

Prevalence of Depression among Physically-Disabled Veterans in Northwestern Iran

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Abstract

Psychological trauma may result in depression. Veterans are particularly prone to development of depression. 100 male veterans (39 injured by chemical and 61 by non-chemical warfare) with 30% to 70% of physical disability were compared with 100 age- and sex-matched individuals selected from general population serving as comparison group. The diagnosis of depression was made according to the DSM-IV criteria utilizing the standard Zung depression questionnaire along with an interview. Participants were aged between 25 and 75 (mean: 38) years. The prevalence of depression in disabled veterans (71%) was significantly ($p < 0.0001$; RR: 2.0 [CI_{95%}: 1.5–2.6]) higher than that in the comparison group (36%). The prevalence of depression in chemical warfare victims (92%) was significantly ($p < 0.0001$; RR: 1.6 [CI_{95%}: 1.3–2.0]) higher than those who suffered from non-chemical injury (57%). Chemical warfare victims also suffered from a more severe depression than non-chemically injured victims ($p < 0.05$). This study showed disabled veterans are prone to profound depression and chemically injured veterans were found to be more vulnerable

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Introduction

Exposure to life-threatening conditions or severe mental stress may lead to various psychological reactions including depression. One of the deleterious stresses is that experienced during war. Veterans encumbered with physical disabilities are more prone to depression, among other psychological disorders.¹ During the Iraq-Iran war, many young soldiers and para-military troops particularly those exposed to mustard gas sustained physical disabilities which were compounded by psychological conflicts.

Patients and Methods

One-hundred male veterans injured (39 by chemical and 61 by conventional warfare) during the Iraq-Iran war with 30% to 70% physical disability as well as 100 men matched for age, social status, and education selected from general population, serving as the comparison group, were enrolled into the study and evaluated for the presence of depression. The diagnosis of depression was made according to the DSM-IV criteria and

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Subjects	Prevalence (%) [CI _{95%}] of depression	
	Mild to moderate	Severe
Injured veterans	40 (40%) [30–50]	31 (31%) [22–40]
Chemical (n=39)	18 (46%) [31–62]	18 (46%) [31–62]
Non-chemical (n=61)	22 (36%) [24–48]	13 (21%) [11–32]
Normal population (n=100)	36 (36%) [27–45]	0

standard Zung self-rating depression questionnaire along with an interview.

Those with a Zung self-rating depression score of >50% were considered depressive; scores between 60% and 80% were considered as mild to moderate and those >80% as severely depressed.

For comparison of categorical variables, Chi-square or when appropriate, Fisher's exact test was used.

Results

The mean±SD age of chemical warfare victims was 41.7±5.9 years (n=39), of non-chemical war victims was 41.6±4.7 (n=61) and of comparison group was 41.7±5.8 years (n=100). The prevalence of depression (Table 1) in disabled veterans (71%) was significantly ($p<0.0001$; RR: 2.0 [CI_{95%}: 1.5–2.6]) higher than that in comparison group (36%).

Among disabled veterans, the prevalence of depression in chemical warfare victims (92%) was significantly ($p<0.0001$; RR: 1.6 [CI_{95%}: 1.3–2.0]) higher than those with disability due to conventional injury (57%, Table 1). Chemical warfare victims also suffered from a more severe depression than non-chemically injured victims (Table 1, $p<0.05$).

Discussion

We found that physically-disabled veterans developed depression twice as much as normal population. Moreover, it was found that regardless of the level of physical disability, the victims of chemical warfare were more prone to depression than those with non-chemical injuries.^{1,6}

Chemical warfare victims suffer from several specific physical disabilities that make them more prone to depression.⁴ In many instances, there is a direct correlation between the severity of physical disease with subsequent disability, and psychiatric disorders.²⁻⁴ Nevertheless, this correlation can be affected by various factors such as pre-injury status and attitudes, personal values and the level of an individual's expectations from the society.^{5,6} Globally, the society's reveres disabled veterans and thus may help prevent the development of many psychiatric disorders.

Other factors may affect the prevalence and severity of depression among veterans. Social factors can play an important role in alleviating the suffering of the victims. Essential supports from organizations, public, authorities and family may substantially influence the condition. As an example, the physically-disabled victims with dissected cords usually use wheelchair which inspires higher respect, protection and popularity in the society.

The development of sustained psychiatric disorders among chemical victims are often due to severe pulmonary sequelae and long-term use of multiple drugs, such as corticosteroids to relieve pulmonary symptoms.

Depression affects the lives of veterans from different aspects. The factors underlying this long-standing depression in veterans should be characterized. The condition should be diagnosed promptly and dealt with appropriately to abolish the underlying causes.

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