

# When They Return From Afghanistan/Iraq: Acceptance of Loss Due to War Injury

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**Background:** Returning service members who are disabled due to war injury has risen substantially over the last decade due to increased use of body armor, extraordinary medical care and rapid return to the United States for medical care. This has resulted in a huge cohort of returning service members who need protracted care. Acceptance of disabling conditions requires that health care professionals have an understanding of the factors that impact injury acceptance.

**Objectives:** This study aimed to explicate the demographic and war-related factors that impact acceptance of war related disability.

**Patients and Methods:** The Acceptance of disability scale was used to assess factors related to acceptance of a war-related injury. Members of the Warrior Transition Brigade in two Department of Defense hospitals were surveyed (n = 157).

**Results:** Finding showed that the majority of participants accepted their disabling condition at the 'medium' level with nuances regarding demographic factors. There was no impact for age, deployment length and deployment frequencies on the findings. Additional findings highlight specific subscale areas impacting disability acceptance.

**Conclusions:** Health care professionals engaged in working with the combat related war injured need to be sensitive to the factors that impact adjustment to their disability. Findings point in specific directions to enable this level of care.

**Keywords:** Veterans; Wounding; Injury Acceptance; Wartime Disability

## 1. Background

The influx of combat injured service members needing care from war efforts in Afghanistan/Iraq who are entering the Department of Defense (DoD) and Veterans Health Administration (VA) health care systems, continues to tax existing resources (1). In all, fewer than 10 percent of Americans wounded in 2010 in Afghanistan/Iraq, died from their wounds (2). This is an extraordinary survival rate and it has created a cohort of thousands of returning service members challenged to deal with and overcome their war-related disabling conditions. This high level of need for the care and rehabilitation of the military injured/disabled results from advances in medical care, a highly efficient system of evacuation from the battlefield, and advances in body armor (3). Many of our troops are being rescued from near death injuries, missing multiple limbs, suffering brain damage and with wounds and disabling conditions that will be exceptionally difficult to overcome as the injured/disabled try to resume work, social and family ties. The loss of well-being and the trauma of these disabling conditions have created an increased need for behavioral health practitioners and others to be particularly sensitive to the acceptance process of rehabilitation for these injured service members.

There has been remarkable progress in medical care for the wounded in current warfare. For the systems of care for our soldiers, this means that more service members return home with grave injuries that can transform their lives, many with injuries that require extensive level of care and needing treatment for many years after their initial injury (4). As of February 2104, more than 51895 service members have been wounded in action in Afghanistan/Iraq (5). It is estimated that for every military personnel killed, there are at least 16 wounded (6). Approximately 20% of the wounded service members are treated and return to active duty within 72 hours; 80% are not able to return to duty and are sent to the United States for intensive and often protracted medical care. The most common cause of injury is blasts from IEDs (improvised explosive devices) which have numerous effects on the body including fractures, amputations, vision and hearing loss, burns, and traumatic brain injury (7). Casualty reports from the DoD (5) note that 1621 service members suffered major or partial limb amputations from 2001 to 2012. Upon wounding, typically the service member is sent to medical facilities in Germany and as soon as feasible, returned to the United States for care in

### Implication for health policy/practice/research/medical education:

The implication of the findings of the research will direct health care professionals who work with the war-injured into understanding the nuances of adaptation to their injuries.

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a (DoD) facility or one of several poly-trauma centers in the United States (8).

Long-term rehabilitation of injured service members, those unable to return to active duty, is geared to restoring patients to their highest level of functioning. Rehabilitation takes place in a wide array of inpatient and outpatient government facilities. While many service members who receive rehabilitation services will return to active duty, others who are more seriously injured will likely be discharged from their military obligations and return to civilian life as Veterans, cared for in the VA health care system. Many Veterans with major disabilities and limitations could require life-long medical surveillance and rehabilitation (9). In addition, a potential complicating factor in many cases, it is estimated that 75-90% of those injured in war will develop symptoms of post-traumatic stress disorder (10). Due to the large influx of military wounded from the current conflicts, rehabilitation therapies and counseling efforts will continue to be needed and have been bolstered over the last many years (6).

### *1.1. Acceptance of Disability for the Wounded Service Member*

A wounded service member tends to have a unique situation as he/she transitions from active military service to civilian life (11). Service members wounded in war face numerous hurdles and their transition, depending on the circumstances of their injury. Emotionally, they may feel unworthy, guilty, as though they have let others down; they may feel diminished and have a compromised sense of self due to physical limitations; there may be personality changes due to pain and pain medications; oftentimes the soldier's routine is reduced to medical and hospital appointments. All of this is a far cry from active duty responsibilities. In many instances, there is the over riding concern that the service members will not be accepted as they are with the additional concerns of life style change and financial concerns (12). The process of injury acceptance poses many challenges as the service members attempts to integrate into their life and establish a new post-deployment life. Some of the challenges are unique to the military experience and complicated by the military culture.

The study described in this article sought to enhance understanding of the factors-demographic and war-related-that contribute to acceptance to disabling injury for those who have served in Afghanistan/Iraq. It was anticipated that knowledge of these factors would offer health care and behavioral health care providers a broader understanding of the rehabilitation and acceptance experience.

### *1.2. Becoming Disabled*

Becoming a person with a disabling condition can create a profound change in the lives of the individual and those close to him or her. Many reactions can be antici-

pated on the part of disabled person and those close to his/her including high levels of stress, loss and grief, physical and sensory changes, changes in body image and functionality, stigma, unpredictability about the future, as well as numerous quality of life issues (13). For those injured in wartime, these challenges frequently occur with the additional 'job' of integrating the wartime experiences as the disabled person transitions to civilian life (14).

### *1.3. Models of Disability*

While there are numerous ways to view disability and the ideology of disability care and rehabilitation, two models dominate the discussion of disabling conditions: the social model and the medical model.

The social model sees the issue of disability as a socially created problem with an emphasis on the impact of society's view on the disabled person. Disability is not an attribute of the person but more a complex collection of conditions, many of which are created by the social environment. As such, it behooves society to address the environmental conditions-the systemic barriers-that deter disabled persons from full participation in all areas of life. An example of this would be the necessity for all public buildings to have ramps in place for wheelchair access. In contrast, the medical model views disability as a condition of the person that requires sustained medical care. The emphasis on the person suggests that the disabled person must make adjustments and behavioral changes to enhance their life. Inherent in the medical model is the role of society as being responsible for caring for the disabled and developing medical approaches to reducing the impact of the disabling condition, i.e. improved prosthetic devices for the amputee. For this study, greater emphasis is placed on the medical model that sees the person's adjustment and behavioral efforts, as important for their acceptance to their disabling condition (15).

### *1.4. Acceptance of Disability*

Acceptance of disability describes the process a person goes through in order to come to terms with his/her disabling condition. Dembo et al. (16) and Wright (17) described acceptance of disability as a series of value changes wherein individuals will enlarge the scope of their personal values in such a way that the perceived losses from their disability do not negatively affect the value of their existing abilities. The individual's acceptance of their disabling condition is associated with better adjustment of the disability. The perception of disability as a misfortune or value loss leads the person with a disability to underestimate their existing abilities resulting in personal devaluation. Many experience disabling conditions as those that 'take away' from the value of the self, potentially compromising self-esteem and resulting in levels, albeit not necessarily permanent, of depression

and devaluation. Wright (17) refined the process of acceptance of disability in terms of four value areas that are experienced which include enlargement of scope of values, subordination of physique, containment of disability effects, and transformation from comparative values to asset values. Enlargement of the scope of values-Occurs when the person begins to recognize the importance of values other than those that have been lost by their disability. This occurs when a person can find meaning in events and abilities that they can accomplish rather than they cannot accomplish. They are enlarging their sphere and personal definition beyond the disability.

Subordination of physique-Physique includes physical perfection, beauty and ability, which many who are disabled consider lost to them. As a person begins to accept and adapt to their disability, the emphasis on physique is lessened and other attributes such as friendship, intelligence, work and creativity gain ascendance. Physique is subordinated to other qualities. Containment of Disability effects-Many disabled individuals considers their disability as their primary defining characteristic. Persons who do not spread their disability beyond their actual impairment are said to be able to contain the effects of their disabling condition. Containment is achieved if the disability is seen only as a possession and the person and disabling condition are seen as separate, or only one of many aspects of the individual. Transformation of Comparative Values to Value Assets- the value shift characteristic of transformation requires individuals to move beyond comparing their limitations and liabilities to emphasizing their assets and abilities. Asset value makes it possible to appreciate the positive in the person, moving beyond comparison to others (18). These value shifts vary over time.

### 1.5. Study Instrument

For this study of Veterans with a disabling condition, the Revised Acceptance of Disability Scale (ADS-R) (18) measured the value shifts leading to acceptance of Veterans cared for in the Warrior Transition Brigade of two major DoD facilities. The relationship between the acceptance of disability and demographic characteristics was assessed. It should be noted that this study is grounded in a medical model of rehabilitation, i.e. there is greater emphasis on the mind-set of the patient and his/her ability to adjust and adapt to their disabling condition.

### 1.6. Study Hypotheses

This study had the following hypotheses:

1) Participants will display a low level of acceptance of disability, as evidenced by a low score (32-64) on the ADS-R and will display low levels of acceptance in each of the value areas.

2) Participants' degree of disability acceptance, as measured by scores on the four subscales of the ADS-R, will be a predictor of their level of acceptance to disability.

3) Participants' age, number of deployments, and length of deployments (as per participants' self-report), will negatively impact their level of acceptance to disability.

4) There will be differences in participants' level of acceptance to disability, based on differences in gender, race, education level, family status and type of injury.

## 2. Objectives

This study aimed to explicate the demographic and war-related factors that impact acceptance of war related disability.

## 3. Patients and Methods

### 3.1. Participants

Women and men who have served in the war initiatives in Afghanistan or Iraq and have been disabled due to their war experiences were participants in the study. Participants were recruited from the Warrior Transition Brigade (WTB) in two DoD hospitals. Institutional Review Board approval was obtained at both venues as well as the researcher's university. The WTB is a specific unit within the military hospital that works with those seriously injured in battle as well as those suffering with post-traumatic stress disorder. In each venue, all members of the WTB were invited to participate in the research. Handouts were circulated within each unit explaining the study and contained a link to Survey Monkey, an Internet survey program that allows the researcher to anonymously survey participants. As the primary focus of the study was on those who have been become disabled while in combat in Afghanistan or Iraq, when recording the data, those with non-combat related injuries or those who have not served in those wars were excluded in the data analysis. Any service member who had been injured in Afghanistan/Iraq were invited to participate (The total participant, n = 157).

### 3.2. Instrumentation

Demographics were asked as well as open-ended questions regarding the nature of the service member's disability. Quantitative data was gathered using the Revised Acceptance of Disability Scale (ADS-R), a revised version of Linkowski's Acceptance of Disability Scale. The Revised ADS reflects "social, cultural and political influences which have altered the way in which disability is individually and collectively understood in contemporary society" (18). The scale accepts the value change process as the basis for acceptance of the losses experienced when becoming disabled. The participant is asked to respond to 32 statements using a 4-point Likert-type scale ranging from 1- strongly disagrees to 4- strongly agrees. Some questions are reverse scored and once scoring is complete a ADS total score is derived with a possible range from 32 to 128 points. There are 3 levels of overall accep-

tance based on the participants score: scores of 97-128 indicate high level of acceptance, 65-96 indicate medium and 32-64 indicate low acceptance. Cut points have been established by the scale developers (18).

The four subscales are also scored with high, medium and low levels of value shift noted. High levels of acceptance for transformation, containment and enlargement are 27-36 and high for subordination of physique are 15-20; medium levels for transformation, containment and enlargement are 18-26 and 11-15 for subordination of physique; low levels for transformation, containment and enlargement are 9-17 and 5-10 for subordination of physique. The alpha coefficients for the components of the 32 items ADS-R scale are .88 for transformation, 0.82 for enlargement, 0.88 for containment, and 0.71 for subordination of physique. Reliability for the revised scale is Chronbach's alpha = 0.93 which was assessed by Groomes (18).

### 3.3. Study Variables

The dependent variables in the study are the four value areas embedded in the Revised Acceptance to Disability Scale: enlargement of the scope of values, subordination of physique, containment of disability effects and transformation from comparative to asset value and the total ADS score. The independent variables included sociodemographic factors as well as war related variables-number of deployments deployment venue-that potentially could impact the acceptance process. The environment of the injury/wounding was not assessed. SPSS 19.0 was used for data analysis.

### 3.4. Data Analysis

An overall acceptance to disability score was derived by summing scores of each domain with 128 as the highest score. There are three levels of acceptance: scores of 97-128 indicate high levels of acceptance, 65-96 indicates medium levels of acceptance and 32-64 indicates low level of acceptance. Each subscale also reflects low, medium and high acceptance levels as noted above.

## 4. Results

### 4.1. Demographics

A total of 174 participants completed the survey. Of the 174 participants, 157 identified their disability as service related and fit the criteria for inclusion in the study (were injured in Afghanistan/Iraq). Table 1 shows descriptive statistics of the participant's demographic variables. Participants with non-service related disabilities were excluded from the data analysis. Of the 157 participants, there were 136 males (86.6%) and 21 females (13.4%). Sixty-two percent of the participants (n = 98) identified themselves as either married or in a permanent relationship; 37.6% (n = 59) were not in a permanent relationship. A high school education or below was reported by 32.5% (n = 51), 47.1% report some

**Table 1.** Demographic Characteristics of Participants (n = 157)<sup>a</sup>

Characteristic	Results
<b>Age, y</b>	
15-20	7 (3.6)
21-25	50 (31.8)
26-30	41 (26.1)
31-35	14 (8.9)
36-40	22 (14.0)
41-50	21 (13.4)
> 51	2 (1.2)
<b>Gender</b>	
Male	136 (86.6)
Female	21 (13.4)
<b>Race</b>	
Caucasian	97 (61.0)
African-American	33 (21.0)
Hispanic	14 (1.3)
Asian	2 (1.2)
Other	11 (7.0)
<b>Education</b>	
High school or below	51 (32.3)
Some college	74 (47.1)
College graduate	20 (12)
No response	12 (7.6)
<b>Married/in permanent relationship</b>	
Yes	98 (62)
No	59 (37.6)
<b>Dependent children</b>	
Yes	71 (45.2)
No	86 (54.8)
<b>Service Branch</b>	
Army	131 (83.0)
Navy	1 (0.6)
Army Reserves	8 (5.1)
National Guard	17 (10.8)
<b>Deployed Theater</b>	
Iraq	67 (42.7)
Afghanistan	49 (31.2)
<b>How many deployments</b>	
1	40 (25.4)
2	11 (7.0)
3	65 (48.4)
4	20 (12.7)
> 5	10 (6.3)
no response	11 (7.0)
<b>Type of disability/injury</b>	
Wounded/amputation	58 (36.9)
PTSD	36 (22.9)
TBI	27 (17.1)
Accident	11 (7.0)
Other	10 (6.3)
Multiple injuries	15 (9.5)

<sup>a</sup> Data are presented in No. (%).

college education (n = 74) and 32% (n=20) report they have graduated college. Age, race, number of deployments, length of deployments, service branch and type of disability were also noted. The types of injury included wounding resulting in amputation (35%), post traumatic stress disorder (22%), traumatic brain injury (16%) other forms of injury (17%), and those with multiple injuries (10%).

#### 4.2. Deployment

Service members deployed to Iraq numbered 67 (42.7%) and 26.1% (n = 41) were in Afghanistan. Forty-nine did not report venue of deployment. The number of deployments ranged from 1 to 7 times; mean = 1.8; SD = 0.97; median = 2. Actual number of months deployed ranged from one to 36 months; mean = 8.6 months, SD = 6.7; median was seven months.

#### 4.3. Levels and Factors of Acceptance of Disability

Hypothesis 1 posited that study participants would display a low level of acceptance of disability based on their overall ADS score and on the individual scale scores-this hypothesis was not confirmed. Measures of central tendencies indicated that, on the average, participants displayed a medium level of acceptance to disability, as well as medium levels of transformation, containment, enlargement, and subordination. See Tables 2, 3 and 4.

Hypothesis two posited that participants' degree of disability acceptance, as measured by scores on the four subscales of the ADS-R, will be a significant predictor of their level of acceptance to disability. Descriptive statistics were conducted to assess whether the distribution of scores on the ADS-R meets the normal distribution assumptions necessary for a valid regression analysis. Measures of central tendency indicate skewness, indicate that the total scores of the ADS-R as well as the total scores on each of the four subscales are normally distributed. A step-wise regression analysis revealed that 3 of the subscales of the ADS-R (containment, enlargement, and transformation) have emerged as significant predictors of the acceptance to disability score ( $F = 2259.94$ ;  $P = 0.000$ ).

**Table 2.** Descriptive Statistics for the ADS-R and the Four Subscales (n = 157)<sup>a</sup>

ADS-R	Minimum	Maximum	Mean ± SD
<b>Total ADS</b>	44.00	110.00	78.67 ± 14.80
<b>Containment</b>	9.00	33.00	20.68 ± 5.35
<b>Transformation</b>	12.0	34.00	22.89 ± 5.03
<b>Enlargement</b>	13.0	34.00	23.31 ± 4.23
<b>Subordination</b>	5.00	18.00	11.78 ± 2.52

<sup>a</sup> Total ADSR: 97-128 = high levels of acceptance; 65-96 = medium; 32-64 = low level; transformation, containment and enlargement domains: 27-36 = high level; 18-26 = medium; 9-17 = low level; Subordination: 16-20 = high level; 11-15 = medium level; 5-10 = low level.

**Table 3.** Frequencies of Levels of Acceptance<sup>a</sup>

Scale	Reported Levels of Adjustment		
	Low Level	Medium Level	High Level
<b>ADS-R</b>	22 (15.0)	123 (77.2)	12 (7.8)
<b>Containment</b>	37 (23.5)	104 (63.6)	16 (10.1)
<b>Transformation</b>	19 (12.1)	103 (65.6)	33 (21.0)
<b>Enlargement</b>	19 (12.1)	105 (66.8)	33 (21.0)
<b>Subordination</b>	63 (40.1)	88 (56)	6 (3.8)

<sup>a</sup> Data are presented in No. (%).

**Table 4.** Findings

Scale	Statistically significant findings
<b>Total ADSR</b>	higher scores for married/permanent relationship
	higher scores for males than females
	higher scores for those deployed 1/2 times than 3+
	lower scores for those with dependent children
<b>Enlargement of scope of values</b>	higher scores for males
	higher scores for married/permanent relationship
	lower scores for those with dependent children
<b>Subordination</b>	higher scores for married/permanent relationship
	lower scores for those with dependent children
	higher scores for those deployed 1/2 times than 3+
<b>Containment</b>	higher scores for married/permanent relationship
	higher scores for males than females
	higher scores for those deployed 1/2 times than 3+
	lower scores for those with dependent children
	higher scores for males
<b>Transformation</b>	higher scores for married/permanent relationship
	lower scores for those with dependent children

have emerged as significant predictors of the acceptance to disability score ( $F = 2259.94$ ;  $P = 0.000$ ). With a B value of 2.53, ( $P = 0.001$ ) the containment scale has emerged as the strongest predictor of the 3 subscales. Total score on the containment subscale explains 88% of the variance in the total acceptance score. The enlargement subscale has emerged as the second strongest predictor of acceptance ( $B = 1.1$ ;  $P < 0.001$ ) and is responsible for 6% variance in the total acceptance score. Finally, the transformation subscale has emerged as the third strongest predictor of total acceptance with a b value of 1.1 ( $P < 0.001$ ). The total score on this subscale is responsible for 4% of the variance in the total acceptance score.

Hypothesis 3 posited that participants' age, number of deployments, and length of deployments (as per participants' self-report), would predict their level of acceptance to disability. Descriptive statistics were conducted to assess whether the respective distributions of values on variables that measure participants' age, number of deployments, and length of deployments (in months), meet the normal distribution assumption necessary for a valid regression analysis. Measures of central tendency, including skewness, indicate that the distribution of values for each of these variables is grossly positively skewed. To increase the validity of the regression analysis, a logarithmic transformation has been used to achieve a normal distribution approximation for these variables. A stepwise regression analysis indicates that participants' age, number of deployments, and number of months deployed, are not significant predictors of disability acceptance ( $F = 2.45$ ,  $P = 0.10$ ).

Hypothesis four posited that there would be differences in participants' level of acceptance to disability, based on differences in self-reported gender, race, education level, family status, and type of disability. Gender-A two-tail independent t test analysis indicates that there was no significant difference between male and female participants on average acceptance scores. Moreover, A two tail independent t test analysis for each of the ADS-R subscales scores revealed no gender differences on mean scores of participants on the transformation, containment, or enlargement. There were significant differences between males and females scores on the subordination subscale ( $n(141) = -0.20$ ;  $P = 0.039$ ). Female participants scored higher on that subscale than male participants ( $M = 13.57 > M = 12.36$ ). This difference At a value of 0.50, the effect size for this difference is large (based on Cohen, 1988, categorization of effect size values). This difference may be attributable to the cultural norm of females being more invested in appearance than males.

Additional two-tail independent t test analyses indicate no significant difference on average acceptance scores between participants who reported being in a permanent relationship and participants who reported no permanent relationship ( $n(139) = -0.052$ ;  $P = 0.959$ ). However, a two-tail independent t test analysis indicates a significant difference in overall acceptance ( $n(139) = -2.05$ ;  $P = 0.042$ )

between participants who reported having dependent children ( $M = 83.25$ ), and participants who reported not having dependent children ( $M = 88.03$ ). Effect size was calculated for this difference. The results indicate that, at 0.35, the effect size is medium. Race and education level, type of disability-A One-Way Analysis of variance was conducted to test whether there were significant differences in participants' level of overall acceptance based on differences in participants' race, education level, and type of disability. The results indicate a significant difference in participants' overall acceptance score, based on race ( $F = 2.56$ ,  $P = 0.040$ ). A post Hoc Bonferroni test indicates that participants who reported Hispanic as their race scored significantly lower on the ADS-R ( $M = 79.42$ ) compared to participants who reported "other" as their race ( $M = 96.33$ ). There were no differences in participants' acceptance levels based on level of education ( $F = 0.684$ ,  $P = 0.506$ ).

Finally, the results indicate that there were significant differences in participants' acceptance scores based in the type of injury or disability ( $F = 3.12$ ,  $P = 0.017$ ). A post Hoc Bonferroni test indicates that participants who were treated for PTSD received, on the average, a significantly lower score on the overall acceptance scale ( $M = 80.30$ ) compared to participants who were treated for an amputation ( $M = 89.61$ ) or other forms of injury. It must be noted that despite the various differences, all participants scored with the medium range of acceptance regardless of gender, family status, race or type of disability.

## 5. Discussion

In this study, those disabled in the wars in Afghanistan (OIF) and Iraq (OIF) were surveyed using the acceptance of disability scale (R) to assess levels of disability acceptance. Subscales of the ADS-R were examined to determine which value domains within the ADS-R contributed to disability acceptance. Additional goals of the study were to determine what demographic and war related variables impacted acceptance and acceptance scores.

Results indicated that the mean total ADS-R score for the current sample was  $85.6 + 13.95 +$  and beneath the  $+ should be a minus - I cannot do it with my computer ...Please do it$ ), in the medium range of acceptance. This level of disability acceptance is encouraging. The medium level of acceptance suggests that the individual has made a shift in values in the direction away from the losses incurred from their disability and are moving toward a level of acceptance. Over time, the physical limitations imposed by the war related disability may well remain but the emotional and psychological resources needed to accept their disabling condition is potentially moving in a positive direction. At a medium level of disability acceptance, the potential for further acceptance of the self as a disabled but valued person is more achievable. Enabling acceptance of disabling conditions will continue to be the challenge of those who serve the war disabled.

Examination of the four subscales of the ADS-R showed containment, enlargement and transformation as the main value asset shifts predicting the total ADS-R score. Each of these values suggests psychological factors beyond the acceptance of the physical limitations of the individual that lead to disability acceptance. In viewing these findings, it is important to recall that the disabled participants were members of the military and were being cared for in the Warrior Transition Brigade in two different hospital settings. These disabled participants are still members of the military (most with Veteran status) and may have retained their identity as a warrior despite their disability.

Women scored higher on acceptance in the value of subordination. Men are generally more concerned with physique and muscle than beauty, especially those in the military. As such, the scores for subordination for men may well be explained by the emphasis within the military culture on strength and power. This is also consistent with the asset value of containment, which was the strongest predictor of acceptance, explaining 88% of the variance in the overall ADS-R score. Containment of disability reflects the ability to self define beyond the disabling condition. As noted by Keany and Glueckauf (19), "if the disability is seen only as a possession, then the person and the disability are perceived as separate" (p. 201). YES In the case of the war disabled, the individual can self define as a 'returning warrior with a disability'. The dominant identification is as a warrior and potentially enables greater disability acceptance.

When considering the subscales of enlargement and transformation, while reaching statistical significance as factors in the overall ADS-R score, the combined percent of the scales accounted for only 10% of the variance in the overall score. It was to be expected that subordination of physique did not reach statistical significance as a factor in the overall acceptance score. In our society physical perfection, beauty and ability are critical as self-evaluators. For those in the military, physical ability is central not only as a criterion for service but also as a means for self-protection during battle. Several factors might explain the importance of the physique subscale for the disabled service member and may account for the subscale not demonstrating significance in the overall ADS-R scores. They include the fact that the disabled service member may feel that they have failed as a warrior, their future as a military person may well be in question and that they have had to leave the battlefield and their co-soldiers to continue in battle. The demographics-age, education, number of deployments, length of deployments, gender, family status-showed no impact on the overall ADS-R scores. Some of the demographic findings are contrary to existing literature although the literature has not focused on those with disabling conditions. Number of deployments, length of deployments, and gender were identified as negative factors in a study of over 800 non-disabled service members who had reintegrated

after their military service in Afghanistan or Iraq (8, 20) and found that acceptance of disability based on race demonstrated no differences between Caucasians and African Americans. In the current study, overall acceptance of disability was lowest for Hispanics but still within the medium level of acceptance.

Two unanticipated findings were the positive impact on the overall ADS-R of having dependent children and that there was no impact on overall acceptance scores on whether the participant was in a permanent relationship or not. The importance of a permanent relationship has been accepted in many studies of psychosocial adjustment. The current study findings did not support this, which is contrary to work by Seo (21) who noted that support from family and spousal support were predictive of positive post-war adjustment. Social support offered in a permanent relationship has also been noted as a factor in decreasing post-traumatic stress disorder levels in a cohort of disabled Vietnam veterans (22). Possible explanations for the lack of impact on overall scores include the fact that many relationships are strained by the exigencies of the wars, which entail multiple deployments, long absences, and great personal and family hardship. In addition, the impact of a disabling condition on permanent relationships is potentially overwhelming to the family and spousal system, creating major life style, financial, and relational changes. The presence of dependent children has not been studied extensively in war related literature; it was noted as a positive factor in the reintegration experience in a study of over 800 non-injured service members (8). The current study supported these findings in the war injured population. Those diagnosed with post-traumatic stress disorder as their defining injury, showed a significant difference in their acceptance scores, with lower overall scale scores than other identified disabling conditions. While still falling within the medium level of acceptance, those with PTSD struggle with issues of depression, anxiety, substance abuse, anger, impaired family functioning and suicidality which may account for their lowered levels of disability acceptance (10).

While psychological acceptance to disability has been studied from many vantage points and populations, to date, there have been no studies that have focused solely on the factors that relate to acceptance in the war injured population. What has made this study unique is the ability to look at defined areas of the rehabilitation acceptance experience. With this understanding, behavioral health and rehabilitation counselors can stress certain areas of disability acceptance.

The current study had a number of limitations that warrant consideration. First, since self-report was used for data collection, the accuracy of the data is open to scrutiny. In addition, since survey data was collected from the Warrior Transition Unit, only those members of the unit who were able to access and use a computer were able to respond to the call for participation. Services in the WTU

units are conscientious and enhanced with behavioral health supports. Further, there are limits to what can be generalized from the data, as this was a one-time exploration of levels of acceptance; a longitudinal study might yield different data as participant's progress in their acceptance of disability trajectory. It is anticipated that the scope and severity of service-related disabling conditions will continue to increase well past the end of the current military action and systems of care will be expected to respond to the needs of these Veterans. The losses due to war injury will be with us for decades and the emotional and physical toll that it extracts will be felt throughout the individuals and families that have been touched in this way.

This study described the impact of disabling injury on those service members and Veterans who have served in Afghanistan or Iraq using the lens of value shifts. As a quantitative study, it attempted to describe value shifts as the disabled move toward disability acceptance. As so many of our service members become disabled, rehabilitation efforts toward the service member and their family are crucial to being able to facilitate acceptance of their disabling condition while enabling a return to civilian life. Further research is needed to replicate and expand this study and to understand and explicate the longer-term disability experience.

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## Authors' Contribution

Joan Beder did all the parts.

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## References

1. Clark ME, Bair MJ, Buckenmaier CC, 3rd, Girona RJ, Walker RL. Pain and combat injuries in soldiers returning from Operations

- Enduring Freedom and Iraqi Freedom: implications for research and practice. *J Rehabil Res Dev.* 2007;**44**(2):179-94.
2. Chivers CJ. In wider war, more survive their wounds. *NY Times.* 2011;**1**.
3. Hyer R. *Iraq and Afghanistan producing new pattern of extremity war injuries.*: Medscape Medical News; 2006. Available from: <http://www.medscape.com/viewarticle/528624>.
4. Savitsky L, Illingworth M, DuLaney M. Civilian social work: serving the military and veteran populations. *Soc Work.* 2009;**54**(4):327-39.
5. *DoD Casualty Reports.* 2014. Available from: <http://www.defense.gov/news/casualty/pdf>.
6. Frain MP, Bishop M, Bethel M. A Roadmap for Rehabilitation Counseling to Serve Military Veterans with Disabilities. *J Rehabil.* 2010;**76**(1).
7. Friedemann-Sanchez G, Sayer NA, Pickett T. Provider perspectives on rehabilitation of patients with polytrauma. *Arch Phys Med Rehabil.* 2008;**89**(1):171-8.
8. Beder J, Jones H. When they return: The needs of the wounded. In: Beder J editor. *Advances in Social Wk Practice with the Military.* New York, NY: Routledge; 2012. pp. 92-105.
9. Bascetta CA. *DOD and VA Health Care: Challenges Encountered by Injured Servicemembers during Their Recovery Process.* USA: DTIC Document; 2007.
10. Yarvis JS, Beder J. A civilian social worker's guide to the treatment of war-induced PTSD. In: Beder J editor. *Advances in Social Wk Practice with the Military.* New York, NY: Routledge; 2012. p. 37.
11. Coll JE, Weiss EL. Transitioning veterans into civilian life. In: Coll JE, Weiss EL editors. *Handbook of Military Social Work: Pre-publication version.* Hoboken, NJ: John Wiley & Sons, Inc; 2012. pp. 281-300.
12. Porter RI. *Physical Injuries; Psychological Treatment. The Oxford Handbook of Military Psychology.* New York, NY: Oxford Univ. Press; 2012.
13. Linkowski DC. A scale to measure acceptance of disability. *Rehabil Counseling Bull.* 1971;**14**(4):139-51.
14. Uomoto JM, Williams RM. Post-acute polytrauma rehabilitation and integrated care of returning veterans: toward a holistic approach. *Rehabil Psychol.* 2009;**54**(3):259-69.
15. Oliver M. *Understanding disability from theory to practice.* Basingstoke: Macmillan; 2009.
16. Dembo T, Leviton GL, Wright BA. Adjustment to misfortune: A problem of social-psychological rehabilitation. *Rehabil Psychol.* 1975;**22**(1):i-100.
17. Wright BA. *Physical disability - a psychosocial approach (2nd ed.).* New York, NY, US: HarperCollins Publishers; 1983.
18. Grooms DAG, Linkowski DC. Examining the Structure of the Revised Acceptance Disability Scale. *J Rehabil.* 2007;**73**(3):3-9.
19. Keany KC, Glueckauf RL. Disability and value change: An overview and reanalysis of acceptance of loss theory. *Rehabil Psychol.* 1993;**38**(3):199-210.
20. Grooms DAG, Kampfe CM, Mapuranga R. The relationship between race and acceptance of disability when considering services through vocational rehabilitation. *J Vocat Rehabil.* 2011;**34**(1):57-65.
21. Seo O. Successful social adjustment after direct exposure to combat during the Vietnam War. *Diss Abstr Int.* 2000;**61**(3).
22. Martz E, Bodner T, Livneh H. Health. *J Counseling Development.* 2005;**83**:332-41.