscale, the MVS Barriers subscale, and the Hope Scale Agency Pathway with correlations

ranging from *r* = .33 (Agency) to .52 (Vocational Identity). The CTI Readiness subscale significantly correlated with the MVS Vocational Identity subscale, *r* = .25. The CTI Confidence subscale significantly correlated with the MVS Vocational Identity subscale, the MVS Barriers subscale, and the Hope Scale Agency Pathway with correlations ranging from *r* = .36 (Agency) to .56 (Vocational Identity). The CTI Control subscale significantly correlated with the MVS Vocational Identity subscale, *r* = .28. The CTI Perceived Support subscale significantly correlated with the MVS Vocational Identity subscale, the MVS Barriers subscale, and the Hope Scale Agency Pathway with correlations ranging from *r* = .26 (Agency) to .47 (Vocational Identity). The CTI Decision Independence subscale significantly correlated with the MVS Barriers subscale, *r* = .22. The CTI has also been used in studies with SSM/V (Ghosh & Fouad, 2016; Shue, 2018). The reliabilities for the factors of the CTI ranged from .61 (Independence) to .82 (Confidence; Ghosh & Fouad, 2016). Whereas the MVS scale has been used with individuals preparing to select career paths (Holland et al., 1980), it does not capture all of the challenges associated with transitioning jobs such as leaving the financial security of one job for another.

Since the CTI is a copyrighted instrument, permission to use the CTI was gathered from the University of Missouri's counseling center for the sole purpose of use of the CTI in the current study. The CTI was selected as it is the only instrument that assesses psychological resources used in the career transition process.

***Psychological Distress Measures.***

One measure was used for each type of psychological distress (depression, anxiety, and trauma symptoms).

**Patient Health Questionnaire-9.** The Patient Health Questionnaire-9 (PHQ-9) was used to measure depressive symptoms. The PHQ-9 is a nine-item measure of depressive symptoms

consistent with the DSM-IV (Kroenke et al., 2001). Items on the PHQ-9 are rated on a 4-point Likert-type scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*) with total scores ranging from 0 to 27 (Kroenke et al., 2001). Scores are calculated by summing the participant's response to the items. Participants are asked to consider whether the symptoms in the items were present over the previous 2 weeks and whether the participant was bothered by the presence of that symptom over the previous 2 weeks when completing the PHQ-9.

The PHQ-9 has been validated using a sample gathered in a primary care setting. The reliability of the PHQ-9 was .89, as measured using a Cronbach's alpha. This indicates that the PHQ-9 is a reliable measure. Test-retest scores after a period of 48 hours revealed a consistency rating of .84 (Kroenke et al., 2001). The PHQ-9 has been correlated with overall mental health, health perceptions, social functioning, and role functioning (Kroenke et al., 2001). The PHQ-9 was used in the current study as an indicator of symptoms consistent with depression and not to diagnose participants with depression due to the sensitivity and specificity ratings of the PHQ-9, 88% for both (Kroenke et al., 2001).

The PHQ-9 was selected as the measure of depressive symptoms because it is been demonstrated to be a valid, reliable, and brief measure of depressive symptoms (Beidas et al., 2015). In addition, the PHQ-9 is available for use in medical settings, such as the Veteran's Affairs Medical Centers (VAMCs; Spoont et al., 2013), which is where programs such as CWT are housed. The brevity of the PHQ-9 may also help providers to quickly assess for changes in depressive symptoms.

**Generalized Anxiety Disorder-7.** The Generalized Anxiety Disorder-7 (GAD-7) was used to measure anxiety symptoms. The GAD-7 is a seven-item measure of anxiety symptoms consistent with the DSM-IV (Spitzer et al., 2006). Items on the GAD-7 are rated on a 4-point

Likert-type scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*) with a total score ranging from 0 to 21 (Spitzer et al., 2006). Participants are asked to consider whether the symptoms in the items were present over the previous 2 weeks and whether the participant was bothered by the presence of that symptom over the previous 2 weeks when completing the GAD-7. Some researchers have suggested the presence of GAD is likely if a person receives an overall score of 10 (Spitzer et al., 2006).

The GAD-7 was validated using a sample gathered in a primary care setting. The reliability of the GAD-7 was .92, using a Cronbach's alpha (Spitzer et al., 2006). Test-retest scores after a period of 48 hours revealed a consistency rating of .83 (Spitzer et al., 2006). These results indicate that the GAD-7 is a reliable measure. The GAD-7 has been correlated with overall mental health, health perceptions, social functioning, and role functioning (Spitzer et al., 2006). The GAD-7 also correlated well with other measures of anxiety such as the Beck Anxiety Inventory ($r$ = .72) and the anxiety subscales of the Symptoms Checklist-90 ($r$ = .74; Spitzer et al., 2006). These results indicate that the GAD-7 is a valid measure of anxiety. Due to the sensitivity and specificity ratings of the GAD-7, 89% and 82% respectively (Spitzer et al., 2006), the GAD-7 was used in this study as an indicator of symptoms consistent with anxiety and not to diagnose participants with anxiety.

The GAD-7 was selected as the measure of anxiety symptoms because it has been demonstrated to be a valid, reliable, and brief measure of anxiety symptoms (Beidas et al., 2015). In addition, the GAD-7 is available for use in medical settings, such as the VAMCs (Spoont et al., 2013), which is where programs such as CWT are housed. The brevity of the GAD-7 may also help providers to quickly assess for changes in anxiety symptoms.

**Life Events Checklist for the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition.** Participants completed the Life Events Checklist for the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition* (LEC-5; Weathers et al., 2013) as a measure focusing participants on a specific incident when completing the PCL-5. On the LEC-5, participants indicate if they have experienced, witnessed, and/or learned about 15 types of traumatic experiences (Gray et al., 2004). An additional item was later added to the LEC-5 in order to capture information about any experience that might have been traumatic but was not listed in the original 15 items (Weathers et al., 2013). Furthermore, participants can select how they experienced the trauma (e.g., directly experienced, witnessed, and/or learned about), including the option for denoting whether the experience was part of their job (Weathers et al., 2013). The LEC-5 can be used to establish whether a person meets criteria A for PTSD (Weathers et al., 2013) and was used to help focus participants on a traumatic experience.

**PTSD Checklist for the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition.** The PTSD Checklist for the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition* (PCL-5) was used to measure trauma symptoms. The PCL-5 is a 20-item measure of severity of PTSD symptoms as defined by the DSM-5 (Blevins et al., 2015). Items on the PCL-5 are rated on a 5-point Likert-type scale that participants use to rate the degree to which item's content (e.g., intrusive memories of a traumatic event) bothers the participant, with scores ranging from 0 (*Not at all*) to 4 (*Extremely*; Blevins et al., 2015). Scores on the PCL-5 are produced by summing a participant's response to each item. Higher scores on the PCL-5 indicate that a person is experiencing more severe trauma symptoms (Blevins et al., 2015). The PCL-5 can also be used to make a provisional diagnosis of PTSD when there is a score over 38 (Khel,

2015). For the current study, scores on the PCL-5 were used to provide evidence of the presence of trauma severity and not to make a provisional diagnosis of PTSD.

The PCL-5 was initially validated on two samples of undergraduate students. The reliabilities, as measured by Cronbach's alpha, for both sets of samples were .94 and .95 (Blevins et al., 2015). In addition, reliability using test-retest yielded a reliability of .82 (Blevins et al., 2015). These results indicate that the PCL-5 is a reliable measure. The PCL-5 has also been validated using military service members and veterans (Bovin et al., 2016; Wortmann et al., 2016). Among veterans, the PCL-5 has a good internal consistency of .96 and a test-retest reliability of .84 (Bovin et al., 2016). The PCL-5 has been positively correlated with other measures of PTSD ($r$ = .85), depression ($r$ = .60), and anxiety ($r$ = .40; Blevins et al., 2015). These results indicate that the PCL-5 is a valid measure of PTSD symptoms. Among student veterans, Shaine (2016) found that the PCL-5 had an overall Cronbach's alpha of .96 and the reliabilities for the four subscales ranged from .87 to .92.

The PCL-5 was selected as the measure of trauma symptoms because is a commonly used measure to assess for the presence of trauma symptoms within the VAMC setting. In addition, the PCL-5 is available for use in medical settings, such as the VAMCs (Spoont et al., 2013), which is where programs such as CWT are housed. The brevity of the PCL-5 may also help providers to quickly assess for changes in trauma symptoms.

## Procedure

At the start of this study, the researcher collected information about Student Veterans of America (SVA) organizations on college/university campuses. SVA is a nationwide organization focused on assisting SSM/V on college campuses. A directory of chapter locations for SVA can be found at http://studentveterans.org/chapter/directory. The researcher e-mailed eight

colleges/universities in Virginia to check for accurate contact information and willingness for chapter officers/advisors to disseminate a recruitment e-mail to SSM/V on their respective campuses. One SVA organization requested permission to send the recruitment e-mail to other SVA chapters in the United States. The researcher permitted the SVA chapter official to disseminate the recruitment e-mail nationally in order to gain a more representative sample of SSM/V. To recruit an adequate sample size, the researcher contacted an additional 1,600 SVA chapters. SSM/V who participated were also encouraged to send the recruitment e-mail to other SSM/V.

Radford University's Institutional Review Board approved the project prior to dissemination of a recruitment e-mail. Recruitment of SSM/V occurred through e-mails sent to student veteran organizations. A recruitment e-mail was sent to the student leader, chapter advisor, and if available the chapter's e-mail. The recruitment e-mail included information about the primary researcher (including contact information), study's purpose, expectations of participants, compensation for participation, and a link to the survey on Qualtrics (see Appendix A). Estimated time needed to complete the study was 15-20 minutes based on trial runs of the survey conducted by a research team. The e-mail that was sent to the student leader, chapter advisor, and chapter e-mail requested that the recruitment e-mail be forwarded on to that college/university's SSM/V population.

Participants that agreed to participate were instructed in the recruitment e-mail to click on the link to the Qualtrics survey. Qualtrics is an online platform for survey administration. Next, participants viewed a copy of the informed consent page (see Appendix B) and indicated their passive consent to participate by clicking on the arrows on the bottom right of the page. Next, participants were provided with the website for the VAMC locator, phone number for the

Veterans Crisis Line, and emergency contact in the event the participant felt distressed during the survey. Participants completed the demographic questionnaire (see Appendix C). Participants next completed the CDDQ (see Appendix D), PHQ-9 (see Appendix E), GAD-7 (see Appendix F), LEC-5 (see Appendix G), PCL-5 (see Appendix H), and CTI (see Appendix I). In total, participants answered no more than 147 questions. Participants who responded that they have never experienced or witnessed any of the events on the LEC-5 did not complete the PCL-5 and thus would have answered less questions than those who endorsed a trauma on the LEC-5. Again, all participants were provided with the phone number for the veteran's crisis line, a weblink for a website sponsored by the Veterans Administration (VA) to assist veterans with locating their nearest VA facility (https://www.va.gov/directory/guide/home.asp), and instructions to contact their local emergency response unit if they experienced distress as a result of the survey. Participants who wanted to be entered into a drawing to win one of 10, $20 Amazon gift cards were then redirected to a different survey to enter their e-mail. Participants were directed to a different survey to protect confidentiality and to prevent the researcher from linking participants' personal information with their data.

## Analyses

The current study used a variety of statistical techniques to test the various research questions. Originally, an exploratory factor analysis, Pearson correlations, and simple linear regression analyses were planned. However, these analyses were altered due to several factors that will be explained in their respective sections. An exploratory factor analysis was not conducted to ensure that the career constructs being measured were consistent with the intended purpose of the CTI. The CDDQ, PHQ-9, GAD-7, and PCL-5 all demonstrated adequate reliabilities in past studies; therefore, Cronbach's alphas were conducted to provide evidence of

inter-item reliabilities of the scales. Negative binomial regression analyses were conducted next to examine the relationship between measures of depression, anxiety, and trauma symptoms and career-related decision-making difficulty. Finally, moderation analyses were conducted to determine if the presence of career transition resources could buffer the relationship between career decision-making difficulty and the different types of psychological distress.

### *Data Cleaning*

First, data were screened for completion time. Participants who completed the survey in under 12 minutes had their data screened for indicators of lack of effort or patterns of responses that may invalidate the participant's data. Twelve minutes was selected as the cutoff time based on a series of trial runs of the survey prior to data collection. Participants whose data met other exclusion criteria had their data excluded from analyses. Next, data were screened for lack of responses and patterns of responding that indicated a lack of effort, such as responding to all items with the same response. Participants that were missing 50% of the survey data were excluded from final data analysis (Hair et al., 2018). Participants that were missing less than 50% of the survey data had their responses inspected for other patterns that may indicate careless/lack of effortful response patterns (Hair et al., 2018).

### *EFA*

An EFA was originally planned to be run since low reliabilities have been found for the CTI and its subscales in previous research using an SSM/V population (Ghosh & Fouad, 2016). Through consultation with researchers who have advanced training in statistics, it was determined that conducting an EFA may alter what the CTI scales measured. To ensure that the construct being used in the analysis aligned with the proposed research question, an EFA was not

conducted. Instead, reliability analyses, using Cronbach's alpha, were run for each scale on the CTI.

### *Reliability*

Next, reliability analyses were conducted for each of the CDDQ, CTI, PHQ-9, GAD-7, and PCL-5 measures. Reliability analyses were conducted using Cronbach's alpha. Cronbach's alpha is one of the most widely used statistics to measure the correlations between items (Furr & Bacharach, 2014). There is no set cutoff for an acceptable Cronbach's alpha score for reliability (Schmitt, 1996), although some researchers have indicated that a reliability between .60 and .69 is marginal, .70 and .79 is acceptable, and .80 or higher is good (Barker et al., 2016). Therefore, higher scores of reliability indicate that the items have stronger inter-item correlations.

### *Regression*

A regression analysis was used to account for changes in depressive, anxiety, and trauma symptom severity using the CDDQ. Regression analyses are typically used to test the ability of one variable to predict scores on another variable or to test a theoretically based direction of the relationship between two variables (Aspelmeier & Pierce, 2015). Since there is evidence to suggest that vocational issues affect mental health symptoms, a regression analysis was determined to be appropriate for the current study. Using G*Power, it was estimated that a total sample size of at least 89 participants would be needed to conduct a regression analysis with one predictor (i.e., overall CDDQ score) with an effect size of .15, $\alpha = .05$, and power set at .95. A Bonferroni correction was used to determine statistical significance. *P*-values in the regression analyses had to be less than or equal to .016 (.05/3) to be considered significant to control for Type I error due to the use of multiple regressions.

Originally, simple linear regression analyses were proposed to be the most appropriate regression; however, several of the assumptions necessary to run a simple linear regression analysis were not met. There are several assumptions that need to be met for a simple linear regression analysis, including linearity, normality, homoscedasticity, and independence (Hayes, 2014). Due to the positive skew of the dataset in the current study, the assumption of normality was not met.

A negative binomial regression analysis was determined to be an appropriate regression analysis due to the distribution of the data. A negative binomial regression also has several assumptions, including a non-normal distribution and overdispersion (Coxe et al., 2009). The data in the current study met both of these assumptions. Scores for the three measures of psychological distress grouped closely to zero with a skew to higher scores (i.e., a right skew), thus meeting the assumption of a non-normal distribution. In addition, the variance for each of the three measures of psychological distress was larger than the standard deviation, thus meeting the assumption of overdispersion. Negative binomial regressions also assume that individuals with the same score may be influenced by extraneous variables not measured in the study (Coxe et al., 2009). Similar to a simple linear regression, negative binomial regressions produce information that can be used to create a formula that can predict how a person's score on a dependent variable may change based on the score of an independent variable. However, unlike a simple linear regression, a negative binomial regression does not produce an $R^2$ statistic. Therefore, the proportion of change in the measures of psychological distress based on career-related decision-making difficulty could not be determined (i.e., research questions 1a, 2a, 3a). A formula predicting the change in a person's psychological distress using the individual's career decision-making difficulty score was produced from these analyses.

### *Moderation*

Moderation analyses were conducted to determine how the presence of career transition resources, as measured by the CTI, might buffer the relationship between decision-making difficulty and psychological distress. Five moderation analyses were conducted for each of the three measures of psychological distress, using the CTI subscales as moderators. A total of 15 moderation analyses were conducted. A Bonferroni correction was used to determine statistical significance. *P*-values in the regression analyses had to be less than or equal to .003 (.05/15) to be considered significant to control for Type I error due to the use of multiple moderation analyses.

## Summary

The current study sought to examine the relationship between psychological distress and career-related decision-making difficulty. Chapter three has outlined the participants, materials, and the procedure used to test this study's research questions and hypotheses. The CDDQ was used to measure career-related decision-making difficulty. The PHQ-9 was used to measure depressive symptoms. The GAD-7 was used to measure anxiety symptoms. The PCL-5 was used to measure trauma symptoms. The CTI was used to measure career transition resources. SSM/V were recruited through SVA chapters on various campuses and other SSM/V. Participants completed an online questionnaire and were compensated by being entered into a drawing to win one of 10, $20 Amazon gift cards. The current study sought to gather a minimum of 200 participants to conduct the analyses in the current study. Analyses used in the study include calculating Cronbach's alphas, regression analyses, and moderation analyses. Chapter four will provide the empirical results of the current study.

# Chapter 4: Results

The current study collected data from a sample of SSM/V at various institutions (see Chapter three). Due to the characteristics of the data collected, a series of analyses for non-normally distributed data were used to answer the research questions. Because a negative binomial regression was used instead of an ordinary least squares regression, an $R^2$ statistic could not be computed. Therefore, the proportion of change in the measures of psychological distress based on career-related decision-making difficulty could not be determined (i.e., research questions 1a, 2a, 3a). Chapter four will provide the results of the data cleaning procedures, psychometric analyses of the measures, negative binomial regression, and moderations analyses.

## Data Exclusion Decisions

A total of 460 responses were recorded for the current study. Participant data was screened for completion time, percentage of the survey that was complete, and possible random responding. A total of 99 participants were excluded from the final data set due to completing less than 50% of the survey. Four participant responses were excluded due to concerns about random responding. Two participant responses were excluded due to concerns about response times and random responding. A total of 105 participant responses were excluded from the final data set based on these criteria. The final data set included a total of 355 participants.

## Psychometric Properties of the Measures

To determine whether the inter-item correlations for each measure were strong enough to create a single measure, the researcher calculated a Cronbach's alpha for the CDDQ, PHQ-9, GAD-7, PCL-5, and CTI subscales (see Table 6). In addition, the negative binomial regression analysis has several assumptions, including a positively skewed distribution and variance larger

than the mean that were checked prior to conducting the analyses. The researcher conducted checks of the normality of the data using histograms.

**Table 6**

*Psychometric Properties of the CDDQ, PHQ-9, GAD-7, PCL-5, and CTI Scales*

| Measure | *M* | *SD* | α |
|---|---|---|---|
| 1. CDDQ | 3.59 | 1.63 | .94 |
| 2. PHQ-9 | 3.25 | 4.20 | .88 |
| 3. GAD-7 | 3.18 | 4.08 | .91 |
| 4. PCL-5 | 13.26 | 15.13 | .96 |
| 5. CTI – Readiness | 33.96 | 10.42 | .76 |
| 6. CTI – Confidence | 33.22 | 9.10 | .68 |
| 7. CTI – Control | 17.98 | 6.11 | .63 |
| 8. CTI – Perceived Support | 9.67 | 4.30 | .66 |
| 9. CTI – Decision Independence | 16.04 | 5.76 | .62 |

### *Reliabilities and Assumptions of Normality*

The Cronbach's alpha for the 34-item CDDQ was .94. This is an acceptable reliability score that indicates the items on the CDDQ were strongly correlated with each other. Review of the data indicated that removing an item would not significantly improve the reliability of the scale. A composite score for the CDDQ was created to represent the overall level of difficulty participants experienced with making career-related decisions. A histogram with a distribution curve was created to examine the distribution of scores. Review of a histogram was determined to be the best method for determining the distribution based on the size of the sample in this study. This examination revealed that there was a normal distribution of scores (see Figure 1).

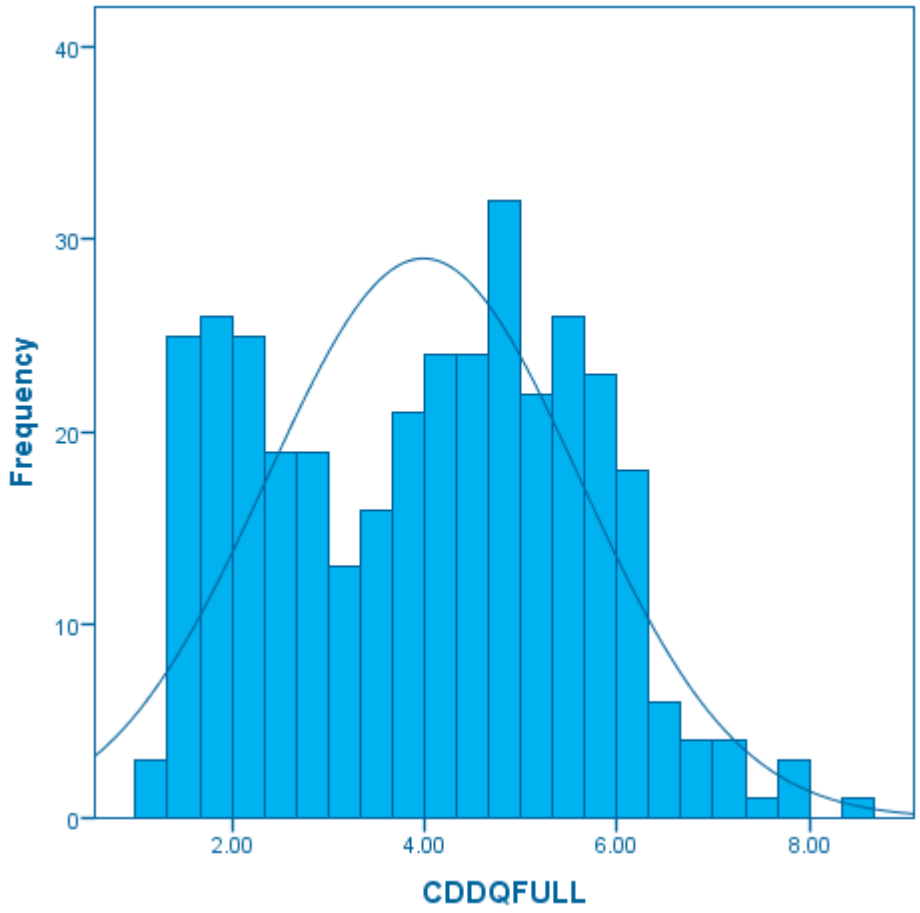


*Figure 1.* Distribution of CDDQ Scores

The Cronbach's alpha for the nine-item PHQ-9 was .88. This is an acceptable reliability score that indicates the items on the PHQ-9 group together. Review of the data indicated that removing an item would not significantly improve the reliability of the scale. A composite score for the PHQ-9 was created to represent the overall level of depressive symptoms participants experienced. A histogram with a distribution curve was created to examine the distribution of scores. Review of a histogram was determined to be the best method for determining the distribution based on the size of the sample in this study. This examination revealed that participants' scores were right skewed, indicating that a large number of participants rated their depression as low (see Figure 2). This satisfied the assumption of nonnormality for a negative binomial regression analysis. Additional analyses of the data indicated that the variance was

larger than the standard deviation. This also fit the assumption for a negative binomial regression analysis.

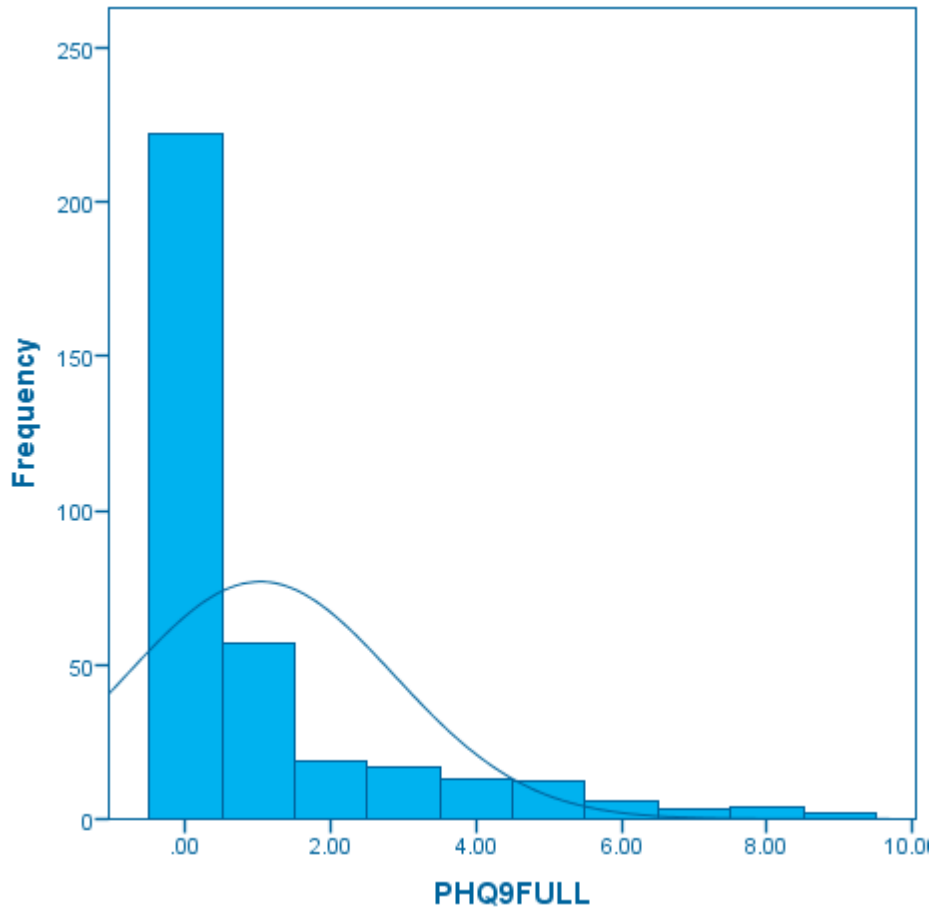


*Figure 2.* Distribution of PHQ-9 Scores

The Cronbach's alpha for the seven-item GAD-7 was .91. This is an acceptable reliability score that indicates the items on the GAD-7 group together. Review of the data indicated that removing an item would not significantly improve the reliability of the scale. A composite score for the GAD-7 was created to represent the overall severity of anxiety symptoms participants experienced. A histogram with a distribution curve was created to examine the distribution of scores. Review of a histogram was determined to be the best method for determining the distribution based on the size of the sample in this study. This examination revealed that

participants' scores were right skewed, indicating that a large number of participants rated their depression as low (see Figure 3). This satisfied the assumption of nonnormality for a negative binomial regression analysis. Additional analyses of the data indicated that the variance was larger than the standard deviation. This also fit the assumption for a negative binomial regression analysis.

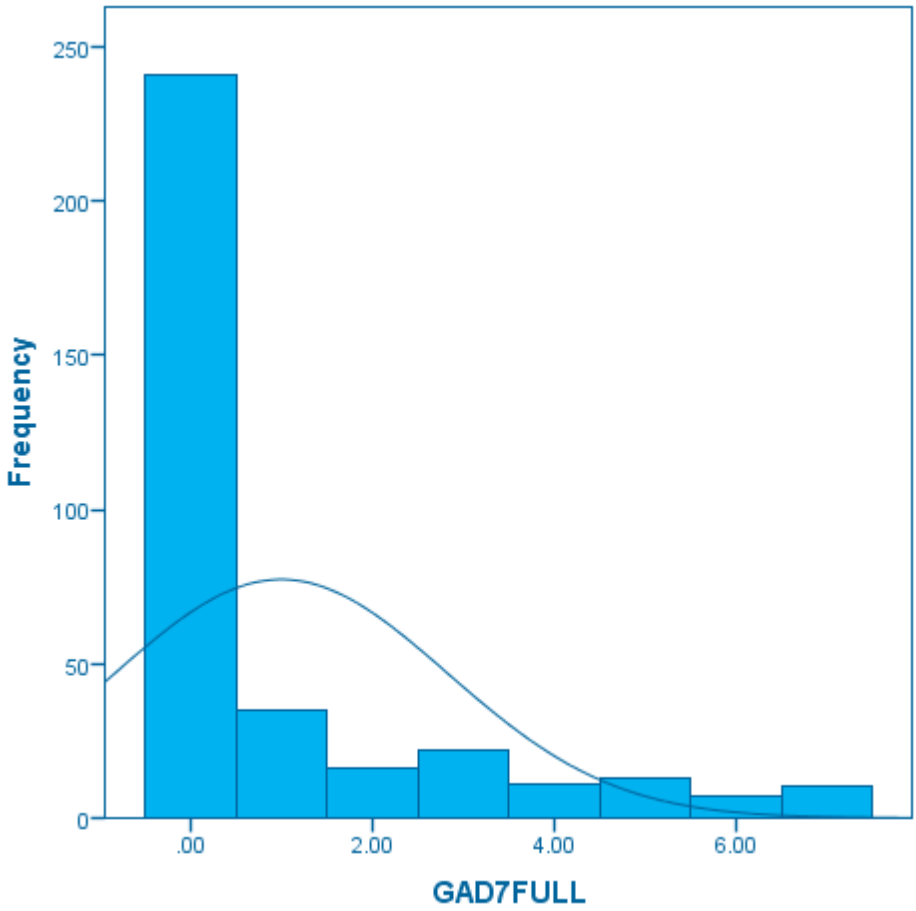


*Figure 3.* Distribution of GAD-7 Scores

The Cronbach's alpha for the 20-item PCL-5 was .96. This is an acceptable reliability that indicates the items on the PCL-5 group together. Review of the data indicated that removing an item would not significantly improve the reliability of the scale. A composite score for the PCL-5 was created to represent the overall severity of trauma symptoms participants

experienced. A histogram with a distribution curve was created to examine the distribution of scores. Review of a histogram was determined to be the best method for determining the distribution based on the size of the sample in this study. This examination revealed that participants' scores were right skewed, indicating that a large number of participants rated their depression as low (see Figure 4). This satisfied the assumption of nonnormality for a negative binomial regression analysis. Additional analyses of the data indicated that the variance was larger than the standard deviation. This also fit the assumption for a negative binomial regression analysis.

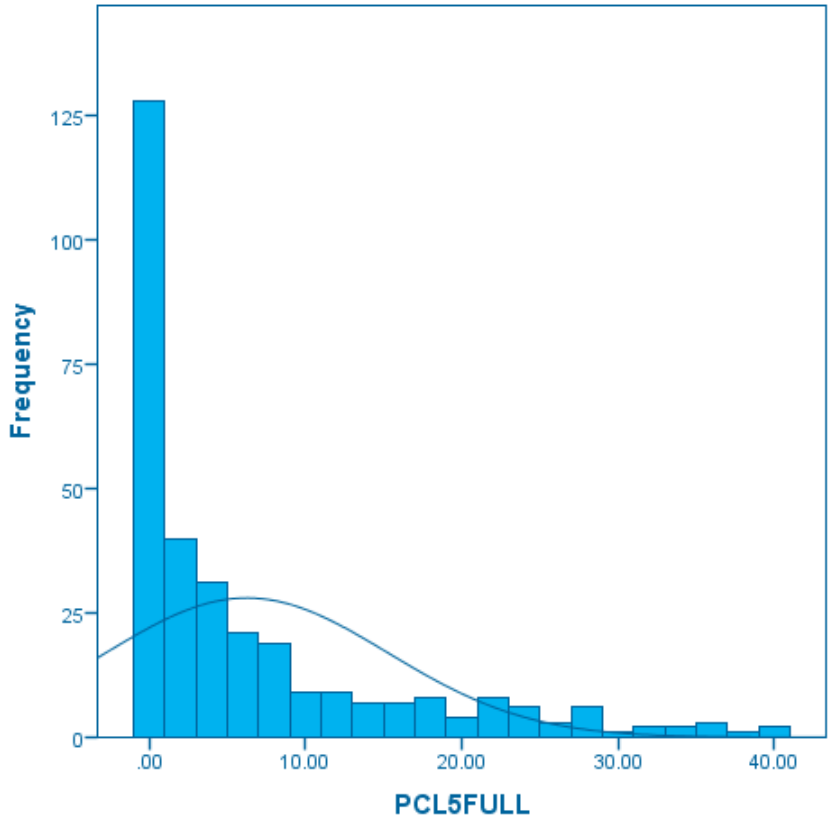


*Figure 4.* Distribution of PCL-5 Scores

***Additional Screening Methods***

Additional correlations were conducted to determine if any of the measures of psychological distress correlated with demographic variables (see Table 7). Due to the distribution of the data for measures, a Spearman's correlation was conducted to determine the relationship between the measures. Weak statistically significant correlations were found between the PHQ-9 and enlistment status ($r_s(353) = .22$, $p < .001$) and class standing ($r_s(350) = -.15$, $p = .01$). The GAD-7 was correlated with enlistment status ($r_s(353) = .26$, $p < .001$) and class standing ($r_s(350) = .18$, $p = .001$). The PCL-5 correlated with enlistment status ($r_s(315) = .21$, $p < .001$), class standing ($r_s(313) = -.13$, $p = .02$), and gender ($r_s(317) = .13$, $p = .02$).

**Table 7**

*Spearman Correlations Between Demographics and PHQ-9, GAD-7, and PCL-5*

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Age | - | | | | | | | | | | |
| 2. Gender | -.05 | - | | | | | | | | | |
| 3. Race | | | - | | | | | | | | |
| 4. Enlistment Status | .29*** | -.06 | .01 | - | | | | | | | |
| 5. Deployment to an Active Warzone | -.34*** | .17*** | -.09 | -.07 | - | | | | | | |
| 6. Class Standing | .49*** | .09 | .07 | .03 | -.15 | - | | | | | |
| 7. Highest Level of Education | .52*** | .08 | .18** | .08 | -.14 | .74 | - | | | | |
| 8. Current Relationship Status | -.42*** | -.04 | .05 | .09 | -.16 | .23*** | .23*** | - | | | |
| 9. PHQ-9 | .53 | .02 | .03 | .22*** | -.07 | -.15** | -.08 | -.01 | - | | |
| 10. GAD-7 | .02 | .06 | -.01 | .26*** | -.06 | -.18** | -.09 | .00 | .72*** | | |
| 11. PCL-5 | .11 | .13* | .06 | .21*** | -.10 | -.13* | -.04 | .03 | .64*** | .65*** | - |

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

Upon further inspection of participants' data, it was determined that several participants did not continue with the survey upon reaching the PCL-5. Therefore, additional *t*-tests were conducted to determine if participants who completed through the PCL-5 and participants who did not complete through the PCL-5 significantly differed in their levels of distress on the PHQ-9 and GAD-7. An independent *t*-test revealed that there was not a significant difference in PHQ-9 scores, $t(353) = -.64$, $p = .52$, CI[-1.88, .96], between participants who completed the PCL-5 ($M = 2.84$, $SD = 4.10$) and participants who did not complete the PCL-5 ($M = 3.30$, $SD = 4.22$). An independent *t*-test revealed that there was not a significant difference in GAD-7 scores, $t(353) = --1.13$, $p = .26$, CI[-2.16, .59], between participants who completed the PCL-5 ($M = 2.47$, $SD = 3.78$) and participants who did not complete the PCL-5 ($M = 3.26$, $SD = 4.11$).

## Correlations

Due to the distribution of the data for measures, a Spearman's correlation was conducted to determine the relationship between the measures (see Table 8). The CDDQ significantly correlated positively with all three measures of psychological distress and the CTI scales. The CDDQ correlated with the PHQ-9 ($r_s(353) = .39$, $p < .001$), GAD-7 ($r_s(353) = .38$, $p < .001$), PCL-5 ($r_s(315) = .33$, $p < .001$), CTI readiness scale ($r_s(303) = .17$, $p < .01$), CTI confidence scale ($r_s(303) = .53$, $p < .001$), CTI control scale ($r_s(301) = .48$, $p < .001$), CTI support scale ($r_s(301) = .41$, $p < .001$), and the CTI decision independence scale ($r_s(302) = .26$, $p < .001$). The PHQ-9 significantly correlated with the GAD-7 ($r_s(353) = .72$, $p < .001$), PCL-5 ($r_s(315) = .64$, $p < .001$), CTI readiness scale ($r_s(303) = .15$, $p < .01$), CTI confidence scale ($r_s(303) = .30$, $p < .001$), CTI control scale ($r_s(301) = .30$, $p < .001$), and the CTI support scale ($r_s(301) = .36$, $p < .001$). The PHQ-9 did not significantly correlate with the CTI decision independence scale ($r_s(302) = .10$, $p = .08$). The GAD-7 correlated with the PCL-5 ($r_s(315) = .65$, $p < .001$), CTI confidence scale ($r_s(303) = .33$, $p < .001$), CTI control scale ($r_s(301) = .31$, $p < .001$), CTI support scale ($r_s(301) = .32$, $p < .001$), and CTI decision independence scale ($r_s(302) = .16$, $p < .01$). The GAD-7 did not significantly correlate with CTI readiness scale ($r_s(303) = .08$, $p < .15$). The PCL-5 significantly correlated with the CTI confidence scale ($r_s(302) = .36$, $p < .001$), CTI control scale ($r_s(300) = .27$, $p < .001$), CTI support scale ($r_s(300) = .37$, $p < .001$), and CTI decision independence scale ($r_s(301) = .16$, $p < .01$). The PCL-5 did not significantly correlate with the CTI readiness scale ($r_s(302) = .11$, $p < .05$). Based on these results, there is evidence that a relationship exists between career decision-making difficulty and the three forms of psychological distress.

The CTI scales all significantly correlated with each other. The CTI readiness scale correlated with the CTI confidence scale ($r_s(303) = .14$, $p = .01$), CTI control scale ($r_s(301) = .15$, $p < .01$), CTI support scale ($r_s(301) = .49$, $p < .001$), and the CTI decision independence scale ($r_s(302) = .25$ $p < .001$). The CTI confidence scale correlated with the CTI control scale ($r_s(301) = .68$, $p < .01$), CTI support scale ($r_s(301) = .51$, $p < .001$), and the CTI decision independence scale ($r_s(302) = .44$, $p < .001$). The CTI control scale correlated with the CTI support scale ($r_s(301) = .45$, $p < .001$), and the CTI decision independence scale ($r_s(301) = .39$, $p < .001$). The CTI support scale correlated with the CTI decision independence scale ($r_s(301) = .30$, $p < .001$).

**Table 8**

*Spearman Correlations Between CDDQ, PHQ-9, GAD-7, PCL-5, and CTI Subscales*

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| 12. CDDQ | - | | | | | | | | |
| 13. PHQ-9 | .39*** | - | | | | | | | |
| 14. GAD-7 | .38*** | .72*** | - | | | | | | |
| 15. PCL-5 | .33*** | .64*** | .65*** | - | | | | | |
| 16. CTI Readiness | .17** | .15* | .08 | .11 | - | | | | |
| 17. CTI Confidence | .53** | .30*** | .33*** | .36*** | .14* | - | | | |
| 18. CTI Control | .48** | .31*** | .31*** | .27*** | .15** | .68*** | - | | |
| 19. CTI Support | .41** | .36*** | .32*** | .37*** | .49*** | .51*** | .45*** | - | |
| 20. CTI Independence | .26** | .10 | .16** | .16** | .25*** | .44*** | .39*** | .30*** | - |

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

## Career Decision-making and Depressive Symptoms

A negative binomial model was used to examine the relation between career decision-making difficulty and scores of depressive symptoms. This model was selected as the most appropriate, over an ordinary least squares regression, due to the non-normal distribution of scores on the PHQ-9. A negative binomial model is used when data for a dependent measure is positively skewed and the variance is larger than the standard deviation (Coxe et al., 2009). The

likelihood ratio chi-square test indicated that the full model was significant, $\chi^2(1) = 41.62$, $p < .001$, indicating that the current model is significantly better than a model with no predictors. Career decision-making difficulty is a significant predictor of a person's depression score ($b = .32$, $SE = .05$, $p < .001$, 95% CI [.22-.41]; see Table 9). The results indicated that for every one unit increase on career decision-making difficulty, the predicted log depression score increased by .32. In more practical terms, this would mean that for every one unit increase in career decision-making difficulty, a person's depression score increased by a factor of 1.37, or 37%.

**Table 9**

*Negative Binomial Regression Predicting Depressive Symptoms*

| Variable | *b* | 95% Wald CI for *b* | | *SE* | Exp(*b*) | *p*-value |
|---|---|---|---|---|---|---|
| | | *LL* | *UL* | | | |
| Constant | -.08 | -.46 | .31 | .20 | .93 | .69 |
| Career decision-making difficulty | .32 | .22 | .41 | .05 | 1.37 | <.001 |
| Negative Binomial | 1.63 | 1.31 | 2.03 | .18 | | |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

A series of moderation analyses were conducted to determine if the presence of career transition resources could alter the relationship between career decision-making difficulty and depression using PROCESS (Hayes, 2014). The interaction between decision-making difficulty and readiness was not statistically significant ($b = .01$, 95% C.I. [-.02-.03], $p = .455$). The interaction between decision-making difficulty and confidence was not statistically significant ($b = .03$, 95% C.I. [.00-.05], $p = .02$). The interaction between decision-making difficulty and control was not statistically significant ($b = .05$, 95% C.I. [.01-.09], $p = .01$). The interaction between decision-making difficulty and support was not statistically significant ($b = .01$, 95% C.I. [-.05-.07], $p = .74$). The interaction between decision-making difficulty and decision independence was not statistically significant ($b = .03$, 95% C.I. [-.02-.07], $p = .29$). The relationship between the career decision-making difficulty and depression was not moderated by

any of the career transition resources. Therefore, support for the ability of career transition resources to buffer the relationship between career decision-making and depression was not found (research question 1b).

### Career Decision-making and Anxiety Symptoms

A negative binomial model was used to examine the relation between career decision-making difficulty and scores of anxiety symptoms. This model was selected as the most appropriate, over an ordinary least squares regression, due to the non-normal distribution of scores on the GAD-7. A negative binomial model is used when data for a dependent measure is positively skewed and the variance is larger than the standard deviation (Coxe et al., 2009). The likelihood ratio chi-square test indicated that the full model was significant, $\chi^2(1) = 32.25$, $p < .001$, indicating that the current model is significantly better than a model with no predictors. Career decision-making difficulty is a significant predictor of a person's anxiety score ($b = .30$, $SE = .05$, $p < .001$, 95% CI [.20-.40]; see Table 10). The results indicated that for every one unit increase on career decision-making difficulty, the predicted log anxiety score increased by .30. In more practical terms, this would mean that for every one unit increase in career decision-making difficulty, a person's anxiety score increased by a factor of 1.35, or 35%.

**Table 10**

*Negative Binomial Regression Predicting Anxiety Symptoms*

| Variable | *b* | 95% Wald CI for *b* | | *SE* | Exp(*b*) | *p*-value |
|---|---|---|---|---|---|---|
| | | *LL* | *UL* | | | |
| Constant | -.03 | -.44 | .38 | .21 | .97 | .89 |
| Career decision-making difficulty | .30 | .19 | .40 | .05 | 1.35 | <.001 |
| Negative Binomial | 1.96 | 1.58 | 2.44 | .22 | | |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

A series of moderation analyses were conducted to determine if the presence of career transition resources could alter the relationship between career decision-making difficulty and

anxiety using PROCESS (Hayes, 2014). The interaction between decision-making difficulty and readiness was not statistically significant (*b* = -.00, 95% C.I. [-.03-.02], *p* = .95). The interaction between decision-making difficulty and confidence was not statistically significant (*b* = .00, 95% C.I. [-.02-.03], *p* = .86). The interaction between decision-making difficulty and control was not statistically significant (*b* = .02, 95% C.I. [-.03-.06], *p* = .43). The interaction between decision-making difficulty and perceived support was not statistically significant (*b* = -.00, 95% C.I. [-.06-.06], *p* = .92). The interaction between decision-making difficulty and decision independence was not statistically significant (*b* = .00, 95% C.I. [-.04-.05], *p* = .87). The relationship between the career decision-making difficulty and anxiety was not moderated by any of the career transition resources. Therefore, support for the ability of career transition resources to buffer the relationship between career decision-making and anxiety was not found (research question 2b).

**Career Decision-making and Trauma Symptoms**

A negative binomial model was used to examine the relation between career decision-making difficulty and scores of trauma symptom severity. This model was selected as the most appropriate, over an ordinary least squares regression, due to the non-normal distribution of scores on the PCL-5. A negative binomial model is used when data for a dependent measure is positively skewed and the variance is larger than the standard deviation (Coxe et al., 2009). The likelihood ratio chi-square test indicated that the full model was significant, $\chi^2(1) = 23.05$, $p < .001$), indicating that the current model is significantly better than a model with no predictors. Career decision-making difficulty is a significant predictor of a person's trauma symptom severity score (*b* = .24, *SE* = .05, *p* < .001, 95% CI [.14-.34]; see Table 11). The results indicated that for every one unit increase on career decision-making difficulty, the predicted log trauma severity score increased by .24. In more practical terms, this would mean that for every one unit

increase in career decision-making difficulty, a person's anxiety score increased by a factor of 1.27, or 27%.

**Table 11**

*Negative Binomial Regression Predicting Trauma Symptoms*

| Variable | *b* | 95% Wald CI for *b* | | *SE* | Exp(*b*) | *p*-value |
|---|---|---|---|---|---|---|
| | | *LL* | *UL* | | | |
| Constant | 1.65 | 1.27 | 2.04 | .20 | 5.22 | <.001 |
| Career decision-making difficulty | .24 | .14 | .34 | .05 | 1.27 | <.001 |
| Negative Binomial | 1.90 | 1.60 | 2.25 | .17 | | |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

A series of moderation analyses were conducted to determine if the presence of career transition resources could alter the relationship between career decision-making difficulty and trauma symptoms using PROCESS (Hayes, 2014). The interaction between decision-making difficulty and readiness was not statistically significant (*b* = .02, 95% C.I. [-.07-.11], *p* = .60). The interaction between decision-making difficulty and confidence was not statistically significant (*b* = .10, 95% C.I. [.01-.19], *p* = .03). The interaction between decision-making difficulty and control was not statistically significant (*b* = .22, 95% C.I. [.07-.38], *p* = .004). The interaction between decision-making difficulty and perceived support was not statistically significant (*b* = .09, 95% C.I. [-.12-.31], *p* = .40). The interaction between decision-making difficulty and decision independence was not statistically significant (*b* = .11, 95% C.I. [-.06-.29], *p* = .20). Support for the presence of career transition resources to moderate the relationship between career decision-making difficulty and trauma symptoms was not found (research question 3b). No CTI subscales were able to moderate the relationship between career decision-making difficulty and trauma symptoms.

## Summary

Chapter four described the outcome of the data cleaning procedures, which resulted in a final sample of 355 participants. Results from the reliability analyses, spearman correlations, negative binomial regression analyses, and moderation analyses were also presented. The regression analyses indicated that career decision-making difficulty was positively correlated with all three forms of psychological distress and could predict a proportion of scores for each form of psychological distress. The moderation analyses indicated that the career transition resources cannot buffer the relationship between career decision-making difficulty and any of the measures of psychological distress. An overview of which research questions and hypotheses were supported is located in Table 12. Chapter five will discuss the current findings within the context of the current vocational literature.

**Table 12**

*Research Questions and Hypotheses Outcomes*

| Research Question and Hypotheses | Outcome |
|---|---|
| 1. There is a significant relationship between career-related decision-making difficulty and depressive symptoms. | Supported |
| 1a. Career decision-making difficulty will be able to account for a significant proportion of change of depressive symptoms. | Unable to run analysis |
| 1b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and depressive symptoms? | No |
| 2. There is a significant relationship between career-related decision-making difficulty and anxiety symptoms. | Supported |
| 2a. Career decision-making difficulty will be able to account for a significant proportion of change of anxiety symptoms. | Unable to run analysis |
| 2b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and anxiety symptoms? | No |
| 3. There is a significant relationship between career-related decision-making difficulty and trauma symptoms. | Supported |

| | |
|---|---|
| 3a. Career decision-making difficulty will be able to account for a significant proportion of change of trauma symptoms. | Unable to run analysis |
| 3b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and trauma symptoms? | No |

# Chapter 5: Discussion

The purpose of the study was to examine the relationship between career decision-making difficulty and three forms of psychological distress (i.e., depressive symptoms, anxiety symptoms, and trauma symptoms) among SSM/V. Chapter four outlined the results from the statistical analyses used to answer the research questions in the current study (presented below). Several of the hypotheses of the current study were supported by the analyses. Chapter five will situate the results from this study within the larger vocational counseling literature, outline limitations of the study, offer future research directions, and provide practice implications of this study.

## Research Questions and Hypotheses

1. There is a significant relationship between career-related decision-making difficulty and depressive symptoms.
    a. Career decision-making difficulty will be able to account for a significant proportion of change of depressive symptoms.
    b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and depressive symptoms?
2. There is a significant relationship between career-related decision-making difficulty and anxiety symptoms.
    a. Career decision-making difficulty will be able to account for a significant proportion of change of anxiety symptoms.

   b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and anxiety symptoms?

3. There is a significant relationship between career-related decision-making difficulty and trauma symptoms.
   a. Career decision-making difficulty will be able to account for a significant proportion of change of trauma symptoms.
   b. Does the presence of career transition resources buffer the relationship between scores of career-related decision-making difficulty and trauma symptoms?

## General Discussion

There has historically been a dichotomy in the research between vocational issues and mental health (Blustein et al., 2019). The lack of acknowledgement and direct study of the relationship between vocational issues and mental health factors fails to provide a truly holistic approach to understanding individuals. What research does exist suggests that vocational issues can affect a person's mental health (Krieshok, 1998; Paul & Moser, 2009). For example, college students have reported changes in mental health symptoms when experiencing vocational issues (Pisarik et al., 2017). Despite these studies, Blustein et al. (2019) reported that the existing vocational literature failed "to focus on the integration of mental health and work" (p. 182). Some studies have begun to examine this overlap (Anghel & Gati, 2019; Kulcsár et al., 2020). It stands to reason that more research is needed on the topic of the relationship between vocational issues to provide a more holistic understanding of a person's functioning.

Results from the current study build upon previous literature that found significant positive correlations between career decision-making and depression and anxiety (Anghel & Gati, 2019), by providing quantitative evidence of the relationship between career decision-making difficulty and three forms of psychological distress (i.e., depressive symptoms, anxiety symptoms, and trauma symptoms) among SSM/V. The results from the study support the notion that career decision-making difficulty and depressive symptoms, anxiety symptoms, and trauma symptoms are positively related. Due to symptom overlap, it is likely not surprising that all three measures of mental health were correlated so strongly. For example, depression, anxiety, and trauma symptoms all include sleep disturbances and some type of somatic or cognitive change. These symptoms can easily be attributed to different diagnoses. For this reason, similar symptoms (e.g., sleep disturbances) will be attributed to different forms of distress. The strongest of the relationships with career decision-making difficulty was for depressive symptoms, followed by anxiety symptoms, and finally trauma symptoms. While explanations for why each of these relationships exist will be discussed, there is at least one hypothesis underlying why all of these relationships exist.

It is possible that the reason for the findings from the current study is due to how career decision-making difficulty affects a person's susceptibility to distress. Kwok (2018) proposed that career decision-making difficulty can contribute to an increased sense of ambiguity about one's future, which in turn increases a person's susceptibility to stress. This stress can then increase a person's susceptibility to certain forms of psychological distress. This is the idea of the diathesis-stress model, in which a combination of stressors affects a person's likelihood of developing psychological problems (Eberhart & Hammen, 2010) and would support Blustein's (2006) hypothesis about how vocational factors affect mental health. As this concept pertains to

the current study, difficulty with career decision-making would be a stressor that increases a person's likelihood of developing psychological distress. Therefore, as a person experiences more career decision-making difficulty (i.e., a stronger stressor), his or her susceptibility to psychological distress increases and the individual begins to experience increases in symptoms (e.g., difficulty with sleep). Based on this idea, a future research direction may be to examine the role of stress as a potential moderating variable between career decision-making difficulty and the three forms of psychological distress.

**Depressive Symptoms and Career Decision-making Difficulty**

Despite theoretical explanations of what a person may expect when transitioning jobs, depressive symptoms have been left out of many empirical studies of career transitions. What little empirical research exists that has studied career decision-making difficulty and depression found a significant positive correlation between the two constructs ($r$ = .35; Anghel & Gati, 2019), which is consistent with the findings in the current study. It would seem then that the empirical research base is growing in support of theoretical hypotheses.

Ashforth (2012), a proponent of Ebaugh's (1988) model, proposed that a person is likely to experience depression as he or she transitions from one occupation to another due to the lack of having a vocational identity. One study provides evidence of this. Gadassi et al. (2015) found that among college seniors, having difficulty with forming a self-identity could predict depression scores. It is possible that this may explain the relationship found in the current study as this may be particularly salient for SSM/V who have to adapt their military/veteran identity to the civilian setting. This is a challenge often noted by SSM/V when adapting to the college environment (Borsari et al., 2017). SSM/V can experience a lack of direction about how to go about selecting a new career when they transition to the civilian world (Howe, 2017). This lack

of direction can leave some SSM/V feeling confused or stuck when trying to figure out how to proceed. The feeling of being stuck, which has been characterized as an expression of a persistent depressive episode (Gask et al., 2011), combined with the importance of an occupation as a source of identity among military populations (Meyer, 2013), may lead to the depressive symptoms. This may indicate a psychological explanation for the relationship between career decision-making difficulty and depressive symptoms.

Another explanation, consistent with the stress hypothesis previously mentioned, is that career decision-making difficulty increases stress, which in turn increases a person's susceptibility to depression. When a person experiences difficulty with making career decisions, the vagueness of the future may build one's level of stress (Kwok, 2018). There is evidence that stress is strongly correlated with depression scores among veterans (Rintala, 2005). This process may occur through hyperactivation of the hypothalamic-pituitary-adrenal (HPA) axis, the brain's response system to increased stress, which has been found to be related to depressive symptoms (Mello et al., 2015). This may indicate a biological explanation for the relationship between career decision-making difficulty and depressive symptoms.

Consistent with previous research, the current study provides evidence that career decision-making difficulty is related to depression. While the relationship has been established, it is clear that more research is needed to explain why the relationship exists. Two possible explanations, one psychological and one biological, have been proposed. Future research may want to test the proposals to further understand the link between vocational factors and mental health symptoms.

**Anxiety Symptoms and Career Decision-making Difficulty**

The finding that career decision-making and anxiety symptoms are related is somewhat unsurprising. Much of the past research on mental health and vocational factors has examined this relationship and found that they are related. The little quantitative research evidence that exists on career decision-making difficulty and anxiety symptoms has found a small positive relationship ($r$ = .31; Anghel & Gati, 2019), consistent with the findings from the current study. These results support several of the findings found by qualitative researchers.

Some of the strongest evidence may come from qualitative researchers who found that SSM/V who experience difficulty with making career-related decisions also report experiencing anxiety and feeling stuck in their thought processes (Howe, 2017). Additional symptoms college students reported when faced with career decision-making difficulties include hot flashes, nervousness, tension, insomnia, and fear that is future based (Pisarik et al., 2017). These are common features of many anxiety disorders, such as panic disorder and generalized anxiety disorder. For example, hot flashes are a common feature of the panic attacks that characterize panic disorder (American Psychiatric Association, 2013). Symptoms such as difficulty controlling worry, persistent fear, sleep disturbances, and tension are common symptoms of generalized anxiety disorder (American Psychiatric Association, 2013). The current research expands on the findings from qualitative research by finding a quantitative relationship between anxiety symptoms and career decision-making difficulties.

Similar to the depression findings, the anxiety findings may be explained by biological processes involving the HPA axis. Career decision-making difficulty may serve as a stressor that activates the HPA axis. The HPA axis activation triggers several of the functions of the sympathetic nervous system (Smith & Vale, 2006), which includes several of the somatic

symptoms of anxiety disorders (Hoehn-Saric & McLeod, 1988). It is therefore possible that the reason there is a relationship between career decision-making difficulty and anxiety may be due to the overlap in activation of the HPA axis.

Although the finding from this study indicates a weak relationship, the finding is statistically significant, and therefore should be considered when assessing SSM/V's anxiety. With SM/V having a stigma against seeking mental health services (Vogt, 2011) and some veterans expressing concerns about becoming emotional with a stranger (Cornish et al., 2014), it may be more appealing for SSM/V to begin therapy working on a less threatening topic, such as career decision-making, to develop rapport and reduce any negative preexisting concerns the SSM/V may have about working with a mental health provider. The current research supports the benefits of this type of approach as also having the potential to reduce concurrent anxiety symptoms at a rate of .35 for each one-point change in the SM/V's career decision-making difficulties score (as measured by the CDDQ). Therefore, practitioners may be able to predict how an intervention addressing an individual's career decision-making difficulty will affect his or her anxiety symptoms.

The findings that career decision-making difficulty and anxiety were related also extends a model created by Jiang et al. (2019) that listed anxiety as an antecedent to career exploration and career decision-making as an outcome of career exploration. The findings seem to suggest that Jiang's model can be further developed by creating a loop linking the outcome (i.e., career decision) back to the antecedents (i.e., anxiety). The model then becomes cyclical and practitioners may have a better understanding of how a person's patterns can become self-sustaining. It is clear that there are several research and practice implications of this finding.

**Trauma Symptoms and Career Decision-making Difficulty**

Career decision-making difficulty was also able to account for a significant change in trauma symptoms. One explanation for the ability of career decision-making difficulty to predict trauma symptoms may be due to similar feelings of being stuck. Difficulty with making career decisions is a form of being stuck, in a cognitive way as opposed to a physical restraint. When there is high difficulty, a person is unable to make a choice that will allow him or her to continue along the journey. Similarly, some researchers have proposed that traumatic disorders are disorders of becoming cognitively stuck (Holman & Silver, 1998). This is a major presumption of cognitive processing therapy, an evidence-based treatment for PTSD (Watkins et al., 2018). Therefore, when SSM/V get stuck when making career-related decisions, this may activate or reaffirm existing trauma-related beliefs about themselves, such as "I am no good." Conversely, being able to make career decisions may begin to break this cognitive pattern of being stuck and thus reduce SSM/V's trauma symptoms. These parallel cognitive processes may be one reason for the relationship between career decision-making difficulty and trauma symptoms.

Several other trauma symptoms may also be partially addressed as SSM/V overcome career indecision. Some of the symptoms that Pisarik et al. (2017) attributed to anxiety could also be characterized as trauma symptoms. For example, they found that experiencing sleep changes, difficulty with concentration, and anger were common reactions to having difficulty making career-related decisions. These are also symptoms common in PTSD (American Psychiatric Association, 2013). Therefore, if these symptoms increase when individuals experience career decision-making difficulty, then we might expect them to also experience decreases as their decision-making difficulty decreases.

Whereas this finding helps to understand why there may be an exacerbation in trauma symptoms when a person experiences career decision-making difficulty, it is important to recognize that all of a person's trauma symptoms cannot be accounted for by career decision-making difficulty. With military populations having a high stigma against mental health services (Vogt, 2011) and dropout rates of up to 67% for select trauma treatments (Kehle-Forbes et al., 2016), it is important that mental health providers consider how working with psychosocial issues before addressing trauma may help to create the conditions for SSM/V to engage in treatment (i.e., patient-provider trust).

### Moderating Effect of Transition Resources

What remains is the question of why the career transition resources did not moderate the relationship between career decision-making difficulty and the three forms of psychological distress. One possibility is that the low reliabilities of the CTI scales affected the results (MacKinnon, 2011). When moderator variables have a low reliability, the chance of a Type II error increases (Harring et al., 2015). This means that although the results may not be significant, the way the career transition resources were measured may be the reason that non-significant results were found. The implication of this would then be that a better measure of transition resources may yield a moderating effect.

## Limitations

This study is not without limitations. These limitations will be discussed, including limitations due to the sample, terms, and measures.

### *Sample*

The sample population poses one challenge to the generalizability of the results. This study's sample consisted of SSM/V with a wide range of experiences at universities, with three

years being the average number of years participants have spent at their current institutions. It is possible that during their time at their institutions, participants were exposed to knowledge and resources that have helped them to reduce any career decision-making difficulties and/or manage any distress. Research supports that individuals between 19 and 24 experience significantly more career decision-making difficulty than individuals over 25 (Levin et al., 2020). The mean age for the current sample was 33, which indicates that their career decisiveness may not be similar to what would be expected with a younger sample. Therefore, these results may not generalize to a younger sample. It is possible that the current sample is so advanced in their career pursuits that they have already overcome many of the career difficulties identified by the CDDQ. Although not the focus of the current study, a weak negative correlation was found between class standing and psychological distress, indicating that the higher a participant's class standing was, the less distress the individual reported. This may indicate that participants are better able to cope or have less distress as they gain more experience at their institution. One way to overcome this limitation in future research would be to limit the sample inclusion criteria to only SSM/V who have less than a year in higher education. This may help to reduce the exposure SSM/V have had to career information while at their institution, as Howe (2017) indicated that some SSM/V go to college with hopes of gaining more information about a career path.

In addition, the majority of the sample had discharged from the military by the time of the study. Only 25 (7.04%) participants indicated that their discharge was either in 2020 or in the future, while 174 (49.01%) indicated that they discharged from the military between 2011 and 2019. This is significant for the current study as this means that almost half of the participants likely discharged after the mandatory introduction of Transition Assistance Program (TAP), a mandatory program to assist all service members leaving the military with preparing for the

workforce outside the military. Participants who engaged in TAP would have been exposed to a program that was designed to reduce difficulty in identifying a new career or job after leaving the military. Interventions such as this have been found to be helpful in significantly reducing decision-making difficulty (Perdix et al., 2012; Whiston et al., 2017). The current study failed to ask participants about engagement in this type of program and therefore may have missed any influence from these programs. This may help to explain the participants' ratings of career decision-making difficulty. One way to overcome this issue may be to recruit service members who have not discharged from the military but are considering a change in career. SSM/V could be identified using the characteristics of those in Ebaugh's (1988) stage two, seeking alternatives. Another method could be to partner with TAP. Recruiting service members who are just beginning TAP would reduce some exposure to formal programming to improve decision-making. This may help to gain a better sense of the challenges service members experience when beginning the transition.

***Terminology***

It is also possible that the low CDDQ scores are reflective of the difference between a career and a job. Literature on vocational counseling has identified that "career" represents "a series of choices or forced transitions that individuals make over a life span" (Fouad, 2007, p. 544), while job indicates "a specific position held over a defined period of time" (Lent & Brown, 2013, p. 8). The CDDQ is explicit in its use of the term "career," which may have focused participants on a broad pattern of possible vocational decisions. The use of a measure that would have focused on difficulties making decisions about jobs may more accurately reflect the vocational challenge this sample was experiencing due to their advanced class status. For example, participants in college may know that they want a career in law enforcement, but they

may not know (and therefore possibly struggle with) how to get a specific job in law enforcement (e.g., what department to work for, what application materials to fill out, or what job specifically as a law enforcement officer they want).

### *Measures*

The intention of the study was clearly stated in the informed consent and recruitment materials. Therefore, it is possible that participants responded in a manner that would provide socially desirable results or conform their answers to the researcher's expectations. Future research may want to include a measure of socially desirable responding to check this assumption or alter the recruitment materials in a manner that would provide accurate and honest informed consent but conceal the researcher's hypotheses.

Other issues with the measures involve the CTI. The reliability for each of the CTI subscales was in the acceptable range but rather low. Other research using the CTI with SSM/V has also found low reliabilities (see Ghosh & Fouad, 2016). It is likely that the CTI may need to undergo further psychometric analyses to determine (a) whether it is an appropriate instrument to continue using with SSM/V and/or (b) what is the best factor structure for SSM/V. The low reliability of the CTI subscales may have increased the chance of a Type II error in the moderation analyses and therefore future studies may want to continue to examine what transition variables may moderate the relationship between career decision-making difficulty and psychological distress.

### *Structure of Survey*

The structure of the survey may have posed an additional challenge for many participants. The complete survey was over 140 questions, which may have caused some participant fatigue. This may be one possible reason that some participants discontinued the

survey once reaching the PCL-5. With less measures or measures with fewer items, participants may have been encouraged to complete the entire survey.

In addition, the order of the measures may have posed some difficulty for participants. Previous research has found that overall participants appreciate being asked about symptoms (Murdoch et al., 2017), however there are participants who also report a desire to not report their symptoms. It is possible that since participants who stopped at the PCL-5 did so because of avoidance. Avoidance has been considered a common reaction the experience of trauma symptoms (Resick et al., 2014), which may have contributed to some participants withdrawing from the study once asked to provide information about their symptoms. This decision to withdraw when administered the PCL-5 may reflect healthy coping by participants who have the self-awareness to know their own limitations and whether proceeding may have been the best option.

## Future Research Directions

Based on the findings, there are several possible future directions for research. Future research may include a focus on mediating variables, special populations, updating vocational measures, and contextual factors.

### *Mediating Variables*

There are several potential mediating variables worth exploring for each of the relationships found. Although not a focus of the current study, based on the results of the correlations between the demographics and the psychological distress measures, it is possible that future research studies may want to control for class standing, enlistment status, and gender. It is unlikely that only one pathway will fully explain how career decision-making difficulty is

related to psychological distress, therefore researchers should be open to exploring different pathways.

**Stress.** One mediating variable that was consistently discussed for each relationship was stress. Stress has been identified as one of the possible mechanisms by which vocational struggles affect mental health (Blustein, 2006). Future researchers may investigate how stress mediates the relationship using self-report measures of perceived stress or by investigating biological processes (e.g., the HPA axis) that activate when individuals experience stress. This type of research would help vocational professionals to explain to patients how vocational issues are linked to psychological distress.

**Psychological Variables.** Ashforth (2012) and Ebaugh (1988) both discussed how the lack of an identity may contribute to changes in psychological distress. It is possible that ambiguity and possible lack of meaning from not knowing what career to select may explain the relationship between career decision-making and psychological distress. With service members connecting much of their identity to their job (Meyer, 2013), this variable may be particularly salient for the SSM/V population. This may help vocational professionals to understand the internal experience of SSM/V who experience career decision-making difficulty.

### *Populations*

One of the limitations of this study is its generalizability to other samples. SSM/V are a unique population who have several different challenges than non-SSM/V (Borsari et al., 2017; Olsen et al., 2014). Future researchers may want to consider examining this relationship using a more traditional college population or adolescents in high school. Both of these groups would fall into the younger age bracket that experiences significantly more career decision-making difficulty than the current sample (Levin et al., 2020) and would allow for replication of the

studies conducted by Anghel and Gati (2019) and Kulcsár et al. (2020). It is worth exploring how the relationship between career decision-making difficulty and psychological distress may look for each of these groups to determine when in a person's educational journey interventions should be implemented.

In addition, vocational psychology has greatly expanded its focus on diverse populations. This change over the years has been called one of three major "social justice zeitgeists" (Brown & Lent, 2016, p.342) that has included more of a focus on women, underserved populations, and criminal offenders. In addition, social class and sexual orientation have been considered as diverse populations that may have different vocational paths due to contextual influences (Fouad, 2007). Gender may be a particular area of focus in future studies of the relationship between career decision-making and trauma symptoms as gender was significantly related to participants' gender identity, with participants who identify as gender minorities reporting more trauma symptoms. Future researchers should investigate whether the relationship between career decision-making difficulties and psychological distress exists for these special populations and if contextual factors need to be included as forms of stress or contributors to decision-making difficulty.

### *Vocational Measures*

The use of inventories and other assessment measures has been identified as "one of the most significant areas of career counseling" (Osipow, 1987, p. 270) and as one of the critical components of career counseling (Brown et al., 2003). The development of measures with strong psychometric properties is important to the continuation of research on vocational factors. With the CTI subscales demonstrating low reliabilities, future vocational researchers may want to

focus a portion of their work on checking the reliability and validity of this measure and other vocational measures.

### *Contextual Factors*

This study failed to include any focus on contextual factors. There has been a shift over the course of vocational counseling's history to incorporate contextual factors in vocational research, with Phillips and Imhoff (1997) calling for any vocational research study to include contextual factors. Psychology of working theory (PWT) is one vocational theory that incorporates these types of vocational factors (Blustein, 2006). While the current study was loosely based on an idea from PWT (i.e., that vocational issues can affect mental health), it did not consider the place of contextual factors as influences of career decision-making difficulty. Future studies may want to investigate how contextual factors (i.e., racism, sexism, and ableism) affect a person's career decision-making.

## Practice Implications

There are several implications for this research.

### *Counseling*

Perhaps one of the most evident is the application to the counseling process. If SSM/V have concurrent symptoms of a mental health disorder and difficulty with making career decisions (e.g., selecting a major), working on reducing their decision-making difficulty will likely help to reduce some of their mental health symptoms. Based on the literature, it would seem that other vocational professionals believe that mental health affects vocational factors (Lenz et al., 2010) and should thus be addressed before vocational issues. However, due to the high stigma around seeking mental health services (Vogt, 2011) and concerns about sharing highly emotional content with a stranger (Cornish et al., 2014), SSM/V may not be willing to

seek out mental health services for depression, anxiety, or trauma symptoms first. Therefore, talking about their mental health with a mental health professional may seem uncomfortable and off-putting. Professional psychologists who implement evidence-based practices have noted that helping patients to develop coping skills is effective for building a patient's readiness for treatment (Zubkoff et al., 2016). Talking about career plans may seem less threatening and allow a provider to begin to establish a relationship before offering or referring the SSM/V to a mental health professional. Since any professional can offer insight, including faculty at the SSM/V's university, there are increased opportunities to engage with SSM/V. Providing information does not have to take a formal format, as informal connections and brief interactions can help provide guidance on vocational issues (Wanberg, 2012). For example, in the 5 minutes before or after class, an instructor may be able to have a brief conversation with a student about working in that specific discipline. A similar brief contact may provide SSM/V with enough information to reduce some of their decision-making difficulty.

Research has consistently demonstrated that career counseling can have a positive impact on career decision-making difficulties (Masdonati et al., 2009; Perdix et al., 2012; Whiston et al., 2017). Having a formalized intervention may also be beneficial for SSM/V as the more structured approach may reflect their military training better than an unstructured conversation. One study by Gati et al. (2013) found that a 5-day career workshop that included discussion of how life would be different once they left the military, exploration of their values that affected their vocational aspirations, completion of a vocational inventory, psychoeducation about decision-making, and engagement in role plays significantly decreased participants' overall decision-making difficulty. This type of format may be one that the military could implement for

service members preparing to leave the military or it could be conducted by a university over the course of a semester for SSM/V who are unsure of what career trajectory they want to follow.

Additional components of individual interventions that have been found to have large effects in reducing career decision-making difficulty include (a) in-session written exercises, (b) individualized feedback on career choices, (c) information about occupations, and (d) management of barriers to selecting careers (Milot-Lapointe et al., 2018). Any intervention for reducing career decision-making difficulty should also include a focus on common factors in therapy, such as the working alliance. The working alliance is often characterized by the agreement between the practitioner and the client on the goals for treatment, methods for completing those goals, and bond between the provider and the client (Bordin, 1979). Focusing on maintaining a strong working alliance has been shown to improve the effectiveness of providing feedback and written exercises (Milot-Lapointe et al., 2018). Therefore, interventions to address career decision-making difficulty should include components, such as these, that are supported by research outcomes.

***Policy***

Vocational research, such as the current study, also has policy implications for various organizations working with SSM/V. Perhaps the most evident are universities and colleges with an SSM/V population. With SSM/V experiencing higher rates of depression, anxiety, and trauma symptoms than non-SSM/V (Fortney et al., 2016), it is important that these institutions utilize evidence-supported interventions for reducing the distress of SSM/V. The current study provides evidence that targeting vocational issues can impact other areas of functioning. The importance of vocational work with SSM/V then extends far beyond the reduction in career decision-making difficulty. Programs that target vocational interventions have also been found to have sustaining

impact (Perdrix et al., 2012), which may extend to mental health changes from reduced decision-making difficulty. Therefore, funding for programs that target SSM/V's vocational concerns should be seriously considered as a priority. Whereas all of an SSM/V's psychological distress may not alleviate as a result of addressing vocational concerns, the programs that are designed to help address these issues may reduce a portion of the SSM/V's distress. Institutions that have not considered developing SSM/V specific vocational interventions may wish to do so.

Finally, it is possible that already existing programs, such as TAP, could be excellent preventative programming. TAP is a service provided for all service members leaving the military that focuses on developing service members' occupational skills and knowledge to facilitate their transition to the civilian workforce (Department of Defense, n.d.). With an increase in resources to help service members identify career paths, this program could work with service members to improve their career decision-making before they develop difficulties in this area. Therefore, funding for TAP should be a priority as this may have a wide effect on the mental health functioning of the service member. In addition, special attention should be given to ensuring that service members know what career path they want to pursue, know how to pursue their desired career, and feel prepared to begin pursuing their new career.

## Summary

The current study set out with a goal to quantify the relationship between career decision-making difficulty and three forms of psychological distress (i.e., depressive, anxiety, and trauma symptoms) among SSM/V and what career transition factors may buffer this relationship. Consistent with previous literature, the results of the study indicated that there is a positive relationship between career decision-making difficulty and all three forms of psychological distress. Not only are they related, but career decision-making difficulty can significantly predict

some of the change in a person's distress level. These results begin to strengthen the finding in the emerging literature on career decision-making and mental health. In addition, this study takes a step toward a more holistic perspective of the importance of addressing vocational factors. With researchers beginning to take an interest in the relationship between mental health and vocational issues, there are several research directions that have yet to be explored.

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## Appendix A

Recruitment E-mail

Dear [Name],

My name is Victor Bullock and I am a doctoral student in the Counseling Psychology program at the Radford University. I am performing research for my dissertation examining the relationship between career-decision making difficulty and depression, anxiety, and trauma symptom severity. It would help me greatly if you could forward this invitation to currently enrolled student veterans and student service member at your institution. A brief overview of the study and participation requirements can be found below, and the full informed consent can be found attached to this e-mail.

Participants are eligible for the study if they are:
1. 18 years of age or older,
2. Currently enrolled at a higher education institution,
3. Are currently serving in the military or have served in the military in the past including both the active duty and reserve components.

Participation in this study will involve taking an online survey that should take between 15 and 20 minutes. Participation and responses will be anonymous and completely voluntary. No personally identifiable information will be collected, and IP addresses will be deleted immediately upon downloading of the dataset. Upon completing the survey there will be an option to enter a drawing for one of 10, $20 Amazon gift cards.

To participate in the study, please click or copy and paste the following URL:
[Enter survey address here]

This study has been approved by the Radford University Institutional Review Board (IRB#: [Insert Study Approval Number]), and is being supervised by Valerie S. Leake, Ph.D. If there are any questions about the study, please feel free to contact me at vbullock@radford.edu or Valerie S. Leake, Ph.D. at vleake@radford.edu.

Thank you for your time and consideration! Please feel free to forward this invitation to any departments that may find it of interest.

All the Best,
Victor Bullock, M.A.
Doctoral Student

## Appendix B

Informed Consent

You are invited to participate in a research survey, entitled "Career-Related Decision-Making Difficulty and Psychological Distress among Student Service Members/Veterans." The study is being conducted by Victor Bullock, M.A. and Dr. Valerie S. Leake, PhD of Radford University 801 Main St. Radford, VA 24141, 540-831-5153.

The purpose of this study is to examine the relationship between career decision-making difficulty and depressive, anxiety, and trauma symptom severity among veterans. Your participation in the survey will contribute to a better understanding of the importance of helping service members with transitioning careers. We estimate that it will take about 15-20 minutes of your time to complete the questionnaire. You are free to contact the investigator at the above address and phone number to discuss the survey.

This study has no more risk than you may find in daily life. Some of the questions we will ask you as part of this study may make you feel uncomfortable. You may refuse to answer any of the questions, take a break or stop your participation in this study at any time.

The research team will work to protect your data to the extent permitted by technology. It is possible, although unlikely, that an unauthorized individual could gain access to your responses because you are responding online. This risk is similar to your everyday use of the internet.

IP addresses will be deleted upon download of the completed data set. A limited number of research team members will have access to the data during data collection. Any identifying information will be stripped from the final dataset.

Your participation in this survey is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time without penalty. If you wish to withdraw from the study or have any questions, contact the investigator listed above. At the end of the survey you will be redirected to another survey to enter into a drawing for one of 10, $20 Amazon gift cards.

If you have any questions or wish to follow up about the results of the survey, please e-mail Victor Bullock at vbullock@radford.edu. You may also request a hard copy of the survey from the contact information above.

This study was approved by the Radford University Committee for the Review of Human Subjects Research. If you have questions or concerns about your rights as a research subject or have complaints about this study, you should contact Dr. Orion Rogers, Interim Dean, College of Graduate Studies and Research, Radford University, jorogers@radford.edu, 1-540-831-5958.
If you agree to participate, please press the arrow button at the bottom right of the screen.
Otherwise use the X at the upper right corner to close this window and disconnect.
Thank you.

## Appendix C

Demographics Questionnaire (10 questions)

Age (please specify in years): _____

Gender

- Male
- Female
- Transman
- Transwoman
- Gender queer

Race (select all that apply)

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Hispanic or Latinx
- Other (please specify): _____

Current official class standing

- Non-degree seeking
- Undergraduate Freshman
- Undergraduate Sophomore
- Undergraduate Junior
- Undergraduate Senior
- Graduate student – Master's degree program
- Graduate student – Doctoral degree program
- Other (please specify):_____

Current enlistment status

- Active Duty (working full time for the military with the possibility of deployment at any time)
- Reserves/National Guard (participate in one weekend a month and two weeks per year of training)
- Veteran (a person 18 years old or over who has served [even for a short time], but is not now serving, on active duty in the U.S. Army, Navy, Air Force, Marine Corps, Coast Guard or Reserves/National Guard)

Branches served or currently serving in (select all that apply)

- Army
- Marine Corps
- Airforce
- Navy
- Coast Guard
- Army Reserves
- Marine Reserves
- Air Force Reserves
- Navy Reserves
- Coast Guard Reserves

- National Guard

Please indicate the number of years you have spent in the military to date

- Less than 1 year
- 1 year or greater (please specify): _____

Year of discharge from the military (if applicable): _____

Length of time at your current college/university (please specify in years)

- Less than 1 year
- 1 year or greater (please specify): _____

Highest level of education attained

- Some college, no degree
- Associate degree
- Bachelor's degree
- Master's degree
- Doctoral degree
- Other (please specify):_____

Current relationship status

- Single
- Dating – in a non-committed relationship
- Dating – in a committed relationship
- Married
- Separated/divorced
- Widowed

## Appendix D

Career Decision-making Difficulties Questionnaire (35 questions)

The purpose of this questionnaire is to identify the difficulties that you might experience while choosing a career or a college major. You will be presented with a list of statements concerning the career decision-making process. You will be asked to indicate the extent to which each statement describes you on a 1-9 scale (1 - does not describe me, 9 - describes me well).

| 1 – Does not describe me well | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 – Describes me well |
|---|---|---|---|---|---|---|---|---|
| O | O | O | O | O | O | O | O | O |

1. I know that I have to choose a career, but I don't have the motivation to make the decision now ("I don't feel like it").
2. Work is not the most important thing in one's life and therefore the issue of choosing a career doesn't worry me much.
3. I believe that I do not have to choose a career now because time will lead me to the "right" career choice.
4. It is usually difficult for me to make decisions.
5. I usually feel that I need confirmation and support for my decisions from a professional person or somebody else I trust.
6. I am usually afraid of failure.
7. I like to do things my own way.
8. I expect that entering the career I choose will also solve my personal problems.
9. I believe there is only one career that suits me.
10. I expect that through the career I choose I will fulfill all my aspirations.
11. I believe that a career choice is a one-time choice and a life-long commitment.
12. I **always** do what I am told to do, even if it goes against my own will.
13. I find it difficult to make a career decision because I do not know what steps I have to take.
14. I find it difficult to make a career decision because I do not know what factors to take into consideration.
15. I find it difficult to make a career decision because I don't know how to combine the information I have about myself with the information I have about the different careers.
16. I find it difficult to make a career decision because I still do not know which occupations interest me.
17. I find it difficult to make a career decision because I am not sure about my career preferences yet (for example, what kind of a relationship I want with people, which working environment I prefer).
18. I find it difficult to make a career decision because I do not have enough information about my competencies (for example, numerical ability, verbal skills) and/or about my personality traits (for example, persistence, initiative, patience).
19. I find it difficult to make a career decision because I do not know what my abilities and/or personality traits will be like in the future.

20. I find it difficult to make a career decision because I do not have enough information about the variety of occupations or training programs that exist.
21. I find it difficult to make a career decision because I do not have enough information about the characteristics of the occupations and/or training programs that interest me (for example, the market demand, typical income, possibilities of advancement, or a training program's perquisites).
22. I find it difficult to make a career decision because I don't know what careers will look like in the future.
23. I find it difficult to make a career decision because I do not know how to obtain additional information about myself (for example, about my abilities or my personality traits).
24. I find it difficult to make a career decision because I do not know how to obtain accurate and updated information about the existing occupations and training programs, or about their characteristics.
25. I find it difficult to make a career decision because I constantly change my career preferences (for example, sometimes I want to be self-employed and sometimes I want to be an employee).
26. I find it difficult to make a career decision because I have contradictory data about my abilities and/or personality traits (for example, I believe I am patient with other people but others say I am impatient).
27. I find it difficult to make a career decision because I have contradictory data about the existence or the characteristics of a particular occupation or training program.
28. I find it difficult to make a career decision because I'm equally attracted by a number of careers and it is difficult for me to choose among them.
29. I find it difficult to make a career decision because I do not like any of the occupation or training programs to which I can be admitted.
30. I find it difficult to make a career decision because the occupation I am interested in involves a certain characteristic that bothers me (for example, I am interested in medicine, but I do not want to study for so many years).
31. I find it difficult to make a career decision because my preferences cannot be combined in one career, and I do not want to give any of them up (e.g., I'd like to work as a free-lancer, but I also wish to have a steady income).
32. I find it difficult to make a career decision because my skills and abilities do not match those required by the occupation I am interested in.
33. I find it difficult to make a career decision because people who are important to me (such as parents or friends) do not agree with the career options I am considering and/or the career characteristics I desire.
34. I find it difficult to make a career decision because there are contradictions between the recommendations made by different people who are important to me about the career that suits me or about what career characteristics should guide my decisions.

Finally, how would you rate the degree of your difficulty in making a career decision?

| 1 – Low | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 – High |
|---|---|---|---|---|---|---|---|---|
| O | O | O | O | O | O | O | O | O |

## Appendix E

Patient Health Questionnaire-9 (9 questions)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

| Not at all | Several Days | More than half of the days | Nearly everyday |
|---|---|---|---|
| 0 | 1 | 2 | 3 |

1. Little interest or pleasure in doing things
2. Feeling down, depressed, or hopeless
3. Trouble falling or staying asleep, or sleeping too much
4. Feeling tires or having little energy
5. Poor appetite or overeating
6. Feeling bad about yourself or that you are a failure or have let yourself or your family down
7. Trouble concentrating on things, such as reading the newspaper or watching television
8. Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual
9. Thoughts that you would be better off dead, or of hurting yourself

## Appendix F

Generalized Anxiety Disorder-7 (7 questions)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

| Not at all | Several Days | More than half of the days | Nearly everyday |
|---|---|---|---|
| 0 | 1 | 2 | 3 |

1. Feeling nervous, anxious, or on edge
2. Not being able to stop or control worrying
3. Worrying too much about different things
4. Trouble relaxing
5. Being so restless that it’s hard to sit still
6. Becoming easily annoyed or irritable
7. Feeling afraid as if something awful might happen

## Appendix G

Life Events Checklist the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition* with Criterion A (26 questions)

Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check one or more of the boxes to the right to indicate that: (a) it happened to you personally; (b) you witnessed it happen to someone else; (c) you learned about it happening to a close family member or close friend; (d) you were exposed to it as part of your job (for example, paramedic, police, military, or other first responder); (e) you're not sure if it fits; or (f) it doesn't apply to you.

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

| | Happened to me | Witnessed it | Learned about it | Part of my job | Not sure | Doesn't apply |
|---|---|---|---|---|---|---|
| Natural disaster (for example, flood, hurricane, tornado, earthquake) | | | | | | |
| Fire or explosion | | | | | | |
| Transportation accident (for example, car accident, boat accident, train wreck, plane crash) | | | | | | |
| Serious accident at work, home, or during recreational activity | | | | | | |
| Exposure to toxic substance (for example, dangerous chemicals, radiation) | | | | | | |
| Physical assault (for example, being attacked, hit, slapped, kicked, beaten up) | | | | | | |
| Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb) | | | | | | |
| Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm) | | | | | | |
| Other unwanted or uncomfortable sexual experience | | | | | | |
| Combat or exposure to a war zone (in the military or as a civilian) | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war) | | | | | | |
| Life-threatening illness or injury | | | | | | |
| Severe human suffering | | | | | | |
| Sudden violent death (for example, homicide, suicide) | | | | | | |
| Sudden accidental death | | | | | | |
| Serious injury, harm, or death you caused to someone else | | | | | | |
| Any other stressful event or experience | | | | | | |

If you checked anything for "Any other stressful event or experience," briefly identify the event you were thinking of:

_____

_____

If you have experienced more than one of the events in PART 1, think about the event you consider the worst event, which for this questionnaire means the event that currently bothers you the most. If you have experienced only one of the events in PART 1, use that one as the worst event. Please answer the following questions about the worst event (check all options that apply): Briefly describe the worst event (for example, what happened, who was involved, etc.).

_____

_____

How long ago did it happen? (please estimate if you are not sure): _____

How did you experience it?

a. It happened to me directly
b. I witnessed it
c. I learned about it happening to a close family member or close friend
d. I was repeatedly exposed to details about it as part of my job (for example, paramedic, police, military, or other first responder)
e. Other, please describe: _____

Was someone's life in danger?

a. Yes, my life
b. Yes, someone else's life
c. No

Was someone seriously injured or killed?

a. Yes, I was seriously injured
b. Yes, someone else was seriously injured
c. No

Did it involve sexual violence?

a. Yes

b. No

If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?

a. Accident or violence
b. Natural causes
c. Not applicable (The event did not involve the death of a close family member or close friend)

How many times altogether have you experienced a similar event as stressful or nearly as stressful as the worst event?

a. Just once
b. More than once (please specify or estimate the total number of times you have had this experience: _____

## Appendix H

Post-traumatic Stress Disorder *Diagnostic and Statistical Manual for Mental Disorders-5* (20 questions)

Below is a list of problems that people sometimes have in response to a very stressful experience. Keeping your worst event in mind, please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

| Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 |

1. Repeated, disturbing, and unwanted memories of the stressful experience?
2. Repeated, disturbing dreams of the stressful experience?
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?
4. Feeling very upset when something reminded you of the stressful experience?
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?
6. Avoiding memories, thoughts, or feelings related to the stressful experience?
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?
8. Trouble remembering important parts of the stressful experience?
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?
10. Blaming yourself or someone else for the stressful experience or what happened after it?
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?
12. Loss of interest in activities that you used to enjoy?
13. Feeling distant or cut off from other people?
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?
15. Irritable behavior, angry outbursts, or acting aggressively?
16. Taking too many risks or doing things that could cause you harm?
17. Being “superalert” or watchful or on guard?
18. Feeling jumpy or easily startled?
19. Having difficulty concentrating?
20. Trouble falling or staying asleep?

## Appendix I

Career Transitions Inventory (40 questions)

Below is a list of 40 statements. Read each item and then indicate to what extent, at this particular moment in your life, you agree or disagree with that item. Do this by selecting the appropriate response next to the items.

1. I believe I'm ready to risk some of the security I now have in my current career in order to gain something better.
2. This career transition process may be too complex for me to work through.
3. I feel as though I have a driving force within me to work on this career transition right now.
4. I've never been able to go through career transition very easily. I doubt I will this time.
5. If you think you are really calling the shots in your career transition, you are only fooling yourself.
6. People in my life are disappointed and resentful that my career transition affects their lives adversely.
7. Career choices affect others and I must take the needs of others into account when making a career transition.
8. Even though there are risks, I think there is a realistic hope of finding a better career choice.
9. The risk of changing careers seems serious to me.
10. My effort, creativity, and motivation will lead me to a new career.
11. Some would say that the career transition is a risky venture, but the risk doesn't bother me.
12. I am hoping that the right career counselor will tell me what I should do with this career transition.
13. People whom I respect have said they think I can make this career transition successfully.
14. I am concerned about giving up the security of what I'm presently doing to make a career transition.
15. The risks of this career transition are high but I'm willing to take the chance.
16. I don't feel that I have the talent to make a career transition that I will feel good about.
17. This isn't one of those times in my life when I'm really propelled to make a career transition.
18. It seems natural with something as scary as a career transition, I would be preoccupied with worry about it.
19. The outcome of this career transition process is really up to those who control the "system".
20. Significant people in my life are actively supporting me in this career transition.
21. While family and relationship needs are important to me, when it comes to this career transition, I feel I must focus on my own needs.
22. I don't feel much internal "push" to work hard at this career transition.
23. I am not one of those people who was brought up to believe I could be anything I wanted to be.
24. At this point in my life I really feel the need for more meaning in my work, that need keeps me moving at this process.
25. In dealing with aspects of this career transition, I am unsure whether I can handle it.

26. If my career transition is destined to happen it will happen.
27. The risks of career transition seemed too great given my current resources and the potential pay-offs.
28. It is hard for me to juggle this career transition given the responsibilities I feel for people in my life.
29. Each day I do something on this career transition process, I would say I'm motivated.
30. I feel confident in my ability to do well in this career transition process.
31. I am feeling challenged by this career transition process and this knowledge keeps me motivated.
32. The magnitude of this career transition is impossible to deal with.
33. It would be awful if career transition didn't work out.
34. Important people in my life (partner, teacher, parents) have said things that lead me to believe I should limit my career options.
35. My family (partner or friends) are important to me but I can't put too much importance on their desires with regard to this career transition.
36. Even though the solution to this career transition is not readily apparent, I believe I will successfully work through it.
37. The number of unknowns involved in making a career transition bothers me.
38. Recent events in my life have given me the shove I needed for this career transition.
39. Luck and chance play the major role in this career transition process.
40. Even though this may not be the best time for other people in my life, I feel the need to go for it.