

Studying the Mental Health Status of Soldiers and Related Factors: A Descriptive Study

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Abstract: ***Introduction:** Mental health is one of the pillars of health and a prerequisite for a useful, effective, and satisfying individual life. Since the main body of the Armed Forces consists of Iranian youth, the present research aimed to study the mental health status of soldiers. **Methodology:** The present research was a descriptive, cross-sectional study. The statistical population included 100 soldiers who were selected by the total enumeration method. The required data and information were collected using the standard 28-item General Health Questionnaire, known as Goldberg's GHQ28. The obtained data and information were analyzed using descriptive tests and Chi-square in SPSS-16 software. **Results:** The mean age of soldiers was 22.6 ± 1.9 (years). Evaluation of mental health in four dimensions in the studied population of soldiers showed that the mean score of mental health is 55 out of 112. In addition, the mean score of physical health, anxiety and sleep disorders, social dysfunction, and depression were obtained 13 ± 4.7 , 14 ± 5.8 , 15 ± 4.9 , and 13.1 ± 6 (out of 28), respectively. According to Pearson test, there is a significant relationship between mental health and years of service ($p < 0.001$). In addition, the results of t-test showed that there is a significant relationship between marital and residential status and general health ($p < 0.001$). The results of ANOVA suggested no significant relationship between mental health and education degree. **Discussion and conclusion:** The mean score of mental health indicates a moderate level of mental disorder. According to the results of this study, the officials of mental health in the armed forces are recommended to provide counseling and psychological services for soldiers and also develop a database for mental health of soldiers for timely prevention, diagnosis, and treatment of vulnerable people.*

Keywords: Mental; Health; Soldiers

1. Introduction

Mental health is one of the pillars of health and a prerequisite for a useful, effective, and satisfying individual life. Improving the mental health of a community and especially its effective groups is required for the dynamism, growth, and advancement of that community¹. Mental health is a balanced manifestation of personality and emotional beliefs which enables one to live in a harmony with others. A person with a good level of mental health owns three major features including comfort, correct feeling about others, and the power to meet the needs of life². Today, mental problems and disorders such as anxiety and depression have increased in many segments of society, including the soldiers (the nature of their job) and annually impose high costs on the health sector of countries³. In a study on Norwegian soldiers, D Vancampfort showed that 48% of them suffer from mental disorders. This high rate of prevalence was attributed to situational factors in this country⁴. The results of a study conducted by Shahbazi *et al.* entitled "Studying the mental health and self-esteem among the first-year and last-year students of a military school" showed that the frequency of anxiety, sleep disorders, and depressive symptoms is higher among the first-year students than the last-year ones⁵. The results of the study of CW Hoge, entitled "Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan", indicated that 9.2% of all subjects are mentally disturbed.⁶ AC Iversen *et al.* carried out a study entitled "Risk factors for post-traumatic stress disorder among UK Armed Forces personnel" in two phases of 2004-2006 and 2007-2009. Their findings revealed that the level

of mental health is less in military forces and the prevalence of mental disorders among them has been higher in the period 2004-2009⁷. The study of Hoff *et al.* entitled "Mental health of soldiers in Australia" showed that 22% of Australian soldiers are mentally disturbed⁸. Their results showed that frequency of mental disorders among the soldiers is 23-40% and mental disorders are more prevalent among the soldiers participated in the Iraq war than those who were in Afghanistan⁸. Other studies conducted in Iran show different prevalence rates of mental disorder in Iranian society. The study conducted by Ganji *et al.* showed that 14% of referrals for medical exemptions is due to mental disorders⁹. Studies indicate that soldiers suffer from mental disorders are more likely to attempt a suicide^{10,11}. A study conducted by Khademolhosseini *et al.*, entitled "The impact of military training on mental health cadets", showed that military training has no effect on the mental health of soldiers¹². Other studies also have shown the prevalence of mental disorders in other communities. A study on mental health of women in Kashan showed that 40% of them are suffering from mental health problems¹³.

However, since the Armed Forces is the most populous organization of Iran after Education Organization and considering the organizational structure of the army which is always associated with various missions, a lot of pressure is often imposed on the military people. On the other hand, the main body of the Armed Forces consists of Iranian youth and if this group lacks the necessary physical and mental abilities for dealing with their tasks and problems, the efficiency of the armed forces and the security of the country will damage and, consequently, national and international social relations will be exposed to threat.

Therefore, the present research aims to study the mental health status of soldiers in order to propose some solutions for improving the mental health level of this population.

2. Methodology

The present research was a descriptive, cross-sectional study. The statistical population included all soldiers of the Army of the Guardians of the Islamic Revolution and the Law Enforcement Force of Islamic Republic of Iran who were doing their military service in Nikshahr Military Base, 150 of whom were selected as the sample using the total enumeration. The required data and information were collected using the standard 28-item General Health Questionnaire, known as Goldberg's GHQ28¹⁴.

General Health Questionnaire has been repeatedly used in domestic and foreign studies for evaluating the mental health of different groups such as students, employees, etc.^{15,16}. This 28-item questionnaire consists of 4 categories (7 items for each category) including somatic symptoms, anxiety and sleep disorders, social dysfunction, and depression. A 4-option scales (No, a little, high, and very high) was determined for the questionnaire and the scores between zero and three were given to each option. Therefore, the score of each category may vary from 0 to 21. The minimum and maximum total score of this questionnaire is 0 and 82. Obtaining a score in the ranges of 0-22, 23-40, 41-60, and 61-84 were indicative of lack of mental disorders, mild mental disorders, moderate mental disorders, and intense mental disorders, respectively. The remarkable thing about this questionnaire is that obtaining a high score indicates more pathological symptoms or, in other words, lower general health, while lower scores are indicative of minimum pathological symptoms and a higher level of general health. After correspondence and coordination with the Bureau of Applied Research of the Law Enforcement Force of Islamic Republic of Iran in Sistan and Baluchistan Province, the soldiers who were doing their military service in the Army of the Guardians of the Islamic Revolution and the Law Enforcement Force of Islamic Republic of Iran in Nikshahr Military Base were randomly selected as the sample. Then, the questionnaires were handed out among them in person and they were asked to fill the out. Soldiers were ensured that all information will remain confidential in order to encourage them to give more concrete answers to questions. The obtained data and information were analyzed using descriptive tests and Chi-square in SPSS-16 software.

3. Results

The results of this study showed that the mean age of soldiers was 22.6 ± 1.9 (years). In terms of marital status, 82% of soldiers were single and 18% were married. Among the studied soldiers, 63%, 29%, and 8% had a high school diploma, a bachelor's degree, and a master's degree, respectively. The average length of service of the studied soldiers was 9.2 ± 4.5 months (Table 1). Evaluation of mental health in four dimensions in the studied population of soldiers showed that the mean score of mental health is 55 out of 112. In addition, the mean score of physical health, anxiety and sleep disorders, social dysfunction, and

depression were obtained 13 ± 4.7 , 14 ± 5.8 , 15 ± 4.9 , and 13.1 ± 6 (out of 28), respectively. According to Pearson test, there is a significant relationship between mental health and years of service ($p < 0.001$). In addition, the results of t-test showed that there is a significant relationship between marital and residential status and general health ($p < 0.001$). The results of ANOVA suggested no significant relationship between mental health and education degree ($p > 0.05$).

Table 1: Demographic information

Variable		Frequency	Percentage
Education	High school diploma	63	63%
	Bachelor's degree	29	29%
	Master's degree	8	8%
Marital status	Single	82	82%
	Married	18	18%

Table 2: Mental health in different dimensions

Dimensions	Mean \pm SD
Physical	13 ± 4.7
Anxiety and sleep disorders	14 ± 5.8
Social	15 ± 4.9
Depression	13.1 ± 6

4. Discussion

In recent years, much research has been done in the field of mental health, but few ones have been carried out on the military forces. The results of mean score of mental health indicate a moderate level of mental disorders prevalence (50%) among the studied sample. In contrast, Mousavi *et al.* showed that 42.6% medical students and 37.5% of paramedical students are experiencing mental health problems¹⁷. In separate studies conducted by Shariati¹⁸ and Tavakolizadeh¹⁹, prevalence of mental health disorders was reported to be 42.6% and 27.1% among the university student. These figures are less than those obtained on the soldiers' population in this study which can be due to the type of studied population and higher level of stress during the military service. As the study conducted by Marzanabadi *et al.* showed 67% of military personnel have a high level of stress and 11% of them have a severe stress level²⁰. The results of studies conducted on mental health in the community of women who are the head of their household or women who have a child with mental disorder show that the prevalence of mental health problems in these two populations (61% and 77%, respectively) is higher than the soldiers' population^{21,22}. Overseas studies show the high prevalence of mental health disorders among soldiers. The study of Han Wei on the mental health and life quality of Taiwanese soldiers showed that 57.4% of soldiers are experiencing mental health problems²³. Figure is higher than the figure for Iranian soldiers [27, 30, and 34]. A study on the relationship of satisfaction with major with mental health and academic achievement among students of Arak University of Medical Sciences showed that the mean score of mental health in the whole population is in the range of mild disorder²⁴. In another study carried out by Dr. Mirzamani, entitled "Lifestyle of military personnel of the Army of the Guardians of the Islamic Revolution", showed the mean score of mental health is 19.1 in this population that is significantly different from the results of above study²⁵. Therefore, since higher scores on the General Health

Questionnaire mean a lower level of mental health, it can be concluded that with regard to the specific circumstances and different stress during military that surround a person, such results are not unexpected. This can be due to several reasons such as longing, separation from family, and being worried about the family status. Military service around the world is associated with mental pressures, physical hazards, separation from family, and living in harsh conditions. The statistical analysis showed no significant relationship between age and mental health, while Dehbashi *et al.* reported that the score of general health increases with the increase in the age of subjects. In other words, the desirable level of mental health reduces as a person ages. The study findings also showed that there is a significant relationship between developmental status of general health. Increased rates of psychological symptoms in married people, compared to the single, is unlike the common epidemiology of diseases, because marriage typically reduces the rate of psychological symptoms and celibacy increases them [11]. However, reverse results were obtained in the present study which can be due to several reasons such as being aware of their wife and fear of her conditions. The findings of Ashtiani confirm most of the results obtained in the present study. In the present study, no significant relationship was found between mental health and education, while Dehbashi *et al.* found a significant relationship between these variables²⁶. Shahbazi also reported the same relationship in his study⁵. One of the reasons for this difference may be the point that most of soldiers participated in this study (63%) had a high school diploma. Many studies show that the prevalence of mental disorders in other populations is less than that of soldiers. The study conducted by Radfard on children of veterans showed that the prevalence of mental disorders among the girls and boys is 36% and 26.8%, respectively²⁷. Another study by Radfard on the rural and urban populations aged 15-24 in 1999 showed that 17.6% of subjects were suffering from mental health problems²⁷.

5. Conclusion

Awareness of the mental health status of all military forces and especially soldiers is of great importance, because diseases of military forces are now considered the main cause of military weakness. Since it is not possible to solve this problem alone and it should be done in a collaboration, there should be a serious cooperation between military commanders, psychologists, and psychiatrists. According to the findings of the present study, it can be stated that examination of soldiers in terms of mental health at the beginning of their military services can underlie better life, well-being, and better work of them. Based on the results, the officials of mental health in the armed forces are recommended to take the following measures:

- Providing the conditions for easy contact of soldiers and military personnel with their families
- Providing counseling and psychological services for soldiers
- Considering special facilities for married soldiers and those who are the head their family

6. Acknowledgment

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7. Conflict of Interest

None declared

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