

The Role of Social Support and Coping Strategies on Mental Health of a Group of Iranian Disabled War Veterans

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Objective: The purpose of this study was to examine the role of social support on the mental health of disabled war veterans alongside the role of physical disability and deployment type. The second aim of the study was to examine the relationship between coping strategies and mental health.

Method: 85 disabled Iranian war veterans participated in this study. All of the participants were asked to complete the Medical Outcomes Study (MOS), Social Support Survey, Impact of Event-Revised Scale (IES-R), Hospital Anxiety and Depression Scale (HADS), The Short Form (SF-36) Health Survey Questionnaire, and Brief COPE Scale.

Results: The results showed that social support had a significant contribution on the mental health of the participants above and beyond the physical disability and deployment type. The physical disability also predicted the mental health of veterans, but deployment type did not have any significant contribution on mental health of the participants. The findings also showed that those veterans who used constructive coping strategies had better mental health status.

Conclusion: The findings suggest that after more than twenty years of war, social support still plays an important role in the life of Iranian disabled war veterans.

Key words: *Iran, Mental health, Psychological adaptation, Social Support, Veterans*

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There is ample evidence that people with larger social networks and those who perceive that support is available to them show less reactivity to stressors or have better mental health (1). It is argued that social support acts as a buffer to stress and its destructive consequences. It can help to prevent stress by making harmful experiences seem less consequential or provide valuable resources for coping when stress does occur (2). Social support is an important strategy which helps people to cope with traumatic experiences. Having effective social support has been shown to be one of the most significant correlates of well-being and has long been believed to positively impact health and guard against distress (3). Although there is no consensus about the relationship between social support and PTSD, having sufficient and satisfactory social support is generally associated with less psychological distress, such as PTSD (1). In general, research has demonstrated an important relationship between social support and trauma outcomes across a variety of traumatized populations (4). For example, a study found that veterans with low social support had an 80% greater risk of PTSD than those with average support (5). Other studies also reported that older veterans with restricted social networks had poorer cognitive functioning (4). In another research, lack of social support from officers was found to be related to

a greater feeling of loneliness and combat stress reaction among veterans (6). A research conducted on 306 veterans in Kosovo two years after war found that persons with social support had lower posttraumatic stress (7).

A qualitative research also found that during and after the war, social support and comradeship were particularly important; and even fifty years after the war comrades were still a valuable resource for discussing war experiences, and dealing with the emotional content of traumatic recollections. These findings showed that social support was an important lifelong coping strategy for World War II veterans (8). Similarly, in another study on a group of Vietnamese veterans, researchers reported that veterans, who were traumatized by their combat experiences, described significant reduction over time in their social network size and in the various qualitative dimensions of social support (9).

Many investigations have been conducted on Iranian war veterans with physical and mental health problems. Most of these studies were carried out after the ending of Iran-Iraq war. These studies have investigated the prevalence of psychiatric disorders among veterans (10); the effects of chemical agents on the health of veterans (11); the effect of veterans' health problems on their family members (12); the use of various coping strategies in coping with health problems (13);

and psychotherapy with veterans with physical and mental problems (14). Most of these studies have focused on the prevalence of mental health problems, particularly on veterans who had referred to the psychiatric clinics for treatment. Social network seems to have a significant role on Iranian's life. It is unfortunate that there is very little research on the role of social support on the mental health of Iranian war veterans. Some studies have found a relationship between social support and mental health. In these studies, participants with sufficient social support showed a lower level of depression (15). Most studies on the Iranian veterans were conducted years after the war, when Iranian people paid much more attention to the war. Now after 20 years, it is important to look at the role of social support to see whether there is still a social network for these people. Some studies have also shown that physical disability and deployment type affect mental health of the Iranian veterans (15). The present study will also examine the role of these two variables on the mental health of the participants.

The Aims and Hypotheses of the Study

The primary aim of this research was to examine the role of social support on the mental health of disabled Iranian war veterans. It was hypothesized that veterans with higher social support would experience less mental health problems. This study also aimed to investigate the association between the different patterns of coping strategies and mental health. It was hypothesized that participants who use adaptive and constructive coping strategies would have a better mental health status, and that those who used unconstructive coping would have more mental health problems.

Material and method

Participants

Participants were 85 Iranian disabled war veterans who took part in the Iran-Iraq war. Convenient sampling was used, and the participants were recruited from the cities of Shiraz, Mashhad and Kerman. The participants were recruited through Veterans Foundation, employer and employment agencies, personal approach and by direct request from those who were acquainted with disabled veterans. Research assistants then contacted the participants and made an appointment at their convenience at their homes. Then written informed consent was obtained that included statements about the voluntary nature of the participation and the methods used to ensure participants' anonymity. The veterans' age ranged from 34 to 62 years ($M = 43.6$, $SD = 5.2$). The demographic and military characteristics are presented in Table 1.

Measures

Impact of Event-Revised Scale (IES-R): The Impact of Event-Revised Scale (16) was used to assess the traumatic experiences of the participants. The IES was

Table 1. Demographic and Military Service Characteristics of Iranian Disabled War Veterans (n=85)

Variable	N	%
Age		
Mean	43.6	
SD	5.2	
Marital Status		
Married	83	97.6%
Single	2	2.3%
Education		
Postgraduate	8	9.5%
Undergraduate	28	33%
High School	43	50.5%
Incomplete school	6	7%
Military Service Unit		
Regular Military (Artesh)	8	17%
Islamic Revolutionary Guards	28	31%
Paramilitary (Basij)	43	52%
Deployment Type		
Volunteer	63	74%
Deployed	22	26%

designed to parallel the DSM-IV criteria for PTSD. The scale has 22 items and consists of three subscales comprising Intrusion, Avoidance and Hyper-arousal. A score of 20 was considered as the cut-off point on the IES-R to qualify as an indicator of PTSD. This measure is one of the most widely used instruments by which to assess the three symptom domains of PTSD. The IES-R has been reported to have a high reliability and validity (15). The analyses of the scale on an Iranian sample indicated an acceptable internal consistency for different scales of Impact of Event (Avoidance = .66; Intrusion = .84; Hyper-arousal = .85) (17).

Hospital Anxiety and Depression Scale (HADS): The HADS (18) was used to measure the extent of anxiety and depression within the research sample. The HADS is a 14-item scale measuring depression and anxiety in and outside hospital and community settings. Scores of 0–7 in respective scales are considered as normal, with 8–10 borderline and 11 or over indicating clinical distress. It has been widely used to assess anxiety and depression. This scale has been validated in Iran and found to have a good reliability and validity for the Iranian population (19).

Medical Outcomes Study (MOS) Social Support Survey (20). Social support was measured using the MOS, a 19-item measure of perceived social support. This scale assesses aspects of support particularly applicable to patient populations. It includes four aspects of social support: (a) tangible (b) emotion (c) affection and (d) positive social interaction. Scores range from 0 to 100 on four subscales. Researchers reported high internal consistency for different dimensions of the scale including tangible support (.91), emotion/information support (.96), affection support (.94), positive social interaction (.94), and total support (.93). The measure possesses good convergent and divergent validity. There is also good evidence of test-retest reliability and stability over time (20).

The Short Form (SF-36) Health Survey Questionnaire (21): The SF-36 was used to assess general health status. The scale was designed for use in clinical practice and research, health policy evaluations, and general population surveys. The SF-36 is a self-administered questionnaire containing 36 items which measures health on eight multi-item dimensions. This scale ranged from 0 (poor health) to 100 (excellent health) with a higher score indicating better health and a lower score indicating poor health. For the purpose of this study, the subscale of physical function (PF) was used to assess the physical ability of the participants. The SF-36 has been used widely to assess general health status and patients' perceived health in clinical and research contexts. The internal reliability of the scale has been reported ranging from .82 to .92 for different subscales. This scale has been used on Iranian samples and the studies have found a good reliability and validity for this scale (22).

Brief COPE Scale: The Brief COPE scale (23) was used to measure various styles of coping. The Brief COPE scale is a 28-item self-report measure of both adaptive and maladaptive coping skills. The Brief COPE was developed based on concepts of coping from Lazarus and Folkman (1984) (24). The scale was designed to yield fourteen subscales, comprising two items each. This scale has been used in Iran in several studies. Research has shown that the Brief COPE is a reliable and valid measure for the Iranian war veterans (25).

Results

Descriptive Findings

Table 2 demonstrates the means and standard deviations of participants in different subscales of the IES-R (i.e., Avoidance, Intrusion, and Hyperarousal) and also total scores of the scale. Table 2 also shows the percentages of veterans scoring above the recommended cut-off point. As noted in this table, Only 33 respondents (23%) scored above 25 on IES-R. Participants scored highest on intrusion followed by avoidance and hyper-arousal. The mean score of the sample on anxiety was 6.24, which is within the normal range. The majority, 50 (64%) of the veterans, fell within the "normal range", 18 (23%) of the veterans fell within the "borderline clinical" range, and 10 (12%) of the veterans were identified as "clinical" cases. Regarding depression, as demonstrated in table 2, the mean score of the participants was 6.34 which was within the normal range. Forty nine (62%) of the subjects fell within the "normal depression" range, 19 (24%) fell in the "borderline clinical" level, and 10 (14%) fell in the "clinical depression" rate. Results on all the mental health measures indicated that most veterans had a good mental health status.

The means and standard deviations of different scales of social support are also shown in Table 2. The participants had a relatively high score on the scales of social support. The highest dimension of social support was on affective support (M=3.77) and the lowest was

Table 2. Means & Standard Deviations on Different Scales of IES-R, HADS, and MOS Social Support Survey among Disabled War Veterans

Measure	Mean	SD
IES-R (Total)	24.73	12.09
Avoidance	6.98	4.82
Intrusion	12.03	6.06
Hyper-arousal	5.67	4.35
Anxiety (HADS)	6.24	3.96
Depression (HADS)	6.34	3.68
MOS Social Support Survey		
Emotional Support	3.13	.87
Tangible Support	3.29	1.26
Affective Support	3.77	1.02
Positive Support	3.61	.84
Total	3.38	1.05

Note. IERS -R= Impact Event Scale-Revised; HADS= Hospital Anxiety and Depression Scale; MOS = Medical Outcomes Study

on emotional support (M=3.13). It appears that Iranian war veterans had received sufficient social support. To investigate what coping strategies were used more frequently by the participants, the data on different scales of the COPE were analysed. On average, veterans reported using various styles of coping strategies to manage their disability. The most frequently reported coping methods were "religious coping", followed by planning, acceptance, active coping, positive reframing, instrumental support, emotional support, self distraction, venting, and humour. The least frequently used coping strategies were behavioural disengagement followed by denial and self-blame, the most maladaptive and unconstructive forms of copings. The results are shown in Table 2. A paired-sample t- test analysis was conducted to examine whether there was a significant difference between religious coping strategy and non-religious coping methods. The results revealed a significant difference between the subscale of Religious Coping of the COPE and all the non-religious coping measures except active coping, planning and acceptance.

Relationship between Social Support and Mental Health Outcomes

The relationships between mental health measures and predictor variables including social support were examined. There was a significant negative correlation between anxiety ($r = -.31, p < .001$), depression ($r = -.39, p < .001$), and PTSD ($r = -.27, p < .05$) with social support.

Data on Predicting Mental Health Variables

Using the enter method; a significant model emerged for all the three mental health indexes as dependent variables. The model explained 12% variance ($R^2 = .12$) of PTSD, 16% variance ($R^2 = .16$) of anxiety and 22% variance ($R^2 = .22$) of depression. Social support had a significant contribution on PTSD ($F(3, 82) = 4.47, p < .01$), anxiety ($F(3, 82) = 5.59, p < .01$) and depression ($F(3, 82) = 7.75, p < .01$).

After social support, physical function had a significant

Table 3. Standardised Regression Analysis for Variables Predicting PTSD, Anxiety and Depression (N = 85)

Independent variable	PTSD				Anxiety				Depression			
	B	SE B	β	R^2	B	SE B	β	R^2	B	SE B	β	R^2
Physical function	-.09	.05	-.21		-.03	.01	-.26*		-.03	.01	-.24*	
Social support	-3.9	1.63	-.28*		-1.44	.51	-.32**		-1.64	.47	-.38**	
Deployment type	-5.18	3.41	-.17	.12	-1.47	1.07	-.15	.16	-1.72	.98	-.22	.22

**P < .01 *P < .05

PTSD = posttraumatic stress disorder

Table 4. Correlation of Anxiety (HADS), Depression (HADS), and PTSD with COPE Subscales

Measure	Self-destruction	Denial	Behaviour disengagement	Planning	Positive reframing	Humour	Acceptance	Religion	Self-Blame
Anxiety (HADS)	-.02	.27*	.22	-.00	-.20	-.09	-.30**	-.26*	.29**
Depression (HADS)	-.15	.17	.16	-.14	-.30**	-.03	-.28*	-.30**	.22
PTSD	.22	.37**	.02	-.06	-.20	.02	-.29**	-.17	.20

*p < .05, **p < .01

contribution on predicting anxiety ($F(3, 82) = 5.05, p < .01$) and depression ($F(3, 82) = 6.20, p < .01$). Deployment type did not have any significant contributions on veterans' mental health. The results are presented in Table 3.

Relationships between Adaptive and Maladaptive Coping Strategies and Mental Health Measures

Pearson product-moment correlation coefficients were calculated to assess the relationships between various coping strategies of COPE scale with anxiety, depression, and PTSD. The results are presented in Table 4. There was a significant negative association between constructive coping strategies and some of the mental health measures.

As presented in Table 4, positive reframing was correlated with depression; and acceptance was correlated with anxiety, depression, and PTSD. In addition, there was a significant positive correlation between unconstructive coping methods and mental health variables. Research showed that self-blame and denial were correlated with anxiety; denial was also correlated with PTSD.

Discussion

The current research showed that Iranian disabled veterans had a low prevalence of mental health problems. Although the number of participants recruited for this study was not sufficient to draw a conclusion on the prevalence of mental health problems, the low prevalence of symptoms of PTSD, depression and anxiety among veterans may have several reasons. The reason that this sample of Iranian veterans showed a low prevalence of mental health problems may be due to the social support they received from their families, combat comrades and the community.

The study showed that the participants scored relatively high on various scales of social support measure. The low prevalence of PTSD, anxiety and depression among this research sample compared to earlier investigations on Iranian veterans may be due to the

demographic characteristics of the participants which have been changed.

As noted earlier, the veterans involving in the Iran-Iraq war were mostly young and single, and now these demographic characteristics have altered. Most importantly, the participants of the current study were recruited from the general population of disabled veterans, while previous studies selected their subjects through those veterans who suffered from mental health problems and were referred for treatment.

Findings from this research on the COPE scale demonstrated a significant association between the greater use of maladaptive coping styles and higher levels of mental health problems. These findings support the research hypothesis that those participants who used adaptive coping strategies would have a better mental health status than those participants who used maladaptive coping methods. Results also support other researches indicating that those who used maladaptive coping styles experience higher mental health problems compared to those who used adaptive coping methods (23).

As expected, a higher perceived social support was significantly associated with low scores on the mental health measures. The current study showed that social support significantly predicts mental health even when other variables such as physical ability and deployment type were controlled. These results are consistent with a large body of work demonstrating a link between perceived social support and subsequent psychological functioning in war veterans (8).

The majority of Iranians supported troops during and after the war. Furthermore, Iranian culture, as a collectivist culture, emphasizes social networks and support. The findings of this research on the positive relation between the use of social support and well-being are similar with some other studies conducted on Iranian veterans indicating that individuals with higher social support experience lesser depression (15).

Limitation and future directions

In spite of the strengths of the present study, the results may have somewhat limited generalizability. As with many clinical trials, the sample included a self-selected sample of participants, who differ from the wider population. In the future studies, a large group of war veterans with diverse demographics should be studied.

Conclusions

The present study showed that participants had a low proportion of mental health problems. This research also demonstrated that social support had a significant contribution in the mental health of disabled Iranian war veterans. The current study also showed a positive relationship between constructive coping strategies and mental health indexes and a negative association between unconstructive coping strategies and mental health.

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