



Journal of Veterans Studies

Veterans Adjustment to College: Construction and Validation of a Scale

Sharon L. Young

Abstract

The adjustment of veterans to college is a transition period which involves individual, social, and environmental facets. This article reports on the construction and validation of the Veterans Adjustment to College (VAC) scale. This scale was developed to assist student affairs and veteran-serving professionals in understanding how their veterans are adjusting to the college environment. The data were collected from 391 student veterans from three four-year colleges through an internet survey. In addition to the VAC scale, PTSD, depression, and student stress instruments were also included in the survey. Findings from the bi-variate correlation revealed a moderately strong and negative correlation between the VAC scale and PTSD (-.53), depression (-.37), and student stress (-.44). The construct validation through exploratory factor analysis identified a three-factor model: belonging, social support and student stress. These factors point to some of the determinants of adjustment of veterans to college. Implications for use of the VAC scale in the college setting are also discussed.

Keywords: veteran, student veteran, assessment, tool, scale, PTSD, anxiety, stress

Introduction

There are over one million military-connected individuals using their GI Bill benefits to attend colleges across the country (Department of Veterans Affairs, 2013). Colleges have responded to the influx of student veterans and military-connected students by developing various programs and services to address their needs. While some colleges have conducted needs assessments to measure gaps in service, there are no empirically developed measures that look at how veteran populations are adjusting to college life. As an area of study, student veteran adjustment to college is sparsely represented in the literature. A 2014 systematic review published about student service members/veterans led the authors to conclude there is a paucity of empirical research on this population (Barry, Whiteman, & MacDermid Wadsworth, 2014). The lack of empiricism in the student veteran literature has led to a call for quantitative research on the acculturation of veterans to campus life (Rumann and Hamrick, 2010; Vacchi, 2012). This scale was developed to not only contribute to the body of research on veteran adjustment to college, but to also serve as a tool that can be used by Veterans Services Officers (VSO) and student affairs departments.

Student adjustment to college involves a number of factors that include social, personal-emotional, and academic adjustment as well as a sense of connectedness (Baker & Siryk, 1989). It is important to consider the many facets of adjustment when looking at veteran adjustment to college, including but not limited to student stress, belonging, social support, and psychological and physical combat injuries.

Student Stress

Student stress has been well documented in the literature as having a negative relationship with academic performance (Akgun & Ciarrochi, 2003). The contributing factors to student stress include interpersonal, intrapersonal, and academic factors (Ross, Niebling & Heckert, 1999). Student veterans, like other students, experience stress related to school work demands, home life demands,

and internal struggles. The stress experienced by veterans can also be specific to their experiences in the military. A significant proportion of veterans on campus experience cognitive, psychological, and physical wounds from deployments acting as intrapersonal stressors that result in student stress (Smith-Osborne, 2009). Some veteran stressors are both somatic and psychological; for example, sleep disorders are often an ignored intrapersonal stressor that is prevalent in veterans (Capaldi, Guerrero, & Killgore, 2011). Veterans are also subject to interpersonal stressors such as working alongside younger, civilian classmates or having relationship problems related to post-deployment adjustment (Norman et al., 2015).

College is a stressful time for all students; veterans however, experience a unique set of stressors on campus. Student veterans often have academic and social challenges related to the time that has elapsed since they graduated high school. When compared to traditional students, veterans are older and can be uncomfortable learning in a classroom with much younger civilian peers (Osborne, 2014). The lack of discipline in civilian classrooms can represent a breach of cultural norms for veterans, making the learning environment more stressful. Veterans returning from a military career or from combat will experience organizational stress both in the classroom and on the campus as they negotiate the university bureaucracy.

The Person-Environment Fit Approach is a model that describes the causes of organizational stress. This model is based on the work of Lewin (1935) and Murray (1938) and describes how stress is the result of a mismatch between the person and the environment. There are many interpretations of this model. The iteration which best applies to student veterans describes the relationship of the environmental supply to the personal motives, goals and values of the person (Edwards & Cooper, 1990). Veterans often come to campus carrying the cultural values from their military lives. Their motives and goals are shaped by their mission-driven military experiences. The university environment is markedly different than the military environment in structure, hierarchy, process, and purpose. The day-to-day life of a student is fundamentally different from the life of a service member. The mismatch between the student veteran value structure and the university environment can result in strain. The strain or stress results from the student veteran using the lens of military values to evaluate the academic learning and social environment. The greater the disconnect is between the personal goals and values of the veteran and the environment, the higher degree of stress the veteran will experience. Ameliorating this disconnect, for many veterans, are the skills and values gained from military experience such as confidence, maturity, and self-reliance, which can reduce a stressful transition to the academic environment (Livingston, Havice, Cawthon & Fleming, 2011).

The evidence of the dissonance between the person and the environment can be found throughout the literature related to student veteran transition. Being accustomed to the interdependence of military life, college can be a solitary and disordered environment for a veteran. This dissonance can be further complicated for members of the National Guard or Reserves who continue to serve and redeploy during their college years. Rumann and Hamrick (2010) noted military students experience role incongruities by trying to negotiate the civilian and military worlds. This is further complicated when combat veterans have anxiety about returning to college while still dealing with residual combat stressors. According to Cole and Kim (2013) 62 percent of veterans are first-generation college students, which is a risk factor for academic achievement. First-generation college students are less prepared for academic rigor, have less knowledge of college processes, and have lower educational goals (Engle, 2007). These struggles can translate into lower GPAs for veterans (Durdella & Kim, 2012) or academic struggles that lead to drop outs or stop-outs from higher education.

Belonging

Durdella and Kim (2012) reported veterans having less of a sense of belonging on campus than civilian students. Student veterans differ from the typical undergraduates in both age and life experiences. The age difference and lack of seriousness of undergraduate classmates are a source of frustration to some student veterans (Steele, 2010). Like other non-traditional students, veterans are less engaged on campus and are more likely to have the responsibility for a spouse and children (Cole & Kim, 2013). Civilian students can have trouble connecting to veterans whose military service is a source of misunderstanding for them (Rumann & Hamrick, 2010). Having military-related PTSD predicts an even lower sense belonging on campus (Elliot, Gonzalez, & Larsen, 2011). Also, unlike their civilian counterparts, veterans are more likely to feel a sense of belonging from campus administrators and connect more with faculty members (Cole and Kim, 2013).

Social Support

Social support has been well studied in both active-duty military and veteran populations (Guay, Billette & Marchand, 2006). Social support has been found to mitigate the effects of PTSD, psychological distress, loneliness, and depression (Elliot, Gonzalez, & Larsen, 2011; Guay, Billette & Marchand, 2006; Pietrzak, Johnson, Goldstein, Malley & Southwick, 2009). Within military culture, there is a formal and informal support system that provides clear and consistent social, medical, and psychological support. In the military, families are supported through established organizations such as the Army's Family Readiness Group and they connect through shared experiences and shared tasks (Di, 2008). Every branch of the military espouses the ethos of "we take care of our own" institutionalizing the social support safety net of the armed forces (Blaisure, 2012). Transitioning from the supportive environment of the military to the unknown environment of college can create a social support vacuum for the veteran. This lack of support may lead veterans to seek out other veterans akin to establishing a new *military unit* on campus (Livingston, Havice, Cawthon & Fleming, 2011; Rumann & Hamrick, 2010).

Combat Injuries on Campus

There are many factors that contribute to the adjustment from military life to campus. It is important to recognize that veterans may be managing both psychological and physiological injuries from military service. Student veterans are more likely to experience mental health issues and have a greater propensity for self-harm than non-veteran students (Blosnich, Kopacz, McCarten, & Bossarte, 2015). Combat-related psychological injuries, like PTSD, have been linked to greater alienation on campus, physical fighting, problem drinking, suicide attempts, and lower GPAs in student veterans (Barry, Whiteman, & MacDermid Wadsworth, 2012; Elliot, Gonzalez, & Larsen, 2011; Rudd, Goulding, & Bryan, 2011; Widome et al., 2011). There are also many physical manifestations of combat that impact classroom learning and campus life. Sensory impairments, such as hearing loss or tinnitus, could result in difficulties in classroom learning and participation in group discussions. Physical injuries, such as back injuries and amputations, can impact the student's ability to complete tasks in laboratory settings or to sit in a classroom for long periods of time (Church, 2009). Blast-related Traumatic Brain Injury (TBI) can present learning challenges as it may impact memory, thinking, attention, and could include a cadre of physiological and psychological symptoms (Defense and Veterans Brain Injury Center, 2016). The complexity of combat injuries creates an additional burden on student veterans. Adapting to college becomes even more cumbersome if classes are missed for V.A. appointments or if veterans have to apply for accommodations through the university's disabilities office.

Methods

Scale Development

The Veteran Adjustment to College (VAC) scale was designed to help college administrators and veteran service officials understand how well their students are doing on their campuses. This scale was developed in conjunction with student veteran groups and experts in the field using a modified concept mapping approach (Kane and Trochim, 2007). The items in the scale are based on the input from a focus group of Post-9/11 veterans attending a state university who responded to the prompt: “What was a challenge for you in adjusting to college?” and “What was helpful in your transition to college?” All of the responses from the students were recorded and compiled to create an instrument where each response was rated by focus group participants using a Likert scale of importance. The highest scoring responses were then selected to become the basis of the original 16 scale items. This methodology allowed each scale item to directly reflect the challenges noted by student veterans.

To further refine the scale, each item was reviewed by a panel of six veterans’ services experts that included student veterans in graduate programs. This panel looked at the appropriateness and completeness of the contents, adjusted the wording of the items, and suggested omitting repetitive items. Adjustments were made to each item that reflected the campus experience and military cultural understanding of the panelists. The panelists also reviewed the scale for face and content validity. The resulting scale of the veteran adjustment to college had 13 items, with a five-point agreement Likert scale (See Appendix A). The scale was developed to be brief due to the possibility of survey fatigue in military populations. This scale has four negatively worded items to avoid response set bias.

Participants

The sample of 391 students was drawn from three public universities from three geographic areas in the United States. The mean age of the sample was 31.3, with 74% male participants. The sample was roughly demographically similar to that of the armed forces population with the exception of females. The percent of females in the study is higher than their counterparts in the armed forces (15%) (Department of Defense, 2013). Approximately 74% of participants reported they were Caucasian, 16% Latino, 6% Black, 5% multi-racial, 3% Asian, and 2% Native American. One third of respondents stated they were combat veterans and 20% were still serving in the military (18% National Guard/Reserves and 2% Active Duty). Half of this sample was either married (41%) or divorced (11%). The majority (65%) of participants were undergraduate upperclassman. 18.6% of the participants met the criteria for PTSD using the PTSD Checklist-Military (Bliese, 2008), which was included in this survey. The mean number of months reported as deployed was 11.3, in those reporting to be combat veterans, the mean was 16.4. Roughly one third (32.6%) of the participants scored from moderately to severely depressed using the Patient Health Questionnaire -9 (Lowe, Kroenke, Herzog & Grafe, 2004).

Table 1: Demographics of Sample (n=391)

<i>Variable</i>	<i>N/Mean</i>	<i>%</i>
Age (mean)	31.3	
Gender (male)	291	74.4
Race/ Ethnicity		
Caucasian	289	73.9
Black	23	5.9
Latino	64	16.3

Multi-racial	21	5.3
Asian	10	2.5
Native American	6	1.5
Military Service		
National Guard/ Reserves	72	18.4
Active Duty	8	2.0
Combat Veteran	127	32.4
Veteran	238	60.9
Household		
Single	176	45.0
Married or DP	162	41.4
Divorced	42	10.7
Separated	7	1.8
Year in School		
Freshman	23	5.9
Sophomore	50	12.8
Junior	99	25.3
Senior	157	40.2
Graduate School	59	15.1

Procedure

Data were collected from three public universities, one from the Northeast, one from the Midwest, and one from the South. Approvals were received by the Institutional Review Boards of all three universities prior to data collection. Links to the survey were sent via email through the GI Bill list and student veteran lists at the three universities. Following a modified version of the Tailored Design Method (Dillman et al., 2009), three subsequent emails were sent weekly after the initial email asking for study participants. Participants were allowed to opt out of receiving weekly emails about the study. In addition to the emails, flyers were posted in the veteran lounges and other areas where veterans gather at each university to remind them to check their emails for the study invitation. The survey included some demographic items, the Veterans Adjustment to College Scale, the PTSD Checklist-Military, the Student Stress Scale, and the Patient Health Questionnaire (PHQ-9) was used to measure depression for a total of 54 items on the entire survey.

Measurement Scales

Veteran Adjustment to College Scale. This scale was developed for this study to describe the unique experience of transitioning from military life to the college experience. As a construct, *veteran adjustment to college* (VAC) is defined as the perception of belonging in college and the degree to which the veteran feels support as a college student. There have been no published scales that have captured this construct. This 13-item scale is scored with a five point Likert scale ranging from *strongly disagree* to *strongly agree* (See Appendix A). Possible scoring range is 13-65, with reverse scored items: 1, 3, 5, and 11. Higher scores are indicative of greater adjustment to college. The Cronbach's alpha for this scale was 0.82 in this study meaning that this scale has good internal validity and practitioners can trust the consistency of this scale to accurately measure participant adjustment to college.

PTSD Checklist-Military Version (PCL-M). This commonly used instrument measures PTSD in military populations. There are items that are specific to military life (“repeated, disturbing memories, thoughts, or images of a stressful military experience”). It has 17 items which are scored on a 5-point Likert scale with 5 = “extremely” and 1 = “not at all” and a possible range of 17–85. Higher scores indicate a greater severity of PTSD symptoms. A total symptom severity cut-off score of 50 was used for this research because in previous studies, using >50 scoring most accurately reflected the PTSD rate in military populations. (Terhakopian, Sinaii, Engel, Schnurr, & Hoge, 2008). Items on the PCL-M include: “having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of a stressful military experience?” and “feeling distant or cut off from other people?” The PCL-M had a Cronbach’s alpha of 0.96 in this study, indicating the highest level of reliability.

Patient Health Questionnaire – 9 (PHQ-9). Depression was operationalized by the Patient Health Questionnaire – 9 items (PHQ-9). The PHQ-9 is a widely used, well-validated instrument originally designed to screen for depression (Lowe, Kroenke, Herzog, & Grafe, 2004). The scored items are on a 4-point Likert scale ranging from 0 = “Not difficult at all” to 3 = “Extremely difficult.” The possible range is 0 to 27 with scores of 5, 10, 15, and 20 representing mild, moderate, moderately severe, and severe depression respectively. Examples of PHQ-9 items are: “little interest or pleasure in doing things,” “trouble concentrating on things, such as reading the newspaper or watching television,” and “thoughts that you would be better off dead or of hurting yourself in some way.” The PHQ-9 had a Cronbach’s alpha of 0.80 in this study.

College Student Stress. This 7-item scale is a brief questionnaire that measures the perceived stress of student’s adjustment to college. This scale has not been tested on student veterans until this study, but on a sample of college freshmen, it had an internal consistency (α) of 0.81. This scale fits a two-factor model, the first factor is academic concerns and the second factor is the ability to attain goals and maintain control (Feldt & Koch, 2011). Following the prompt: “report how often each has occurred this semester using the following scale” seven items are scored on a Likert scale ranging from never (1) to very often (5). The items include: “felt anxious or distressed about academic matters,” “questioned your ability to handle difficulties in your life,” and “questioned your ability to attain your personal goals.” The scoring range of this scale is 7 – 35, with higher scores indicative of greater perceived stress. The Cronbach’s alpha for college student stress in this study was 0.91.

Results

The data were cleaned and analyzed using SPSS Statistics 22. An Exploratory Factor Analysis was used to determine the factor structure of the scale. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett’s test of sphericity were used to assess the appropriateness of factor analysis. The KMO should be 0.60 or above, and the chi-square value of Bartlett’s test should be significant (Tabachnick & Fidell, 2001). This confirmed the adequacy of the sample: KMO = 0.81; χ^2 Barlett(78) = 1608.13, $p < 0.001$ indicating the data were appropriate for factor analysis.

The 13 VAC items were analyzed using the Principal Component Analysis method with Varimax rotation (see table 2). To select the number of factors, two criteria were utilized: eigenvalues greater than 1.0 and Cattell’s (1966) scree test. Three factors with an eigenvalue higher than 1.0 were extracted, and the scree test confirmed this result. The three dimensions, labeled belonging, social support, and college stress, explained 57.8% of variance. Two items, 7 and 11, had cross-loadings higher than 0.30. If the ratio between item loadings is lower than 2, it should not be considered a pure marker of the factor. However, the item can be retained if the ratio is higher than 1.5 (Barbaranelli,

2007). The ratio for item 7 was 1.33 so, the item was dropped. The ratio for item 11 was 1.94, so the item was retained as an indicator for factor 1 (Belonging).

Table 2: Factor Structure of the Veteran Adjustment to College Scale			
	Factors		
	1	2	3
<i>Factor 1: Belonging</i> $\alpha = 0.72^*$			
1. It bothers me when people on campus presume that my experience in combat is something different than I actually did while deployed.	.528		
3. The immaturity of some of my classmates makes class more difficult for me.	.766		
5. Because of my military experience, I feel like I don't fit in with students on my campus.	.850		
11. Coming from the military, it has been hard to adjust to college.	.528		.347
13. Since coming to college, I have made friends with non-veterans on campus.	.486		
<i>Factor 2: Social Support</i> $\alpha = 0.71^*$			
2. My campus has a counselor or someone to talk to who understands veterans.		.854	
4. I have received assistance from someone on campus who understands veterans.		.781	
6. I feel like there is somebody on campus to talk to if I needed help.		.835	
<i>Factor 3: Student Stress</i> $\alpha = 0.70^*$			
8. Since I have come to college, I have received the time management or study skills I need.			.608
9. I feel I have enough support in balancing my family, work and school responsibilities.			.653
10. I feel prepared to handle the workload in my classes.			.824
12. The military has prepared me to handle the stress and responsibility of college.			.682
<i>Omitted item</i>			
7. Since I have come to college, I feel I have received enough support in my transition from the military to college.	.382	.545	.408
Exploratory Factor Analysis using Principal Component Analysis using Varimax rotation.			
*Cronbach alpha for each factor.			

In table 2 (above) belonging (Factor 1) accounted for 29.6% of the total variance, while social support (Factor 2) accounted for 16.7%, and college stress (Factor 3) for 11.9% of the total variance. Belonging represents how well the student veteran perceives that they fit in with campus socially and how they feel they have adjusted to the college environment from the military. Social support reflects the veteran's feeling of receiving support and understanding from people on campus. College stress is the ability to handle the course work through time management and responsibility. As a measure of

reliability, the internal consistency of each factor was examined by computing Cronbach’s alphas. Belonging had a Cronbach’s alpha value of 0.72, social support was 0.80, and college stress was 0.71. Inter-item correlations are considered acceptable when the Cronbach’s alpha value is 0.70 or higher (Kline, 2000).

Bivariate correlations were run to examine the relationship between the VAC Scale and mental health scales (see table 3 below). The correlations also addressed the relationships between the latent factors of the VAC scale and the participant’s mental health. The correlations between the VAC and mental health measures indicate a moderately strong and negative correlation between the VAC scale and PTSD (-.53), depression (-.37), and student stress (-.44). There were also moderately strong and negative correlations between belonging (Factor 1), and PTSD (-.53), depression (-.37), and student stress (-.41). Slightly weaker but significant correlations were found between student stress (Factor 3) and PTSD (-.37) and depression (-.33). Not surprisingly, a moderate correlation was found between student stress and the student stress measure (-.45). There were essentially no correlations between social support and any of the factors in the scale.

Table 3: Bivariate correlations of mental health variables and factor structure

	1	2	3	4	5	6
1. VAC	-					
2. PTSD	-.53°	-				
3. Depression	-.37°	.59°	-			
4. Student Stress	-.44°	.56°	.48°	-		
5. Factor 1 Belonging	.78°	-.53°	-.37°	-.41°	-	
6. Factor 2 Support	.61°	-.18°	-.06	-.06	.15°	-
7. Factor 3 Stress	.74°	-.37°	-.33°	-.45°	.37°	.31°

* Correlation is significant at the .01 level.

Discussion

To date, there are no published scales that measure veteran adjustment to college. This scale was developed to help higher education professionals better understand how veterans are adjusting to the college environment. The scale was intentionally designed to be brief to allow for quick administration and to lessen survey fatigue on veterans. The three-factor 12-item scale demonstrated good internal reliability ($\alpha=.82$). The face and content reliability were established through a modified concept mapping approach and assessed by a panel of experts. The exploratory factor analysis uncovered a multidimensional scale with three factors: belonging, social support, and student stress. The VAC scores in this study negatively correlated with student stress and PTSD. This is expected as higher scores in the VAC scale indicate better adjustment.

Given the scale's moderate correlation with PTSD and student stress, the VAC scale might be predictive of student veteran distress. There was a statistically significant difference between the mean VAC scores among those who are above and below the cut off scores for both depression and PTSD. Mean VAC scores for those with PTSD (cut off = 50) and depression (cut off = 11) were 37.4 and 38.1 respectively. This compares with the mean VAC scores for those below the cut off for PTSD (\bar{x} = 45.5) and depression (\bar{x} = 44.3). The VAC scores for subclinical populations were higher, indicating higher degree of adjustment to college. The mean VAC score for the entire sample of participants was 43.8. Given the data on VAC scores, it can be assumed that individuals scoring below 44 may be considered at risk for adjustment problems.

Limitations and Future Research

One of the limitations of this study is the sample included only student veterans from four-year public colleges. With a significant number of student veterans attending community college, 43% in one study (Radford, 2009), it would be informative to include student veterans attending two-year institutions in subsequent studies. Another hurdle was the inability to calculate the response rate for the study. The email distribution lists consisted of each college's GI Bill recipient list. There are many dependents of military families using GI Bill benefits that would have received the email, but would not be invited to participate in the study. As in all email-based surveys, there is always non-response bias to consider. I attempted to offset this bias by offering participants a raffle for an iPad Mini as an incentive to complete the survey.

This was the first large-scale validation study of this instrument; it may be necessary to continue to test and refine it. One change that occurred from the exploratory factor analysis was the dropping of item seven ("Since I have come to college, I feel I have received enough support in my transition from the military to college.") This item was deleted because it cross-loaded over the three factors. In retrospect, I would also make changes to item one, "It bothers me when people on campus presume that my experience in combat is something different than I actually did while deployed." This item was originally "it bothers me when people ask me if I have killed someone." Perhaps a simpler compromise would be "It bothers me when people ask stupid questions about my military service." Additionally, item seven could be phrased, "have your time management or study skills 'improved'" instead of "have you 'received' these skills." This change would imply that the veteran was actively involved in improving his or her time management, instead of receiving it.

Future studies should further examine the scale and refine the work begun here. Research should involve a broader participant base, to include students from private institutions, community colleges, and colleges with small proportions of veterans. A confirmatory factor analysis or structural equation modeling on a broader and larger sample could provide additional support for the scale. Also, it would be important to examine the factors revealed in the exploratory factor analysis, belonging, social support, and student stress. Looking at how these factors impact GPA and retention would add to the understanding of student veterans.

Implementing this Instrument on Your Campus

Overall, the Veteran Adjustment to College Scale offers a new way for college administrators to examine how well their student veterans are adjusting to college. This study has demonstrated that the scale has good reliability and validity as a three-factor instrument. Veterans' services officials may find this to be a helpful assessment tool for student veterans. Having a better understanding of the adjustment of our student veterans may lead to improvement of veteran's support programs and help to increase retention of veterans in college.

The VAC Scale can be used by veterans' services staff, student affairs professionals, and researchers examining veteran adjustment to college. The scale could be used by veterans' officials

during VA recertification visits to quickly gauge how well student veterans are adjusting to campus each year. It can also be used to measure how well an individual student is doing on campus. Because the items were developed largely by student veterans, the scale is not likely to contain questions that may be offensive or insensitive to veterans. The scale can be administered on paper or through web survey software to students. The score is calculated by adding the Likert scale scores for each question; with higher scores indicating better adjustment. Given the mean VAC score for participants in this study, student veterans scoring less than 44 may be at risk for adjustment difficulties.

Individual items on this scale can also help campus officials to determine areas of need on their campus. For example, if many students respond negatively to the item “I have received assistance from someone on campus who understands veterans,” that may indicate a need for more supportive services or more military cultural trainings for campus staff. The scale can also highlight when there is a great deal of support for veterans on campus. The scale can also be used to guide discussions between veteran’s officials and student veterans. As a tool, this scale can help underscore the need for veterans’ services on campus and can help colleges and universities better tailor programs for veterans.

References

- Akgun, S., & Ciarrochi, J. (2003). Learned Resourcefulness Moderates the Relationship between Academic Stress and Academic Performance. *Educational Psychology: International Journal of Experimental Educational Psychology, 23*(3), 287–294.
- Baker, R. W., & Siryk, B. (1989). *Student adaptation to college questionnaire manual*. Los Angeles, CA: Western Psychological Services.
- Barbaranelli, C. (2007). *Analisi Dei Dati: Tecniche Multivariate Per la Ricerca Psicologica e Psicosociale*. Milano, Italy: Led, Edizioni Universitarie di Lettere, Economia, Diritto.
- Barry, A. E., Whiteman, S., & MacDermid Wadsworth, S. (2014). Student Service Members/Veterans in Higher Education: A Systematic Review. *Journal of Student Affairs Research and Practice, 51*(1), 30–42.
- Barry, A. E., Whiteman, S., & MacDermid Wadsworth, S. (2012). Implications of posttraumatic stress among military affiliated and civilian students. *Journal of American College Health, 60*(8), 562–573.
- Bliese, P. D., Wright, K. M., Adler, A. B., Cabrera, O., Castro, C. A., & Hoge, C. W. (2008). Validating the Primary Care Posttraumatic Stress Disorder Screen and the Posttraumatic Stress Disorder Checklist with soldiers returning from combat. *Journal of Consulting and Clinical Psychology, 76*(2), 272–281. doi: 10.1037/0022-006x.76.2.272
- Blaisure, K. (2012). *Serving military families in the 21st century*. New York, NY: Routledge.
- Blosnich, J. R., Kopacz, M. S., McCarten, J., & Bossarte, R. M. (2015). Mental Health and Self-Directed Violence among Student Service Members/Veterans in Postsecondary Education. *Journal of American College Health, 63*(7), 418–426.
- Capaldi, V. F., Guerrero, M. L., & Killgore, W. D. (2011). Sleep disruptions among returning combat veterans from Iraq and Afghanistan. *Military Medicine, 176*(8), 879–888.
- Cattell, R.B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research, 1*, 629–637.

- Church, T. E. (2009). Returning Veterans on Campus with War Related Injuries and the Long Road Back Home. *Journal of Postsecondary Education and Disability*, 22(1), 43–52.
- Cole, J.S. & Kim, Y.M. (2013). *Student Veterans/Service Members' Engagement in College and University Life and Education*. American Council on Education Center for Policy Research and Strategy.
- Defense and Veterans Brain Injury Center (2016). *TBI Basics*. Retrieved from <http://dvbic.dcoe.mil/>
- Department of Veterans Affairs. (2013). *One Million Now Benefit from Post-9/11 GI Bill: Over \$30 Billion in Benefits for Veterans, Servicemembers, Families* [Press Release] Retrieved from: <http://www.va.gov/opa/pressrel/pressrelease.cfm?id=2490>
- Di, N. G. M. (2008). Stressors afflicting families during military deployment. *Military Medicine*, 173(5), v–vii.
- Dillman, D. A., Phelps, G., Tortora, R., Swift, K., Kohrell, J., Berck, J., & Messer, B. L. (2009). Response rate and measurement differences in mixed-mode surveys using mail, telephone, interactive voice response (IVR) and the Internet. *Social Science Research*, 38(1), 1-18. doi: 10.1016/j.ssresearch.2008.03.007
- Durdella, N., & Kim, Y. K. (2012). Understanding patterns of college outcomes among student veterans. *Journal of Studies in Education*, 2(2), 109–129.
- Edwards, J.R. & Cooper, C.L. (1990). The person-environment fit approach to stress: recurring problems and some suggested solutions. *Journal of Organizational Behavior*, 11(4), 293–307.
- Elliot, M., Gonzalez, C., & Larsen, B. (2011). U.S. military veterans transition to college: Combat PTSD and alienation on campus. *Journal of Student Affairs Research and Practice*, 48(3), 279–296.
- Engle, J. (2007). Postsecondary access and success for first-generation college students. *American Academic*, 3, 25–48.
- Feldt, R. C., & Koch, C. (2011). Reliability and construct validity of the college student stress scale. *Psychological Reports*, 108(2), 660–666.
- Forbes, D., Creamer, M., & Biddle, D. (2001). The validity of the PTSD checklist as a measure of symptomatic change in combat-related PTSD. *Behaviour Research and Therapy*, 39(8), 977–986.
- Guay, S., Billette, V., & Marchand, A. (2006). Exploring the links between posttraumatic stress disorder and social support: processes and potential research avenues. *Journal of Traumatic Stress*, 19(3), 327–338.
- Kane, M., Trochim, W. M. K., & (2007). *Concept mapping for planning and evaluation*. Thousand Oaks, CA: Sage Publications.
- Kline, P (2000). *The Handbook of Psychological Testing*. Florence: Psychology Press, 2000.
- Lewin, K. (1938). *The Conceptual Representation and Measurement of Psychological Forces*. Durham, NC: Duke University Press.
- Livingston, W. G., Havice, P. A., Cawthon, T. W., & Fleming, D. S. (2011). Coming home: Student veterans' articulation of college re-enrollment. *Journal of Student Affairs Research and Practice*, 48(3), 315–331.
- Lowe, B., Kroenke, K., Herzog, W., & Grafe, K. (2004). Measuring depression outcome with a brief self-report instrument: Sensitivity to change of the Patient Health Questionnaire (PHQ-9). *Journal of Affective Disorders*, 81(1), 61–66.

- Murray, H. (1938). *Explorations in personality*. Boston, MA: Houghton Mifflin.
- Norman, S. B., Rosen, J., Himmerich, S., Myers, U. S., Davis, B., Browne, K. C., & Piland, N. (2015). Student Veteran perceptions of facilitators and barriers to achieving academic goals. *Journal of Rehabilitation Research and Development*, 52(6), 701–712.
- Osborne, N. J. (2014). Veteran Ally: Practical Strategies for Closing the Military-Civilian Gap on Campus. *Innovative Higher Education*, 39, 3, 247–260.
- Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., & Southwick, S. M. (2009). Psychological resilience and postdeployment social support protect against traumatic stress and depressive symptoms in soldiers returning from Operations Enduring Freedom and Iraqi Freedom. *Depression and Anxiety*, 26(8), 745–751.
- Radford, A. W. (2009). *Military service members and veterans in higher education: What the new GI bill may mean for postsecondary institutions*. New York, NY: American Council On Education.
- Ross, S. E., Niebling, B. C., & Heckert, T. M. (1999). Sources of Stress Among College Students. *College Student Journal*, 33(2), 312–317.
- Rudd, M. D., Goulding, J., & Bryan, C. J. (2011). Student veterans: A national survey exploring psychological symptoms and suicide risk. *Professional Psychology: Research and Practice*, 42(5), 354–360.
- Rumann, C. B., & Hamrick, F. A. (2010). Student veterans in transition: Re-enrolling after war zone deployments. *The Journal of Higher Education*, 81(4), 431–458.
- Smith-Osborne, A. (2009). Mental health risk and social ecological variables associated with educational attainment for gulf war veterans: implications for veterans returning to civilian life. *American Journal of Community Psychology*, 44, 3–4.
- Steele, J. L. (2010). *Service members in school: Military veterans' experiences using the post-9/11 GI Bill and pursuing postsecondary education*. Washington, DC: American Council on Education.
- Tabachnick, B., & Fidell, L.S. (2001). *Using Multivariate Analysis*. Boston, MA: Allyn and Bacon.
- Terhakopian, A., Sinaii, N., Engel, C. C., Schnurr, P. P., & Hoge, C. W. (2008). Estimating population prevalence of posttraumatic stress disorder: an example using the PTSD checklist. *Journal of Traumatic Stress*, 21(3), 290–300.
- Vacchi, D. T. (May 01, 2012). Considering Student Veterans on the Twenty-First-Century College Campus. *About Campus*, 17(2), 15–21.
- Widome, R., Laska, M. N., Gulden, A., Fu, S. S., & Lust, K. (2011). Health risk behaviors of Afghanistan and Iraq war veterans attending college. *American Journal of Health Promotion*, 26(2), 101–108.

Sharon L. Young, LCSW, Ph.D.

Assistant Professor, Department of Social Work

Western Connecticut State University // youngs@wcsu.edu

Authors Note: The author would like to acknowledge the University of North Carolina Charlotte's Scholar's Retreat for providing editorial support for this paper.

Appendix A: Veteran Adjustment to College Scale (VAC)

Directions: The scoring range is 12-60, higher scores indicating better adjustment to college. Scores lower than 44 may indicate difficulty with adjustment to college. To score the scale, score each answer as follows, (please note the reverse coded items): Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1) Reverse Coded Items: 1, 3, 5, and 10. Strongly Agree (1), Agree (2), Neutral (3), Disagree (4), Strongly Disagree (5).

Please circle the degree to which you agree or disagree with the following statements about your college experience.

1. It bothers me when people on campus presume that my experience in combat is something different than I actually did while deployed.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

2. My campus has a counselor or someone to talk to who understands veterans.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

3. The immaturity of some of my classmates makes class more difficult for me.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

4. I have received assistance from someone on campus who understands veterans.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

5. Because of my military experience, I feel like I don't fit in with students on my campus.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

6. I feel like there is somebody on campus to talk to if I needed help.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

7. Since I have come to college, I have received the time management or study skills I need.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

8. I feel I have enough support in balancing my family, work and school responsibilities.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

9. I feel prepared to handle the workload in my classes.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

10. Coming from the military, it has been hard to adjust to college.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

11. The military has prepared me to handle the stress and responsibility of college.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

12. Since coming to college, I have made friends with non-veterans on campus.

Strongly Agree *Agree* *Neutral* *Disagree* *Strongly Disagree*

13. What, if anything, has been the most helpful in transitioning to college?
14. What, if anything, has made it challenging to transition to college?

Please acquire permission to use this scale by contacting Sharon Young at youngs@wcsu.edu.