

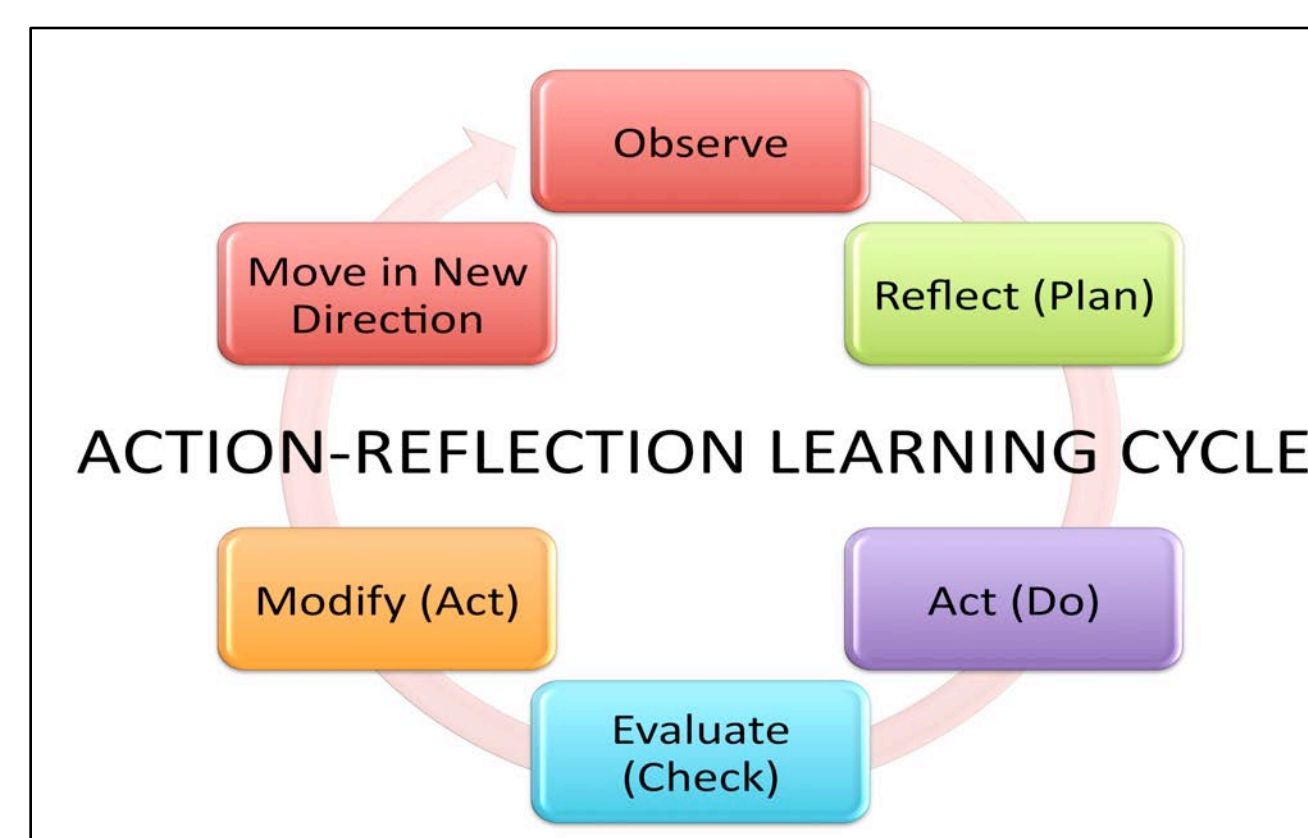
# Operation SCUBA: Developing an Outdoor Adventure Adaptive Scuba Diving Program for Wounded Warriors in a University Setting

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## INTRODUCTION

This study examined the impact of Operation SCUBA, an outdoor adventure adaptive scuba diving pilot program for veterans at Texas State University. This program fits within the holistic framework of addressing veteran's needs and is offered in the larger context of the Veteran's Initiative at Texas State, which seeks to support student veterans through academic and life transitions. Research has shown that using outdoor, adventure-based activities can help veterans cope with PTSD and other challenges by increasing hope and functioning and improving the emotional and social quality of veterans lives (Gelkopf, et al, 2013; Dustin, et al, 2001; Mowatt & Bennett, 2011; Ewert, 2014). Therapeutic adventure also provides a context for learning new skills that can be integrated into veterans' lives, through experiential learning in the moment (action), time to process and make meaning (reflection), and then decide how this new learning can be used to modify one's actions to move in a new direction in one's life (integration) (Kolb, 2014). See Figure 1.

Figure 1. Kolb's Experiential Learning Cycle



## OBJECTIVES

Student veterans at Texas State University are at risk. 71% have experienced multiple deployments; 94% have served in combat zones in Iraq and 17% in Afghanistan. 41% have been wounded, injured or physically hurt during military service, and 44% are still having trouble with injuries. 38% have health problems related to deployment other than wound or physical injury. For these reasons, the objective of Operation SCUBA is to enhance Health & Behavioral Health Support Services to student veterans through outdoor adventure and peer support. This fits within the holistic framework of supporting veterans' needs (see Figure 2--adapted, DiRamio et al, 2008), and links student veterans to other campus and community resources by fostering connections that can support their personal and academic transitions (Figure 3).

Figure 2. Holistic Framework

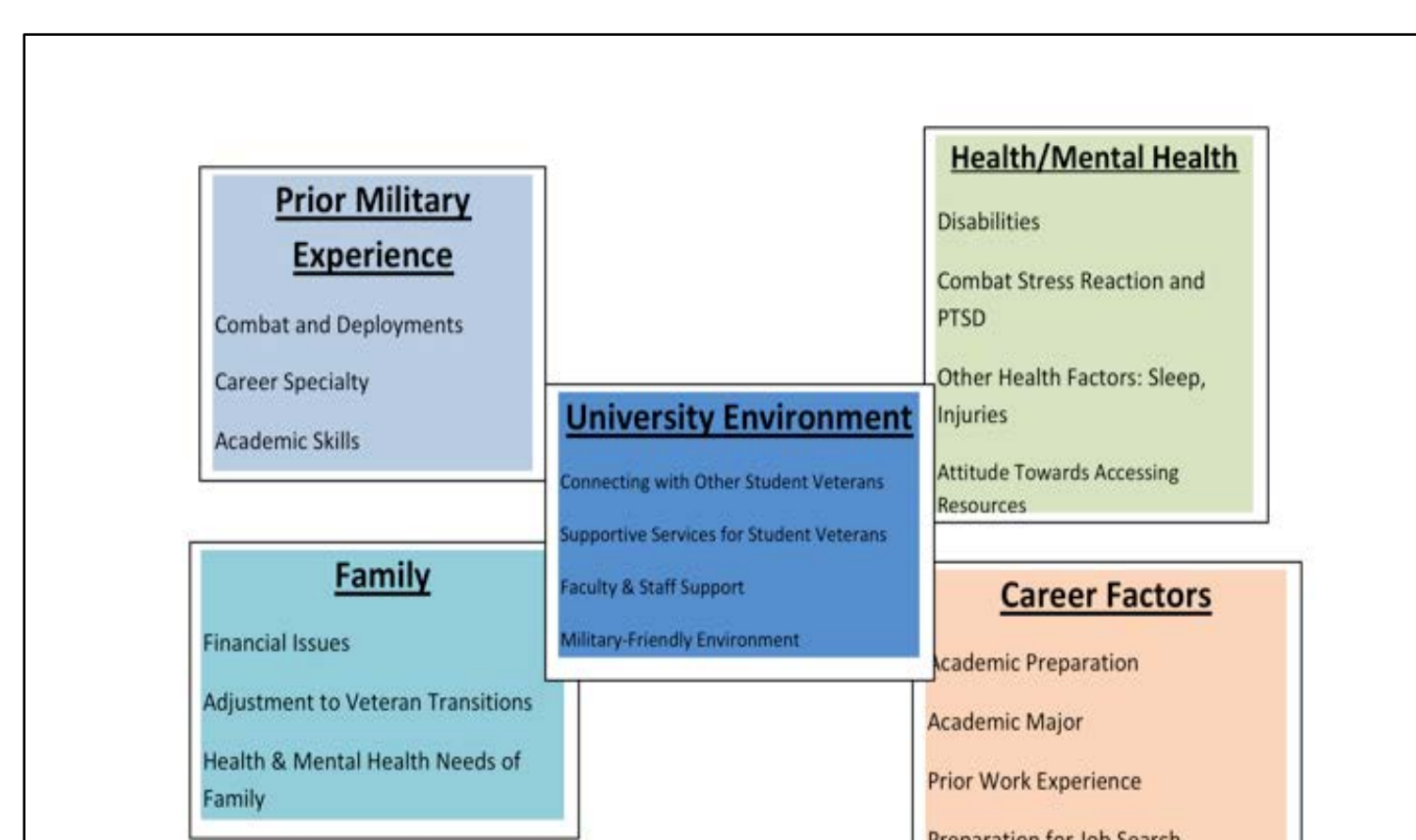
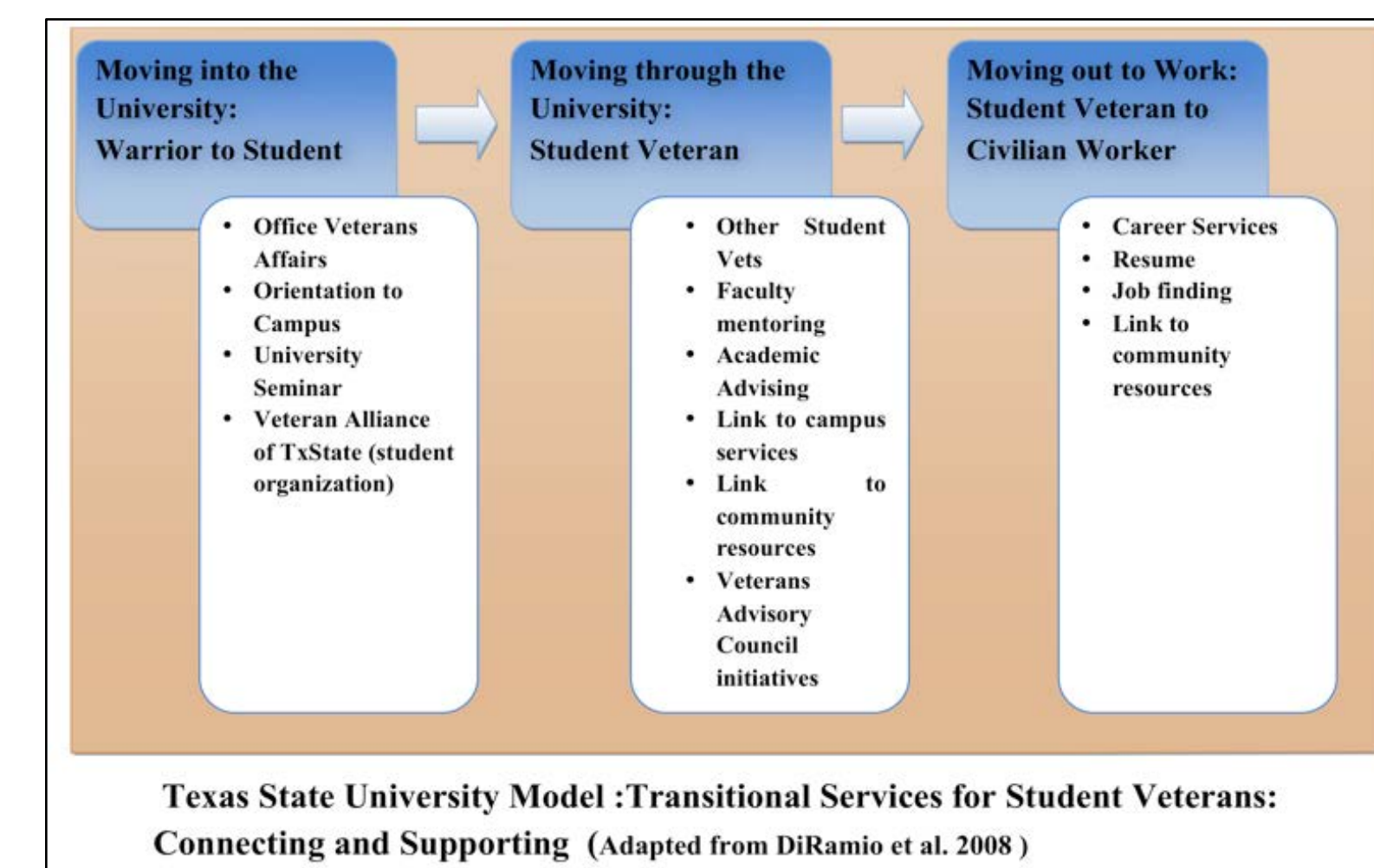
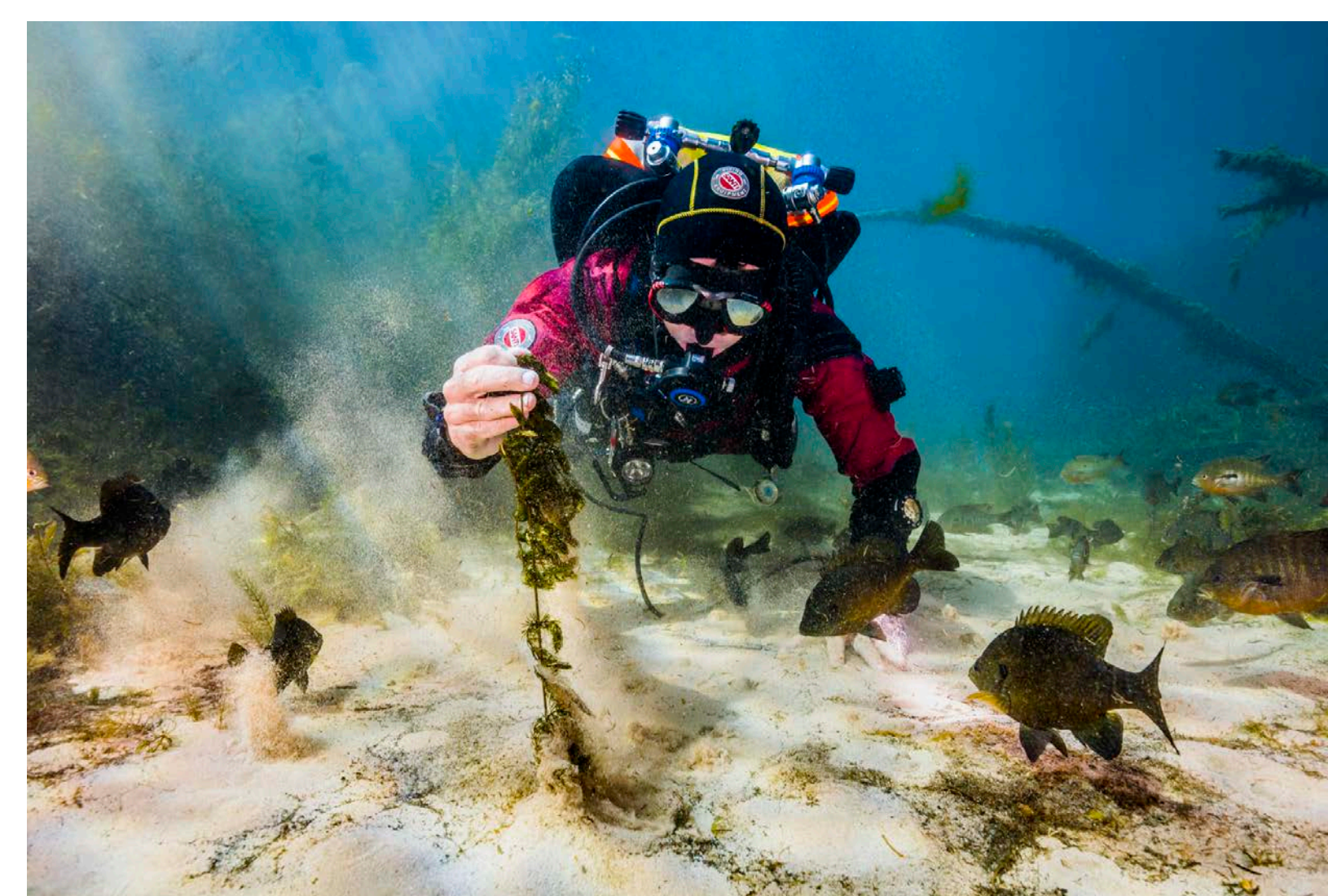


Figure 3. Transitional Support Services for Veterans



## METHODS

In a study approved by the Texas State University IRB, focus groups were conducted with Operation SCUBA participants to better understand the role that the program plays in supporting health and wellness, as well as peer support. Seven student veterans participated in these groups, 86% being male, which somewhat mirrors the overall student veteran population at Texas State, which is 70% male and 30% female. Operation SCUBA participants come from the larger veteran student body at Texas State University, which consists of 2800 plus veterans & dependents (fall 2015); 10% graduate / 90% undergraduate, mostly full-time students, 65% Anglo / 35% ethnic minority.



The program model consisted of online training modules, confined water training, open water training, psychosocial and peer group support, follow-up volunteer and travel experiences.

Focus group questions included:

- Describe the impact the program had on you?
- How was this program useful to you?
- What would you like to change about the program?
- What was being underwater like for you?
- What follow up activities would you recommend?
- What makes this program effective for veterans?
- How would you recruit other veterans to be involved in this program?

Focus group data were transcribed and analyzed via content analysis. Key themes were derived from a review of the data.

## RESULTS

Key findings indicate that scuba diving had a positive therapeutic impact on the student veterans. Veterans reported that it gave them a hobby that did not involve substance abuse. They also reported finding relaxation in outdoor recreation. Several vets reported that being under water helped with anxiety. One vet stated:

*"I learned how easy it is to use your breath to help relax. People panic, but now I practice holding my breath just to practice staying calm and have addressed my anxiety in the water."*

Other vets said: *"I was able to focus on my breathing. It was very meditative. I have been able to use this skill in my Social Work career. Diving is also another form of self-care because it is a form of meditating. It is very Zen-like. The phrase 'Just breathe' became very life-changing."*

*"Diving is a good way to de-stress. I look forward to it, and it has enhanced my quality of life. It has all those therapeutic properties, plus socializing because you can't do it alone. It creates relationships that have a much stronger bond because they're based on a more meaningful, complex identity: together, we are student veterans, adventurers, divers. A lot of vets are trying to replace that feeling from combat, and this gives it to them."*

Clearly one of the most powerful aspects of Operation SCUBA is the experience of being in nature, underwater. Vets reported feeling a sense of calm and quiet. Vets reported feeling at "one with nature" and able to "zone everything out" underwater. One vet stated:

*"Being underwater with all the fish was very still. The unwanted sense of urgency is taken away, but you focus on safety, rhythm and routine. Vets want those steps to follow. We are conditioned to follow the routine and trust the process. This helps us do that. I mean, I could sit at home in silence, but my mind is going wild, but underwater that goes away and I feel focused and calm. Unnecessary thoughts and problems are left behind. And you can't do it alone. You're never alone when you're diving."*

In general, the entire program, not just the diving, had a positive impact on the student veterans. One vet reported: *"Op SCUBA gave me an opportunity to connect with veterans outside of social events, which often focus on drinking. I hate to play into the stereotype of the drunk vet. It brought back sense of teamwork to prevent problems, safety, new learning, technical skills, networking, and being introduced to Meadows Center and the San Marcos River."*

Overall, student veterans were satisfied with the program, only making recommendations for small changes in the future; however, all of them reported that they learned lessons from Operation SCUBA that they will continue to use in their lives. One vet articulated this by saying: *"This program motivated to stay healthy physically and mentally. It gave me another form of self-care, to take time for me and relax. It also helped me learn how to support others. You have to be aware of differences and common goals."*

## CONCLUSIONS

Though not generalizable due to the small sample size, qualitative findings show that that outdoor adventure programs, such as Operation SCUBA, have a therapeutic benefit to veterans by enhancing coping skills, peer support, and a deeper connection to oneself, others and the natural world. Therapeutic adventure also helps those who have experienced trauma develop competencies by having mastery over their symptoms (Pitonyak, 2005). Ongoing camaraderie is also developed between peers and student veterans develop leadership skills that may benefit them in their academic and professional careers. Implications for campus support programs for veterans include the need for partnerships between veterans services and outdoor recreation/education departments. Future research is needed to rigorously evaluate the impact of these programs, particularly on strengths-based constructs such as resilience and trauma recovery.

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