THE ROAD AHEAD: STRIKING THE RIGHT COMBINATION OF ACADEMIC AND MENTAL HEALTH SERVICES AND VA BENEFITS FOR INCREASING THE ACADEMIC ATTAINMENT OF STUDENT VETERANS

by

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ABSTRACT

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Recent statistics suggest that nearly a quarter of all veterans who have recently returned from the wars in Afghanistan and Iraq are returning to postsecondary education, many of them motivated to do so by the increased benefits included under the Post-9/11 G.I. Bill. This bill is intended to increase the educational attainment of these student veterans. To fully realize the potential of this bill to increase academic attainment in this population, however, it must be combined with an effective delivery of services intended to help student veterans transition to the academic environment as a bridge to productive civilian employment. Postsecondary institutions, educators, mental health practitioners, and federal employees within the government, Department of Veterans Affairs, Department of Defense, and others seeking to aid student veterans increase their academic attainment must become familiar with barriers experienced by this unique population and effective methods to remove these barriers.

This thesis builds on current research in an attempt to more fully understand these barriers from the perspective of one student veteran with both a learning disability and combat-related PTSD by describing efforts to access accommodations for these conditions and their effectiveness at helping help him persist in education with a higher GPA while he simultaneously participates in a supported education intervention.

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CHAPTER 1

INTRODUCTION AND OVERVIEW

1.1 Veterans of the Wars in Iraq and Afghanistan

By 2001, 1.64 million veterans had returned from the wars being waged simultaneously in Afghanistan and Iraq (Operations Enduring Freedom and Iraqi Freedom, or OEF/OIF) (Tanielian & Jaycox, 2008). By 2011, this number had risen to approximately 2 million (Schell & Tanielian, 2011). Technological advances in armor and weaponry, coupled with advances in medicine have kept the death toll from these wars historically low (Regan, 2004; Warden, 2006), however, the largely invisible mental and cognitive conditions of posttraumatic stress disorder (PTSD), and mild traumatic brain injury (mTBI) have emerged as significant (Tanielian & Jaycox, 2008). Of these two conditions, PTSD will be explored as part of this study.

Estimated rates of PTSD among returning troops vary between 7.3% to 45% in studies utilizing various OEF/OIF military population samples (Tanielian & Jaycox, 2008, pp. 60-81). While the effects of PTSD have been researched in areas such as interpersonal violence, substance abuse and depression (e.g., Jordan et al., 1992; Savarese, Suvak, King, & King, 2001, Taft et al., 2005; Tanielian & Jaycox, 2008), the effects of PTSD in the classroom or worksettings are less well-researched (Savoca & Rosenheck, 2000; Smith-Osborne, 2009). Furthering this area of study is of critical importance today, as thousands of veterans utilizing VA educational benefits, funded by taxpayers, return to college and transition into the civilian workforce (Steele, Salcedo, & Coley, 2010).

1.1.1 Student Veterans

By August 2010, half a million of the approximately 2 million returned OEF/OIF veterans had applied for eligibility certificates for the Post 9/11 Veterans Educational Assistance

(commonly referred to as the Post 9/11 G.I. Bill), and approximately 300,000 of them had begun using these benefits to enroll in higher education (Steele et al., 2010). This influx was anticipated. In 2010, The American Association of State Colleges and Universities (AASCU, 2010) rated the then-burgeoning influx of new student veterans among their top ten challenges (AASCU, 2010). That same year, the American Council on Education (ACE) commissioned a study through the RAND Corporation to explore the early experiences of these student veterans utilizing the Post 9/11 G.I. Bill, and to determine ways in which postsecondary institutions could capitalize on successes and improve shortcomings in their support of these transitioning student veterans (Steele et al., 2010). Results from the ACE study and other recent research findings highlight some characteristics which distinguish this subpopulation of students from the general body of freshman students (Steele et al., 2010; Smith-Osborne, 2009; Smith-Osborne, 2010).

For example, preliminary data suggest that, among student veterans participating in one ongoing study, 50% met PTSD criteria in the pre-intervention measures (Smith-Osborne, 2010). It should be noted that the prevalence of PTSD in this sample was higher than the estimated 7%-45% reported by researchers in the fifteen studies conducted between 2004-2008, and compiled in the meta-analysis edited by Tanielian & Jaycox (2008, pp. 35-83). One explanation for the inconsistency in the rate of prevalence of PTSD is the variance in sample selection. Samples utilized in these studies ranged from Marines only, Army personnel only, only servicemembers exposed to combat, or all troops returning home at a specific point in time. Others combined servicemembers from all branches utilizing care at VA facilities either inpatient or outpatient, troops deployed to Afghanistan, troops deployed to Iraq, and even troops from other countries deployed to either Iraq or Afghanistan. Time elapsed from return to the point of data collection also varied by study, ranging from 1 month postdeployment to five months postdeployment, which can also affect the amount of reported PTSD symptoms (American Psychiatric Association, 2000; see Abt Associates, Inc.; Engelhard et al., 2007; Erbes, Westermeyer, Engdahl, & Johnson, 2007; Grieger et al., 2006; Helmer et al., 2007; Hoge,

Castro et al., 2004; Hoge, Auchterlonie, & Milliken, 2006; Hoge, Terhakoian, Castro, Messer, & Engel, 2007; Hotopf et al., 2006; Kolkow, Spira Morse, Grieger, 2007; Lapierre, Schwegler, & LaBauve, 2007; Martin, 2007; Milliken, Auchterlonie, & Hoge, 2007; Smith et al., 2008; U.S. Department of the Army, 2006; Vasterling et al., 2006). While further investigation would be helpful in determining why these particular student veterans had a high prevalence of PTSD at the time they were participating in this study (Smith-Osborne, 2010), a finding of PTSD prevalence at all among this sample indicates that student veterans with PTSD are returning to school, making PTSD an issue which should be addressed in any strategy being promoted to effectively aid in a successful transition of student veterans from a military setting to a postsecondary institutional setting (Smith-Osborne, 2009). Although researchers have conducted few studies investigating the effect of mental illness on educational attainment, and still fewer focus on the effects of PTSD on educational attainment, this issue is beginning to gain traction (e.g., Megivern, Pellerito, & Mowbray, 2003; Smith-Osborne, 2005; Smith-Osborne, in press).

Besides possible psychological trauma, many student veterans share other commonalities. In addition to psychiatric disabilities, they may be adjusting to postwar physical disabilities. On average, student veterans are also found to be older than traditional nonmilitary students (over 24 years of age), married and with children, and financially independent from their parents (ACE, 2009; Smith-Osborne, 2010; Steele et al., 2010). They have been acclimated to life in the military, where individuals' actions are largely dictated, and physical and medical needs are met, all of which contribute to the challenge of transitioning to life at a postsecondary institution where one is expected to support oneself financially, locate needed services, and navigate new academic challenges (ACE, 2009, Johnson & Tucker, 2010, Smith-Osborne, 2010). Smith-Osborne (2010) has also reported findings of high rates of self-reported learning difficulties pre-enlistment.

Despite starting higher education with these possible challenges, student veterans also bring with them strengths that may also set them apart from average freshmen, such as maturity which comes both with age and experience, self-discipline, which was instilled through training and environmental conditions requiring them to push hard to meet high standards of fitness, stamina, and hardship endurance, and, for some, leadership training which also instilled confidence and the ability to stand out from peers (Petrovich, 2009; Steele et al., 2010). In all these ways, student veterans may differ from many freshmen just emerging from high school, making it difficult for student veterans to integrate socially with the general student body.

Among all these challenges and possible barriers to academic attainment, the Post-9/11 G.I. Bill was reported by the ACE study participants as very effective in overcoming the challenges of financing an education of student veterans, many of whom have families to support (Steele et al., 2010). Participants in the Rand-commissioned study indicated that they especially appreciated how Post 9/11 G.I. Bill benefits not only covered tuition and fees paid directly to the institution, but also the monthly living allowance and book stipend which are paid directly to the student veteran (Steele et al., 2010). This was in spite of the fact that many were experiencing late or inaccurate payments at the time of the study, due to procedural issues being worked out in this first year of implementation (Steele et al., 2010).

Other findings in this study related less to financial needs, and more to challenges faced due to the other defining characteristics of the student veteran population (Steele et al., 2010). For example, study participants confirmed in self-report the challenges of meeting academic expectations that differed from those encountered in the military, balancing academic requirements with other responsibilities (such as supporting their families), relating to non-veteran peers, and managing services-connected injuries, including bodily injuries and PTSD (Steele et al., 2010). In focus group discussions, the participants were invited to give suggestions for how institutions could help them overcome these challenges. Some of their suggestions included prompting students to indicate their veteran status when they first request

information or apply to an institution, the provision of campus-based disability and mental health staff who understand veterans' issues, the offering of information sessions for veterans as part of the annual student orientation, and holding veterans' information sessions throughout the year (Steele et al., 2010). As the study did not survey all student veterans—most notably not including representatives from the significant numbers of those attending controversial for-profit colleges—these recommendations may not be representative of the student veteran population as a whole, but they do tend to correlate with demographic data found in research reviewed for this thesis (for example ACE, 2009; Smith-Osborne, 2010).

1.1.2 Recognizing the Prevalence and Effects of Learning Disabilities

It has not been previously recognized that learning disabilities (LDs) may also characterize the student veteran population. Smith-Osborne (2010) found, however, that among study participants, 54.2% self-reported having a history of learning difficulties (Smith-Osborne, 2010). While this number does not distinguish between undiagnosed and diagnosed forms of learning difficulties, it raises the question as to whether a higher number of individuals with learning difficulties seek to pursue a career in the U.S. Armed Services over immediately pursuing postsecondary education. Student veterans with *diagnosed* cases of learning disabilities may be closer to the overall estimated percentage of college students with LD, which is estimated to be between six to eight percent (18.5%, if ADHD is included in this figure) of the postsecondary student population (Henderson, 2001; U.S. Department of Education, 2006). Without further reported details, it is not possible to determine the percentage of diagnosed cases of LD and ADHD among the study participants who reported learning difficulties. Postsecondary institutions, however, while seeking to aid student veterans' transition to academic life, should be aware that some of these students may qualify for accommodations for diagnoses of LD, in addition to accommodations for PTSD, mTBI, or more noticeable physical disabilities. A successful transition strategy should include raising awareness that such ADA-mandated accommodations are available, as well as aiding individuals to navigate the system

which is new to many student veterans. Currently, it is left up to all students, including student veterans, to access these accommodations through their own efforts (DaDeppo, 2009), Smith-Osborne (2009) asserts, however, that student veterans "have a right to expect [benefit networks] as part of their right to equal opportunity to pursue their educational and vocational goals after military service…in the context of anti-discrimination efforts to ensure equal rights for the differently-abled veteran" (p. 121). Without accommodations matched to their disabilities, students with LD drop out more frequently and take longer to graduate (Center for Education Statistics, 2000, as cited in Maitland, 2000). Studies further show that only approximately one-third of all postsecondary students with LD access accommodations and support. Those who do utilize accommodations, however, experience similar graduation rates as their non-LD counterparts (NSLTS2, 2009).

Service-connected disabilities of all types are a crucial barrier among the population of student veterans, affecting 25% of the "Gulf-War-era II" (also known as OEF/OIF) veterans as of July, 2010 (U.S. Bureau of Labor Statistics, March, 2011). This figure does not reflect life-long, pre-service disabilities, such as learning disabilities, which might therefore be overlooked when advising student veterans as to what accommodations are available. Stakeholders ranging from U.S. taxpayers, the U.S. government, the Department of Defense (DoD), and the Veterans Administration (VA), to postsecondary institutions, and to student veterans themselves have a vested interest in the development of an effective strategy which helps student veterans bridge challenges they face when transitioning from military careers to life as students in postsecondary institutes of higher learning. In the 2010-2011 academic year, 4.4 billion dollars, paid for by U.S. taxpayers, were disbursed to institutions and student veterans through the more generous Post-9/11 G.I. Bill (Senate Health, Education, Labor and Pensions Committee, 2011), with the goal that well-educated veterans will transition to being well-employed citizen-veterans.

1.2 The History of Veteran Educational Assistance

To understand the aims and benefits of the current Post-9/11 G.I. Bill in helping veterans transition to civilian life through educational attainment, it is helpful to review the past efforts to aid veterans in transitioning to both civilian employment and educational attainment, starting with the Vocational Rehabilitation Act of 1918.

Under the Vocational Rehabilitation Act of 1918, any honorably discharged veteran who was disabled in wartime service was eligible for vocational training, which equipped the veteran with new skills if unable to return to a prewar occupation (Gelber, 2005; VA, n.d.). In theory, a veteran was to be granted their first choice of training program. In reality, however, this often did not happen as guidance counselors were given latitude to subjectively strike down a veteran's program choice if he determined that particular veteran was incapable of carrying out the chosen program successfully (Gelber, 2005). This resulted in predictable tension between veterans, whose choices were deemed non-feasible by vocational guidance counselors, and federal policymakers who thought veterans should put aside their own preferences and accept the first available job where labor was needed (Gelber, 2005).

As with the Vocational Rehabilitation Act of 1918, the intent guiding the creation of the Servicemen's Readjustments Act of 1944 (the G.I. Bill) was to speed the transition from military employment to civilian employment and to compensate veterans whose educational plans were interrupted by military service (Angrist, 1993). Unlike the earlier Act, however, the G.I. Bill did so through broad educational and housing loan benefits available to all veterans who had served for 90 days or more (VA, n.d.).

The G.I. Bill was seen as very successful. By 1947, 49% of all college students had taken advantage of G.I. Bill benefits, which included unemployment checks and tuition payments, along with an additional book stipend and living allowance. Millions also took advantage of federally-backed loans for homes, businesses, or farms. According to the VA,

“The G.I. Bill contributed more than any other program in history to the welfare of veterans and their families, and to the growth of the nation’s economy” (VA, n.d., p.14).

In spite of the success of the G. I. Bill of 1944, Congress slashed the benefits it provided in its successor, the Adjustment Act of 1952 (the Korean G.I. Bill). Under this bill, student veterans received a fixed amount of tuition money in spite of actual rises in tuition. The gap between the benefit and actual cost of education became more pronounced until, in 1966, Congress once again enacted changes to the G. I. Bill in an attempt to correct deficiencies and stem the tide of rising numbers of disabled, unemployed, and alienated veterans returning from the Vietnam War (VA, n.d.).

The Veterans Readjustment Act of 1966 (The Vietnam G.I. Bill) was successful in that 76% of those eligible participated (as compared with approximately 50% of WWII veterans, and 43% of the Korean War veterans; VA, n.d.). This rate of participation did not necessarily translate to completion of 2- or 4-year college degrees, however. On average, use of the Vietnam G.I. Bill only increased educational attainment by 1.4 years (Angrist, 1993). While Angrist (1993) concluded that even this amount of additional schooling was enough to increase earnings by 5.8% over fellow veterans who did not attend any schooling, it remained the case that Vietnam G.I. Bill users still obtained lower wages over a lifetime than their civilian counterparts (see also Cohen, Segal, & Temme, 1992).

By the 1980’s, the G.I. Bill was seen as a possible recruiting tool, even though a previous attempt to attract recruits with the Post-Vietnam Era Veterans’ Educational Assistance Act of 1977 (VEAP) was not found to be successful (VA, n.d.). In 1984, Congress passed what came to be known as the Montgomery G.I. Bill—named after its sponsor, G.V. “Sonny” Montgomery of Mississippi (VA, n.d.). Both active duty and Reserve or National Guard members could qualify for 36 months of educational benefits in exchange for agreeing to contracts of pre-determined lengths, among other requirements (VA, n.d.). Research has shown that, while the Montgomery G.I. Bill may have been successful at boosting recruitment numbers,

it was no more successful at boosting veteran educational attainment than the Vietnam G.I. Bill, with educational attainment among Gulf War era-I veterans by an average of 1.4 years (Smith-Osborne, 2009).

1.2.1 Post-9/11 Veterans Educational Assistance Act, or the Post 9/11 G.I. Bill

The wars in Iraq and Afghanistan prompted members of Congress to once again revisit the issue of educational attainment among veterans as a means to help them transition back to civilian life, resulting in the Post-9/11 Veterans Educational Assistance Act (Post-9/11 G. I. Bill). The author of this bill, Senator Jim Webb of Virginia, stated that today's veterans deserved the same rate of compensation for their service as veterans of WWII (Webb, n.d.). Others agreed, and the Post-9/11 G.I. Bill was signed into law on June 20, 2008, and took effect in August, 2009 (Steele et al., 2010). It marked the largest expansion of benefits since the passage of the original G.I. Bill in 1944 (Steele et al., 2010; Webb, n.d.), with a maximum benefit of 100% of tuition covered, depending on the length of time the veteran served after 9/11, along with a living allowance and book stipend paid directly to the veteran (Steele et al., 2010; Webb, n.d.). Exact amounts paid for tuition vary, depending on the tuition rate at individual institutions. Twenty-four percent of the Rand-commissioned ACE study participants stated that the new G.I. Bill drove their decision to enroll in postsecondary education, and 18% said it affected their choice of institution (Steele et al., 2010). Given both the rising importance of a completed college degree in finding steady, well-paying employment (Unger, 1994) and the increasing numbers of OEF/OIF veterans entering postsecondary education through Post-9/11 G.I. Bill benefits, this new bill has the potential to aid many veterans in transitioning to civilian employment. Without understanding non-financial barriers, however, funds may be spent without increasing actual educational attainment and, eventually, civilian occupational attainment of OEF/OIF veterans (Savoca & Rosenheck, 2000; Smith-Osborne, 2005, 2009)

1.2.2 For-profit Colleges and the Post-9/11 G.I. Bill

Recently, HELP Committee hearings investigated allegations that for-profit college corporations were exploiting servicemembers and OEF/OIF veterans to get access to Post 9/11 G.I. Bill funds (HELP, 2011). Their findings confirmed those reported by Golden (2009, 2010), including allegations that for-profit online universities specifically target both active duty military members and veterans largely because of a loophole in the Department of Education's 90/10 Rule allowing them to collect the Post 9/11 G.I. Bill funds without having to account for those funds as part of the total federal student aid they have received (HELP, 2011; see also Skinner, 2005). Not surprisingly, the nation's second-largest for-profit college corporation, Education Management Corporation, has stated that closing of this loophole would "have a materially adverse effect on our ability to comply with the 90/10 Rule" (cited in Kirkham, 2011). In other words, this loophole has allowed for-profit schools to raise what are technically federal funds without the 90/10 Rule restrictions which would have otherwise put their and others' for-profit college corporations above receiving 90% of their operational funding from the U.S. government.

While the loophole remains, however, aggressive recruitment of military members and veterans for these G.I. Bill funds continues. One illustration of this aggressive recruitment is the exponential increase in the number of military division recruiters working for the University of Phoenix (The Apollo Group). In 2003, for example, University of Phoenix's military division recruiters numbered only 91. By 2009, after the passage of the Post-9/11 G.I. Bill, the number of military division recruiters for this institution had skyrocketed to 452 (Golden, 2009). With Department of Education funds accounting for 86% of its $3.77 billion revenue, and receiving the most Post-9/11 G.I. Bill benefits of any postsecondary institution in the nation, the University of Phoenix receives most of its funding from the federal government (Golden, 2009; Golden, 2010; HELP, 2011). Another illustration of aggressive recruitment of active-duty military

members and veterans is seen in the enrollment jump of active duty military students attending the American Military University, up from just 643 in 2000 to 36,722 in 2009 (Golden, 2009),

Post-9/11 G.I. Bill funds have proven very lucrative to for-profits, with eight of the top ten recipients of G.I. Bill benefits being for-profit college corporations: The Apollo Group (University of Phoenix), ITT, Education Management Corporation (Argosy, Art Institute), DeVry, Career Education Corporation (Sanford Brown, CTU, American InterContinental), Strayer, Corinthian (Everest, Heald, WyoTech), and Washington Post Company (Kaplan). Together, the top eight for-profit college corporations collected 25% of the Post-9/11 G.I. Bill funding, or around one billion dollars, and altogether for-profit educators received more than 37% of all G.I. Bill benefits (HELP Committee, 2011). By comparison, they only received 22% of all other federal student aid funds. Of the top ten Post-9/11 G.I. Bill fund recipients, only two nonprofit institutions made the top-ten list (University of Maryland, and the entire University of Texas system), which came in 9th and 10th, respectively.

Drop-out rates of first year students from these top for-profit college corporations (a key-indicator in educational attainment) were disappointing, causing HELP committee members to question if the large investment of G.I. Bill funds to these for-profit colleges was a wise investment (HELP, 2011). They were found to be much higher than those found in the top non-profit institutions, with attrition rates among students attending the top eight for-profit institutions at, on average, 60% or more within one year of enrolling, compared with attrition rates of 14% and 26%, respectively, of first year students attending either the University of Maryland or University of Texas system schools (HELP, 2011). In short, academic attainment at these for-profit college corporations among student veterans utilizing the Post-9/11 G.I. Bill actually appears to have decreased, in comparison to the academic attainment of 1.4 years seen among users of the Vietnam G.I. Bill or Montgomery G.I. Bill (Angrist, 1993; HELP, 2011; Smith-Osborne, 2009).

Not only are these academic attainment figures disappointing, for veterans who do complete degrees at these for-profit institutions, these degrees tend to lead to less lucrative jobs than do similar degrees from nonprofit institutions. For example, Golden (2009) cites data from PayScale indicating that returns on MBA degrees from for-profit colleges University of Phoenix, or American InterContinental University earn recent graduates median salaries of $60,200 and $54,600, compared to median incomes for recent MBA graduates from University of Oklahoma and University of Maryland's University College of $78,600 and $68,400, respectively. Lee Cohen, a managing partner of Lucas Group executive search firm, asserted that human resource executives from big companies are often reluctant to hire potential workers with online for-profit degrees (as cited in Golden, 2009).

Reports such as these have spurred stakeholders such as the Senate HELP Committee, U.S. Education Secretary Arne Duncan, and the Department of Defense toe push for tighter regulation of for-profit colleges (Golden, 2010; HELP, 2011). In fact, as early as 2004, the Department of Defense (DoD) began developing stricter standards for scrutinizing online programs through the American Council on Education, but according to Tommy T. Thomas, Deputy Under Secretary for military community and family policy, these standards were "still years away from implementation" (Thomas, as cited in Golden, 2009, p. 2).

Researchers are not waiting for stricter standards to be implemented before addressing the barriers already identified and studying the effectiveness of interventions to overcome those barriers (Smith-Osborne, 2005, 2009, 2010; Steele et al., 2010). Their actions may be crucial to helping student veterans utilizing the Post-9/11 G. I. Bill reach their individual educational attainment goals and to simultaneously "impact the United States in resounding, positive ways in this new century" (Erik Shinseki, quoted in Webb, n.d., p.1). Chapter two will review what is known about two barriers that many student veterans face – learning disabilities and PTSD – and will also review the Supported Education Model as a theoretical framework within which to address these and other barriers to educational attainment within this community.

CHAPTER 2

LITERATURE REVIEW

2.1 Learning and Psychiatric Disabilities

Research findings indicate that both learning disabilities and psychiatric disabilities are risk factors for obtaining lower grades, and for withdrawing early from postsecondary education (Kessler, Foster, Saunders, & Stang, 1995; Maitland, 2000; Smith-Osborne, 2005; Vogel & Adelman, 1990). The costs to society from this lowered educational attainment include the lost occupational and financial productivity of individuals with these disabilities, along with an increase in poor lifestyle behaviors such as substance abuse, lack of treatment of psychiatric disorders leading to an increase in symptoms, homelessness, and overburdened caretakers (Smith-Osborne, 2005, Savoca & Rosenheck, 2000).

An established prevalence of PTSD (a psychiatric disability) among OEF/OIF veterans, in addition to a high prevalence of lifelong learning difficulties among participating student veterans, as is suggested in Smith-Osborne (2010), make both of these conditions important for consideration by policy makers and university leaders in any strategies aimed at assisting student veterans increase their educational attainment beyond levels attained under earlier versions of the G.I. Bill (Angrist, 1993; Smith-Osborne, 2005; Smith-Osborne, 2009). Although research documenting the effects of psychiatric disabilities and learning disabilities on academic attainment have been conducted largely in populations other than student veterans, the challenges experienced by these populations may reasonably be expected to be similar to those experienced by student veterans with similar conditions (Collins & Mowbray, 2005; Kessler et al., 1995; Maitland, 2000; Moxley, Mowbray, & Brown, 1993; Vogel & Adelman, 1990). This chapter reviews what is currently known from the literature about the effects of

psychiatric disorders and learning disabilities (LD) on postsecondary academic attainment, how the specific psychiatric disability of PTSD may affect postsecondary academic attainment, and what one intervention model which is currently being utilized and tested as methods to address these barriers among the student veteran population (Smith-Osborne, in press).

2.1.1 Learning Disabilities (LD)

The neurological conditions of LD and Attention Deficit Hyperactive Disorder (ADHD) are often mentioned simultaneously under the umbrella term of LDs (Johnson, 2010), which practice is also appropriate within the context of this paper. While ADHD is a specific disorder characterized by difficulties in concentration and attention (Bremner, 2005), and LDs are a category which includes a wide range of learning difficulties, including familiar conditions such as dyslexia and reading comprehension, they converge in a shared difficulty for utilizing metacognitive strategies, and executive function skills in those diagnosed with these various conditions (Johnson, 2010).

In an effort to counter the disadvantages posed to students with LDs as well as other disabilities, and raise the number of individuals with disabilities who pursue postsecondary education, Congress has enacted laws which mandate changes within educational settings. These laws are: (1) Section 504 of the Rehabilitation Act of 1973, (2) the Individuals with Disabilities Education Act (IDEA) of 1990, and (3) the Americans with Disabilities Act (ADA) of 1990 (U.S. Equal Opportunity Commission, hereafter EEOC, 2002; U.S. Dept of Education, 2007; U.S. Dept of Health and Human Services, 2006).

The IDEA mandated the individualized education plan (IEP), which outlines goals, objectives, and services specifically related to that student's educational needs (U.S. Dept of Education, 2007). The ADA and Section 504 requires institutions receiving federal funding to provide "reasonable" accommodations for different types of disabilities (EEOC, 2006; U.S. Department of Health and Human Services, 2006). Although the IDEA *entitles* a LD student to mandated accommodations, through the IEP, the ADA and Section 504, by contrast, only make

a student *eligible* for accommodations at the postsecondary level. This leads to a situation where only 35.4% of students with disabilities (up from 30.4% reported in earlier studies, see Vogel & Adelman, 1990, 2000) self-identify and receive accommodations at postsecondary institutions (Wagner, Newman, Cameto, Garza, & Levine, 2005). The same study found that a much smaller number of students with a LD – only 2.4% – officially reported their disability (from a pool of participants wherein 9.7% unofficially reported an LD; Wagner et al., 2005). As a plausible explanation for this drop off in post-high school use of accommodations, researchers argue that students with disabilities, including those with LD, have not had to develop (e.g., in high school) the skills and knowledge which promote the utilization of accommodations upon entry to postsecondary education (DaDeppo, 2009). These skills and knowledge include self-advocacy skills, and a full understanding of the effects of their LD, as well as an understanding of their rights and responsibilities under the ADA and Section 504 (Brandt & Berry, 1991; DaDeppo, 2009; Reed et al., 2009; Skinner & Lindstrom, 2003).

Students with LD who do not utilize available accommodations have been shown to succeed in higher education at a lower rate than their non-LD counterparts. As discussed previously in chapter one, they enter institutions of post-secondary learning at a lower rate than their non-LD counterparts, drop out more frequently and to take longer to graduate, on average, than their non-LD peers (Center for Education Statistics, 2000; Vogel et al., 1999). LD students who access accommodations and support, however, have been shown to have similar graduation rates as their non-LD counterparts (Vogel & Adelman, 1990, 2000).

If the definition of having an equal opportunity to pursue educational goals means that student veterans with disabilities have a right to expect benefit networks in the context of anti-discrimination efforts to ensure equal rights for the differently-abled veteran as put forward by Smith-Osborne (2009), then interventions might be expected to include access to resources which increase academic skills, self-advocacy, information on the impact conditions can have in

postsecondary education, and aid in accessing accommodations for barriers to academic attainment presented by individual student veterans to academic attainment, including LD.

Research exploring means to increase the academic success of students with learning disabilities tends to focus either on strategies and interventions to improve the metacognitive skills and compensation strategies utilized by students with learning disabilities (Mercer & Pullen, 2005; Reid & Lienemann, 2006; Zimmerman, 2000; Zito, Adkins, Gavins, Harris, &Graham, 2007), or to focus on ways to increase the attribute of persisting in academic attainment through broader interventions which increase social and academic supports (Carter-Davis & Launey, 2001; DaDeppo, 2009; Reed et al., 2009; Tinto, 1993). Both of these approaches will be reviewed as necessary components to a successful intervention for increasing postsecondary academic attainment among student veterans with LD.

In a field implementation study conducted by a high school teacher, carefully arrived-at recommendations from academic researchers (Conley, 2007; Mercer & Pullen, 2005; Reid & Lienemann, 2006; Zimmerman, 2000) were tested in a high school classroom populated with both LD and non-LD students (Johnson, 2010). Rationale for including a mixed population in the study came from Merriman and Codding (2008) who found that, although the APA (2000) only identifies one executive function disorder (ADHD) as affecting 3-7% of the school-age population, “80% of adolescents were found to exhibit symptoms of ADHD, making the issues of self-regulation and study skills important for many students” (see Johnson, 2010, p. 18). This finding is supported by research citing reports by professors that 85% of college freshman are not ready for college-level work (Conley, 2006).

In the intervention developed by Johnson (2010), individual students detailed where studying took place, how long the assignment took, what distractions were present, and how confident they were about their knowledge of the assignment. This enabled students to make connections between inputs (e.g., efforts and study strategies) and outputs (received grades). Additionally, for students not sure which strategies to use, a chart of different study methods

was also filled out to show which strategies were used, with what final outcome (e.g., using notes, showing and checking work, asking for help, etc.; Johnson, 2010). While these self-regulatory strategies seem simple, they are implementing the practice of metacognitive skills and improving the use of study strategies, and have been shown to be especially important in improving academic outcomes among those with learning disabilities (Conley, 2007; Johnson, 2010; Ruban, McCoach, McGuire, & Reise, 2003). These are skills which can help students make better use of accommodations provided to them at postsecondary institutions, such as longer time for taking tests. After all, more time is of little use in improving the prospects of a good grade if effective studying has not taken place prior to that test (Carter-Davis & Launey, 2001; Reed et al., 2009). Likewise, accommodations for copies of lecture notes are insufficient to compensate for memory deficits without instruction in learning strategies (Carter-Davis, 2001).

Beyond academic skill training, a second area of focus in research regarding students with LD in postsecondary institutions is that of the roles of social integration and support on persistence in studying (Carter-Davis, 2001; DaDeppo, 2009; Reed et al., 2009; Tinto, 1993). Research has found that accommodations represent a small proportion of service needs for students with LD (Branker, 1997, cited in Carter-Davis & Launey, 2001). Likewise, DaDeppo (2009) found that "while academic integration is important for predicting persistence of college students with LD, social integration may be most powerful" (p. 128) Interventions found to increase social integration in study conditions included semester-long classes where students were able to meet and receive peer support through an open forum for discussion and support, unlimited access to a tutor, and a place to develop networks beneficial to learning (Carter-Davis & Launey, 2001; DaDeppo, 2009; Reed et al., 2009). Through these additional supports, students with LD in one study were found to increase both their self-reliance and self-empowerment, as well as raise GPAs in the group intervention significantly higher than those in a study group only utilizing accommodations as needed (Reed et al., 2009). In an interesting

trend, however, researchers found that frequently this new sense of empowerment was initially followed by a decreased reliance on disability accommodations, which would then lead toward a lower GPA (Carter-Davis, 2001). By the second year, however, researchers noted a balance reached in most participants between total independence and the utilization of necessary academic support (Carter-Davis, 2001). Based on their findings, Carter-Davis & Launey (2001) recommended extending services beyond accommodations to include pedagogical responses to learning issues, and help in developing relationships in a community and learning environment. Another conclusion is that classes teaching academic skills should be available to all university students, as such a high percentage of student veterans self-report learning difficulties, or have been identified among the general student body by professors as lacking in rigorous academic skills (Conley, 2006; Smith-Osborne, 2010).

Strategies for helping student veterans overcome barriers to academic attainment, could therefore, include assessing for LD in student veterans, and making available explicit instruction of these skills through a mentor or tutor. Also important would be to explore options for more fully integrating student veterans with other fellow student veterans in a social context to increase persistence and thus academic attainment of all student veterans—those who meet the full criteria for a learning disability, as well as those who simply express subclinical learning difficulties (Smith-Osborne, 2009).

Researchers indicate that the majority of universities do not offer such classes for students with LD, but that many do offer individualized sessions with the focus of increasing academic attainment of students with LD (Reed, Lund-Lucas, & O'Rourke, 2003). There is a need for further study of these individualized sessions to determine their effectiveness. However, the variability of the LD student community and of these individualized sessions makes it difficult to compare results. Similarly, the addition among some student veterans with LD of with such as PTSD would add a previously unstudied variable which may limit effectiveness of such intervention efforts. The current study will evaluate the effectiveness of

accommodations at increasing academic attainment for a student veteran with both a lifelong LD and PTSD in a single system design study.

2.1.2 Posttraumatic Stress Disorder (PTSD)

The effects of PTSD and mTBI on the ability of individuals to be educated and employed have been noted since at least WWI, although they were not fully understood at the time. For example, both a need for remedial education and mental instability (noted among 8-15% of veterans) were cited by the New York Board of Vocational Education (NYBVE) as possible causes behind low success rates within their program (NYBVE; Gelber, 2005). One of the NYBVE officials was quoted as saying, "There are a great deal of young men difficult to advise. Their nerves are shot to pieces" (cited in Gelber, 2005, p.168). Conditions which we would now identify as PTSD and mTBI were then simply known as a "nervous disorder," "neurasythenia," or "shell-shock" (Bhattacharjee, 2008; Gelber, 2005).

In spite of this early documentation on the effects of PTSD, research has been slow to investigate its full effects and to test interventions to remediate these effects so that educational attainment can proceed. This became evident in the author's literature search which was unsuccessful in locating more than a few studies on the subject (Schnurr et al., 2009; Smith-Osborne, 2005, 2009, 2010, in press) exploring the effects of PTSD in an educational setting. In the absence of an extensive literature base, this section reviews how specific symptoms of PTSD may interact in such a setting.

Diagnostic features of the anxiety disorder PTSD, as listed in the current Diagnostic Statistical Manual of Mental Disorders (DSM-IV-TR, 2000) consist of traumatic stress exposure criterion and the resulting in three clusters of characteristic symptoms.

These three characteristic symptom clusters include persistent avoidance of stimuli associated with the trauma and a numbing of general responsiveness, hyperarousal, and persistent reexperiencing of the traumatic event (APA, 2000). These symptoms must persist for more than one month, and must significantly impair social, occupational, or other important

areas of functioning (APA, 2000). Some ways avoidance symptoms may manifest are in the avoidance of people, places, activities, as well as thought feelings or conversations associated with the trauma; diminished interest or participation in significant activities, feeling of detachment or estrangement from others, and a sense of a foreshortened future. Reexperiencing symptoms can manifest by way of recurrent and intrusive distressing recollections of the event, dissociative flashback episodes, having a sense of reliving the episode, intense psychological distress at exposure to internal or external cues that resemble an aspect of the traumatic event, or physiologically reacting to internal or external cues that resemble an aspect of the traumatic event. Symptoms of hyperarousal can manifest in irritability or outbursts of anger, difficulty concentrating, hypervigilance, exaggerated startle response, or sleep difficulties (APA, 2000).

The effects of PTSD in various domains of sufferers lives' have been explored extensively by researchers, but its effects on students veterans with PTSD in the academic setting are only now receiving more serious attention, in large part due to the influx of recent veterans into postsecondary education as they utilize the Post-9/11 G.I. Bill (ACE, 2009; Steele et al., 2010; Schnurr, Lunney, Bovin, & Marx, 2009; Smith-Osborne, 2010; Smith-Osborne, in press). The consequences of underestimating the effects that PTSD may have on educational attainment would be significant for the current cohort of young veterans, many of them entering postsecondary education with PTSD (Schnurr et al., 2009; Smith-Osborne, 2009; Smith-Osborne, in press). Beyond the consequences to the affected veteran in terms of a poorer quality of life, the consequences to society as a whole would be both wasted taxpayer dollars dedicated to this educational attainment through the Post-9/11 G.I. Bill, as well as subsequent losses in occupational attainment and the array of negative consequences that often follow (Golden, 2009, 2010; HELP, 2011; Savoca & Rosenheck, 2000).

The opportunity of addressing PTSD in current OEF/OIF student veterans before the condition becomes chronic is one that is unique to this generation of war veterans, as compared

to the many studies exploring the effects of chronic PTSD in Vietnam-era veterans (Schnurr, Lunney, Bovin, & Marx, 2009). Unlike many Vietnam veterans with chronic PTSD, many OEF/OIF veterans with PTSD still have the assets of social support (Fontana & Rosenheck, 2008; Schnurr et al., 2009). Studies have shown that these assets deplete over time, increasing the risk of developing chronic problems such as overall lower quality of life, substance abuse, marital instability and increased divorce, unemployment and losses in wages, homelessness, and even suicide (Fontana & Rosenheck, 2008; Kessler, 2000; Savoca & Rosenheck, 2000; Schnurr et al., 2009).

Smith-Osborne (2009) found that receiving treatment for PTSD appeared to increase the odds that a veteran would attend postsecondary education by 2.14%, utilizing the G.I. Bill, while a second study by the same author seemed to suggest that, in the presence of the tested supported education intervention, PTSD symptoms could be reduced while a veteran was simultaneously attending postsecondary classes (Smith-Osborne, 2010). Specifically, pretest/posttest results from the aforementioned study found that PTSD symptoms actually decreased in student veterans over a two-semester intervention period (Smith-Osborne, 2010). Such lessened symptoms in each of the three clusters (reexperiencing, avoidance, and increased arousal) have been shown to correlate with improvements in all domains of life (employment, money, self-expression, relationships, and surroundings), and could have significant consequences for student veterans' success in postsecondary education (Lunney & Schnurr, 2007; Schnurr et al., 2009; Smith-Osborne, 2009; Vasterling et al., 2008).

As advanced degrees are increasingly considered crucial for most professional and skill occupations (Unger, 1994), it is encouraging that attempts to reduce PTSD symptoms may succeed in increasing retention of student veterans with PTSD in educational attainment. Recent statistics released by the U.S. Bureau of Statistics (2011, October) showed that in the current economic climate, those with college degrees experienced an unemployment rate of 4.7% versus 8.4% for those with some college or an Associates degree, 9.7% with only a high

school diploma, and 14.0% for those without a high school diploma. For recently returned male veterans between the ages of 18-24, and nonveterans of the same age, unemployment rates were found to be 21.9 %, and 19.7%, respectively (U.S. Bureau of Statistics, March, 2011).

As important as education is at improving the chances that veterans will find a positive place in civilian society (Schnurr et al., 2009), it must be achieved in concert with alleviation of PTSD symptoms. Research findings suggest that the effects of psychiatric health are as important as the influence of education and experience on earnings potential in the civilian labor market (Savoca & Rosenheck, 2000). Further, the effects of PTSD symptoms on the probability of employment is nearly twice the effect of that exerted by the amount of schooling on probability of employment (Savoca & Rosenheck, 2000). Such a combined approach demands the coordination of efforts by both mental health providers and postsecondary providers. Researchers studying this issue have concluded that OEF/OIF veterans who have been sent into combat will face challenges of decreased lifetime educational attainment through use of the G.I. Bill, similar to those of Vietnam veterans and Gulf War veterans, due in part to the prevalence of PTSD among them, unless such steps are taken (Lyons et al., 2006; Smith-Osborne, 2009).

Beyond the previously reviewed PTSD symptomatology of higher arousal, reexperiencing, and avoidance (APA, 2000), modern neurobiological research has also revealed the effects of reduced hippocampal volumes on memory deficits (Bremner, 2005). These symptoms can interfere with a student veteran's academic activities in both predictable and unpredictable ways. Although the triggers for symptom expression vary for each individual, an example of a common trigger which might be experienced by student veterans is that of becoming nervous when surrounded by crowds. This can be a problem for student veterans who might be enrolled in large freshman-level classes. Other difficulties include a reduced ability to concentrate or to remember previously learned material, coping with the negative side-effects from medication, or difficulty controlling rapidly rising irritation during, for example,

animated classroom discussions. These and other side-effects, such as a desire to isolate from others, were demonstrated anecdotally in experiences relayed to a reporter by student veterans (Golden, 2009, 2010). Evidence from research conducted by Schnurr and colleagues (2009) further concluded that the avoidance cluster was associated with reduced psychosocial functioning because it leads to withdrawal and difficulties in expressing emotions, whereas the hyperarousal cluster is more associated with a diminishment in role functioning.

Possible academic adjustments for students with PTSD or other psychiatric disabilities may include accommodations in the various academic settings such as: the classroom, lecture (aids for processing content), examinations, fulfilling assignments, or administration (Smith-Osborne, personal communication, 2010). Such accommodations could take the form of preferential seating, being given an "accompanier" or assigned classmate as an assistant, allowed beverages in class for alleviating dry mouth due to medications, pre-arranged breaks to manage anxiety, stress, or extreme restlessness, or a tape recorder to alleviate pressure of note-taking, and changes to exams in length, setting, format, as needed, etc. (Smith-Osborne, personal communication, 2010).

Even with such accommodations, however, research suggests that environmental supports in the form of mental health services, supportive teachers, friends and family, and college communities such as study groups along with the use of proven stress-relieving techniques may be needed to prevent symptoms from interfering with academics (Megivern, Pellerito, & Mowbray, 2003; Smith-Osborne, 2009; VA Vet Center, 2010).

One suggestion put forth by Rand-commissioned study participants was the provision of campus-based disability and mental health staff who understand veterans' issues (Steele et al., 2010). Implementation of this suggestion is supported by evidence suggesting that "when healthier veterans receive treatment for PTSD outside the VA health care system, that action influences further educational attainment" (Smith-Osborne, 2009, p. 333). In some postsecondary institutions, the actual barrier may not be a lack of knowledgeable staff but of a

perceived lack of such staff. As is the case with other students qualifying for disability accommodations, the onus is on the student to find the resources, and many student veterans are simply not aware of their rights or responsibilities (Maitland, 2000; Megivern, Pellerito, & Mowbray, 2003; Smith-Osborne, 2009). Researchers have noted a low access rate to needed services (e.g., those needed for mental health or those designed to maintain college their attendance) among the general population of students with psychiatric disabilities, so it would not be unusual for this to also be the case among student veterans with PTSD as well as other psychiatric disabilities (Megivern et al., 2003).

Mental health service use by student veterans with PTSD may be increased through the early coordination between a case worker and the student veteran to locate needed resources, including registration for disability accommodations, and mental health practitioners familiar with EBP for PTSD, (Smith-Osborne, 2009). To further encourage academic attainment in student veterans with PTSD, school officials could open communication lines with VA and community mental health providers concerning the importance of academic attainment, alongside basic medical and mental health care, for the ultimate reintegration of veterans with PTSD into society (Collins & Mowbray, 2005; Megivern et al., 2003). Supporting student veterans with PTSD through the coordination of needed services and resources may help them more fully integrate into campus life, which has been linked to persisting in school (Tinto, 1993). Current and future research into effective means to bridge the barriers expressed by student veterans themselves and past research may provide answers to postsecondary institutions seeking advice on how to effectively retain these new student veterans (ACE, 2009; Steele et al., 2010).

The current study recruited a student veteran from an ongoing Supported Education Intervention study which is studying the effectiveness of this intervention at overcoming barriers experienced by student veterans enrolled in postsecondary institutions (Smith-Osborne, 2010). This intervention will be explored briefly below.

2.2 Supported Education Model

Individuals typically experience the onset of a psychiatric disorder in early adulthood, which is also the typical period for enrollment to postsecondary education. This onset often results in early withdrawal from postsecondary education (Kessler, Foster, Saunders, & Stang, 1995). One model which has been used to address the needs of those who experience an onset of mental illness as they pursue higher education is the Supported Education Model. Supported Education (SEd) is a psychosocial rehabilitation method designed for individuals with psychiatric disabilities who plan to enter or reenter postsecondary education (Moxley, Mowbray, & Brown, 1993). Staff members train participants in study skills, develop social support, and provide career counseling (Moxley, Mowbray, & Brown, 1993). It is important to explore this model further for the current study, as it provides its theoretical framework.

2.2.1 The History of the Supported Education Model

SEd had its start in a Lakeshore Hospital (Toronto, Canada) program known as "Redirection Through Education" (Parrish, 2009). This ongoing program installs two postsecondary-level instructors in a self-contained classroom within the hospital who teach life skills, basic English, and math courses. By 2000-2001, the program was moved from the self-contained classroom to a college campus, giving students greater access to mainstream college classes while still receiving additional support (Parrish, 2009).

Since this beginning, the SEd model has expanded to include models operating in the following five settings: colleges, consumer alliances, clubhouses, community services agencies, and hospitals (Unger, 1998; cited in Leonard & Bruer, 2007). In fact, the SEd model has emerged as a best practice in psychosocial rehabilitation for individuals with severe mental illness who wish to integrate into society through education and employment (Parrish, 2009). Despite a lack of rigorous research to support the efficacy of the various models (Leonard & Bruer, 2007; Parrish, 2009), program evaluators are encouraged by reported outcomes such as high program enrollment numbers in postsecondary education, reports of positive impact on the

self-esteem of participants, peer support, and reduced healthcare costs, which all constitute compelling reasons to continue the utilization of SEd programs (Parrish, 2009).

One program which has been subjected to more rigorous study is the Michigan Supported Education Program (Mowbray, 2000). Its mission is to enable adults with psychiatric disabilities to matriculate at a community college by providing support in choosing and attaining career and educational goals (Mowbray, 2000). This support of skill acquisition is delivered in a classroom setting on two community college campuses. Skill acquisition classes meet for two and a half hours twice a week for two 14-week semesters. The program curriculum centers primarily on developing coping skills suited to dealing with the academic environment, stress management, and the development of career choices. It also extends to helping with task completion skills needed in higher education, such as the filling out of financial aid forms and college admission applications, and selecting classes (Mowbray, 2000). In a random-assignment experimental design study, the program was found to increase SEd intervention group participants' attendance in school, vocational training, or employment twofold over control group participants, and that participants with higher levels of attendance showed significant use of positive coping behaviors (Mowbray, 2000).

2.2.2 Supported Education as an Intervention for Student Veterans

SEd programs have been utilized primarily with individuals experiencing severe mental illnesses, such as bipolar disorder and schizophrenia, but not previously with the psychiatric disorders more commonly experienced by student veterans, such as PTSD and mTBI (Leonard & Bruer, 2007; Mowbray, 2000; Parrish, 2009). Furthermore, the SEd model has only recently been applied to the student veteran population in general, with the goal to aid those in that population who might be experiencing other, non-psychiatric barriers (Smith-Osborne, 2010; Smith-Osborne, in press). Current research entitled *The Student Veteran Supported Education Intervention* (also known as the *Student Veteran Project*, or SVP), however, is now studying the effects of a SEd intervention on furthering the academic attainment of this specific population,

with and without psychiatric disabilities (Smith-Osborne, 2010). As discussed above, of particular interest to the focus of this paper is the significant percentage of student veterans participating in SVP study who self-report learning difficulties unrelated to psychiatric disabilities (Smith-Osborne, 2010).

The Student Veteran Supported Education Intervention (hereafter referred to as the SVP) recruits volunteers from "the general population of veterans returning to higher education…including those with psychiatric symptoms and disorders and with conditions which affect learning and readjustment to civilian life in general and to the student role in specific" (Smith-Osborne, 2010, p.2). It employs one principal investigator (PI), and approximately one to two dozen bachelor- and masters-level social work interns (case managers) who carry out the SEd intervention study (Smith-Osborne, 2010). After initially assessing the strengths and barriers of individual study participants, the PI supervises the planning of an individualized SEd intervention based on the needs of that participant. These include, but are not limited to, services of aiding in the documentation of disabilities, locating tutorial services, finding affordable housing, completing the Free Application for Federal Student Aid (FAFSA), and locating financial aid sources beyond, but also including, VA benefits. The case manager and each participant then meet regularly over the intervention period to overcome identified barriers, along with any that may arise during that period (Smith-Osborne, 2010).

Smith-Osborne (2010) lists nine hypotheses being tested to judge effectiveness of the SVP as follows:

> "1) SEd participants will remain enrolled longer (i.e. drop-out prevention); 2) SEd participants will maintain a higher GPA; 3) SEd participants will complete more classes; 4) SEd participants will utilize more educational accommodations and university support services; 5) SEd participants will utilize needed mental health treatment services more consistently; 7) SEd participants will be more successful in setting and maintaining effort toward realistic goals; 8) SEd participants will show higher levels of social

adjustment and resiliency on post-test measures; 9) SEd participants who complete the entire program will demonstrate the previous outcomes at a higher level than those who partially complete the program" (Smith-Osborne, 2010, p. 6-7)

Comparisons between pre- and post-intervention data obtained from first year participants suggest that at least four of these hypotheses correctly predicted SEd intervention-group participants' significantly greater use of a variety of financial aid sources as well as a greater use of other available resources. Additionally, SEd intervention-group participants' grade point average increased on average from a pre-test score of 2.82 to a post-test score of 3.18. Finally, with a zero percent drop-out rate, the data fully supported the hypothesis predicting that SEd participants would remain enrolled longer than control group participants (Smith-Osborne, 2010).

Chapter three of this thesis will describe an SSD study designed by the author which attempts to look in-depth at the challenges and successes experienced by one SVP participant during and after active participation period in the SVP study.

CHAPTER 3

A CASE STUDY: THE EFFECTS OF ACCOMMODATIONS, COMPENSATORY STRATEGIES, AND COGNITIVE REMEDIATION FOR ONE STUDENT VETERAN

3.1 Methodology

This case study utilizes a single-system design (SSD). Single-system designs are an important tool to bridge the gap between researchers and practitioners (Bradshaw & Roseborough, 2004; Rahman & Applebaum, 2010) and can be an important tool for answering the NASW *Code of Ethics*' call for all social workers to "contribute to the knowledge base of the social work profession" (NASW, 2008, 5.01.d.). As such, however, SSDs continue to be underutilized by social workers (Reid, 1994; Morgan & Morgan, 2001). The purposes of this study were to describe the steps taken by one student veteran to register his disabilities and receive the proper accommodations, and secondly, evaluate the effectiveness of those accommodations at increasing his GPA and persistence at enrollment over the study period. By fulfilling these purposes, the author seeks to contribute to a new area of research by studying the academic attainment of student veterans, especially those utilizing the new Post-9/11 G.I. Bill.

The in-depth data a well-done SSD study can provide allows a researcher to look at a subject from an exploratory, explanatory, or descriptive dimension, which can be especially useful for answering questions pertaining to how evidence is turned into practice, or questions regarding a participant's *attitudes*, *beliefs*, or *preferences* about the intervention in question—questions which are difficult to address in larger, quantitative studies due to their variability (Green & Britten, 1998; Morgan & Morgan, 2001, Ying, 2009).

3.1.1 Description of Research Design and Procedures

The SSD study described in this chapter was developed while following one subject in the SVP. Theoretical model of the SEd is followed in both the SSD, and the SVP studies and therefore the hypothesized outcomes of improved GPA, and persistence in school is similar in both studies (Smith-Osborne, 2010). While the SVP will utilize measures to answer these and seven other hypotheses for this and a larger sample of student veterans, the SSD specifically, focuses on how utilization of acquired accommodations affected this client's grade point average (GPA), and also seeks to more fully understand and describe the challenges of overcoming barriers to registering for accommodations encountered for this student veteran. Research elements in this study which were also part of the SVP protocol include the initial assessment interview, and the arrangement of regularly scheduled meetings to continue assessment of needs and coordination of resources through a case manager over a two-semester period.

Following a signed consent for participation in the SVP, and the administration of SVP pre-test measures (see Smith-Osborne, 2010), the study's subject, Mr. C, participated in an initial assessment interview conducted by his first of two case managers (also the author of this paper). To preserve study integrity, case managers carrying out the SVP interventions received previous and ongoing training in administering the SEd method protocol by the study's principal investigator (Smith-Osborne, 2010).

The initial assessment interview allowed the case manager to obtain a detailed history of the participant's past experiences with a focus on how those historical details might impact his current course of academic study. As barriers to academic attainment were noted by the case manager, they became the focus of the participant's individually tailored SEd intervention. During this initial assessment session, regular meetings were scheduled between the case manager and participant wherein the case manager would present information regarding available resources pertinent to that particular participant, help develop a strategy for

overcoming any barriers to academic attainment, track progress in intermediate steps towards goal attainment, and redirect course for ineffective intermediate or overall goal attainment. Meetings between Mr. C and his assigned case manager were initially scheduled bi-monthly in private-study rooms at the campus library, but as the study progressed, these changed in frequency and location, to meet the needs of Mr. C in meetings his goals of obtaining accommodations for the second semester. Meeting attendance was encouraged through the incentive of one $20.00 pre-paid gas card for each meeting over 20 minutes (Smith-Osborne, 2010).

Based on current research reviewed in chapter two, and results from the case manager's initial assessment interview of Mr. C, two key barriers to Mr. C's academic attainment were identified. One barrier was a lifelong LD, specifically in the area of reading comprehension, and the other was Mr. C's diagnosis of PTSD. Of these two barriers, Mr. C was interested in taking steps to register his LD for academic accommodations through the Office of Students with Disabilities (OSD) at his university, but he was not interested in registering his PTSD disability at the time of the initial assessment interview. He did not feel that his PTSD would be a barrier to academic attainment at this time, as he felt confident that he had his symptoms well-managed with medication.

The research design is an A-B-A SSD, with the baseline period (A-) establishing a baseline of grades before accommodations were available, an intervention period (B-) in which accommodations were available along with the continuing case manager to monitor their use by Mr. C while continuing to collect grades. The final period (A-) tracks Mr. C's grades with continued use of accommodations, but without a case manager to monitor and coordinate service usage to evaluate whether any effects noted in the intervention (B-) period continued.

Initially, the length of time for each period was projected to last less than a semester each. The length of time for each period was modified mid-way through the first semester, however, when it became clear that extraneous factors would prevent the registration and

reception of disability accommodations for Mr. C for the entire first semester of Mr. C's two-semester SVP participation. Mr. C agreed to the idea of being the subject of an SSD study extending across his two-semester participation in the SVP. IRB approval was sought and approved for the collection of secondary data beyond the first semester during which the author was the case manager.

3.1.2 Description of Participant

Mr. C agreed to be the subject of this SSD study after he was randomly assigned to the two-semester-long SEd intervention group from a pool of randomly assigned student veteran participants in the SVP study (Smith-Osborne, 2010). As such, he met certain eligibility criteria, which included seeking a first undergraduate degree and being from "the general population of veterans returning to higher education…including those with psychiatric symptoms and disorders and with conditions which affect learning and readjustment to civilian life in general and to the student role in specific" (Smith-Osborne, 2010, p. 2).

In many ways, Mr. C fit the description of a "typical" student veteran utilizing the Post-9/11 G.I. Bill to pursue postsecondary education, including attributes of his older age, family and financial status, and his endorsements of both a learning and psychiatric disability (see Steele et al., 2010). Mr. C is a 37 year old, Caucasian male, who has a teenage daughter from a previous marriage. He is financially independent from his parents, by way of his VA disability income combined with benefits from the Post-9/11 G. I. Bill. Mr. C also presented with a psychiatric disability of combat-related PTSD and has a life-long diagnosed LD.

Mr. C also possesses extensive life experience and a self-discipline developed through a challenging career in the military, but no previous experience in the civilian world of academics beyond high school. In fact, he had not previously envisioned himself pursuing a postsecondary education, intending instead to remain in the military until retirement. This life trajectory changed when Mr. C sustained extensive physical injuries while on duty in Iraq, and was medically discharged in 2006. At the time of this study, he had just begun his first

semester of pursuing an undergraduate degree in kinesiology with the goal of graduating with a high enough GPA to continue his studies as a graduate student in physical therapy, and a career goal of being a physical therapist at a VA medical center

3.1.3 Data Collection

Data collection began for this SSD during the initial SEd psychosocial/needs assessment interview (Cornoyer, 2011). From the information gathered in this psychosocial assessment, the case manager and student veteran identified strengths and barriers to his educational attainment. Intermediary goals were then established towards the accomplishment of an ultimate goal to overcome the identified barriers, along with a tentative meeting schedule which was flexible to change according to the scheduling needs of the participant, designed to focus on tracking progress towards goal attainment, and the resolution of any additional barriers arising during the SSD intervention period. These goals were recorded for purposes of monitoring attainment progress.

Data collection continued at scheduled meetings, held for at least twenty minutes, and was recorded in the Subjective-Objective-Assessment-Plan (SOAP) note format. For a more detailed record of meetings and intermediary goal attainment, see Appendix (A).

Meetings were initially set for every other week throughout section A (baseline) of the SSD, and continued through section B (accommodation utilization phase) of the SSD. These interviews were discontinued for the final A section of the SSD. The Participant Observation method (see Family Health International, n.d.) was followed to answer objective questions regarding the student veteran's efforts towards attaining his goals, as well as a guide for the case manager to approach the participant in locations frequented by the student veteran when he was not observed to show up to scheduled meetings. Because the study intervention was designed to aid the student veteran participant obtain resources, however, observation of the participant's action alone was not seen as sufficient. The case manager also therefore followed the methods in the assertive community treatment model (ACT; Bond, McDonel, Miller, &

Pensec, 1991), developed to actively track down individuals qualifying for services, but who are not accessing them due to characteristics prevalent in a particular population to which that population belongs. Smith-Osborne (2010) advocated the use of the ACT model in the SVP study to accommodate those with memory deficit conditions, as well as other disabilities.

3.1.4 Data Analysis

Analysis was conducted using Goal Attainment Scaling (GAS), and participant observation methods, primarily used in traditional ethnographic research. Baseline—A—period goals were accomplished in concrete intermediary steps leading towards the main goal of registering disabilities accommodations while participant continued in postsecondary classes, which resulted in either-or ratings, rather than gradual improvement or decline in one single targeted behavior. This was seen as appropriate for a portion of the normative, non-therapeutic goals chosen for the participant's academic attainment.

As the baseline period progressed, recorded progress in accomplishing goals was used to determine if delineated tasks were effective. Prompt change of course was therefore possible where it may otherwise have not happened, if (for example) goals were vaguely stated and progress not recorded for review by both participant and case manager.

The research design included a provision for the use of GAS during the intervention-B-period to allow correlation of GPA attainment to the specific utilization of accommodations and cognitive remediation exercises. This was seen by the author as especially important for understanding the effectiveness of cognitive remediation techniques assigned in addition to university-provided accommodations. Unfortunately, GAS data was not collected by the second assigned case manager as planned during this intervention period, resulting in the loss of data which could link specific frequency in use of accommodations and techniques to improving or declining grades. For a more detailed record of meetings and intermediary goal attainment during the baseline-A-period of the study, see Appendix (A). Lack of detailed GAS data in the B-phase of the study is addressed in the limitations section of chapter four of this thesis.

Data collected through participant observation techniques was qualitative in nature, and was recorded from field notes collected during meeting interviews using the mental health recording method of SOAP notes. The results are found in the discussion section of chapter four of this thesis.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Results

The main purpose of this study was to investigate intervention outcomes of one student veteran participant of the SVP clinical trial (Smith-Osborne, 2010). This included describing his efforts to overcome barriers to attaining his personal academic goals qualitatively, and exploring the resultant official record of his efforts in his recorded GPA. It also involved exploring the role of university-provided disability accommodations and that of the additional support provided through an assigned SEd intervention caseworker in increasing educational attainment goals of persistence and increased GPA.

4.1.1 Outcomes by Intervention Period

The following sections detail the outcomes by intervention period.

4.1.1.1 Baseline-A-Period (August 2010-December 2010)

During the A-period, Mr. C was enrolled in four classes, Film Appreciation, English, Writing, and Cell Biology, during his first semester as a freshman at a four-year university. Mr. C's original goal during this period was to register his LD with the Office of Students with Disabilities (OSD) early in the semester. He preferred not to document his PTSD for accommodations at that time, as he felt he had his symptoms under control through previously received therapy, and the continued use of medication for PTSD. He also had no previous experiences of attending school with PTSD, and could not foresee any difficulties, based on previous experience. Mr. C, did, however, have experience of attending school with LD, and reported a positive experience of utilizing accommodations for his reading comprehension

disability during his primary and secondary education, motivating him to seek similar accommodations during his postsecondary education.

As Mr. C's LD documentation from high school proved difficult to obtain, intermediary goal changes were made towards the accomplishment of the ultimate goal (e.g., registering his LD disability at the university office for students with disabilities, or OSD. These intermediary goals can be seen in Appendix A. These intermediary goals can be viewed in Appendix A. Mr. C found that the course which did not require him to process large amounts of difficult information, Film Appreciation, proceeded easily (as confirmed by his final grade), but that Biology was presented at a fast pace and a sophisticated style by the instructor. Reading comprehension problems and a lack of effective study strategies were identified by Mr. C as the reason for his struggles. Unfortunately, Mr. C received an 'F' in this class. Although Mr. C received a 'B' in his English class, he noted that his PTSD symptoms were becoming triggered in this class by the subject matter of the assigned reading material (set in a combat scenario similar to what he experienced in Iraq). He also described racing thoughts, and stated that "his hand was not keeping up with his thoughts." The result was that even with some flexibility on the part of the professor, his grade began to decline in this class.

Mr. C also expressed frustration about his inadequate note-taking skills, and resources for teaching more effective note-taking skills were located. Mr. C began following the methods, and reported that although he found the techniques helpful, he felt he needed further guidance. Further help in notetaking was not provided until the second period (*B*-) of the SSD due, in part, to the competing tasks of simply managing increasing course workload, continued efforts to secure documentation for his LD, and now PTSD, to accomplish before the semester was completed. On his own initiative, Mr. C tried the following means of improving his grade in biology: attending pre-test sessions with the Graduate Teaching Assistant (GTA), whose foreign accent was difficult for Mr. C to understand; forming and attending a study group with "two

students motivated to get good grades," and meeting with the teacher himself. These efforts proved unsuccessful at improving his biology grade.

Mr. C's increased his contact with his assigned SVP case manager and together they worked to secure or obtain new documentation for his LD in addition to PTSD (now that Mr. C witnessed that symptoms were affecting him more than he had anticipated (see Appendix A). Because of these actions, the author and Mr. C were able to formulate and accomplish concrete intermediary goals towards securing proper documentation on both of these disabilities, with the ultimate goal of being able to present them to the OSD by the date of December 17th (last day of the semester).

This target date was not met, as shown in Table 4.1, but several sub-goals toward that larger interim goal were accomplished, including participation in a brain imaging session utilizing the Saccade and Stroop neuropsychological tests, which was arranged by the PI of the SVP (Smith-Osborne) to provide current assessment of his learning disability. Mr. C had learned that even if he secured his high school LD documentation, the OSD would not accept it due to it being older than 5 years. The PI provided recommendations for accommodations for Mr. C to present to the OSD and for cognitive remediation and compensatory strategies to be added to his intervention plan, based on the results of these tests and a clinical diagnostic interview.

Mr. C requested that the author accompany him to the OSD at the end of the first semester to see what he needed to do to register his disabilities, as he had not yet done so. During this visit, the author observed that Mr. C did not appear confident in advocating for his needs in this setting. The author's presence was helpful in convincing the OSD attendant to retain Mr. C's diagnostic results and recommendations pending a review by the full committee, when she was reluctant to do so. The author also helped frame questions in a way that would give Mr. C the information he sought (e.g., "What specific steps does ___ need to take next to secure the documentation that the OSD requires?")

This documentation was accepted by the full OSD committee for temporary accommodation for an LD disability, pending further IQ and reading testing. The OSD was helpful in securing PTSD documentation from the VA, which then cleared Mr. C to access accommodations for both conditions as needed the following semester. The requirement for further testing was later dropped, and accommodations continued to be added throughout the intervention-B-period, as evidenced by a comparison of accommodations utilized at the beginning and later in the semester. The OSD explained to the author that they assign each registrant a personal counselor who fine-tunes the accommodations to each individual.

4.1.1.2 Intervention-B-Period (January 2011-May 2011)

As mentioned previously, the case manager assigned Mr. C during his second semester of participation in the SVP did not utilize GAS as intended by the author of this study, and succeeded in securing few actual meeting sessions with Mr. C. Reasons for this were reported by the case manager as an inability for her to change her schedule to meet Mr. C when he was naturally available in his favorite study area (viz., Starbuck's),or flexibility in the second case manager's schedule to arrange to meet Mr. C after his classes for unscheduled meetings in an effort to find him and develop a rapport and meeting schedule which would work for both of them. In spite of this shortcoming in the current study, pertinent data were presented, which detailed the accommodations utilized during the semester (see Table 4.1), as well as a self-report by Mr. C rating their usefulness through a 5-point scale (ranging from 1 = not at all to 5 = very useful).

The author also noticed evidence suggesting a possible increase in Mr. C's self-advocacy skills, skills which are seen as important for the success of students with LD in postsecondary education (Carter-Davis & Launey, 2001; Maitland, 2010), in obtaining accommodation increases from the beginning of the semester to the end. In an interview conducted on the subject of accommodations between Mr. C, his case manager, and the author a few weeks into the B- phase of the SSD, Mr. C reported accommodations he was receiving at

that time, and noted additional accommodations recommended by the SVP PI which he would like to discuss receiving with his OSD counselor. In the final list of accommodations utilized by Mr. C, each of those additional accommodations had been added without a need for further testing on his LD (see Appendix B). Of accommodations received, Mr. C reported to his second case manager that he found the lecture accommodation of "occasional notetaker" very useful. The study accommodation Mr. C found most useful was the Dragonwriter voice recognition software, but stated that he found all study accommodations important to his success. During test-taking, Mr. C reported that accommodations for extended time testing in a quiet environment with oral testing was somewhat useful, but reported that he did not always need this accommodation.

Mr. C also reported that he performed the cognitive remediation exercises recommended by the SVP PI "about once a week." Without the utilization of GAS scaling, however, conclusions cannot be drawn as to the specific impact of either these exercises, or specific accommodations, or any other extraneous variables, but his GPA improved to a 3.0 during his second semester over the previous semester's 2.1 GPA.

One area in which Mr. C stated having difficulty was in managing the PTSD symptoms of anxiety and racing thoughts, which Mr. C attributed difficulty in being able to complete assignments easily. "Mindfulness" meditation classes, which were held on campus for free, were suggested as a possible intervention for slowing down his mind and relaxation benefits. There is no evidence that this suggestion was followed, based on the secondary data received. For a complete list of accommodations Mr. C was awarded at the beginning of Spring 2011 semester, and those he was receiving by the end of that semester, see Appendix B. It appears from the list of accommodations, that most of them were targeted at LD symptom alleviation.

4.1.1.3 Post-Intervention-A-Period (June 2011- August 2011, and August 2011 to November, 2011)

Data was collected at two follow-up periods, one after each of the two subsequent semesters following the active intervention-B-period. During this time period, Mr. C was no longer participating in the active SVP SEd intervention (having completed his two semesters of services), and therefore no longer had a case manager meeting with him to help coordinate resources. Accommodation usage was still available through his registration with the OSD, in addition to support through his OSD counselor, and an academic advisor (regularly assigned by universities to each freshman—disabled and non-disabled—to help guide progress towards degree completion). During the first follow-up period, Mr. C received one 'Incomplete' grade in the summer semester, along with an 'A' in scuba diving and a B in a political science class. Among possible reasons for the incomplete may be that Mr. C unknowingly taking on a heavier workload than he could handle in the shorter summer semester (summer semester is five weeks shorter than spring or fall semesters at this university). follow-up questioning, would be needed to support this conclusion, however. Mr. C demonstrated increased academic sophistication in requesting an 'I' rather than settling for a failing grade, for its preferable effects on a total GPA score.

By the start of the second follow up period (Fall 2011), Mr. C had an accumulated GPA of 2.72, up from the 2.55 accumulated by the end of Spring 2011 semester, and he is retaking biology in a 12-credit load for Fall 2011, giving him a projected status of sophomore by the following semester. His achieved cumulative GPA of 2.72 can be compared favorably to the average GPA of "at least 2.33" received by students with LD participating in two intervention groups reported on by Reed, Kennett, Lewis, Lund-Lucas, Stallberg, & Newbold (2009). His GPA by intervention period can be seen below.

Table 4.1 Outcomes by Intervention Period

SSD section	**A**	**B**	**A**	**A**
Term	**Fall 2010**	**Spring 2011**	**Summer 2011**	**Fall 2011**
Outcomes				
Improving GPA	2.1	3	3.4	Not Available
Utilizing LD accommodations	no	yes	yes	yes
Utilizing PTSD accommodations	no	yes	yes	yes
Practicing cognitive remediation exercises	no	yes	no data	no data
Utilizing PTSD medication	yes	yes	no data	no data
Persisting in enrollment	yes	yes	yes	yes

4.2 Discussion

Student veterans have been offered an incentive to enter postsecondary education through the Post-9/11 G. I. Bill. Many of them are doing so, but encounter barriers to fully utilizing the G. I. Bill benefit to increase their educational attainment beyond that attained by earlier veterans utilizing earlier versions of the G. I. Bill. One proposed intervention to help overcome these barriers to increased educational attainment is the SEd model applied to the general student veteran population. In this study, the author set out to record in an A-B-A SSD study the efforts to obtain university accommodations for two disabilities, LD and PTSD, and the effectiveness of those accommodations on his GPA before and after an intervention period.

The difficulties this participant initially encountered in documenting his lifelong LD suggest that a complication unforeseen by the student veteran was that starting postsecondary education more than five years out of high school both renders that documentation very difficult to locate, and even if located, invalid for accommodation registration purposed due to its age. This barrier could be overcome by providing education at the high school level, for parents and teenagers on the importance of keeping LD disability paperwork for future ADA accommodations at the university level. For veterans like Mr. C who are faced with possible costly re-testing, the OSD could advocate for student veterans with the VA to do the testing at

VA facilities, utilizing their VA benefits. These difficulties support the recommendation that student veterans entering postsecondary education have access to case workers who can familiarize student veterans to benefit networks in an effort to overcoming barriers such as the ones encountered by Mr. C in his first semester (Smith-Osborne, 2009) and increase educational attainment.

Outcome data regarding Mr. C's educational attainment show that he has already reached the level of education attained by student veterans utilizing other versions of the G.I. Bill (1.4 year; Angrist, 1993; Smith-Osborne, 2009), and has improved his GPA in spite of barriers of LD and PTSD, suggesting his successful use of accommodations, and acclimation to the university environment. These outcomes are encouraging as they suggest that with the additional supports of a case manager in a SEd Model intervention, the Post-9/11 G.I. Bill can increase the educational attainment beyond that earned in previous generations, and support the transition of student veterans, especially those with learning difficulties and PTSD, to successful employment in the civilian sector (Lyons et al., 2006; Schnurr et al., 2009). This same success may not be possible without added support to the G.I. Bill, as it only addresses the financial needs of its recipients (Golden, 2009, 2010; Smith-Osborne, 2009; Webb, n,d.).

4.2.1 Limitations to the Current Study

The current study has certain limitations. They include a lack of rigor in the collection of data during intervention-B-phase which clouds the specific effects of different accommodations, and did not succeed in continuing the use of GAS to specify what Mr. C wanted to accomplish during the intervention phase, which reduces the amount of qualitative data available for analysis in this SSD study. Secondly, results from SSD studies such as this one are not generalizable to every student veteran. Findings for what was helpful for this student veteran might not be applicable to another student veteran showing even similar characteristics.

4.2.2 Recommendations Based on Findings

Lack of generalizability is also a strength of SSDs, however. Variable data obtained in an SSD study can illustrate how the idiosyncrasies of individuals lessen or increase the effectiveness of interventions developed in carefully controlled large-sample quantitative studies. This study also shows the different ways in which the same intervention (in this case, an SEd) may be carried out by different practitioners.

Based on the increased understanding the author gained for better serving an assigned student veteran through the use of an SSD study couched within an SEd intervention, the author would recommend the continued use of well-designed SSDs by other case managers to further understand other barriers experienced by individual student veteran population, especially with participants experiencing conditions which are less well studied, such as mTBIs.

SSDs can also be useful for motivating caseworkers aiding student veterans in the transition process. For example, in the case highlighted in this study, Mr. C was enabled to gain LD accommodations without further costly testing by engaged SVP stakeholders committed to searching out available resources. Utilizing specific, short-term written goals to overcome the barriers to educational attainment kept both the first case manager and student veteran focused on the success of small steps in the direction of overall goals, and gave early indication of ineffective efforts. In this way persistence for both was strengthened—for the case manager, to keep trying to meet with the study participant in spite of previously missed appointments, and for participant, to pursue the extra steps necessary to document first his LD in spite of mounting obstacles, and then his PTSD disability, while simultaneously attending to the ongoing requirements of his coursework.

This case also illustrates the importance of the Assertive Community Treatment approach. Case managers learned, for example, that missed meetings should not necessarily be interpreted as a lack of interest in the services offered by a practitioner. Serving this particular client, Mr. C., meant that the case manager needed to be willing to approach him in

his own space, and on his own schedule to be ultimately successful in meeting genuine needs. Mr. C demonstrated engagement in the process not by attending every meeting, but in continued efforts at obtaining needed accommodations, including voluntarily subjecting himself to brain imaging tests, and later, in utilizing the successfully obtained accommodations.

The author of this study asserts that this thesis contributes valuable insights into a growing body of research within the student veteran population about challenges faced by a "typical" student veteran in both obtaining and registering disability paperwork, and adjusting to the civilian role of a student at a postsecondary institution with LD and PTSD. Positive results from this study suggest that a combination of an SEd model interventions, goal attainment scaling, university and individually tailored disability accommodations, and government-provided VA benefits enabled the participant of this study to increase his GPA to an accumulated 2.72 by his third semester, and persist in postsecondary studies longer than the educational attainment seen in earlier users of the G. I. Bill.

APPENDIX A

RECORD OF INTERMEDIARY GOAL COMPLETION DURING INTERVENTION PERIOD A
(STEPS TOWARDS SECURING ACCOMMODATIONS)

Events Across Time, Part A (Fall 2010)

	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9	week 10	week 11	week 12	week 13	week 14	week 15	week 16
Scheduled meeting	0	0/1		0		0	0			1		3	1		2	1
Spontaneous meeting					2-0/2		0	1	1							
Grade discussion		Y			Y			Y	Y	Y		Y		Y (ph)	Y	Y
Client LD document tracking		Y-C			Y-C					Y-C						N
UTA Biomedical brain imaging												Y			Y	
Consultation with Dr. Smith-Osborne															Y-C	
OSD visit										Y-I						Y
Client PTSD documentation request																
Texas Vocational Rehabilitation visit																
VA visit for LD testing																
UTA Health Center for LD testing																
PTSD documentation presented to OSD																
Temporary LD documentation presented to OSD																Y

Note. Codes are as follow: 0 = missed attempt at an appointment; numbers 1-3 = actual numbers of appointments during that time period. For code written as 2-0, two spontaneous appointments were unsuccessful, a slash between two numbers indicates different results for two attempts, when one was a missed attempt. Y = yes; N = no; ph = phone; I = intern; C = client; B = both intern and client together.

APPENDIX B

ACCOMMODATIONS UTILIZED BY PARTICIPANT DURING INTERVENTION PERIOD B AND POST-INTERVENTION PERIOD A

Recommended Accommodations for LD based on Brain Imaging and SVP PI Assessment	Initial Accommodations Granted for both PTSD and LD	Augmented Accommodations mid-Spring 2011
Untimed testing in a quiet environment, with oral testing	Granted	Granted
Reduced page length for any written assignment over 6 pages	Not Granted	Granted
Extended time on any such assignments that are not included in the syllabus at the beginning of the course	Granted	Granted
Use/training for Franklin Speller or equivalent assistive technology	Not granted	Granted
Note-taker	Not Granted	Granted (occasionally utilized)
Assistance in locating a tutor/teaching assistant with unaccented speech	Granted	Granted
Voice recognition software	Granted	Granted
Text-reader (e.g., Kurzweil 3000) for all textbooks and readings to be provided in auditory format as an augmentation to visual format	Not Granted	Not Granted
Cognitive remediation services are being provided by the Student Veteran Project	Provided by SVP	Provided by SVP
Referral to the VA has been made for targeted interventions to reduce trauma distracters and to augment cognitive remediation services	Not clear from data if Mr. C followed up	Not clear from data if Mr. C followed up

REFERENCES

Abt Associates, Inc. (2006). *2003-2004 Active Duty Health Study: Final Report.* Falls Church, VA: TRICARE Management Activity, Health Program Analysis and Evaluation Directorate.

American Council on Education: Center for Life-Long Learning and Policy Analysis (ACE). (2009). *Informed practice: Syntheses of higher education research for campus leaders (Military service members and veterans in higher education: What the new GI Bill may mean for postsecondary institutions).* Retrieved from http://www.acenet.edu/Content/NavigationMenu/ProgramsServices/CPA/Publications.MilService,errata.pdf

American Association of State Colleges and Universities (AASCU). (January, 2010). Top 10 higher education state policy issues for 2010: A higher education policy brief. *AASCU Policy Matters,* 1-6. Retrieved from http://www.congressweb.com/aascu/docfiles/AASCU_Top_Ten_Policy_Issues_2010.pdf

American Psychiatric Association. (2000). Diagnostic *and Statistical Manual of Mental Disorders.* (4th Ed, Text Revision). Washington, DC: American Psychiatric Association Publishing, Inc.

Angrist, J. (1993). The effect of veterans benefits on education and earnings. *Industrial and Labor Relations Review, 46(4),* 637-652.

Battacharjee, Y. (2008, January 25). Shell Shock Revisited: Solving the Puzzle of Blast Trauma. *Science Magazine, 319 (5862),* 406-408. Retrieved from http://www.sciencemag.org/content/319/5862/406. doi:10.1126/science. 319.58862.406

Bond, G.R., McDonel, E.C., Miller, L., & Pensec, M. (1991). Assertive community treatment and reference groups: An evaluation of their effectiveness for young adults with serious mental illness and substance abuse problems. *Psychosocial Rehabilitation Journal, 15(2),*31-44.

Booth, H. (2011, April 8). *Blending of testing methods could lead to better life for UT Arlington veterans.* Online News Center for UT Arlington. Retrieved online http://www.uta.edu/ucomm/mediarelations/press/2011/04/smith-osborneliu-research.php

Bradshaw, W., & Roseborough, D. (2004). Evaluating the effectiveness of cognitive-behavioral treatment of residual symptoms and impairment in Schizophrenia. *Research on Social Work Practice, 14,* 112-120. Downloaded from http://www.sagepublications.com.

Brandt, M., & Berry, J. (1991). Transitioning college bounds students with LD: Helping the student with LD prepare for college. *Intervention in School and Clinic, 26,* 291-301.

Branker, C. (1997). *An inquiry into college students with learning disabilities: Why are they successful* (Unpublished doctoral dissertation). North Carolina State University: North Carolina.

Bremner, J.D. (2005).*Brain imaging handbook.* New York, NY: W.W. Norton and Company, Inc.

Carter-Davis, M., & Launey, K. (2001, May). An alternative college service model: From learning disability to learning potential. Paper presented at the NASP Annual Convention at Washington, DC. Paper retrieved from http://eric.ed.gov/PDFS/ED453470.pdf

Cohen, J., Segal, D., Temme, L. (1992). The impact of education on Vietnam-era veterans' occupational attainment. *Social Science Quarterly, 73(2),* 397-409.

Collins, M., & Mowbray, C. (2005). Supported education for adults with psychiatric disabilities: An innovation for social work and psychosocial rehabilitation practice. *Social Work, 10(1),* 7-20.

Collins, M., Mowbray, C., & Bybee, D. (1999). Establishing individualized goals in a supported education intervention: Program influences on goal-setting and attainment. *Research on Social Wrok Practice, 9(4),* 483-507.

Conley, D. (2006). *College preparation for high school students.* Eugene, OR: Educational Policy Improvement Center.

Conley, D. (2007). *Redefining college readiness.* Eugene, OR: Educational Policy Improvement Center.

Cournoyer, B. (2011). *The Social Work Skills Workbook* (6th Ed.). Belmont, CA: Brooks/Cole, Cengage Learning.

DaDeppo, L. (2009). Integration factors related to the academic success and intent to persist of college students with learning disabilities. *Learning Disabilities Research & Practice, 24(3),* 122-131.

Engelhard, I., Van Den Hout, M., Weerts, J., Arntz, A., Hox, J., & McNally, R. (2007). Deployment-related stress and trauma in Dutch soldiers returning from Iraq. *British Journal of Psychiatry, 191,* 120-145.

Erbes, C., Westermeyer, J., Engdahl, B., & Johnson, E. (2007). Post-traumatic stress disorder and service utilization in a sample of service members from Iraq and Afghanistan. *Military Medicine, 172(4),* 140-145.

Family Health International (FHI). (n.d.) Module 2: Participant observation, pp. 12-28. In *Qualitative research methods: A data collector's guide*. Retrieved online from http://www.fhi.org/nr/rdonlyres/ed2ruznpftevg34lxuftzjiho65asz7betpqigbbyorggs6tetjic367v44baysyomnbdjkdtbsium/participantobservation1.pdf

Golden, D. (2009, December 30). *For-profit colleges target the military.* Bloomberg Businessweek. Retrieved from http://www.businessweek.com/magazine/content/10_02/b4162036095366.htm

Golden, D. (2010, November 4). *Online colleges target veterans.* Bloomberg Businessweek. Retrieved from http://www.businessweek.com/magazine/content/10_46/b4203026910225.htm

Green, J., & Britten, N. (1998). Qualitative research and evidence based medicine. *BMJ, 316,* 1230-1232.

Grieger, T., Cozza, S., Ursano, R., Hoge, C., Martinex, P., Engel, C., & Wain, H. (2006). Posttraumatic stress disorder and depression in battle-injured soldiers. *American Journal of Psychiatry, 163(10),* 1777-1783.

Fontana, A., & Rosenheck, R. (2008). Treatment-seeking veterans of Iraq and Afghanistan: Comparison with veterans of previous wars. *Journal of Nervous and Mental Disease, 196,* 513-521.

Hawkins, R., & Mathews, J. (1999). Frequent monitoring of clinical outcomes: Research and accountability for clinical practice. *Education & Treatment of Children (ETC), 22(2),*1-18

Henderson, C. (2001). *College freshman with disabilities, 2001*. Washington, DC: US Department of Education. Retrieved from http://eric.ed.gov/PDFS/ED458728.pdf

Helmer, D., Rossignol, M., Blatt, M., Agarwal, R., Teichman, R., & Lange, G. (2007). Health and exposure concerns of veterans deployed to Iraq and Afghanistan. *Journal of Occupational and Environmental Medicine,49(5),* 475-480.

Hill, J., Mobo, B., & Cullen, M. (2009). Separating deployment-related traumatic brain injury and posttraumatic stress disorder in veterans: Preliminary findings from the Veterans Affairs traumatic brain injury screening program. *American Journal of Physical Medicine & Rehabilitation, 88(8),* 605-614. doi: 10.1097/PHM.0b013e3181ae0f83

Hoge, C., Auchterlonie, J., Milliken, C. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association, 295(9),* 1023-1032.

Hoge, C., Castro, C., Messer, S., McGurk, D., Cotting, D., & Koffman, R. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351(1),* 13-22.

Hoge, C, McGurk, D., Thomas, J., Cox, A., Engel, C., & Castro, C. (2008). Mild traumatic brain injury in U.S. soldiers returning from Iraq. *The New England Journal of Medicine, 358(5),* 453-463. Retrieved from www.nejm.org

Hoge, C., Terhakopian, C., Castro, S., Messer, S., & Engel, C. (2007). Association of posttraumatic stress disorder with somatic symptoms, health care visits, and absenteeism among Iraq war veterans. *American Journal of Psychiatry, 164(1),* 150-153.

Hoptof, M., Hull, L., Fear, N., Browne, T., Horn, O., Iversen, A., Jones, M., Murphy, D., Bland, D., Earnshaw, M., Greenberg, N., Hughes, J., Tate, A., Dadeker, C., Rona, R., & Wessely, S. (2006). The health of UK military personnel who deployed to the 2003 Iraq war: A cohort study. *Lancet, 367(9524),* 1731-1741.

Johnson, D., Tucker, D. (2010). In service to our country. In L. Lockhart, & F. Danis, (Eds.), *Intersectionality and Culturally Competent Practice.* New York, New York: Columbia University Press.

Johnson, E. (2010). *Learning to learn: Using self-regulation strategies to improve the academic habits of high school students with learning disabilities*. (Capstone Project) Retrieved from http://discoverarchive.vanderbilt.edu/jspui/bitstream/1803/4291/1/Johnson%20-%20Capstone.pdf

Jordan, B., Marmar, C., Fairbank, J., Schlenger, W., Kulka, R., Hough R. & Weiss, D. (1992). Problems in families of male Vietnam veterans with posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology,* 60, 916-926.

Kessler, R. (2000). Posttraumatic stress disorder: The burden to the individual and to society. *Journal of Clinical Psychiatry, 61(suppl. 5),* 5-12.

Kessler, R., Foster, C., Saunders, W., & Stang, P. (1995). Social consequences of psychiatric disorders, I: Educational attainment. *The American Journal of Pyschiatry, 152(7),* 1026-1032.

Kessler, R., Sonnega, A., Bromet, E., Hughes, M., Nelson, C. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry, 52(12),* 1048-1060.

Kirkham, Chris. (2011, October 10). *For-profit colleges reaping benefits from veterans.* Huffington Post. Retrieved from http://www.huffingtonpost.com/2011/09/22/veterans-for-profit-college_n_976110.html

Kolkow, T., Spira, J., Morse, J., Grieger, T. (2007), Post-traumatic stress disorder and depression in health care providers returning from deployment to Iraq and Afghanistan. *Military Medicine, 172(5),* 451-455.

Lapierre, C., Schwegler, A., & LaBauve, B. (2007). Posttraumatic stress and depression symptoms in soldiers returning from combat operations in Iraq and Afghanistan. *Journal of Trauma and Stress, 20(6),* 933-943.

Leonard, E., & Bruer, R. (2007). Supported education strategies for people with severe mental illness: A review of evidence-based practice. *International Journal of Psychosocial Rehabilitation, 11(1),* 97-109. Retrieved from http://www.psychosocial.com/IJPR_11/Supported_Ed_Strategies_Leonard.html

Locke, E., & Latham, G. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall.

Lunney, C., & Schnurr, P. (2007). Domains of quality of life in male veterans treated for PTSD. *Journal of Traumatic Stress, 20,* 955-964.

Lyons, M., Kremen, W., Franz, C., Grant, M., Brenner, H., Boake, C., & Eisen, S. (2006). Vietnam service, combat, and lifetime educational attainment: Preliminary results from

the Vietnam era twin study of aging. *Research on Aging, 28(1),* 37-55. doi: 10.1177/0164027505281570

Maitland, L. (2010). *Ready for take-off: Preparing teens with ADHD-LD for College.* Retrieved from http://www.unc.edu/asp/documents/

Martin,C. (2007). Routine screening and referrals for PTSD after returning from Operation Iraq Freedom in 2005. U.S. Armed Forces. *MSMR:Medical Surveillance Monthly Report, 14(6),* 2-7

Megivern, D., Pellerito, S., & Mowbray, C. (2003). Barriers to higher education for individuals with psychiatric disabilities. *Psychiatric Rehabilitation Journal, 26(3),* 217-231.

Mercer, C., & Pullen, P. (2005). *Students with learning disabilities* (6th Ed.). Upper Saddle River, NJ: Prentice Hall.

Merriman, D., & Codding, R. (2008). The effects of coaching on mathematics homework completion and accuracy of high school students with attention-deficit/hyperactivity disorder. *Journal of Behavioral Education, 17(4),* 339-355.

Milliken, C., Auchterlonie, J., Hoge, C. (2007). Longitudinal assessment of mental health problems among Active and Reserve Component soldiers returning from the Iraq war. *Journal of the American Medical Association, 298(18),* 2141-2148.

Morgan, D., & Morgan, R. (2001). Single-participant research design: Bringing science to managed care. *American Psychologist, 56(2),* 119-127. doi: 10.1037//0003-066X.56.2.119

Mowbray, C. (2000). The Michigan supported education program. *Psychiatric Services, 51(11),* 1355-1357.

Moxley, D., Mowbray, C., & Brown, K. (1993). Supported education. In P.W. Flexler, & P. Solomon (Eds). *Psychiatric rehabilitation in practice* (pp.217-235). Boston, MA: Andover Medical Publishers.

National Association of Social Workers. (2011). *NASW code of ethics*: Washington, D.C. NASW Press. Downloaded from: http://www.socialworkers.org/pubs/code/code.asp?print=1&

National Center for Education Statistics. (2000). *Postsecondary students with disabilities: Enrollment, services and persistence* (NCES 2000-092). Washington, DC: U.S. Department of Education. Retrieved from http://nces.ed.gov/pubs2000/2000092.pdf

National Longitudinal Study 2 (NLTS2). Retrieved from http://www.nlts2.org/data_tables/index.html

National Priorities Projects. (2006). *Military Recruiting 2006.* Retrieved from http://nationalpriorities.org/publications/2006/military-recruiting-2006/#summary

Parrish, C. (2009). *MH supported education literature review (Prepared for the Philadelphia Department of Behavioral Health and Mental Retardation Services)*. Retrieved from http://philadelphia.pa.networkofcare.org/mh/CountyContent/philadelphia/Supported%20Education%20Literature%20Review.pdf

Payscale Report. Retrieved from Payscale, Inc. at http://www.payscale.com/

Petrovich, J. (2009). *Homelessness and hardiness: A strengths-based perspective of services used by veterans who are homeless* (Doctoral dissertation, University of Texas-Arlington). Retrieved from http://dspace.uta.edu/bitstream/handle/10106/1643/Petrovich_uta_2502D_10186.pdf?sequence=1

Rahman, A., & Applebaum, R. (2010). What's all this about evidence-based practice? The roots, the controversies, and why it matters. *American Society on Aging, 34(1),* 6-12.

Reed, M., Lund-Lucas, E., & O'Rourke, K. (2003). Standards of practice in post-secondary special needs programming: Student and administrator opinion. *Canadian Journal of Higher Education, XXXIII (2),* 27-56.

Reed, M., Kennett, D., Lewis, T., Lund-Lucas, E., Stallberg, C., & Newbold, I. (2009). The relative effects of university success courses and individualized interventions for

students with learning disabilities. *Higher Education Research & Development, 28(4),* 385-400.

Regan, T. (2004). Report: High survival rate for US troops wounded in Iraq. *Christian Science Monitor,* November 29, 2004.

Reid, W. (1994). The empirical practice movement. *Social Service Review,* 165-184. Downloaded from http://www.mcnellie.com/525/readings/reid.pdf

Reid, R., & Lienemann, T. (2006). *Strategy instruction for students with learning disabilities and ADHD*. New York, NY: The Guildford Press.

Ruban, L., McCoach, B. McGuire, J., & Reise, S. (2003).The differential impact of academic self-regulatory methods on academic achievement among university students with and without learning disabilities. *Journal of Learning Disabilities, 36(3),* 270-286.

Savarese, V., Suvak M., King, L., & King D. (2001). Relationships among alcohol use, hyperarousal, and marital abuse and violence in Vietnam veterans. *Journal of Traumatic Stress, 14(4),* 717-732.

Savoca, E., & Rosenheck, R. (2000). The civilian labor market experiences of Vietnam-era veterans: Influence of psychiatric disorders. *The Journal of Mental Health Policy and Economics, 3,* 199-207.

Schell, T., & Tanielian T. (Eds). (2011). *A needs assessment of New York state veterans: Final report to the New York state health foundation.* Santa Monica, CA: RAND Corporation. Retrieved from http://www.rand.org/content/dam/rand/pubs/technical_reports/2011RAND_TR920.pdf

Schnurr, P., Lunney, C., Bovin, M., Marx, B. (2009). Posttraumatic stress disorder and quality of life: Extension of findings to veterans of the wars in Iraq and Afghanistan. *Clinical Psychology Review, 29,* 727-735. doi: 10.1016/j.cpr.2009.08.006

Senate Health, Education, Labor and Pensions (HELP) Committee. (2011, September 22). *New data on Post-9/11 G.I. Bill benefits show disproportionate share of taxpayer dollars*

going to for-profit colleges with concerning outcomes: A News Report. Retrieved from http://harkin.senate.gov/documents/pdf/4e7b5d0253b75.pdf. After November 9, 2011, found at http://www.stripes.com/polopoly_fs/1.155866!/menu/standard/file/charts2.pdf

Skinner, M., & Lindstrom, B. (2003). Bridging the gap between high school and college: Strategies for the successful transition of students with disabilities. *Preventing School Failure, 47,* 312-137.

Skinner, R. (2005). *Institutional eligibility and the Higher Education Act: Legislative history of the 90/10 Rule and its current status.* Retrieved from http://www.policyarchive.org/handle/10207/bitstreams/1904.pdf

Smith, T., Ryan, M., Wingard, D., Slymen, D., Sallis, J., Kritz-Silverstein, D., & Team for the Millennium Cohort Study. (2008). New onset and persistent symptoms of post-traumatic stress disorder self reported after deployment and combat exposures: Prospective population based US military cohort study. *British Medical Journal, Jan15.* Retrievable online @ http://www.bmj.com/content/336/7640/366.abstract

Smith-Osborne, A. (2005). Antecedents to postsecondary educational attainment for individuals with psychiatric disorders: A Meta-Analysis. *Best Practices in Mental Health, 1(1),* 18-30.

Smith-Osborne, A. (2009). Does the GI Bill support educational attainment for veterans with disabilities? Implications for current veterans in resuming civilian life. *Journal of Sociology & Social Welfare, 36(4),* 111-125.

Smith-Osborne, A. (2010). *Research enhancement project title: Examining the impact of a support education intervention on student-veterans' educational attainment and resilience (*Final Report). University of Texas at Arlington: Retrieved from Student Veteran Project WebCT site: http://www.uta.edu/webct

Smith-Osborne, A. (in press). Supported education for returning veterans with PTSD and other mental disorders. *Journal of Rehabilitation.* Received from author.

Steele, J., Salcedo, N., & Coley, J. (2010). *Service members in school: Military veterans experiences using the Post 9/11 GI Bill and pursuing postsecondary education.* Santa Monica, CA: RAND Corporation for American Council on Education. Retrieved from http://www.rand.org/content/dam/rand/pubs/monographs/2011/RAND_MG1083.pdf

Tanielian, T., & Jaycox, L. (Eds.). (2008). *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery.* Santa Monica, CA: RAND Corporation.

Taft, C., Pless, A., Stalans, L., Koenen, K., King, L., & King, D. (2005). Risk factors for partner violence among a national sample of combat veterans. *Journal of Consulting and Clinical Psychology, 73(1),* 151-159.

Thyer, B. (2004). What is evidence-based practice? *Brief Treatment and Crisis Intervention, 4(2),* 167-176.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago, IL: University of Chicago Press.

Unger, K. (1994). Access to educational programs and its effect on employability. *Psychosocial Rehabilitation Journal, 17(3),* 117-126.

Unger, K. (1998). *Handbook on supported education: Providing services for students with psychiatric disabilities.* Baltimore, MD: PH Brookes Publishing Company.

U.S. Bureau of Labor Statistics. (2011, March 11). Economic News Release: *Employment situation of veterans summary*. Retrieved from http://www.bls.gov/news.release/vet.nr0.htm

U.S. Bureau of Labor Statistics. (2011, October 7). Economic News Release: *Employment situation summary.* Retrieved from http://www.bls.gov/news.release/empsit.nr0.htm

U.S. Department of the Army, Office of the Surgeon General, Mental Health Advisory Team (MHAT). (2003, December 16). *Operation Iraq Freedom (OIF), MHAT Report.* U.S. Army Surgeon General and HQDA G-1.

U.S. Department of Education, National Center for Education Statistics. (2006). *Profile of undergraduates in postsecondary education institutions: 2003-2004.* Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006184

U.S. Department of Education. (2007). *A guide to the individualized education program.* Retrieved from http://ed.gov/parents/needs/speced/iepguide/index.html

U.S. Department of Health and Human Services. (2006). *Facts sheets: Your rights under Section 504 of the Rehabilitation Act.* Retrieved from http://www.hhs.gov/ocr/civilrights/resources/factsheets/504.pdf

U.S. Department of Veterans Affairs (VA). (2009). *GI Bill History.* Retrieved from http://www.gibill.va.gov/gi_billinfo/history.htm

U.S. Department of Veterans Affairs (VA). (n.d.) *VA History in Brief.* Retrieved from http://www.va.gov/opa/publications/archives/docs/history_in_brief.pdf

U.S. Department of Veterans Affairs (VA). (2011). *The Civilian Health and Medical Program of the Department of Veterans Affairs (CHAMPVA).* Retrieved from http://www.va.gov/hac/forbeneficiaries/champva/champva.asp

U.S. Department of Veterans Affairs (VA), Vet Center. (2010). *Managing your stress.* Canada: Quickseries Publishing, Inc.

U.S. Equal Employment Opportunity Commission (EEOC). (2002). *Enforcement Guidelines: Reasonable Accommodation and Undue Hardship Under the Americans Disability Act.* Retrieved from http://www.eeoc.gov/policy/docs/accommodation.html

Vasterling, J., Proctor, S., Amoroso, P., Kane, R., Heeren, T., & White, R. (2006). Neuropsychological outcomes of army personnel following deployment to the Iraq war. *Journal of the American Medical Association, 296(5),* 519-529.

Vasterling, J., Schumm, J., Proctor, S., Gentry, E., Kind, D., & King, L. (2008). Posttraumatic stress disorder and health functioning in a non-treatment-seeking sample of Iraq war

veterans: A prospective analysis. *Journal of Rehabilitation Research & Development, 45,* 347-358.

Vogel, S., & Adelman, P. (1990). Extrinsic and intrinsic factors in graduation and academic failure among LD college students. *Annals of Dyslexia (Orton Dyslexia Society), 40,* 199-137.

Vogel, S., & Adelman, P. (1992). The success of college students with learning disabilities: Factors related to educational attainment. *Journal of Learning Disabilities, 25(7),* 430-441.

Vogel, S., Leonard, F., Scales, W., Hayeslip, P., Hermansen, J., & Donnelis, L. (1998). The national learning disabilities postsecondary data bank: An overview. *Journal of Learning Disabilities, 31(3),* 234-247.

Vogel, S., & Adelman, P. (2000). Adults with learning disabilities 8-15 years after college, *Learning Disabilities: A Multidisciplinary Journal, 10(3),* 165-182.

Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities. A Report from the National Longitudinal Transition Study-2 (NLTS2).* Menlo Park, CA: SRI International. Retrieved from http://eric.ed.gov/PDFS/ED494935.pdf

Warden, D. (2006). Military TBI during the Iraq and Afghanistan wars. *Journal of Head Trauma Rehabilitation, 21(5),* 398-402.

Webb, J. (n.d.) *A New GI Bill for the 21st Century.* Retrieved from http://webb.senate.gov/issuesandlegislation/armedservicesandveterans/GI_Bill.cfm

Yin, R. K. (2009). *Case study research: Design and methods* (4th Ed.) Los Angeles, CA: Sage.

Ziezulewicz, G. (2010, October 6). *For-profit college programs difficult for some vets*. Stars and Stripes. Retrieved from http://www.stripes.com/blogs/stripes-central/stripes-central-1.8040/for-profit-college-programs-difficult-for-some-vets-1.120870

Zimmerman, B. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, R. Pintrich, & M. Zeidner, (Eds). *Handbook of self-regulation*, pp. 13-39. San Diego, CA: Academic Press.

Zito, J., Adkins, M., Gavins, M., Harris, K., Graham, S. (2007). Self-regulated strategy development: Relationship to the social-cognitive perspective and the development of self-regulation. *Reading and Writing Quarterly, 23,* 77-95.

BIOGRAPHICAL INFORMATION

Mary Kate Kenworthy is an OIF graduate student veteran currently pursuing her MSSW degree after 15 years in the Army Reserves and two deployments, and one music degree. She enjoys playing the violin, the outdoors, being a mom to her three children, and hanging out with Jared, her social psychologist husband. While being deployed in an Army Combat Stress Control unit as a behavioral specialist in Mosel, Iraq, Mary Kate developed a keen awareness of the longterm needs of soldiers returning home with lifelong disabling conditions such as PTSD, and returned home with a desire to pursue a mental health degree to be better able to serve these fellow veterans.