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OT VetSet: a clinician's manual to working with veterans as clients

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SARGENT COLLEGE OF HEALTH AND REHABILITATION SCIENCES

Doctoral Project

OT VETSET:

A CLINICIAN'S MANUAL TO WORKING WITH VETERANS AS CLIENTS

by

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B.S., Boston University, 2013
M.S., Boston University, 2015

Submitted in partial fulfillment of the

requirements for the degree of

Doctor of Occupational Therapy

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DEDICATION

I would like to dedicate this work to all veterans of the United States Military, who have inspired me to continue to explore how to better serve them as a population.

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I thank Karen Jacobs, without whom I would have never pursued this degree and who assisted and encouraged me every step of the way. Karen has gone above and beyond the role of academic mentor/advisor and moved into the role of caring friend throughout the entire process.

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ABSTRACT

OT VetSet: A Clinician's Manual to Working with Veterans as Clients is designed to educate occupational therapy providers on unique client factors of veterans as well as provide resources to occupational therapy providers for the effective evaluation and treatment of veterans as clients. Using descriptive evidence of veterans as a population in conjunction with literary evidence on how to create effective learning for adults, OT VetSet can be truly considered an evidence-based tool. The tool is split into six lessons which range from introductory information including military terminology, conditions by service era, and considerations for mental health, to two case studies on fictional veterans (that were based on demographic information) as well as a list of resources for both providers and veterans. Each lesson is published in three sections including the introduction, content, and sample administration techniques. This doctoral project presents the evidence behind this design, funding plan, evaluation plan, and dissemination plan as well as a sample manual (via appendices) for future users to be able to replicate OT VetSet in their own facility.

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CHAPTER ONE: INTRODUCTION

Current occupational therapy academic education rarely, if ever, addresses the topic of military personnel, or veterans as clients. Unless an occupational therapy student participated in a Level I or Level II fieldwork experience at a facility with a military personnel or veteran as a client, most entry-level occupational therapists are beginning their work without any type of training on how to work with a client with past or present military service. This population has unique factors an occupational therapist must consider when designing and carrying out an evaluation or treatment plan. Some of these factors include a higher incidence of: 1. Post-Traumatic Stress Disorder (PTSD), 2. Traumatic Brain Injury (TBI), and 3. other mental health conditions such as depression or anxiety compared to their civilian peers (Di Leone et al., 2013). The sequelae of these diagnoses can be difficult to differentiate and consequently difficult to address.

Over 2.6 million troops have been sent to Iraq or Afghanistan since 2011 (McNally & Freuh, 2013). With veterans returning from war in Afghanistan and Iraq, healthcare professionals are treating new injuries with more complexity than ever before. The growing incidence of improvised explosive devices (IEDs), the largest cause of combat-related TBIs, is causing more soldiers to return to the United States with traumatic brain injuries that present unlike TBIs due to any other cause. The IEDs cause what are known as blast injuries in which the extreme pressure from a blast creates a diffuse injury with a different impact on the individual as compared to a concentrated impact in one area of the brain. Additionally, PTSD and depression are common among this population with the suicide rate of young returning veterans higher than their civilian

counterparts (Spelman et al., 2011). A record 45% of veterans of the Afghanistan and Iraq conflicts have applied for disability compensation as of the spring of 2012 (McNally & Frueh, 2013). Practitioners must be able to recognize signs of PTSD, TBI, and depression and know at least basic strategies to assist clients who are experiencing symptoms. This knowledge will help therapists connect to this unique population. Broad theories of occupational therapy such as the Model of Human Occupation (MOHO) and the Person-Environment-Occupation Model (PEO Model) stress the importance of examining each client's individual factors in relationship to the occupational function of the client before developing a treatment plan. In the same vein, it is important that occupational therapists working with clients with military experience have a basic understanding of the client's military service history, the impact on their occupational engagement, and common health problems experienced by this population.

There are several factors that contribute to the cause of the gap in education for occupational therapy practitioners. For example, there is no specific Accreditation Council for Occupational Therapy Education (ACOTE) Standard for teaching about the unique needs of people with military experience. This has led to a lack of awareness by new practitioners, which creates a gap between what students are learning and what therapists need to know. Since the United States is currently in an active war spanning over 10 years, occupational therapists are more likely to treat clients with military experience; those who currently need care and many who will continue to need care for years to come.

This doctoral project aims to address the gap in education for occupational

therapy practitioners by creating an online, independent learning module, known as VetSet, intended for OT students and OT practitioners looking to increase their knowledge on the evaluation and treatment of people with military experience. The objectives of the module are to assist students in understanding the nature of the problem by reviewing the literature and data related to this issue, which includes statistics such as the number of veterans with TBI and the numerical comparison between combat related and non combat related TBI. The module will also present two case studies that include common client factors, performance skills, and performance patterns for people who have served in the military and have any severity of traumatic brain injury. These case studies will allow students to research and explore issues they may not otherwise encounter outside of a client with military experience. The case studies will include multimedia elements in order to best illustrate the clients' experiences via methods appropriate for various learning styles. Finally, VetSet will create a decision tree for users to select the questions to ask a client who has served in the military**.** These may include the warning signs of PTSD, TBI, and/or depression to look for in clients with military experience and the common client attitudes toward their injuries and military experience.

The following chapters include a review of relevant literature, the theoretical framework and basis of the online module, a detailed description of the module, and suggestions for evaluation and implementation of the module.

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CHAPTER TWO: PRESENTING THE THEORETICAL FRAMEWORK

Overview of the Problem

In order to understand why occupational therapy practitioners lack sufficient knowledge to evaluate and treat clients with military experience, a person must understand what sets those with military experience apart from others. It is also important to know that people with military experience seeking medical care for military related illness/injury is on the rise (McNally & Frueh, 2011; National Center for Veterans Analysis and Statistics, 2014). This chapter will investigate the evidence-based literature behind these two statements as well as their relationship to the theoretical basis of the OT VetSet tool, an online educational module for occupational therapy practitioners intended to facilitate holistic evaluation and treatment of veterans as clients.

Military culture is a topic with a long history that has not changed much over time. In 2008, The RAND Corporation published an over five-hundred-page report titled, *Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery*, on how military experience can affect the cognitive and psychological processes of a person (Center for Military Health Policy Research, 2008). According to this report, not only do people with military experience have different underlying cognitive and psychological problems, but they must address those problems through a lens of military culture. For example, a person may be less inclined to seek assistance for fear of appearing weak to others as military culture may encourage people to portray themselves with a sense of toughness and self-reliance (Center for Military Health Policy Research, 2008). Additionally, the engrained sense of unit cohesion may

lead people to feel guilty about leaving a duty station to seek treatment for injuries or ailments and leaving his or her unit behind. Thus, some factors that can lead to post-traumatic stress disorder (PTSD) can also prevent the individual from seeking treatment (Center for Military Health Policy Research, 2008; Redmond, Wilcox, Campbell, Kim, Finney, Barr, & Hassan, 2015; Wright, Kelsall, Sim, Clarke, & Creamer, 2013).

Substantial descriptive evidence about the characteristics of people with military experiences, or Veterans, has been published. First, let's examine the information published by the National Center for Veterans Analysis and Statistics in 2014 regarding population trends. Between 2013 and 2043, the highest percentage of living veterans will be those of the Gulf War era, with the Vietnam era following closely behind. The Korean and World War II era veterans are aging and are passing away, thus reducing their presence in the healthcare system. In the aforementioned report published by the National Center for Veterans Analysis and Statistics, the veterans of the current era, conflicts in Iraq and Afghanistan, were not mentioned at all. However, past trends indicate that the majority of health issues related to military service emerge approximately 30–40 years after the start of that conflict (Wells, Miller, Adler, Engel, Smith, & Fairbank, 2011). Although there is a decline in the number of veterans overall, there has been a surge in service-connected veterans since 2002. Service connection is determined by an algorithm within the Veterans Administration (VA) and is the degree to which a medical condition was "incurred or aggravated by military service" (Veterans Administration Office of Public Affairs, 2015). Not only is the percentage of service-connected Veterans increasing, but the annual cash payments related to those disabilities is also increasing.

According to the same report by the VA Office of Public Affairs (2014), the annual cash payment in the year 2000 was approximately $15 billion and in 2014 it had increased to approximately $50 billion.

The incidence of service-connection PTSD is increasing, with high cost to the government (Wells, Miller, Adler, Engel, Smith, & Fairbank, 2011). Perhaps, if PTSD was identified earlier in its course, treatments would be more successful and therefore overall healthcare cost for these Veterans would go down. This is one reason why it is important for occupational therapy practitioners to screen for PTSD symptoms, particularly in the case of Veterans. Not only is the incidence of PTSD increasing with the current conflicts, but there is also an increased incidence of mild traumatic brain injury (mTBI) (Bailie et al., 2016; McNally & Frueh, 2013; Spelman, Hunt, Seal, & Burgo-Black, 2011; Wells et al., 2011). The similarities in presentation between PTSD and mTBI are such that differentiating the diagnoses can be nearly impossible, causing difficulties with the treatment of either diagnosis (Center for Military Health Policy and Research, 2008).

These issues are not only relevant to military hospitals and VA healthcare systems. According to a population report published in 2014, there are approximately 22 million Veterans in the United States. Of those Veterans, approximately nine million are enrolled in the VA healthcare system (National Center for Veterans Analysis and Statistics, 2014). That is approximately 60% of the Veteran population is being treated entirely outside of the VA healthcare system. Additionally, it should be noted that being enrolled in the VA system does not necessarily mean that the Veteran receives all of their

treatment within the VA system. In 2014, Congress passed the Veterans Access Choice and Accountability Act, which makes Veterans eligible to receive care in the community through their VA benefits if the veteran is unable to get an appointment at a VA facility within 30 days of the desired date of service, or if the Veteran lives more than 40 miles from a VA facility offering the needed service (Veterans Access, Choice, and Accountability Act of 2014). As a result, occupational therapy practitioners working with an adult population are likely to encounter Veterans in their practice, even if they do not work at a VA or military medical center.

Theoretical Frameworks

Sociocultural Perspective

The sociocultural perspective is the broad theoretical basis in which the OT VetSet is rooted. With an historical basis in Vygotsky's sociocultural theory of development, the sociocultural perspective assumes interdependence between individual and social processes (Scott & Palincsar, 2013). In other words, individuals learn from their environment and social surroundings and in turn, the environment and social surroundings are formed by the experiences of each individual. In the case of occupational therapy practitioner and client, each party brings their own sociocultural experiences into the occupational therapy session. Throughout history, the military has had a reputation for having a distinct culture, which has since been methodically measured (National Center for Veterans Analysis and Statistics, 2014). It is important for the occupational therapy practitioner to understand the role that the culture has played in the development of the client's personality; and how that may affect the treatment of his

or her diagnosis. Furthermore, cultural aspects of the military may be useful to incorporate into occupational therapy sessions in order to build rapport between the client and occupational therapy practitioner. In a study examining the process of obtaining treatment for PTSD among recent Veterans, the National Center for Veterans Analysis and Statistics reported that the treatment for PTSD often follows a protocol designed by and for civilians, which can make it difficult for the Veterans to relate to and invest in the treatment process. This same concept can and should be applied to occupational therapy practice, as the cultural differences remain relevant and may often overlap with mental health diagnoses.

The sociocultural perspective is also useful in understanding this problem as it relates to the concept of "context" as presented in the American Occupational Therapy Association's (AOTA) Occupational Therapy Practice Framework: Domain and Process 3rd Edition (AOTA, 2014). The Framework differentiates the physical and the social environments and even further separates the cultural context. According to the Framework, "*cultural context* includes customs, beliefs, activity patterns, behavioral standards, and expectations accepted by the society of which a client is a member" (AOTA, 2014, p. S9). As such, occupational therapy practitioners are not only trained, but are expected to consider their clients from a sociocultural perspective.

Adult Learning Theory

In order to incorporate new knowledge to use with Veterans as clients, the occupational therapy practitioners must have an effective method of obtaining that new knowledge. Adult learning theory is an additional theory that provides Manuallines under

which VetSet is designed. Adult learning theory, introduced by Knowles in 1970, was refined and published in 1984 with five assumptions of an adult learner:

1. Adults are self-directed
2. Adults bring their own experiences into a learning environment
3. Adults are motivated to learn
4. Adults learn when they are ready for the material in the context of their development or social roles
5. Adults have a problem-centered orientation to learning (Reischmann, 2004)

Adult learning theory assumes that the learner will be able to decide what he or she wants, needs, and is ready to learn based on his or her individual life experiences. For example, according to this theory, it is expected that the learning needs of one student will be different than the classmate sitting next to him or her, even if they already have the desire to learn similar subject matter in common. In developing OT VetSet it is important that the values underlying the assumptions of adult learning theory match the values of the learners who will be using the material.

Previous Attempts to Address the Problem

With the upcoming Presidential election in November 2016, veterans' issues have become a large part of the positions presented by the candidates (Donald J. Trump for President, Inc., 2016 & Hillary for America, 2016). Additionally, campaigns by the White House such as Joining Forces, to increase education, employment and wellness of veterans, and Operation Got Your 6, which works to debunk common myths about Veterans via their portrayal in popular culture, are gaining support nationwide (Obama &

Biden, 2011). American Occupational Therapy Association created a Fact Sheet on factors related to military service, but has not made any other organized attempts at addressing the global needs of Veterans outside of the VA system of care. Although occupational therapy does not currently have published research on specific programming to teach practitioners how to work with Veterans, other health professions, particularly nursing, have come up with programs to educate their personnel on widespread needs of veterans.

For example, in a search of ERIC, PsycInfo, CINAHL, and PubMed databases, multiple papers were found describing how specific schools of nursing had designed their curriculum to align with the Joining Forces campaign (Jones & Breen, 2015; Morrison-Beedy, Passmore, & D'Aoust, 2015). Additionally, there are nursing institutions that have collaborated with the Department of Veterans Affairs in order to introduce nurses to the specific needs of Veterans during their training (Anthony, Carter, Freundl, Nelson, & Wadlington, 2012) as well as research to Manual primary care practitioners in developing "medical homes" specifically for Veterans (O'Toole et al., 2011). Jones & Breen (2015) and Morrison-Beedy, Passmore, & D'Aoust (2015), discuss that the schools of nursing use their own faculty to teach the students about Veterans as clients. Jones & Breen (2015) explain aspects of an online nursing program, but still stress the importance of service learning, where the students are sent to work with Veterans directly. The students are also provided with a virtual community where they can interact and problem-solve with one another. Although the report by Jones & Breen (2015) gives a detailed description of the program, there are not published outcomes to determine whether or not

the students felt more prepared to work with veterans after the program, or whether veterans have better experiences with nurses that completed the program compared to those who did not. Morrison-Beedy et al. (2015), present the same dilemma, where a program is described within the school of nursing at the University of Southern Florida. The program is described in great detail including the specific ways the school of nursing is looking to align with the Joining Forces campaign, but there are no outcome measures reported. It is possible that the programs are too new to have substantial outcome measurement, but more research is needed in that area.

One of the most established and nationally cohesive programs is the Veterans Administration Nursing Academic Partnership (VANAP). VANAP has been implemented at 18 VA medical centers across the country who have partnered with competitively selected schools of nursing (Office of Academic Affiliations, 2015). In the interest of succinctness, the objectives were pulled from one VANAP site to illustrate the overall goals of the program. The Minneapolis VA Medical Center is one of five locations in the polytrauma system of care, making it an ideal location for a broad learning experience. The VANAP between Minneapolis VA Medical Center (MVAHCS) and the University of Minnesota School of Nursing (UMSON) has five objectives, which can be found in full at www.va.gov/OAA/abstract_minneapolis.asp. Although the VANAP is created to increase the quality of care for Veterans and their families, only one of the five objectives address that need (Office of Academic Affiliations, 2015). The other four objectives are targeted at strengthening the qualities of the nursing students and faculty, improving their ability to interact and grow as professionals. As evidenced

by the objectives, the program seeks to benefit the nurses, and is very focused on the development of those nurses within the VA system of care. While the VANAP program is able to teach nurses valuable information about caring for Veterans, their programming is not available for people who work outside of the VA system. This would exclude providers who work with over half of the Veterans throughout the country.

Although few programs were found in a search of the literature, other studies have been published to assist with the identification of unique needs of Veterans and their families. Of the five studies reviewed, none appeared to directly address occupational therapy or any other health profession in their objectives. However, the findings can be applied to the overall healthcare management of Veterans. For example, Crawford et al. (2015), identified barriers to obtaining mental health services among Veterans, which included avoidance of psychotropic medications, avoidance of discussing war experiences, and the belief that problems are to be resolved personally. These barriers fit with the military identity characteristics that were discussed in The Rand Report (Center for Military Health Policy and Research, 2008). Similarly, Koenig, Maguen, Mayott, & Seal (2014), used analysis of semi-structured interviews to separate the barriers to community reintegration following deployment into four domains: interpersonal, intrapersonal, professional/educational, and community resources for resilience. By using the information gathered by other health professions, occupational therapy can design its own method for reaching Veterans most effectively.

While the development of an established academic partnership is not realistic across all clinics and occupational therapy programs nationwide, a widely shared

educational module could assist with spreading the basic knowledge to occupational therapy practitioners.

Online education

Now, let's examine several studies that discuss the effectiveness of online learning for adults, particularly within the current cultural context of growing distance learning programs. Alalshaikh (2015), discussed four different types of online learning styles: cognitive processing, perceptual, social, and problem-based learning; and suggested that problem-based learning is most effective for adult online learners, as it combines aspects of the other three learning styles into one. Problem-based learning is an experience where the student learns not by a traditional pedagogy, but by the exploration of an open-ended problem relevant to the content of the lesson. Learning styles are important for learners to know, in order to maximize effectiveness and efficiency of the learning experience. However, it is not the only factor to consider when proposing an online educational module.

As adult learning theory stresses, an adult learner will do best when the material is relevant to his or her life and meaningful to that learner. El-Gilary & Abusaad (2013), conducted a study with 275 nursing students in Saudi Arabia, and reported that learning style and learning readiness are important for the outcomes of online education but are not associated with one another. Other studies have also found results that coincide with the principles of adult learning theory. In one example, adult learning theory concepts were reinforced when online learning was found to be more effective if the learners self-selected their online method, demonstrating that adults are self-directed and learn when

they are ready for the material (Meyer, 2014). The same aspects of adult learning theory were confirmed in a study of 1429 survey responders who accessed Massachusetts Institute of Technology OpenCourseWare (OCW) online learning forum (Bonk, Lee, Kou, Xu, & Sheu, 2015). Bonk et al. (2015), reported that the most common reason for people to initiate their participation in OCW was internal motivation, followed by the desire to learn a new skill. In other words, the participants in OCW self-directed to the site, selected material that was relevant to their lives, and were internally motivated to obtain the new material. This study is particularly relevant to this project proposal as OCW considered online learning opportunities on a one-time basis as opposed to an interactive course over time as the other studies examined.

By using evidence-based research from programs designed to address the unique needs of Veterans and evidence-based research from studies examining the effectiveness of online learning, a new online program will be designed for occupational therapy practitioner working with Veterans called, OT VetSet. Adult learning theory and a sociocultural perspective will also assist with selecting appropriate content to be included in OT VetSet. This proposed educational module will incorporate adult learning theory, evidence of effective online learning, and evidence of other Veteran-centric programs. This will be done with a sociocultural perspective to provide occupational therapy practitioners with fundamental information to most effectively work with clients with military experience.

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CHAPTER THREE: DESCRIPTION OF THE PROPOSED PROGRAM

Implementation

Description of the Program

OT VetSet: A Clinician's Introduction to Working with Military Veterans or OT VetSet, is an online educational training program comprised of five lessons and a resource section, which are detailed in this chapter. This doctoral project presents a manual for the implementation of OT VetSet in medical or educational organizations.

Introduction: Tips for Teaching the Adult Learner

In order to create an online educational program for professionals, the creator must have an understanding of how an adult learns best. As discussed in Chapter 2, this project is based in Adult Learning Theory, which poses that adults bring their own knowledge and experience to learning, and will seek information when they are ready to learn it. Additionally, adults are self-directed and tend to have a problem-centered orientation to learning (Reischmann, 2004). OT VetSet is designed in such a way that it could be completed entirely individually, but is better suited to be completed partially individually, with small group discussions for working through the case studies in Lessons 4 and 5.

Lesson 1: Introduction to Military Terminology

Introduction to Military Terminology is designed to be the first module of OT VetSet. It will lay the foundation for the vocabulary employed throughout the remainder of the lessons and is an important first step. Please refer to Appendix B for an example

of Lesson 1 including content and administration techniques.

The learning objectives by the completion of Lesson 1 are that the learner:

- will be able to differentiate between the five branches of the United States military.
- will be able to differentiate between the options for type of service.
- will have a basic understanding of military ranks, including the difference between an Officer and enlisted service member.
- will have an understanding of at least 3 military action commands that may be utilized during a therapy session.

Lesson 2: Relevant Conditions by Service Era

Lesson two, description of conditions by service era, describes what symptoms to be cognizant of during an initial evaluation and throughout treatment.

The learning objectives by the completion of Lesson 2 are that the learner:

- will be able to identify at least 3 conditions that are correlated with military service in Vietnam.
- will be able to identify at least 3 conditions that are correlated with military service in the Gulf War.
- will be able to identify at least 3 conditions that are correlated with military service in The Global War on Terror, or Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn (OEF/OIF/OND).
- will be able to identify at least 1 resource to research the possibility of service connection for a specific condition.

As an example for conditions correlated with service, Agent Orange is an herbicide that was used during the Vietnam War and has since been found to cause several life-altering illnesses such as certain types of cancer, Diabetes Mellitus II, and Parkinson's disease (U.S. Department of Veterans Affairs, 2015). Another example is that the OEF/OIF/OND veterans are demonstrating increased incidence of mild traumatic brain injury compared to other eras as a result of the frequency of improvised explosive devices or IEDs (Center for Military Health Policy and Research, 2008).

Another factor to consider is the importance of context as part of the occupational therapy process as stated in the American Occupational Therapy Association (AOTA) the *Occupational Therapy Practice Framework: Domain and Process 3rd Edition* (AOTA, 2014). *The Framework* describes cultural, personal, temporal, and virtual contexts as client factors that contribute to participation in meaningful occupation. By understanding the illnesses that may be present as well as the context under which those illnesses came about, the clinician may be better equipped to understand the emotional connections associated with the client's change in function. Service connection for an illness or injury may be interpreted differently among veterans, possibly as a point of pride, or conversely, as victimization. Part of the personal context that may vary in the veteran population compared to the civilian population is the presence of mental health disorders. A review of the literature confirms that veterans have a higher incidence of mental health disorders as compared to their civilian peers (Redmond, Wilcox, Campbell, Kim, Finney, Barr, & Hassan, 2015; Spelman, Hunt, Seal, & Burgo-Black, 2011). As such, mental health considerations are a vital part of their treatment plans.

Lesson 3: Considerations for Effects of Mental Health

Lesson 3 will present common mental health diagnoses and their presentations so that the provider comprehends and identifies signs of mental health disorders that may have gone undiagnosed. The idea of self-sufficiency that has been identified in military culture may cause hesitation in clients for seeking help from a mental health professional and thus prevented the diagnosis of mental health disorders (Center for Military Health Policy and Research, 2008). By recognizing that it is possible for some behaviors to be related to an undiagnosed mental health disorder, the occupational therapy provider will be better able to make an individualized treatment plan for the client, as well as make appropriate referrals to other professionals that specialize in mental health. Please refer to Appendix C for examples of content and administration techniques for *Lesson 3: Considerations for Effects of Mental Health.*

The learning objectives by the completion of Lesson 3 are that the learner:

- will be able to identify at least 3 signs of post-traumatic stress disorder, or PTSD.
- will be able to identify at least 3 signs of depression.
- will identify at least 3 ways in which mental health can affect physical health.
- will be able to identify at least 3 resources to assist a client that may be showing signs of a mental health disorder.

Lesson 4: Case Study 1 – Vietnam Veteran

Lessons 4 and 5 will present case studies of veterans who represent common demographics and diagnoses of other veterans from their service era. The purpose of the case studies is to promote small group discussion and problem based learning that will

facilitate retention of the learned information (Reischmann, 2004). The case studies feature fictional clients, but are compilations of demographic and epidemiologic factors related to the respective service eras. By working through a case study to develop an evaluation and treatment plan for each client, the idea is that the provider will then have more confidence with direct transfer of these new skills into his or her clinical practice.

A Vietnam veteran was chosen for the first case study, as Vietnam veterans are a group rising in age that also experience a wide range of service connected disabilities related to their exposure to Agent Orange (Center for Military Health Policy and Research, 2008). By completing a hypothetical evaluation and treatment plan for a Vietnam veteran, the learner should be able to incorporate new knowledge from Lessons 1, 2, and 3 of OT VetSet. By working through the problems in small groups, the learners will have an opportunity to bring their own experiences to the brainstorming process and tap into the knowledge of their colleagues or classmates. This method promotes principles from Adult Learning Theory in order to make the learning effective for the professional population. Please refer to Appendix B for an example of case study vignette and prompts for learners.

The learning objectives by the completion of Lesson 4 are that the learner:

- will be confident in writing short-term goals for a Vietnam veteran with a service-connected condition.
- will identify at least 2 intervention activities that incorporate the experience of the Vietnam veteran in their design.

- will feel confident in their assessment of the Vietnam veteran while taking the service-connection and war era context into consideration.

Lesson 5: Case Study 2 – OEF/OIF Veteran

As with Lesson 4, Lesson 5 is a case study that will allow the learners to work together to brainstorm an evaluation and treatment plan for and OEF/OIF veteran. An OEF/OIF veteran was chosen, because there is still a need for research to determine the extent of service-connected conditions related to this era of service. The relatively younger age of OEF/OIF veterans present different challenges compared to Vietnam or Gulf War veterans. For instance, their family and social situations may include having dependent children. It is important to consider factors other than the veteran him or herself when creating an occupational therapy treatment plan, and the learners will be able to do so with Lesson 5.

The learning objectives for Lesson 5 are that the learner:

- will be confident in writing short-term goals for an OEF/OIF veteran with a service-connected condition.
- will identify at least 2 intervention activities that incorporate the experience of the OEF/OIF veteran in their design.
- will feel confident in their assessment of the OEF/OIF veteran while taking the service-connection and war era context into consideration

Lesson 6: Resources

The final piece of the module will be a veteran resource list. This will include lists of local resources. This manual will have an outline of suggested resources, which each facility must fill out according to their location. For example, the manual may list "local VA medical center" or "local Vet Center." It will then be up to the facility to find the resources available in their community, using the outline in the manual as a starting point. This outline will also include national websites for the Department of Veterans Affairs, from which veterans and practitioners can learn more about eligibility and enrollment. By assisting veterans in accessing the resources available to them, the occupational therapist can help ease some of the financial or emotional burden that may accompany a client's diagnosis.

The learning objectives for Lesson 6 are that the learner:

- will be able to identify at least 3 resources for veterans who are in need of support.
- will be able to identify at least 3 resources for healthcare professionals in need of assistance working with veterans as clients.
- will be able to identify at least 3 resources for family/caregivers of veterans in need of support.

Desired/Expected Outcomes

The desired outcomes for occupational therapy providers using the VetSet tool are that they:

- will feel more confident in their ability to empathize with veterans as clients as compared to before using VetSet.
- will demonstrate understanding of at least three common diagnoses associated with a specific service era that he or she did not know prior to using VetSet.
- will feel more confident in their ability to use and/or understand terminology as it relates to military service as compared to before using VetSet.
- will demonstrate ability to create a treatment plan for a veteran client using at least two new skills related specifically to military service or military culture after using VetSet.

Potential Barriers/Challenges for Implementation

In order to implement the educational module across the VA healthcare system, collaboration between several different departments is essential. When communication between several groups of people is necessary, there can be more room for error and an increase in delays toward implementation. A clear, organized communication method can assist in minimizing delays when working with other teams. For example, it may be beneficial to appoint a project manager, who can coordinate communications between the occupational therapist, IT developer, and education personnel.

Another potential barrier is that different healthcare systems have different Manuallines and platforms for employee education, making transfer between institutions difficult. For example, the online education system in the VA healthcare system is likely different from that of private hospital A, which is still different from private hospital B. For this reason, one must create an outline of the information to be shared among

different facilities so that the facility can modify the information to fit their technical platform. This can create a challenge with fidelity to the original design. By including the evidence base for the design with the skeleton of the information, institutions will be able to utilize their internal employee education teams to analyze and implement the information in a reliable manner.

The last challenge lies within the nature of the clinicians themselves. Adding an online education module to the workload may be considered cumbersome or an inefficient use of time to clinicians who are already feeling the pressure of fitting too many clients into a too short workday. This challenge must be met at an administrative level, with designated time carved into schedules for learning experiences. In the future, approval for continuing education units or CEUs may be valuable as an incentive for clinicians to complete the module, even if not mandated by their supervisors.

Evaluation Plan

In order to determine the effectiveness of the VetSet tool, evaluation should occur at the individual and program levels. At the individual level, the module will include a pre- and post-test knowledge check in the form of multiple-choice questions. The knowledge check will need to be completed at least during pilot testing, but may also be used by organizations to track their employees' knowledge relative to VetSet topics throughout the learning process. Additionally, the pilot testing will include an open-ended survey that allows users to provide feedback on the strengths and weaknesses of VetSet as well as recommendations for further development.

At the program level, the scores for the pre- and post-test knowledge checks can

be inputted into statistical analysis software to determine the amount of change that occurred across the users after using VetSet. Those data will be added into an executive summary to be presented to administrative stakeholders and potential funders for more widespread implementation. The pilot users will also be asked to complete a pre- and post-test Likert scale survey that asks them to rate statements from strongly disagree to strongly agree as they relate to the providers' confidence in treating veterans. Over time, it would be ideal to evaluate the effect of the VetSet tool on the veterans' experience of occupational therapy. In order to do this, the facility could solicit a group of veterans to participate in a survey on their providers. The veterans would be asked questions about the providers' understanding of their specific veteran issues, such as familiarity with terminology or common diagnoses. This type of evaluation would take more time and more resources and may not be realistic at the initial launch of the program, but could be considered after some time.

Funding Plan

Needed Resources

In order to implement VetSet, organizations will need to consider the cost for the learning management system, or online learning platform, as well as hourly wages for personnel to design, test, and implement. To implement VetSet into a large organization such as a hospital or university, the following personnel are recommended: education supervisor or rehabilitation manager, occupational therapy consultant or team lead, an information technology specialist, and a research assistant. According to one survey that polled 249 organizations, representing 3,947 learning development professionals and at

least 19,875,946 student consumers, the average amount of time it takes to develop one hour of finished content is 184 hours of work from start to finish (Chapman, 2010). The VetSet tool fits the description of the online learning tool that would fall into the average range of 184 hours in that it has content, some video or audio, and approximately 25% interactive elements. However, this manual eliminates some of that time as the content has already been researched and developed for future users. In order to determine the cost of personnel, time must be broken down into phases for each professional involved. The Figure 3.1 represents the breakdown of time for the development of one hour of interactive online learning (Chapman, 2010).

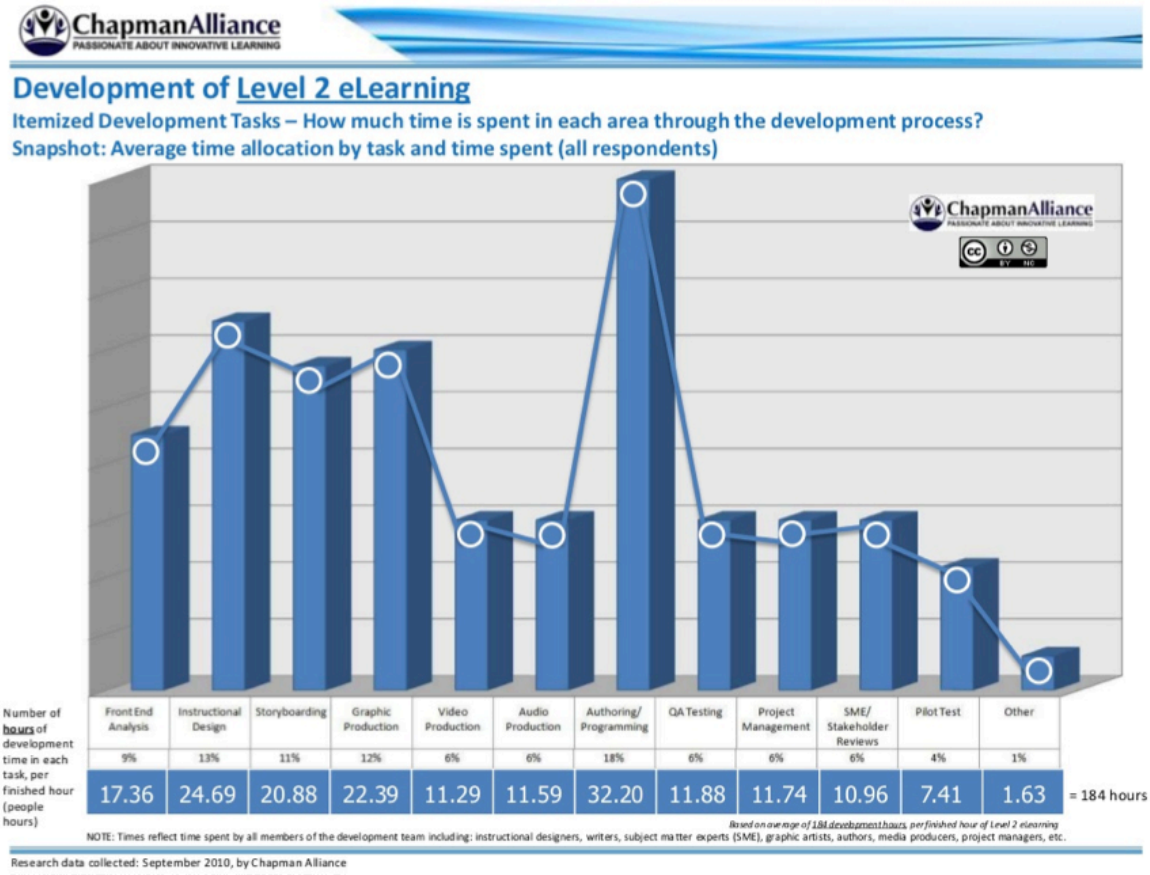

Figure 3:1: (reprinted with permission, from www.chapmanalliance.com**)**

The subsections of time were assigned to personnel based on their experience and ability to add value to each component of development. The research assistant will be responsible for conducting the front-end analysis, which is vital for program evaluation in the end. The rehabilitation manager and occupational therapist will work together on storyboarding, or placing the material in an order that makes sense for their targeted audience. After the storyboarding is complete, the information technology specialist is free to work on the production of audio/visual and graphics as well as programming the content into the learning management system. The research assistant, OT, and rehab manager will be a part of quality assurance testing, prior to the release of the pilot module. Then, the research assistant will work with volunteers on pilot testing of the module. Throughout the project, the OT and rehab manager will be checking in with the IT specialist as project managers, to ensure that goals of all stakeholders are being met. For information on the exact cost of each piece, please refer to Appendix E of the manual, which has a spreadsheet presentation of the budget. All wages estimated in the potential budget were based off of the national median wage for each profession. The rehabilitation manager median wage was $39.00/hour, the occupational therapist was $36.00/hour, the research assistant was $15.00/hour (without specialty), and the IT specialist was $16.00/hour (Payscale, Inc., 2016).

The only other cost associated with the implementation of VetSet is that of the learning management system (LMS). While there are many options for presenting online material, including a simple slideshow presentation, an LMS will be best equipped to facilitate all aspects of the online learning based on the evidence for success with online

learning. These features include slide presentation, discussion threads, audio and visual additions, and interactive components such as knowledge checks throughout the content. Several LMSs were reviewed using an online search engine and three were selected as most appropriate: Talentlms, Moodle, and Blackboard. One major difference between these LMSs is that Moodle is a free platform where people may publish their content without fee (Moodle, 2016). If desired, the developer can privatize their content such that users would need to pay to access their published course. Talentlms and Blackboard require paid subscriptions of approximately $99.00/month for their medium access level, and therefore require user name and sign in for people to access the published content (Talentlms, 2016; Blackboard, 2016).

Finally, dissemination costs must be considered. While word of mouth may work to establish some connections with the primary and secondary audiences, OT VetSet will need a physical reminder to prompt providers and educators to get more information on the learning tool. For this purpose, one-sided flyers and business card magnets will be ordered. The flyers can be posted in common areas in medical or educational institutions, and the magnets can be placed on personal desks or lounge refrigerators to prompt more exposure to the material. Using a popular printing website, www.vistaprint.com, the budget for dissemination materials is set at $250.00. This number accounts for 500 prints of the flyers at $108.74 and 500 magnets at $89.00. Additionally, the budget includes room for shipping, sales tax, and subtle price changes that may occur between printing companies. The dissemination materials will need to be purchased in year 1, with likely need for renewal in year two.

Available Local Resources

In most cases, the funding for this program can be covered under existing funding for the healthcare institution. Large institutions, like the VA healthcare system, often have education departments whose purpose is to create such modules. For the implementation of VetSet within the VA healthcare system, no additional funds are required, but time must be dedicated to the project, which is an indirect cost as the professionals involved will be unavailable to pursue other projects during that time. The VA Central Office Occupational Therapy Discipline Lead is stationed at the Minneapolis VA Medical Center and has assisted with facilitation of interdepartmental meetings to establish necessary relationships. The Medical Media Department will assist in the design and readability of the module and the employee education team will assist with inputting the information into their established learning management system known as the Talent Management System, or TMS. The VA uses TMS for all of their internal required learning for employees. With this implementation, the module will be available to all VA employees nationwide and can be assigned to any work group by their supervisors.

For other organizations that may not have all the necessary personnel available, partnerships with technical colleges for Information Technology or occupational therapy programs for a research assistant may help to alleviate some of the personnel costs. In some cases, the partnering schools will allow students to participate for credit, or the work could be offered as an internship experience to help build a resume for the student.

Potential Funding Sources

When looking for funding, there are several resources to consider. For example, www.grants.gov publishes a database of federally funded grant opportunities. At the time of the publication of this manual, only one grant was found that would support the implementation of OT VetSet. The National Institute of Health has a small grant program, referred to as R03, which would be available for a non-renewable period of up to two years (National Institutes of Health, 2016). This short time would allow for the initial development and dissemination of OT VetSet, which would be sufficient to reach the target audiences.

The Department of Defense has a funding opportunity known as the Minerva Research Initiative (Department of Defense, 2016b). The Minerva Initiative has up to $15 million to fund 10–12 projects that align with their published Priority Research Topics. Of the five topics, OT VetSet aligns with Priority II, Contributors to Societal Resilience and Change, more specifically, under the subsection of Population and Demographics. The grants are available for up to three years, which would allow more than enough time to develop and disseminate OT VetSet to target audiences.

Another potential funding source is the Dudley Allen Sargent Research Fund's Doctoral Student Competition (Boston University College of Health and Rehabilitation Sciences: Sargent College, 2016). The competition is open to any Sargent College student enrolled in a post-professional doctoral program whose lack of funds may result in the dilution or delay of the finished project. With an average funding time of 12–18 months and $5,000 available, the Dudley Allen Sargent Research Fund would meet the needs of

OT VetSet for initial development and dissemination.

Finally, the Robert Wood Johnson Foundation is another potential source of funding. The Robert Wood Johnson Foundation accepts proposals for funding of projects related to healthcare that fit in with one of three major aims (Robert Wood Johnson Foundation, 2015). By educating occupational therapy providers on factors relating to effective treatment of veterans, OT VetSet fits into the Foundation's subsection of Spreading Model Interventions, which is a category that funds projects that educate on community-based programs, system changes, and other interventions that have a meaningful impact on health. With varying amounts awarded beginning at $3,000 and available for 1–3 years, the Robert Wood Johnson Foundation grant program would meet the needs for the development and dissemination of OT VetSet.

Another opportunity would be to look into the grants for the specific organization in which the module will be utilized. For example, the VA healthcare system has its own Grants Management Services department that can assist professionals in finding grants through the VA. Other hospitals may have similar resources that can be tapped. Aside from organized grants, one may look for personal or smaller organizational donations to assist with the funding for the development of VetSet. The American Legion and Veterans of Foreign Wars posts may be open to sponsoring part of the development, particularly if the module will be used to educate providers that will be treating the members of those posts.

	National Institute of Health Small Grant Program (R03)	**Minerva Research Initiative** (Via the Department of Defense)	**Dudley Allen Sargent Research Fund – Doctoral Student Competition**	**Robert Wood Johnson Foundation**
Amount	Up to $50,000	$15 million available to be split between different projects	Up to $5,000	Wide range, historically from $3,000 to $23 million
Time Supported	Up to 2 years, non renewable	Annual sum disbursed over 3 years	12–18 months	1–3 years
Inclusion Criteria	May be used to pursue dissertation studies, pilot or feasibility studies, must support a non-profit or government organization	Open to all sources from academia including private, public, or foreign institutions of higher education. Proposal must fit into one of the 5 "Priority Research Topics"	Must be enrolled in a post-professional doctoral program at Boston University, lack of funding would slow or stop the progression of the project	Any organization whose project fits within one of their 3 focus areas
Exclusion Criteria	May not be used to support dissertation research	May not be submitted by an individual. Graduate students are not required to, but are encouraged to have advisor submit for them	None – must meet inclusion	May not be used to support basic biomedical research, drug therapies or devices, endow-ment or capital costs, operating expenses or existing deficits, or lobbying of any kind

Table 3:1: Potential Funding Sources

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CHAPTER FOUR: DISSEMINATION PLAN

OT VetSet can be summarized as a tool for occupational therapy providers to facilitate the holistic evaluation and treatment of veterans as clients. By using the glossary of common terms, presentation of common diagnoses by service era, and working through the presented case studies, users of OT VetSet can increase their confidence and ability to relate to veterans as clients. In the short term, OT VetSet will assist facilities in becoming more veteran centered, creating a welcoming environment that bolsters veterans' success in rehabilitation. In the long term, OT VetSet will promote a change of perspective for occupational therapists across the United States, building a better knowledge base for occupational therapy providers who work closely with veteran clients to increase their participation in personally meaningful daily activities and experiences.

The primary audience for the information in OT VetSet is the individual occupational therapy provider. This may include registered occupational therapists (OTRs) or certified occupational therapy assistants (COTAs). The key message for the primary audience is that veterans have different client factors and contextual environments that are unique to having military experience. As such, evaluation and treatment must be addressed through the lens of military culture, which can be initiated with the use of OT VetSet to know which questions to ask and how to better relate to veterans as clients.

In order to spread the message of OT VetSet to individual providers, OT VetSet will be presented at professional gatherings such at the AOTA conference or a Veteran's

Administration occupational therapy monthly conference call. By engaging providers in a nationwide setting, each provider present at the gathering can bring the information back to his or her peers, no matter the geographical location. Tangible items such as flyers and magnets with information on OT VetSet will be distributed for the audience to bring back to their colleagues. It will be important to engage those providers attending the gatherings, as they are most likely to be considered reliable among their peers and can choose to either share the information with their team.

A secondary audience for OT VetSet would be people active in academia such as professors, students, or other administrative staff that may have input in curriculum design. Since OT VetSet can be inputted into any existing learning management system, it would be fairly simple for an occupational therapy program to use OT VetSet as a piece of their standardized curriculum. Additionally, OT VetSet can be adapted to fit into any unit of study with consultation with the designer. For example, the case study prompts could be focused on finding assistive technology, addressing concerns for activities of daily living, or working on adapting the physical environment. Either way, the key message of OT VetSet can be delivered to occupational therapy students who will have a base of information to better develop a holistic and individualized evaluation and treatment plan for veterans as clients. OT VetSet will first be introduced to professors at Boston University, as that is the program through which OT VetSet was designed. Additionally, St. Catherine University in St. Paul, Minnesota has a relationship with the Minneapolis VA healthcare system and would be another accessible academic institution through which OT VetSet can be shared. Again, the tangible items including flyers and

magnets can be shared with the secondary audience as well.

Overall, the goal for dissemination of OT VetSet is for it to be spread as far and wide as possible. As such, the modules must be complete and easily adaptable to multiple learning systems immediately upon presentation to the stakeholders. With simple consultation with the designer of OT VetSet, which could be completed via telephone, free videoconference, or potentially even e-mail, any institution would ideally be able to adapt OT VetSet to work for their goals.

CHAPTER 5: CONCLUSION

OT VetSet: A Clinician's Manual to Working with Veterans as Clients, or VetSet, is an online educational tool that has the potential to influence a wide audience in a short amount of time with effective dissemination. OT VetSet is unique in that it can be easily adapted to fit with any clinical or educational setting. The manual provided, as a result of this doctoral project, is evidence based, theory driven, and client centered in its development.

Since the Accreditation Council for Occupational Therapy Education (ACOTE) does not have a specific standard for educating providers on working with veterans as clients, there is a widespread need for a tool to be used across occupational therapy practice. Additionally, the United States is still involved in the Global War on Terror, which is seeing veterans return from active duty and apply for more disability compensation than ever before (McNally & Frueh, 2013). OT VetSet is a universal tool that addresses the educational gap with the ability for each facility to adapt the tool to their specific needs.

OT VetSet was created using Adult Learning Theory strategies that may increase retention of the information. By providing a subsection in the OT VetSet manual that simply addresses tips for teaching adult learners, professionals that choose to adapt OT VetSet for their facility will have a resource to facilitate successful learning, even if they do not have an education background of their own.

Another unique aspect of OT VetSet is that it can be simply adapted to educate healthcare professionals of another discipline with simple consultation with a

representative of the desired audience. For example, a PT VetSet could be created to educate physical therapists based off of the information on OT VetSet. For the most part, Lessons 1, 2, 3, and 6 would remain the same, providing basic information on military experience, organization, and common diagnoses. The case studies could share the same basic health and contextual information, but the prompts can be changed to encourage critical thinking more appropriate to the physical therapists. Slightly more adaptations may be needed to create an RN VetSet for registered nurses, but again, the majority of the information would still be relevant. By sharing the information across disciplines in a facility, OT VetSet and any other future VetSets can encourage interdisciplinary communication and integration with varying providers sharing the same background knowledge.

OT VetSet is unique in that it is an electronic tool that incorporates both individual and small group learning. According to Adult Learning Theory principles, adults learn in a problem-centered orientation, bring their own experiences to their learning, seek out material they would like to learn, and learn most effectively when they are mentally ready for the material (Reischmann, 2004). The individual aspects of OT VetSet, lessons 1–3, allow each learner to develop their thoughts and understanding of the content in whichever way is most meaningful to them. To facilitate that, the lessons should be constructed with all major learning styles in mind (i.e. visual, auditory, kinesthetic, etc.). Next, the learners are asked to come together as a group to work through the case studies. This will allow the learners to work together and address the real problem presented as opposed to clicking their way through the content, which may

happen with an online learning tool that uses the same presentation method throughout. Furthermore, the learners have an opportunity to use each other's life experiences to understand the content, which may facilitate intra-disciplinary discussions and collaborations with future clients.

The design of OT VetSet facilitates dissemination across several varying organizations including both educational and healthcare institutions. With effective dissemination, OT VetSet aims to increase the knowledge base of occupational therapy practitioners as it relates to military experience, military organization, common diagnoses, and resources for treatment regarding clients with military experience. Such a universal tool is unavailable thus far and OT VetSet aims to fill that void.

References

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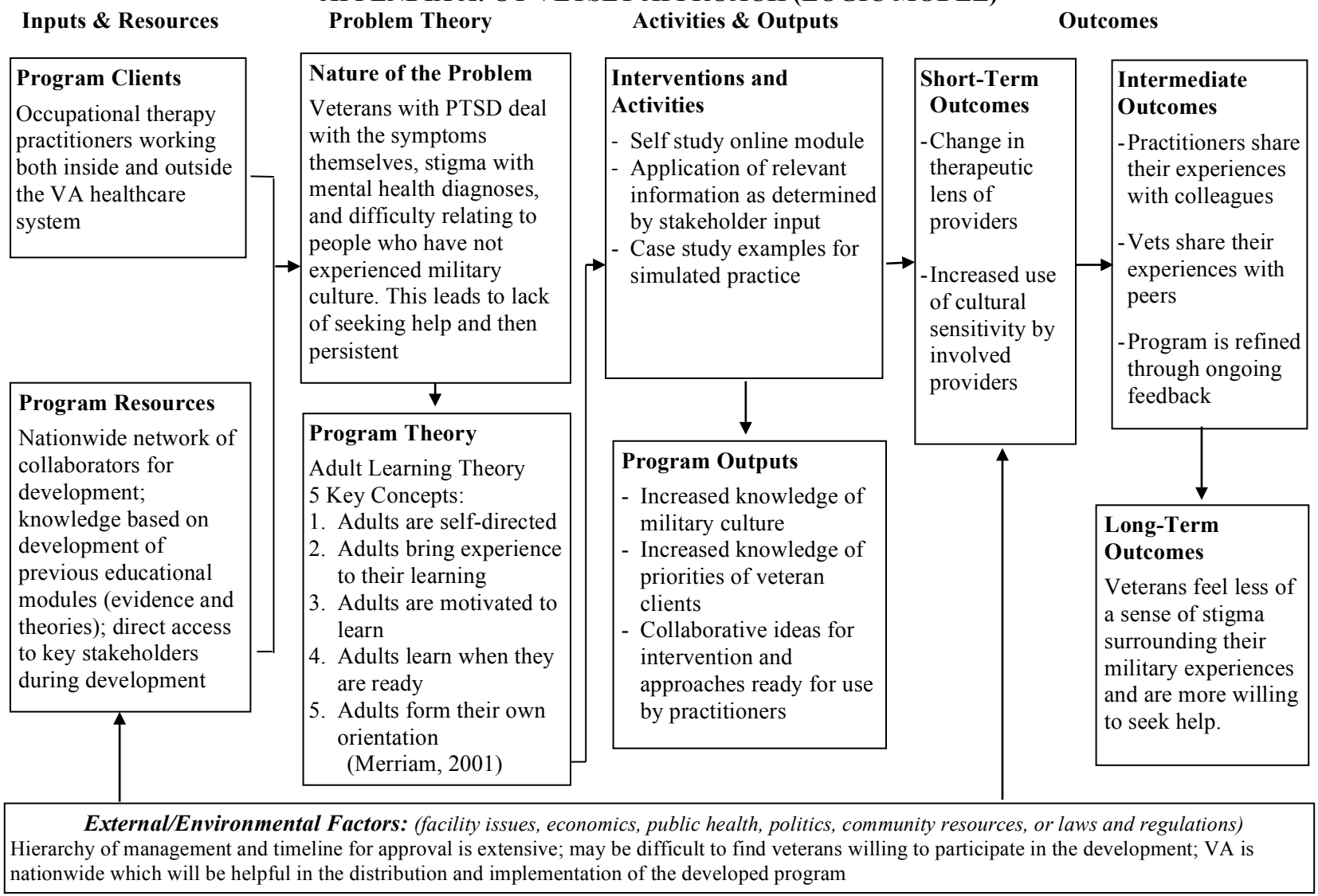
APPENDIX A: OT VETSET APPROACH (LOGIC MODEL)



APPENDIX B – LESSON 1: INTRODUCTION TO MILITARY TERMINOLOGY

Introduction

Lesson 1: Introduction to Military Terminology is designed to be the first module of OT VetSet. It will lay the foundation for the vocabulary employed throughout the remainder of the lessons and is an important first step.

- The learning objectives are that by the completion of Lesson 1, the learner will:
- be able to differentiate between the five branches of the United States military.
- be able to differentiate between the options for type of service.
- have a basic understanding of military ranks, including the difference between an Officer and enlisted service member.
- have an understanding of at least 3 universal commands that may be utilized during a therapy session.

Content

Service Branches

1. Army
    a. "As the oldest branch of the U.S. military, the Army protects the security of the United States and its resources."
2. Marine Corps
    a. "The Marine Corps is often the first on the ground in combat situations."
3. Navy
    a. "The Navy defends the right to travel and trade freely on the world's oceans and protects national interests overseas."

4. Air Force
    a. “The U.S. Air Force protects American interests at home and abroad with a focus on air power.”
5. Coast Guard
    a. “The Coast Guard protects America’s waterways and deploys with the Navy during wartime.”

Types of Service

1. Active Duty
    a. Full time commitment, often receive benefits
    b. May live off of their military payment
2. Reserves
    a. Part time commitment
    b. Receive less benefits in comparison to active duty
    c. Cannot live off military payment alone, typically have civilian jobs as well
    d. Can be called to deploy in times of need
    e. Under federal command
3. National Guard (Part time)
    a. Part time commitment, type of Reserve
    b. Receive less benefits in comparison to active duty
    c. Cannot live off military payment alone, typically have civilian jobs as well
    d. Under federal or state command, depending on current needs

Overview of Rankings

Teaching the names of all of the ranks of service members of the United States Military would take longer than this module alone will allow. For purposes of introduction to the terminology, this lesson will cover a basic overview of rankings with the understanding that there are more details that can be explored at another time. With this in mind, the descriptions presented in this lesson include some generalization and may vary slightly between branches or particular jobs. For the sake of simplicity, only rankings from the Army (the largest branch of the United States Military) will be presented in this module. More information on ranking names for the other branches can be found in Table 2 of the article by Redmond et al. (2015).

1. Enlisted
    a. Qualifications include high school diploma or GED, passing of the ASVAB, or Armed Services Vocational Aptitude Battery
    b. In general, may receive lower pay than commissioned Officers
    c. Can command lower ranking enlisted personnel, but will not outrank a commissioned Officer
    d. Pay scale ranges from E1–E9, details at http://www.militaryfactory.com/military_pay_scale.asp
    e. Rankings from high to low, including pay grade, are:
        i. Sergeant Major or Command Sergeant Major (E9)
        ii. First Sergeant or Master Sergeant (E8)
        iii. Sergeant First Class (E7)

iv. Staff Sergeant (E6)

v. Sergeant (E5)

vi. Corporal or Specialist (E4)

vii. Private First Class (E3)

viii. Private Second Class (E2)

ix. Private (E1)

2. Commissioned Officer

    a. Qualifications include those of enlisted personnel with the addition of a minimum of a 4-year college degree and graduation of either an Officer Candidate School or ROTC program (Reserve Officer Training Corps).

    b. Think of Officers as the "managers" of the military, having more administrative and organizational responsibility compared to enlisted personnel.

    c. Can command all lower ranking Officers and enlisted personnel

    d. Pay scale ranges from O1–O10, details at http://www.militaryfactory.com/military_pay_scale.asp

    e. Rankings from high to low, including pay grade are:

        i. General (O10)

        ii. Lieutenant General (O9)

        iii. Major General (O8)

        iv. Brigadier General (O7)

        v. Lieutenant Colonel (O6)

vi. Major (O5)

vii. Captain (O4)

viii. Lieutenant (O3)

ix. First Lieutenant (O2)

x. Second Lieutenant (O1)

3. Additional Information

    a. Both Officers and enlisted personnel may participate in advanced training that can take several months to complete, depending on their job.

    b. Enlisted personnel can transition to commissioned Officers by completing additional qualifications.

    c. Non-commissioned officers, or NCOs, are enlisted personnel who receive commands from commissioned officers and can assign tasks to lower ranking personnel. A commissioned Officer will always outrank a Non-commissioned Officer. An example of a Non-commissioned officer is a Sergeant.

Sample Administration Technique

Real-Time Knowledge Check

Utilize features of the learning management system, or LMS, to present the material in ways that appeal to the major learning styles of VAK, or visual, auditory, and kinesthetic. Present the words in print on the screen, offer a voiceover option with audio, and then pose questions regarding the content presented every 2–5 slides, depending on facility preference.

Examples of questions for the Real-Time Knowledge Check include

- Which branch of service protects the security of the United States and its resources? –Answer: Army
- Which type of service member can continue to hold a civilian job while serving "on call" in any of the 5 service branches and under only federal control? –Answer: Reservist
- Which type of service member can continue to hold a civilian job while serving "on call" in the military and under state or federal control? –Answer: National Guard
- Who is higher ranking, a Sergeant, or Lieutenant? –Answer: Lieutenant
- Can choose between multiple-choice or fill-in-the-blank for responses
- May depend on capabilities of the LMS for a specific facility

APPENDIX C - LESSON 3: CONSIDERATIONS FOR THE EFFECTS OF MENTAL HEALTH

Introduction

Lesson 3: Considerations for the Effects of mental health is designed to stimulate critical reasoning of occupational therapy providers who are working with clients with increased risk for mental health disorders. As noted in Chapter 2 of OT VetSet, people with military experience are at higher risk for mental health disorders when compared to their civilian peers (Redmond, Wilcox, Campbell, Kim, Finney, Barr, & Hassan, 2015; Spelman, Hunt, Seal, & Burgo-Black, 2011).

The learning objectives by the completion of Lesson 3 are that the learner:

- will be able to identify at least 3 signs of post-traumatic stress disorder, or PTSD.
- will be able to identify at least 3 signs of depression.
- will identify at least 3 ways in which mental health can affect physical health.
- will be able to identify at least 3 resources to assist a client that may be showing signs of a mental health disorder.

Content

Common Mental Health Diagnosis Among the Veteran Population

1. Post-Traumatic Stress Disorder (PTSD)
    a. Definition
        i. According to the National Institute of Mental Health (2016c), PTSD can be generally defined as “a disorder that develops in

some people who have experienced a shocking, scary, or dangerous event."

ii. The signs and symptoms must persist over time, as it is natural for someone to feel afraid immediately following a shocking, scary, or dangerous event (National Institute of Mental Health, 2016c).

iii. The DSM-V has published 8 diagnostic criteria for PTSD, details of which can be found by referencing the fact sheet published by the American Psychiatric Association in 2013 at: http://www.dsm5.org/Documents/PTSD%20Fact%20Sheet.pdf

b. Signs and Symptoms (U.S. Department of Veterans Affairs, 2016)

i. Diagnostic Criteria from DSM-V:

1. History of exposure to traumatic event that meets stipulations from each of 4 symptom clusters (numbers 2–5)
2. Intrusion: the inability to keep the memories from resurfacing
3. Avoidance: attempt to avoid all stimuli and triggers that bring back those memories
4. Negative alterations in cognition and mood: May manifest as irritability, joylessness, distractibility, etc.

5. Alterations in arousal and reactivity: also known as hyperarousal, or responses that are exaggerated when compared to a typical reaction to a stimulus
6. Assessment of functioning
7. Duration of symptoms
8. Not attributable to substance use or co-occurring medical conditions

c. Steps for Treatment (U.S. Department of Veterans Affairs, 2016)
    i. The VA offers many resources for both veterans and providers to facilitate treatment for PTSD at www.pstd.va.gov.
    ii. Perform screens if a provider suspects a veteran may be experiencing PTSD. For example, the Primary Care PTSD Screen or PC-PTSD (Prins et al., 2003) is a 4-question yes/no screen where 3 or more "yes" answers are considered a positive screen for PTSD and further treatment options should be explored.
    iii. Provide resources to the veteran for mental health professionals in their area. The client must be ready to accept assistance from a mental health professional and may not be ready to do so at the time of his or her occupational therapy appointment. By providing resources, the veteran can be set up for success at a later time, if he or she so desires. Please reference Lesson 6 of this module for resource ideas.

2. Depression
    a. Definition
        i. According to the National Institute of Mental Health (2016b), depression is “a serious but common mood disorder [that] causes severe symptoms that affect how to you feel, think, and handle daily activities, such as sleeping, eating or working.”
        ii. To confirm diagnosis, symptoms must persist over two weeks
        iii. There are various types of depression including: Persistent depressive disorder (dysthymia), perinatal depression, psychotic depression, seasonal affective disorder, major depressive disorder, and bipolar depression.
    b. Signs and Symptoms (National Institute of Mental Health, 2016b)
        i. Feeling sad, anxious or empty
        ii. Feeling hopeless, guilty, worthless, or helpless
        iii. Irritability
        iv. Lost of interest or pleasure in hobbies or activities
        v. Decreased energy or fatigue
        vi. Moving or speaking slowly
        vii. Feeling restless
        viii. Difficulty with concentration, memory, or decision making
        ix. Difficulty sleeping or oversleeping
        x. Appetite and/or weight changes

xi. Thoughts of death, suicide, or suicide attempts

xii. Physical aches and pains without clear physiological cause

c. Steps for Treatment (National Institute of Mental Health, 2016b)

i. The earlier treatment can begin, the more effective it can be.

ii. Typically combination of medication and psychotherapy with options for brain stimulation if those are not effective.

iii. The person must want to work on their mental health for change to occur.

iv. Treatment takes time. Most medications take 4–8 weeks to reach full effect and not every medication will work for every person.

v. Seek a mental health provider that the client trusts, assist in finding a provider if you are the trusted professional.

3. Anxiety Disorder

a. Definition (National Institute of Mental Health, 2016a)

i. According to the National Institute of Mental Health, anxiety disorders are "more than temporary worry or fear" as is a normal part of life. People with anxiety disorder may have feelings of anxiety that do "not go away or get worse over time."

ii. There are different types of anxiety disorders including three most common, generalized anxiety disorder, panic disorder, and social anxiety disorder.

iii. All three may occur in the veteran population and thus will all be discussed.

b. Signs and Symptoms (National Institute of Mental Health, 2016a)

i. Generalized Anxiety Disorder

1. Restlessness, feeling wound-up or on edge
2. Easily fatigued
3. Difficulty concentrating or mind going blank
4. Irritability
5. Muscle tension
6. Difficulty controlling worry
7. Changes in sleep pattern

ii. Panic Disorder

1. Sudden and repeated attacks of intense fear
2. Feelings of being out of control during a panic attack
3. Intense worries about when the next attack will happen
4. Fear or avoidance of places where panic attacks have occurred in the past

iii. Social Anxiety Disorder

1. Feeling highly anxious about being with other people and having a hard time talking to them

2. Feeling very self-conscious in front of other people and worried about feeling humiliated, embarrassed, or rejected, or fearful of offending others
3. Being very afraid that other people will judge them
4. Worrying for days or weeks before an event where other people will be
5. Staying away from places where there are other people
6. Having a hard time making friends and keeping friends
7. Blushing, sweating, or trembling around other people
8. Feeling nauseous or sick to your stomach when other people are around

c. Steps for Treatment

i. Typically treated with psychotherapy, medication, or both

ii. Like with depression, the client must want to work on recovery and be an active participant in the treatment process

iii. Self-help and support groups can be a good supplement to professional assistance

iv. Finding a trusted provider will be important. The client may need your help finding a specialist if they trust you as a professional.

4. Co-Occurring Conditions

a. It is not uncommon for a veteran to have one or more of the above-listed conditions. Additionally, with mild traumatic brain injury becoming more

common with veterans of the Global War on Terror, providers must not weed out only differences between these mental health diagnoses, but between mental health diagnoses and mTBI.

b. All of the above conditions may cause changes in sleep, changes in mood (joylessness, irritability, etc.), changes in arousability (although depression is more likely to present as hypoarousable while PTSD or anxiety may present with hyperarousal), and/or cognitive changes such as distractibility.

c. While it may be impossible to differentiate which symptoms are being caused by which diagnoses, it is important to consider the context of military service in order to consider the possibility of co-occurring conditions that may have gone undiagnosed. The significance of this is that a treatment typical for depression may not be resolving the insomnia experienced by a vet, because that vet is also experiencing PTSD that is attributing to their poor sleep hygiene. By changing the perspective of the problem, the provider may be able to identify further possibilities for intervention and resolution.

Sample Administration Technique

Matching Exercise

In order to facilitate integrated feedback into the lesson, a matching exercise can be completed after the presentation of the content. Some learning management systems

(LMS) can be set up for the learner to actually draw lines between options using the mouse, while others may require a typed answer. Either way, the content may be presented in two sections, diagnosis and factoid. The factoids are presented based on the definitions, signs and symptoms, or steps to treatment that were presented as the content of the lesson. The learner must then match each factoid to the diagnosis to which it applies. It is also possible to have more than one correct answer as long as that is specified in the initial directions for the exercise.

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APPENDIX D – LESSON 4: CASE STUDY – VIETNAM VETERAN

Introduction

Lesson 4 should be completed with a small group, ideally 2–4 learners. After the content is presented, the learners work together to answer the open-ended prompts to design evaluation and treatment plans. By working together, the learners can tap into the various life experiences that each person brings to the group. Additionally, this relationship may facilitate further collaborations on future clients.

The learning objectives by the completion of Lesson 4 are that the learner:

- will be confident in writing short-term goals for a Vietnam veteran with a service-connected condition.
- will identify at least 2 intervention activities that incorporate the experience of the Vietnam veteran in their design.
- will feel confident in their assessment of the Vietnam veteran while taking the service-connection and war era context into consideration.

Content

The following content is about a fictional client based on demographics provided by the National Center for Veterans Analysis and Statistics (2014).

Name: George I. Joseph

Age: 68 years

Branch of Military: Army

Occupation: Retired city groundskeeper

Mr. Joseph lives in a small town in rural Iowa with a population of 5,000 people. The closest Veterans Affairs Healthcare System is Minneapolis, which is approximately 300 miles from Mr. Joseph's home. Mr. Joseph has poorly managed type II Diabetes mellitus, post-traumatic stress disorder (characterized by insomnia and nightmares), coronary artery disease and chronic back pain. Due to the development of type II Diabetes after return from service in theater in Vietnam, Mr. Joseph has a service connection rating of 100%, making his healthcare at no cost if he can get care at a medical center within the VA Healthcare System.

Mr. Joseph has been referred to occupational therapy following an acute admission to his local VA Medical Center with poorly controlled blood sugars. The doctor is requesting that the occupational therapist provide Mr. Joseph with strategies to assist with monitoring and controlling his blood sugars using an at home insulin regimen. Mr. Joseph has reluctantly agreed to meet with the occupational therapist, but is skeptical about his ability to manage his Diabetes independently.

Evaluation Plan

Please discuss the following prompts with your colleagues by using the information provided in Lessons 1–3 of OT VetSet:

1. Which cognitive assessment would you use to assess Mr. Joseph's ability to calculate and understand his insulin needs? Consider availability of assessment, administration time, and the client's compliance.
2. Mr. Joseph reports that he has trouble sleeping at night and therefore gets tired and foggy throughout the day. He thinks this is part of why he cannot remember

to check his blood sugars throughout the day. What other clarifying questions might you ask?

3. Mr. Joseph becomes defensive and irritable after you suggest that he has cognitive deficits that may be affecting his ability to control his blood sugars. He tells you that he has fought for his country and does not deserve to be treated like a child. What strategies might you use to help de-escalate the situation and proceed with the session?

Treatment Plan

Please discuss with your colleagues ideas that you have, based on the following prompts, for creating a treatment plan for Mr. Joseph using the information from the evaluation prompts as well as the content presented in Lessons 1–3 of OT VetSet.

1. Mr. Joseph's cognitive assessment has demonstrated that Mr. Joseph has memory deficits and that he does better with written information compared to verbal information. What strategies might you suggest to increase Mr. Joseph's medication compliance?
2. You think that Mr. Joseph would best benefit from 4–6 weekly sessions at the clinic. Mr. Joseph tells you that he drives an hour and a half one way in order to get to the clinic and he will not drive that far just to learn his medicines that he has been taking for years. What alternative might you suggest in order to keep Mr. Joseph on track with his treatment plan? Consider utilizing the resource guide for alternative treatment options for Mr. Joseph.

3. Mr. Joseph agrees to try your suggestions for managing his blood sugars at home. What type of system might you use with Mr. Joseph to help track his progress? Keep in mind that you will be seeing him one time per week at the most and that he will be responsible for tracking his progress at home.

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APPENDIX E – YEAR 1 AND YEAR 2 BUDGETS

Year 1 Budget

Year 1 Budget											
Personnel	Front End Analysis	Story-boarding	Graphics Production	Video Production	Audio Production	Authoring/ Programming	QA Testing	Project Manage-ment	Stake-holder Review	Pilot Testing	**Total**
Researcher	$260.40						$59.40			$111.15	$430.95
OT Consultant		$375.84					$142.56	$211.50	$197.28		$927.18
Rehab Manager	$260.40	$407.16					$154.44	$229.13	$213.72		$1,264.85
IT Consultant			$358.24	$180.64	$185.44	$515.20					$1239.52
Supplies	Monthly Fee	Flyers (500)	Magnets (500)								
Printing Materials		$150.00	$100.00								$250
Learning Manage-ment System	$99 x12 months										1,188.00
										Total	**$5300.50**

Year 2 Budget

Year 2 Budget											
Personnel	Year 1 Analysis	Story-boarding	Graphics Production	Video Production	Audio Production	Authoring/ Programming	QA Testing	Project Manage-ment	Stake-holder Review	Pilot Testing	**Total**
Researcher	$260.40										$260.40
OT Consultant								$72.00			$72
Rehab Manager											$0
IT Consultant						$30.00					$30
Supplies	Monthly Fee										
Printing Materials		$150.00	$100.00								$250
Learning Manage-ment System	$99 x12 months										$1,188.00
										Total	**$1,800.40**

APPENDIX F - EXECUTIVE SUMMARY

INTRODUCTION

OT VetSet: A Clinician's Manual to Working with Veterans as Clients was developed as an online educational tool for practicing occupational therapy providers or occupational therapy students. OT VetSet can be adapted for any Learning Management System (LMS). By using a combination of descriptive reports of Veterans, clinical evidence on working with veterans, and principles of Adult Learning Theory for the dissemination of the new information, OT VetSet is a unique tool that can be used by any occupational therapy team.

EVIDENCE BASE AND THEORETICAL FRAMEWORK

As the United States is in the midst of The Global War on Terror, which has already lasted over ten years, the number of military Veterans who will need healthcare is increasing. Additionally, people with military experience seeking medical care for military related illness/injury is on the rise, making it even more important for practitioners to have a knowledge about these military related illnesses and injuries (McNally & Frueh, 2011; National Center for Veterans Analysis and Statistics, 2014). Descriptive evidence shows that the incidence of service-connected post-traumatic stress disorders (PTSD) is increasing, with a high financial cost to the government (Wells, Miller, Adler, Engel, Smith, & Fairbank, 2011). Only about 40% of Veterans are treated within the VA Healthcare System (National Center for Veterans Analysis and Statistics, 2014). That leaves 60% that are being seen solely in the community and that number may rise with the recent passage of the Veterans Access Choice and Accountability Act. This

Act makes Veterans eligible to receive care in the community through their VA benefits if the veteran is unable to get an appointment at a VA facility within 30 days of the desired date of service, or if the Veteran lives more than 40 miles from a VA facility offering the needed service (Veterans Access, Choice, and Accountability Act of 2014).

There is clear evidence for the need for an accessible, effective tool to educate providers on working with veterans as clients. By using the principles of Adult Learning Theory, the OT VetSet manual includes administration techniques that will set the facility up for success. In addition to the use of evidence for teaching adult learners, the involvement of occupational therapists is uniquely able to meet the need of working with veterans as a population due to the profession's emphasis on "context" and the common use of the sociocultural perspective. Occupational Therapy Practice Framework: Domain and Process 3rd Edition states that "*cultural context* includes customs, beliefs, activity patterns, behavioral standards, and expectations accepted by the society of which a client is a member" (AOTA, 2014, p. S9). As such, occupational therapy practitioners are not only trained, but are expected to consider their clients from a sociocultural perspective.

SUMMARY OF TOOL

The OT VetSet manual consists of an introductory section explaining Adult Learning Theory and general tips for teaching the adult learner. The intent of this section is to provide context for the developer of the program in a specific facility to properly input the information into their LMS. Next, OT VetSet presents six different lessons. The first three lessons, *Introduction to Military Terminology, Relevant Conditions by Service Era, and Considerations for the Effects of Mental Health*, are designed for completion on

an individual basis. Lessons four and five, which are case studies on a Vietnam veteran and an OEF/OIF veteran respectively, are intended to be completed in a small group, but could be completed individually if needed. The learners can apply the knowledge they just obtained from the first three lessons as well as knowledge they have from previous experiences. By participating in a small group discussion, the learners can gain information from differing perspectives and backgrounds. Additionally, the initiation of group collaboration on fictional case studies may create an added bonus of forging relationships between clinicians for collaboration on true clients in their workplace. The sixth and final lesson in OT VetSet is a *Resource Guide,* which provides resources to clinicians for their own knowledge as well as resources that they can pass on to their clients for community support. The *Resource Guide* could be printed and used separately from the full OT VetSet.

Each lesson in the OT VetSet Manual comes with additional tips for administration. These tips are based on the principles of adult learning theory, which are then applied directly to the information for the specific lesson. While the administration tips are different from lesson to lesson in the manual, they can be mixed and matched between lessons to best meet the need of the particular facility.

CONCLUSION

OT VetSet is a unique educational tool that can provide occupational therapy providers with a knowledge base to working with veterans as clients. OT VetSet's ability to be modified for any facility's specific learning needs sets it apart from other online education modules. Furthermore, OT VetSet is based not only on the clinical evidence for

working with veterans as clients, as well as evidence related to Adult Learning Theory and successful retention of new information by adult learners. With the use of the manual produced as a result of this doctoral project, any occupational therapy team can be on their way to learning more about the Veteran population and increasing their ability to best serve veterans of the United States Military.

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CURRICULUM VITAE

PERSONAL

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FORMAL EDUCATION

O.T.D.	Doctor of Occupational Therapy Boston, University, Boston, MA	September 2016
M.S.	Master of Science in Occupation Therapy Boston University, Boston, MA	January 2015
B.S.	Bachelor of Science in Therapeutic Studies Boston University, Boston, MA	May 2013

CREDENTIALS

Registered Occupational Therapist — January 2015 – present
National Board for Certification in Occupational Therapy

Adult and Pediatrics First Aid/CPR/AED — May 2010 – present
American Heart Association

LICENSED

Licensed Occupational Therapist
State of Minnesota — April 2015 – present

POSITIONS HELD

Staff Occupational Therapist — March 2015 – present
Department of Veterans Affairs, Minneapolis VA Healthcare System
Minneapolis, MN

Responsible for the evaluation and treatment of veterans in the acute care hospital setting as well as facilitating a safe environment of care by completing weekly rounds in the clinic area.

Per Diem Occupational Therapist January 2015 – present
Regions Hospital
St. Paul, MN

- Responsible for the evaluation and treatment of adult clients in an acute care hospital as well as an acute rehabilitation setting.

PRESENTATIONS

Baumann, L., Kent, D., Johnson, K., & Arenson D. (2015, April). *Traumatic brain injury in the veteran population.* Minnesota Brain Injury Alliance Annual Conference, Brooklyn Center, MN.