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K. Haldaman

Scott D. Glassman
Philadelphia College of Osteopathic Medicine, scottgl@pcom.edu

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Understanding the Impact of Limb Loss in Veterans
Christina D. Haldaman, MS, & Scott Glassman, MSED

War-related traumatic limb loss continues to be an understudied realm of psychological care today. Amputations have been a consequence of all major conflicts since World War II, accounting for 24-35% of the amputee population (Ebrahimzadeh & Fattahi, 2009). Of these amputees, research has indicated that between 55 and 85% of these individuals experience phantom limb pain (Hill, Niven, & Knussen, 1995; Ebrahimzadeh & Hariri, 2009). Further, approximately 54% of individuals within this population are reported to experience co-morbid psychological problems including anxiety, major depression, and PTSD (Ebrahimzadeh & Hariri, 2009; Ebrahimzadeh & Fattahi, 2009). Although the prevalence of co-morbid psychological conditions is high, Price (2005) reports the rate of acceptance of an offer of counseling at about 6 months after amputation was low (23% of those eligible). Additionally, among those veterans who received counseling, depression and body image were the most frequent concerns.

Compared to those who have lost limbs due to chronic illness, people who suffer trauma-related amputation are at particular risk for poor adjustment in their first year of recovery. Pain interferes most with daily activities at 6 months (Kratz et al., 2010). Kratz and colleagues observe that the six-month mark may be a common time of discharge from rehabilitation therapy, marking the start of long-term adaptation to new challenges. This could be a key point of psychological intervention. Depressive and post-traumatic symptoms have been shown to increase over the first year, and lack of social support and negative social interactions can increase vulnerability. Early, effective intervention may help offset these problems.

The war amputee population is far from homogeneous. While the average age of amputee is 23.1 years, ages of amputees actually range from 14 to 60 (Ebrahimzadeh & Hariri, 2009). Differences in quality of life and perceived level of discomfort vary for individuals with primary (on the battlefield) versus secondary (away from the battlefield) amputations. Differences in perceived level of distress are also observed for those with upper versus lower body amputations (Ebrahimzadeh & Hariri, 2009; Epstein, Heinemann, & McFarland, 2010).

Epstein and colleagues further note that veterans with limb loss tend to report worse quality of life if they experience additional combat-related head injuries or injuries to the non-amputated limb, or if they need assistance with activities of daily living. Surprisingly, quality of life was reported to be better for those with multiple limb loss compared to unilateral lower limb loss. The authors suggest that limb loss does not necessarily result in poor functioning, and that catastrophic injuries can stimulate a positive meaning-making process in veterans, one that includes developing new outlooks on life and stronger coping abilities. Unfortunately, there appears to be no clear standard for psychological care for these groups.

In order to better understand both positive and negative psychological impact on traumatic injury, Phelps, Williams, Raichle, Turner, and Ehde (2008) proposed a cognitive processing model of adaptation to amputation. This model suggests that when a traumatic experience is well beyond one’s “normal” experience, one’s coping resources are overwhelmed. However, successful adaptation can be experienced through meaning-making or cognitive restructuring. Phelps et al. (2008) also found that negative cognitive processing at baseline was a predictive factor for both depressive and PTSD symptoms at both 6- and 12-month follow-up. Positive cognitive processing was associated with positive outcomes at 12 months, suggesting that early psychological intervention after amputation may result in longer-term positive outcomes. However, the investigators also noted that early cognitive restructuring alone might not necessarily reduce distress. Coping style is also important. In adjusting to limb loss, an active, problem-solving coping style has been associated with lower levels of depression and anxiety, whereas avoidant and emotion-focused coping strategies are connected to poorer psychosocial functioning (Desmond, 2007; Desmond & MacLachlan, 2006).

In caring for veterans with major limb loss, the Department of Defense (DoD) has acknowledged the importance of involving behavioral health experts in a holistic, interdisciplinary team approach (Pasqua, 2010). Some emphasis has been placed on early intervention, recognizing that impaired mobility and lack of independence negatively affect well-being and recovery. In particular, sports and recreation activities often serve prominently in recovery. The Veterans Administration’s newest program is the National Veterans Summer Sports Clinic, which teaches activities such as surfing, sailing, kayaking, and cycling to veterans coping with amputations, PTSD, and other neurological disorders.

According to the Department of Veterans Affairs/Department of Defense Clinical Practice Guideline for Rehabilitation of Lower Limb Amputation (2007), interventions must focus on depressive, anxiety, and PTSD symptoms, using empirically supported treatments for these symptoms. In looking at empirically supported treatments, the DoD has listed eye movement desensitization and reprocessing (EMDR) as one of the top four psychotherapies for PTSD (DVA & DoD, 2004). Research has also shown that EMDR has shown potential benefits with a wide range of co-morbid psychological and somatic conditions, including phantom limb pain (Russell, 2008). Russell (2008) suggests 8-12 sessions of EMDR may be necessary to achieve optimal success with this population.

In summary, while veterans comprise a significant portion of all amputees, their population continues to be significantly understudied. While the group is not homogeneous, timing of intervention may be essential to recovery. Recommendations for therapy should focus on depression, anxiety and PTSD symptoms, using empirically supported treatments and emphasizing sports and recreational activities as well as an active, problem-solving coping style.

References are available on the PPA website, www.PaPsy.org, or upon request from the authors, Christina@pcom.edu, or Scottgl@pcom.edu.