



## AN EXPLORATION OF EMPLOYMENT BARRIERS & EMPLOYMENT SKILL ENHANCEMENT OF VETERANS WITH TRAUMATIC AMPUTATION

### Study Overview

The U.S. has deployed more than 2.2 million Americans to Iraq and Afghanistan. Approximately 1,715 major limb amputations have occurred related to Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) as of Feb. 2013 (Fischer, 2013). Research indicates that less than half of the veterans who experience amputation are returning to work (Doukis, 2013). However, employment can be instrumental to improving overall well-being and community integration. Resilience is a factor that may contribute to employment, community participation, and the well-being of veterans. Armstrong and her colleagues have found that, in comparison to civilians, veterans report overall lower resilience scores (Armstrong, Hawley, Shatte, Ketchum & Czarnota, 2013). Veterans have also indicated a desire to find employment in which they can use their skills and contribute to their communities.

This study will research the barriers to employment for veterans and service members with physical impairments resulting from traumatic extremity amputation(s). The goal is to develop a training model that promotes quality competitive employment outcomes and enhances resilience skills.

The study will explore the following questions:

1. What are the barriers to successful employment specific to veterans with traumatic amputation?
2. What are the current services offered to veterans with amputation seeking employment and what prevents/facilitates their use?
3. What role does resilience play in returning to work following traumatic amputation?
4. What are the critical elements of a Return to Work model for veterans with traumatic amputation?

This study will use a mixed methods methodology to gather information including an online survey, focus groups, ethnographic case studies, and a Delphi Study. Plans for how these strategies will be used in the research are summarized below.

### Online Survey

The survey will identify barriers to employment, current services/supports, and resilience of veterans. The VCU-RRTC will work with Dr. Joe Webster of the U.S. Department of Veterans Affairs, Veterans Health Administration (VHA). Dr. Webster maintains the Amputation System of Care Data Repository (ASCDR). The registry includes demographic information, socioeconomic information, type and extent of amputation, health and mobility issues, use of prosthetics, use or rehabilitation services, and QOL measures. SCDR data is collected longitudinally from the time of amputation or entry into VHA services. The repository is designed to be used to identify the effectiveness of rehabilitation care practices, utilization of prosthetic technology and services, incidence of complications, and the outcomes of VHA services.

A request to complete the online survey will be sent to 1,200 Veterans from the ASCDR. Information will be collected on employment experience, whether or not veterans are working, physical functioning, services/supports received, services/supports needed and resilience.

- A veteran must meet the following criteria to participate:**
1. Must be a veteran experiencing traumatic amputation, age 18 to 55.
  2. Must be able to provide consent to participate.



## Focus Groups

Veterans will discuss the role of resilience and overall well being in returning to work. Participants for the focus groups will also be recruited from the VHA, as well as the Virginia Wounded Warriors Program (VWWP) and McGuire VAMC. Three 90-minute focus groups with five to six veterans each will be conducted. Groups will share similar experience regarding employment status and amputation status. Possible questions for the participants to consider may include but are not limited to the following:

- What barriers or challenges have you experienced during post deployment?
- How have your physical abilities impacted your employment experience?
- What has been your greatest barrier to employment related to your physical disability?
- What barrier have you overcome related to your physical disability that impacted employment?
- How did you overcome this barrier?

## Ethnographic Case Study

We will recruit six to 10 veterans who will agree to provide access to their daily life and experiences. An ethnographic case study allows the researchers to follow and observe an individual in his/her day-to-day life to get a thumbnail sketch of his/her experiences. By using observation, interviews and anecdotal data, a deeper understanding will be gained of the individual's job seeking and job retention experience, barriers to employment, services or supports used or needed and any relationship between resilience and employment success. Interviews may involve family members, employers, and service providers. The data gathered will result in the identification of relevant themes that impact employment, community integration and wellbeing.

## Delphi Study

Drawing from the information and insights from the survey, focus groups, and case studies, an employment-focused intervention model will be developed that will be vetted in a Delphi study. The Delphi study involves forming a panel of recognized resilience, employment and trauma experts who will review study findings and identify critical employment-related needs and strategies for trainings targeted to veterans with traumatic amputations. Once an initial round of input is gathered, discussions will focus on rating each portion of the proposed trainings until each member agrees on its relevance to the veteran's experience and educational needs.

## Summary

The study will explore the job-seeking, job-retention, resilience and wellbeing of veterans who have experienced a traumatic amputation. An employment-focused intervention model will be developed based on the research to facilitate the employment outcomes and community integration of veterans. The VCU-RRTC on Employment of People with Physical Disabilities is interested in obtaining your feedback on this research.

If you have questions or would like to discuss the research, you may contact any of the study team leaders:

**Dr. Amy J Armstrong -- [ajarmstr@vcu.edu](mailto:ajarmstr@vcu.edu)**  
**Dr. Carolyn Hawley -- [cehawley@vcu.edu](mailto:cehawley@vcu.edu)**  
**Dr. Benjamin Darter -- [bjdarter@vcu.edu](mailto:bjdarter@vcu.edu)**

## References

- Armstrong, A.J., Hawley, C.E., Shatte, A.J., Czarnota, J., & Ketchum, J. (2013) An exploration of resilience in Operation Enduring Freedom/Operation Iraqi Freedom Veterans. Unpublished manuscript. Virginia Commonwealth University, Richmond, VA.
- Doukas W. C, Hayda Roman A, Frisch H. M., Anderson Romney C, Mazurek M. T., Ficke J. R., Keeling J. J., Pasquina P.F., Wain H. J., Carlini, A.R., and MacKenzie E. J. The military extremity trauma amputation/limb salvage (METALS) study: Outcomes of amputation versus limb salvage following major lower-extremity trauma. *J Bone Joint Surg. Am* 2013 95(2):138-145.
- Hannah Fischer "US military casualty statistics: operation new dawn, operation Iraqi freedom and operation enduring freedom" Congressional Research Service, Feb 19, 2014 Retrieved from: <http://www.fas.org/sgp/crs/natsec/RS22452.pdf>

## Acknowledgements:

This product was developed by VCU-RRTC on Employment for People with Physical Disabilities (VCU-RRTC) that is funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) grant #90RT503502. NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.

Requests for accommodations or questions on the VCU-RRTC should be directed to  
**Dr. Katherine Inge**  
[kinge@vcu.edu](mailto:kinge@vcu.edu) or 804-828-5956

Virginia Commonwealth University, Rehabilitation Research and Training Center is an equal opportunity/affirmative action institution providing access to education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation, or disability.

Please visit us at: <http://www.vcurrtc.org>