Original article

Investigating the Factors Affecting General Health among Staff of Mazandaran University of Medical Sciences

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Abstract

Introduction: In light of the fact that physical and mental health disorder may lead to quantitative and qualitative decline in employee employment, paying attention to their mental and general health requirements is very important and vital. Therefore, this study is intended to address the factors affecting the general health of staff.

Method: In this descriptive cross-sectional study, the staff of Mazandaran University of Medical Sciences was investigated using a multistage sampling method in 2017.The tool for collecting data was a two-section questionnaire including demographic data and GHQ-28 scale. Data was analyzed using descriptive and analytical statistics. Data analysis was performed by SPSS software using independent t-test, one way ANOVA and Spearman correlation coefficient.

Findings: Of 125 subjects studied, 64 percent of all staff at the University of Medical Sciences were suspected of having physical or mental disorders. General health has a direct relationship with the job status and physical activity. In addition, there was no statistically significant difference between the variables of age and work experience as well as the score of the subgroups of general health, while there was a significant difference between the total score of general health and educational level.

Conclusion: The results obtained in this study showed that more than half of the employees are affected by some aspects of the physical and mental problems that this issue is of great importance. Paying attention to factors such as lack of physical activity, undesirable job status and occupational stress can probably have a significant role in improving the existing conditions.

Keywords: General Health, Staff, Job Improvement, Mental Health,

Introduction

According to World Health Organization, health is a state of complete physical, mental and social well-being without superiority over another (1). To Goldberg, mental health is the ability of harmonious relation with others, change and modification of personal-social environment, reasonably, fair and appropriate solution of personal conflicts and desires (2). Human relationships can be disrupted by illness and disability and subsequently take away sense of coherence and security from humans (3). Studies have shown that the mental health of human and even their physical health are influenced by many psychological pressures found almost in the human life with different degrees (4).Some of signs and symptoms of mental illness may include self-reliance, independence, self-guidance, ability to cope and work together and with others and supervisors, ability to perform tasks in a job, the ability to accept responsibility, the ability to express interest and affection, the ability to withstand failures (5). It is estimated that approximately 450 million people worldwide have a mental health problem (6). Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (1). Mental disorders, especially depression, are typically one of the general health aspects of general and occupational populations. One of the important measures to optimize occupations and to increase the productivity of employees is to improve the physical and mental health of workers in different work environments, and industries and their associated stressors as well as to reduce or eliminate the adverse effects of these factors (8).

Methods:

This is an analytic cross sectional study performed on the staff of Mazandaran University of Medical Sciences in 2017. After obtaining the informed consent, all employees (N = 125) were randomly selected and entered the study. Data collection instrument was two questionnaires. The first questionnaire included demographic data and the second General Health scale (GHQ) consisting of 28 items completed by personnel. This scale is a psychological instrument; it is a popular screening tool in psychiatry aimed to examine psychiatric disorders in the general population; it was developed by Goldberg and Hiller. This questionnaire is able to measure different aspects of health as well as to create a distinction between those who consider themselves healthy but with mental illness and disorder. It is short 28-itemscaleconsisting of 4 subscales: somatic impairments, anxiety, social dysfunction and depression. It was rated on a four-point scale Likert scoring system (0-1-2-3) and each scale fall into a range of 0 to 21. The minimum and maximum of scores are 0 and 84, respectively, with a higher score indicating worse general mental health status. This questionnaire is acceptable and has been widely used in Iran. Data was analyzed by SPSS software using independent t-test, one

way ANOVA and Spearman correlation coefficient.

Findings:

The findings show that approximately 72.8% of participants are male and 27.2% women and the mean age of the participants is 33.6 ± 3.56 years old. Other demographic information has been presented in Table 1.

The mean of general health score of the subjects was 27.6 ± 7.86. According to the cut-off point for the general health status, 80 (64%) are unhealthy and 44 remaining (36%) have a healthy status. The complete information on the mean, standard deviation, maximum and minimum score of general health, and 4 scales of somatic impairments, anxiety, social dysfunction and depression have been presented in Table 2.

Scores related to somatic impairments (68.3%), anxiety (85.6%), social dysfunction (11.4%) and depressions (74.1%) indicate healthy subjects. There was no significant correlation between general health and age (P = 0.066, r = -0 / 078). No statistically significant relationship was observed among work experience and general health score (P = 0 79, r = 0/018). There was a significant difference between the total score of general health and individual's educational level (P = 0.06). There was a significant relationship between sex, marital status and smoking which its details were given in Table 3.

Regression analysis of all variables of study and health showed that there is a significant relationship between individual and general health scores (P = 0.04). General health is directly related to the occupational status and physical activity (P = 0.03).

Discussion:

A lot of studies have been carried out with regard to general health issue on people working in public and private institutions; however, studies on the health status of personnel working in government-related medical institutions have been very limited and so this study could offer some insights for further studies in this regard. According to the results of this study, the general health status of participants (64%) was inappropriate based on the cut-off point (23%) for general health. Consistent with this finding, the result of a study by Barzideh et al. also showed that 64.7% of studied subjects were suspected of having general health disorder (14).In the present study, the overall score of general health was much higher than that of Choobineh et al. study (15) and slightly less than that of the study by Barzideh et al (14).The highest level of mental and general health problems in different domains of health (90.7%) was related to social dysfunction domain. In a study by Tabatabai et al. on one of the country's industries, no significant relationship was obtained between general health and educational level (16), which was not in agreement with the results of this study. A variety of studies have shown that promoted educational level will lead to a reduction in the average public health score. Contrary to the results of the previous studies, the result of our study showed that more than 50% of subjects with a master's degree or higher obtained a high general health score. This discrepancy in results may be due to the different area of study. Consistent with the results of the studies by Choobineh et al., Tabatabaei et al., no

significant relationship was found between age and general health in the present study. As well, no significant relationship was found between work experience and sex with general health which did not correspond with the findings of studies by Tabatabai and colleagues. Yet in the study by Choobineh et al., a significant association was found between work experience and general health showing that a rise in the years of work may give rise to an increase in general health score. Again, this discrepant result can be attributed to the different fields of the study.

Conclusion:

The results obtained in this study showed that more than half of the staffs have some degrees of physical and psychological difficulties which are of great importance. Paying attention to the factors studied, such as lack of physical activity, undesirable job status and occupational stress could have a significant role in improving the existing conditions.

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Tables:

Table 1: Demographic characteristics of the participants in the study

Variable		Mean	Standard deviation
Age		33.6	3.56
work experience		7.7	3.3
		frequency	**percent**
Sex	male	91	72.8
	female	34	27.2
Smoking	Yes	14	11.2
	No	111	88.8
Educational level	Diploma and Associate degree	13	104.4
	Bachelor	37	37.6
	Masters and higher	65	52
Marital status	single	21	16.8
	married	104	83.2

Table 2: Mean, standard deviation, minimum and maximum scores of general health and 4 areas

Variable	Mean	Standard deviation	Minimum	Maximum
Total score	27.6	7.86	14	54
Somatic impairments	7.6	2.35	3	15
Anxiety	7.16	4.32	1	16
Social dysfunction	13.18	2.28	1	25
Depression	4.42	4.52	0	19

Table 3: Mean and standard deviation of general health of subjects studied by sex, marital status, educational level and smoking

Variable		Mean	Standard deviation	P-value
Sex	Male	27.42	7.61	0.945
	Female	27.63	9.63	
Marital status	Single	26.29	7.54	0.289
	Married	29.39	8.42	
Educational level	Diploma and Associate degree	28.27	8.82	0.048
	Bachelor	29.56	8.54	
	Masters and higher	28.57	5.85	
Smoking	Yes	26.69	5.69	0.485
	No	27.58	8.96	

Table 4: Linear regression analysis between variables and general health score

Variable	Correlation coefficient	Standard deviation	P-value
Age	0.321	0.29	0.29
work experience	0.010	0.4	0.95
Sex	1.048	2.24	0.62
Marital status	2.259	1.6	0.21
Educational level	-1.845	0.85	0.05
Smoking	-2.249	2.54	0.29