



# Spiritual and Psychological Well-Being of Soldiers in Military Barracks: A Case Study in Iran

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## Abstract

**Background:** Spiritual well-being is the newest dimension of health, which is placed along with the physical, mental, and social aspects of health. Since soldiers in military barracks are exposed to multiple psychological pressures, their psychological well-being can be affected.

**Objectives:** This study aimed to evaluate the spiritual well-being and psychological well-being and the relationship between these two concepts among soldiers in military service.

**Methods:** A descriptive-analytical study was conducted at a military barracks in Iran in 2019. The study population included 301 soldiers selected using a convenience sampling method. Data were collected using three questionnaires for data on sociodemographic, psychological well-being, and spiritual well-being.

**Results:** The results showed that soldiers' spiritual well-being (Mean  $\pm$  SD: 100.6  $\pm$  12, 30, range: 50 - 120) and Psychological well-being (PWB) (Mean  $\pm$  SD: 85.85  $\pm$  7.91, range: 48 - 104) were at high levels. Furthermore, a significant correlation was observed between spiritual well-being and psychological well-being (P value < 0.001, r = 0.41).

**Conclusion:** Considering the correlation between spiritual well-being and psychological well-being among soldiers in military service, it is possible to improve their psychological well-being by promoting spiritual well-being. In this regard, more interventional and combination studies are recommended in the field of psychological well-being and spiritual well-being.

**Keywords:** Soldiers, Psychological Well-being, Spiritual Well-being, Military Barracks

## 1. Background

Military service, which plays a vital role in the physical, mental, psychological, and spiritual health of young people, can create a dynamic workforce in society (1). However, a lack of appropriate planning in filling the soldiers' leisure time, the unfavorable status of welfare facilities, inappropriate behavior of military personnel, a disproportionate number of soldiers with needs of different parts, lack of considering the soldiers' expertise and ability in determining their place of service, punishments against disciplinary regulations, and non-specialized use of soldiers can pose psychological and mental challenges to young people and endanger their psychological well-being (2, 3). Psychological Well-being (PWB) is an internal emotional state that arises as a psychological response to the environment (4). People with high PWB mostly experience positive emotions and have a positive evaluation of events around them. However, people with low PWB evaluate their life events and situations as undesirable and mostly experi-

ence negative emotions such as anxiety, depression, and anger (5). Studies show that a favorable level of PWB in soldiers not only improves their physical, psychological, and mental health but also increases their commitment, productivity, and efficiency (6, 7).

Another important component that can play a significant role in soldiers' health is spiritual well-being (8). Spiritual Well-being (SWB) is a recently recognized dimension of health, which is now integrated with physical, mental, and social health aspects. Spirituality gives meaning to people's lives; it is an important source of coping and helps people to manage situations (9). The promotion of SWB is characterized by the improvement of stability in life and a close relationship with God, oneself, society, and the environment. It also can be one of the appropriate strategies to adapt to the environment. Therefore, the development of SWB among young soldiers can ameliorate their compatibility and performance by removing their fear, anxiety, and stress about the future (10).

Hourani et al. (2012) conducted a study in the United States and showed that SWB promotion could improve mental health by decreasing depression, improving immune system function, reducing anxiety attacks, and decreasing suicide risk among the military personnel (11). Another study found that spirituality in military personnel reduced the risk of post-traumatic stress disorder, major depression, and alcohol consumption. Researchers also found that high levels of spirituality increased the individuals' level of appreciation and life growth (12).

A review of the literature shows that most research about SWB and PWB has been conducted in people with chronic and life-threatening diseases such as cancer, cardiovascular disease, and AIDS. However, studies on young and active members of the community, such as soldiers, are rare (13-15). Since the topic of PWB is important for everyone working in formal and informal organizations, it should be addressed by relevant authorities.

## 2. Objectives

Military people, especially soldiers, are faced with numerous problems such as separation from their families and relatives, war, instability in marriage, mental health, and resettlement issues. These problems, along with other issues related to the military lifestyle, are of common concern to the military personnel. Since soldiers are susceptible to stress and traumatic psychological factors, it is important to address positive psychological and spiritual constructs and their roles in improving PWB and quality of life in them. However, in Iran, SWB and PWB have not been well studied due to the closed atmosphere of military barracks, and research is very limited in this area. Furthermore, the limitations of the conducted studies prevent the possibility of conducting an accurate evaluation for decision-makers. Therefore, this study aimed to evaluate SWB, PWB, and the relationship between them among soldiers in military service.

## 3. Methods

### 3.1. Study Design and Setting

A descriptive-analytical study was conducted in a military barracks in Iran from March to June 2019.

### 3.2. Participants and Sampling

The target population of this study included all soldiers of a military barracks at the time of data collection (N = 1500). The inclusion criteria were having reading and writing literacy, 18 to 35 years of age, no self-reported

mental-psychological problem at the time of data collection, and willingness to participate in the research. Incomplete questionnaires were excluded from the study. The sample size was calculated as 306 according to the Cochran formula ( $d = 0.05$ ,  $\alpha = 0.05$ ). Soldiers were recruited based on a convenience sampling method. After data collection, five soldiers were excluded due to incomplete questionnaires. The participants' response rate was 98.36%.

### 3.3. Instruments and Data Collection

Three questionnaires were used for data collection. The first one was a demographic questionnaire including items about participants' marital status, age, duration of military service, education level, distance to the place of residence, history of mental health problems, and tobacco and drug abuse.

The second questionnaire was the Spiritual Well-being Scale (SWBS) designed by Paloutzian and Ellison (1983). This scale contains 20 items, which are supposed to be answered on a six-point Likert scale using the options of "Strongly Agree (6 scores), Agree (5 scores), Moderately Agree (4 scores), Moderately Disagree (3 scores), Disagree (2 scores), and Strongly Disagree (1 score)". Items 3, 4, 7, 8, 10, 11, 14, 15, 17, 19, and 20 are scored reversely. This scale includes two dimensions of religious well-being (odd items) and existential well-being (even items); each dimension contains 10 items. The total SWBS score ranges from 20 to 120 (16). The score ranges of 20-40, 41-99, and 100-120 show low, moderate, and high levels of SWBS, respectively (17). The reliability of the questionnaire was confirmed by Ellison et al. using test-retest, with  $r = 0.93$  and Cronbach's  $\alpha = 0.89$ . The magnitude of these coefficients suggests that SWB has high reliability and internal consistency. Concerning validity, the examination of items' contents suggested good face validity (18). In Iran, Khorami Markani et al. translated and validated the questionnaire in Persian. They reported the content validity of higher than 75% for this questionnaire. Furthermore, the reliability of this scale for the dimensions of religious well-being and existential well-being was calculated as  $\alpha = 0.78$  and  $\alpha = 0.64$ , respectively (19).

The third questionnaire was for assessing PWB, which was made by Ryff in 1989 and revised in 2002. This questionnaire contains 18 items and six subscales: 1) Autonomy (items 9, 12, and 18): The ability and power to pursue desires and actions based on personal principles, even if they are contrary to customs; 2) Environmental mastery (items 1, 4, and 6): Ability to regulate and manage life affairs; 3) Personal growth (items 7, 15, and 17): It means that one's potential talents and abilities will become active over time; 4) Positive relations (items 3, 11, and 13): It indicates having a close and valuable relationship with important people of

one's life; 5) Purpose in life (items 5, 14, and 16): It represents having goals that give meaning to one's life; 6) Self-acceptance (items 2, 8, and 10): Ability to see and accept own strengths and weaknesses.

The items were supposed to be answered on a six-point Likert scale using the options of Strongly Agree (6 scores), Moderately Agree (5 scores), Agree (4 scores), Slightly Disagree (3 scores), Moderately Disagree (2 scores), and Strongly Disagree (1 score). Items 3, 4, 5, 9, 10, 13, 16, and 17 were scored reversely (20, 21). Numerous studies confirmed the reliability of this scale using Cronbach's alpha method. They reported that the range of Cronbach's alpha coefficients was from 0.72 to 0.89 for PWB subclasses (22-24). In Iran, Bayani et al. (2008) showed that the re-test reliability coefficient of PWB was 0.82 in students. The reliability of the subscales, including self-acceptance, positive relation with others, autonomy, environmental mastery, purpose in life, and personal growth, was found to be 0.71, 0.77, 0.78, 0.77, 0.70, and 0.78, respectively (25). The total PWB score ranged from 18 to 108 where the mean scores of 18-48, 49-78, and higher than 79 showed poor, moderate, and high PWB, respectively.

#### 3.4. Statistical Analysis

Descriptive statistics (percentage, mean, and standard deviation) and analytical statistics (Mann-Whitney test, Kruskal-Wallis test, and Spearman correlation coefficient) were used to analyze the data. According to the Kolmogorov-Smirnov test, the data did not follow a normal distribution. The level of significance was considered at 5%, and SPSS (version 18) was applied for data analysis.

## 4. Results

### 4.1. Demographic Characteristics

The results showed that 84.4% of the participants were single, and 60.1% were within the age range of 24-29 years. Furthermore, 39.5% of the soldiers had spent 6-12 months of their military service. Among the participants, 33.9% had a bachelor's degree, 76.4% lived within one to six hours away from the military barracks, and 72.8% did not use any drugs (Table 1).

### 4.2. Psychological Well-being

The PWB level was high, moderate, and low in 84.1%, 15.6%, and 3% of the soldiers, respectively. The total mean score of PWB was high in soldiers ( $85.85 \pm 7.91$ , range 48-104). The lowest mean score was related to the "Purpose in life" subscale ( $12.92 \pm 2.29$ , range 5-18), and the highest score was attributed to the "Environmental mastery" subscale ( $15.22 \pm 2$ , range 7-18) (Table 2). The Mann-Whitney test

showed that the mean score of PWB was significantly different based on the marital status and its mean score was higher in single individuals ( $P$  value = 0.023). The results of the Kruskal-Wallis test indicated that the mean scores of PWB significantly varied with age groups ( $P$  value = 0.041) and participants' drug abuse conditions ( $P$  value = 0.004) so that PWB was higher in people within the age range of 24-29 years and those who did not use any drugs (Table 1).

### 4.3. Spiritual Well-being

According to the results, 55.5% of the soldiers had high SWB, while 44.2% of them reported a moderate level of SWB. The total mean score of SWB was high ( $100.6 \pm 12.30$ , range 50-120), and the highest mean score was related to the "Religious well-being" dimension ( $50.39 \pm 6.45$ , range 10-60); whereas, the lowest score was related to "Existential well-being" dimension ( $50.11 \pm 7.40$ , range 22-60) (Table 3).

The results of the Kruskal-Wallis test showed a significant difference between the soldiers' SWB mean scores based on drug abuse ( $P$  value = 0.001) so that those who did not use any drugs had higher SWB (Table 1).

### 4.4. Correlation Between PWB and SWB

The results showed that PWB and SWB had a significant direct bidirectional relationship ( $\rho = 0.41$ ,  $P$  value < 0.001). Consequently, the SWB score had a significant and direct correlation with all dimensions of PWB. The "Purpose in life" ( $\rho = -0.052$ ,  $P$  value = 0.037) and "Autonomy" ( $\rho = -0.053$ ,  $P$  value = 0.35) subscales had no correlation with SWB. Moreover, no significant correlation was observed between the "Existential wellbeing" and "Purpose in life" subscales ( $\rho = 0.016$ ,  $P$  value = 0.78) (Table 4).

## 5. Discussion

The present study aimed to evaluate the soldiers' PWB and SWB, as well as the relationship between these two concepts. Our results demonstrated that soldiers' PWB was at a high level. These findings, which are consistent with the results of studies by Lan et al. (26) and Mirandola et al. (27), can be justified by the fact that numerous individual and group responsibilities are assigned to soldiers during their military service. In other words, high self-efficacy in doing tasks helps soldiers to face the problems appropriately and experience a higher level of PWB. Furthermore, soldiers are the human capital for future social activities; so, they receive higher social support, which improves their satisfaction, life expectancy, self-esteem, stability of mood, personal health, and satisfaction. Ultimately, these factors increase PWB in soldiers. In this regard, Sharma and Nagle believe that individuals with high PWB can resist social pressures to think and act in certain ways; they Have

**Table 1.** Soldiers' Demographic Information and its Relationship with Their PWB and SWB Mean Scores (N = 301)

Variables/Categories	No. (%)	PWB		SWB	
		Mean	Statistic and P Value	Mean	Statistic and P Value
<b>Marital status</b>			0.023, Z = -2.27		0.2, Z = 1.25
Married	47 (15.6)	85.4		100.13	
Single	254 (84.4)	88.31		103.08	
<b>Age groups</b>			0.041, $\chi^2 = 6.38$ , df = 2		0.22, $\chi^2 = 2.96$ , df = 2
18-23	101 (33.6)	84.36		98.82	
24-29	181 (60.1)	86.64		100.92	
30-35	19 (6.3)	86.31		97.47	
<b>Military service duration (months)</b>			0.87, $\chi^2 = 2.64$ , df = 2		0.87, $\chi^2 = 2.26$ , df = 2
6-Jan	78 (25.9)	86.08		101.93	
12-Jun	119 (39.5)	85.36		100.73	
24-Dec	104 (34.6)	86.25		99.44	
<b>Level of education</b>			0.33, $\chi^2 = 4.52$ , df = 4.5		0.79, $\chi^2 = 1.66$ , df = 4
Master's degree and higher	60 (19.9)	86.8		99.18	
Bachelor's degree	102 (33.9)	84.61		100.9	
Associate degree	69 (22.9)	86.2		101.15	
Diploma	25 (8.3)	87.56		100.4	
Secondary school	45 (15)	85.93		101.02	
<b>Distance from military barracks to place of residence (hours)</b>			0.48, $\chi^2 = 1.44$ , df = 2		0.96, $\chi^2 = 0.079$ , df = 2
1-6	230 (76.4)	85.72		100.65	
6-12	41 (13.6)	87.17		101.53	
> 12	30 (10)	85.06		98.9	
<b>Drug abuse</b>			0.004, $\chi^2 = 13.17$ , df = 3		$\chi^2 = 23.60$ , < 0.001, df = 3, 0.2
Cigarettes	28 (9.3)	85.46		95.89	
Hookah	60 (16.6)	82.74		96.28	
Drug abuse	4 (1.3)	77.5		76	
No use of drugs	219 (72.8)	86.77		102.68	

**Table 2.** Mean Scores of PWB

Subscales	Minimum	Maximum	Mean	SD
Autonomy	7	18	13.48	2.15
Environmental mastery	7	18	15.22	2.00
Personal growth	6	18	15.02	2.03
Positive relations	7	18	14.03	2.18
Purpose in life	5	18	12.92	2.29
Self-acceptance	3	18	15.14	2.26
Total PWB	48	104	85.85	7.91

self-regulatory behavior and evaluate themselves by personal standards (28). On the contrary, He et al. (2018) car-

ried out a study in Australia and showed that PWB was low in postgraduate nursing students (29). This finding can

**Table 3.** Mean Scores of SWB

Subscales	Minimum	Maximum	Mean	SD
Existential well-being	22	60	50.11	6.45
Religious well-being	10	60	50.39	7.40
Total SWB	50	120	100.6	12.30

**Table 4.** Correlation Between PWB and SWB

Variable	Autonomy	Environmental Mastery	Personal Growth	Positive Relations	Purpose in Life	Self-acceptance	Total PWB
<b>Existential well-being</b>							
$\rho$	0.13	0.43	0.18	0.31	0.016	0.41	0.38
P value	0.023	< 0.001	0.001	< 0.001	0.78	< 0.001	< 0.001
<b>Religious well-being</b>							
$\rho$	-0.053	0.50	0.29	0.40	-0.052	0.42	0.39
P value	< 0.35	< 0.001	< 0.001	< 0.001	0.37	< 0.001	< 0.001
<b>Total SWB</b>							
$\rho$	0.039	0.50	0.24	0.39	-0.02	0.43	0.41
P value	0.49	< 0.001	< 0.001	< 0.001	0.73	< 0.001	< 0.001

be justified by taking into account that the study population and environmental mastery were different between the mentioned study and our research. In Iran, Seyedi et al. (2016) stated that the inability to have individual planning due to the closed atmosphere of military barracks, lack of attention to soldiers' specialized capacities, social problems such as being away from the family, and economic problems can pose a serious threat to soldiers' PWB (30). Moreover, the results of the present study demonstrated that the lowest PWB mean score was related to the "Purpose in life" subscale, while the highest score was associated with the "Environmental mastery" subscale. This result is in agreement with studies by Sagone et al. (31) and Pasandideh et al. (32). In explaining the soldiers' low scores in "Purpose in life", soldiers believed that the military service was very long and wasted their time. They reported the loss of employment and academic/social opportunities, economic problems, and delay in marriage as the disadvantages of going to the military service. Participants' high scores in "Environmental mastery" can be explained by the fact that the military service improves the soldiers' skills in social relationships, interpersonal and group communication, responsibility fulfillment, and independence maintenance, which can consequently affect their live performance.

The results of the present study showed that soldiers had high SWB. Other studies in Iran (33-35) and the USA (36) are in line with the present study. Perhaps, one rea-

son for the high SWB score in soldiers is the cultural and social characteristics that dominate the Iranian society. In Iranian culture, spirituality is intertwined with religion so that the senior military leaders consider holding religious ceremonies in military barracks.

The results also showed a significant positive correlation between SWB and PWB, which is consistent with other studies (37-40). Unterrainer et al. (2014), in a review study, reported that spirituality was associated with the promotion of psychological and personality components (40). Holland et al. (2016) investigated young couples and showed that SWB had a direct and strong relationship with PWB and increased the couples' intimacy (41). Aflakseir (2012) found that PWB had a significant relationship with SWB among British Muslim students (42). O'Connor studied people living with leukemia and indicated that spiritual health was significantly associated with PWB; an increase in spiritual health decreased hopelessness, inadequacy, frustration, and anxiety problems (43). On the contrary, Meanly et al. (2016) showed that spiritual health was inversely related to PWB in young gay and bisexual men so that PWB decreased with increased spirituality (44). Perhaps, one reason for this discrepancy in the results can be the difference in research communities and cultural characteristics of the two countries under study.

Although our results showed that SWB was not significantly correlated with the dimensions of Autonomy and Purpose in life, Jafari et al. mentioned that People who have



higher spiritual health, are more satisfied in life and act more purposefully (45). The discrepancy in the results of the present study can be due to the presence of soldiers in a closed military atmosphere, inappropriate behaviors of the military personnel, and lack of considering the soldiers' expertise. Another justification can be the fact that soldiers believed that military service was a hindrance to the immediate accomplishment of their life goals (30).

This study had three limitations. First, the application of self-report questionnaires could cause bias in the results. The second limitation was the lack of permission to research various military barracks. The third limitation was attributed to the application of a convenience sampling method; the random sampling method was not possible because the researchers were not provided with the soldiers' names considering the military officers' discretion. As a result, future researchers are proposed to conduct studies with larger sample sizes using random sampling methods and comparative designs among several military barracks. Moreover, more interventional and combination studies are recommended in the field of PWB, such as resiliency and social support, to enhance soldiers' autonomy and purpose in life.

The results showed that PWB and SWB were at a high level among the soldiers. Furthermore, the findings confirmed the positive and significant role of SWB in soldiers' PWB. Therefore, it can be concluded that having a satisfying relationship with God helps soldiers to endure many negative events and stressful conditions in the military barracks' environment. In general, spiritual health is associated with the promotion of environmental mastery, positive relationships, and self-acceptance, which can play a vital role in enhancing soldiers' mental health and thereby improving their PWB.

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### Footnotes

**Authors' Contribution:** MT, MF, and JF contributed to the research design. The data were collected, analyzed, and interpreted by MF and MT. MT, MF, and JF contributed equally to composing and approving the final manuscript.

**Conflict of Interests:** The authors declare that they have no competing interests.

**Ethical Approval:** The Ethics Committee affiliated with the Kerman University of Medical Sciences approved this

study as well as its consent procedure (Medical Ethic No. ir.kmu. rec.1398.062). In this regard, the researcher initially presented the letter of introduction to make the required coordination with the authorities in the study context. A cover letter explaining the study purpose and data collection procedure was also presented to the eligible participants before data collection. Next, the verbal agreement of the participants was obtained, and they were ensured about the confidentiality and anonymity of the data, as well as voluntary participation in the study.

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