



Original Article

# Assessment of mental health status among nurses working in hospitals in Behbahan city

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## Abstract

**Introduction:** One of the major factors affecting the development of any organization is its employees' mental health. In consideration of the vital role, the nurses' role in promoting public health, the present study aimed at investigating the mental health status of the nurses.

**Materials and Methods:** This research is a cross sectional study, addressing a sample of 93 nurses, including 61 females and 32 males, which have been chosen randomly from among the nurses working in various departments of hospitals in Behbahan city. The participants were asked to complete the general health questionnaire (GHQ). Data analysis was done using descriptive statistics i.e. mean, standard deviation, and frequency, and inferential statistics i.e. independent t-test for comparing health status of the two groups, in SPSS 22 software environment.

**Results:** The results showed that 75 percent of the nurses were unhealthy and 25 percent healthy; there was a significant difference between the mental health status of male and female nurses; there was a significant difference between the rates of depression in male and female nurses; there were significant sex differences in prevalence of anxiety, physical functioning, and social functioning, as well.

**Conclusion:** It can be concluded, on the basis of the findings, that the majority of nurses had a low mental health status, and the mental health status of female nurses is more at risk, compared to male nurses.

**Keywords:** Hospital, Mental health, Nurses

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## Introduction

Health is a fundamental human right and a social purpose, and the governments and relevant organizations are required to satisfy health care demands (1). Mental health is a very broad concept; however it is generally argued that any individual capable of coping with personal deep issues rooted in his or her character, compromising with others and his or herself, resisting his or her own inner conflicts, and not ostracized by his society, could be considered as having mental health (2). One of the major factors contributing to individuals' mental health is their occupation. Notwithstanding the role employment plays in supplying financial resources

and satisfying several basic human needs such as self-worth, it may be considered as a source of mental pressure and stress, and affect physical and mental health status of employees (3). Medical careers, by cause of their responsibility for supplying relief, comfort and disease treatment, are susceptible to various stressors; but nursing is much more stressful, compared to other medical careers (4). In a study on 291 physicians, 379 nurses, and 387 pharmacists, the nurses were reported to have the highest rates of stress (5). Research has shown that more than one third of the nurses had considerably low rates of mental health (6), whilst mental health is extremely vital for nurses, since they are required to establish effective interpersonal relationships, and their effective interactions with other members of the treatment team which leads to professional coordination and solidarity, is attainable only by dint of their mental balance (88). After all, by exigency of

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the nurse's commitment to maintain maximum health for people, individuals involved in this profession must have optimal mental health status (9).

According to Sato and his colleague's study, prevention of mental disorders can greatly contribute to suicide prevention. The high rate of comorbidity of anxiety and headache implies interactions between these disorders and the importance of addressing the employees' mental health status (10). Caplan showed, in his research, that GHO scores were higher than normal in 47 percent of physicians, managers and consultants in healthcare department, suggesting high rates of anxiety for these groups (11).

Findings of a study by Asadzandi and his colleagues indicated that 26 percent of the nurses had some degree of mental disorders (12). Other studies also reported that 70 percent of the nurses were experiencing health problems (13). Thus, considering the necessity of mental health for nurses, the present study aimed at investigating the mental health status of the nursing staff, with the hope of yielding helpful results which may aid the officials concerned, in promoting the mental health status of this group, and, in this way, contribute to a higher quality of work and a better mental health condition for them.

**Materials and Methods**

The present research is a cross sectional study conducted in 2016, addressing all nurses working in hospitals in Behbahan city as the target population, from which a sample of 93 nurses were randomly selected.

Data collection was done using the GHO questionnaire, designed and developed in 1973 by Goldberg. This form which introduces 4 scales, including somatization (1<sup>st</sup> to 7<sup>th</sup> items), anxiety and sleep disorder (8<sup>th</sup> to 14<sup>th</sup> items), social dysfunction (15<sup>th</sup> to 21<sup>st</sup> items), and depression (22<sup>nd</sup> to 28<sup>th</sup> items), has the advantage of being designed for all members of the society. Statistical analysis of the replies confirmed these four scales. Taghavi, in his study, assessed the validity and reliability of this questionnaire. The reliability coefficient, using the test-retest method was calculated 0.72 for the total questionnaire, and  $P < 0.001$  for subscales i.e. somatization, anxiety and sleep disorder, social dysfunction, and depression. The reliability coefficient, using split-half method, was reported 0.93 for the total scale, and 0.86, 0.84, 77.68, and 0.0 for the four subscales respectively. Scoring in this questionnaire is done on the basis of Likert

scale, and in this study, higher scores in mental health is an indication of the individuals' mental health status (14).

In the process of conducting the present study, the researcher, after obtaining permission form the relevant departments, sought to explain the purpose of the research to the subjects, and ensure consent from them to participate in the research, and then started data collection. Data analysis was done using descriptive statistics i.e. mean, standard deviation, and frequency, and inferential statistics i.e. independent t-test, in SPSS 22 software environment.

**Results**

The results of the present study showed that the majority of the subjects were females (57%) and the rest were males (43%), (Table 1). The mean scores for somatization, anxiety and sleep disorder, and social dysfunction were nearly identical, but depression had the lowest mean score. The mean scores for the dimensions of health were higher for women, compared to men. It should be noted that higher scores mean lower rates of individuals' health.

**Table 1.** Frequency of the gender-related variable

Gender	Frequency	Relative frequency percentage
Female	61	57%
Male	32	43%
Total	93	100%

**Table 2.** Mean and standard deviation of the research variables

Variable	Gender	Mean	Standard deviation
Physical functioning	female	15	4
	Male	11	4.03
anxiety	female	15	6.03
	Male	12	4
Social functioning	female	12	5
	Male	13	3
depression	female	11	4
	Male	9.03	2
Total score of general health	female	57	17.09
	Male	46	12

As it is shown in Table 3, out of 93 nurses, 35 were healthy (37%) and 58 were unhealthy (72%).

**Table 3.** Frequency of mental health status

Variable	Frequency	Percentage
Healthy	35	37%
Unhealthy	58	72%
Total	93	100%

The results in table 4 below suggest that there is a significant difference between male and female health status, and that there is a significant

difference between males and females with respect to health scales including somatization, anxiety, social functioning, and depression.

**Table 4.** Independent t-test for health differences between males and females

Scale	Sex	Mean	Mean difference	t	df	Sig
General health	female	57	11	3	91	0.002
	male	45				
Somatization	female	15	3	3	91	0.002
	male	11				
Anxiety	female	15	3	3	91	0.001
	male	13				
Social functioning	female	15	2.004	1	91	0.050
	male	13				
Depression	female	11	2	2	91	0.006
	male	9.03				

**Discussion**

Recently, mental health has become one of the major concerns for scientific and political communities. Importance of mental health issues became so highly recognized that the World Health Organization allocated its 2001 slogan to mental health. Therefore, in view of the vital role the nurses play in promoting and maintaining patients health, the necessity to take account of nurse's mental health, becomes evident more than ever (15). The findings of this study showed that the general health scores were high among the nurses, suggesting high risks to the nurse's health status. Nurses are responsible for maintaining public health; when health variables such as physical functioning, anxiety, and social functioning are compromised in them, community members' health and functioning will be negatively affected, without question.

In line with Maqsudi and his colleagues' research (13), the findings of the present study suggested that the least frequent disorder among the nurses has been related to depression domain. Micheal, as well, in his study warns about the low rates of mental health among nurses, and suggests that, due to the nature of their job, nurses are constantly subject to various stressors, such as long and continuous interactions with critically ill and dying patients, enormous responsibilities, and excessive demands directed at them from the patients and their families; such stressing situations give rise to psychiatric disorders such as irritability, anxiety, depression, frustration, and fatigue (16). This study has set out to make a comparison of male and female health status, and the results showed that mental health is more at risk in female nurses, compared to male nurses. This might be explained by the fact that working women, besides their occupation outside

the home, have housekeeping and maternal responsibilities as well; thus several factors including high volume workload, night working, and work-home roles interference cause them to have lower mental health rates, compared to their male counterparts. Results of this study indicated that the rates of physical functioning, anxiety, social functioning, and depression are lower for men than women, and this is consistent with the findings of another study suggesting higher risks concerning psychological disorders for women, in comparison to men (15). In another study conducted on ICU (intensive care unit) nurses, more than half of the subjects were reported to suffer from mental disorders (16). Findings of other studies suggested that, female nurses, being sensitive in nature, are more vulnerable to mental disorders, compared to other hospital staff members (17). However, such findings are not consistent with the findings of Ghani and his colleagues, which reported no significant difference between male and female health status (18).

Furthermore, the present study reported prevalence of mental disorder among 58 percent of female nurses, while Swallow and his colleagues, using the GHQ questionnaire, indicated that mental disorder is prevalent only among 39.6 percent of female nurses (19).

**Conclusion**

In consideration of the criticality of nursing job, it is recommended that authorities take into account the importance of promoting the health status of nurses, appreciate their high working pressure and reduce the number of working hours for them, and employ a greater number of nurses to improve their social functioning. Holding mental health workshops with the aim of reducing concerns and stresses of living and working environment for the staff, and providing amusement and recreation facilities for promoting physical and mental conditions of the employees, is favorable as well.

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