

# Predictors of Mental Health in a Sample of Iranian Health and Paramedical Students

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**Abstract:** Introduction and Aims: Attention to students' mental health is important in promoting their learning and academic achievement. This study aims to determine mental health and its predicting factors on paramedical and public health students in Qazvin university of medical sciences, Qazvin, Iran.

**Methods:** In this descriptive-analytical study, a sample of 110 paramedical and public health students of Qazvin university of medical sciences was selected. Data were gathered by General Health Questionnaire (GHQ-28) and demographic and educational related researcher-made questionnaire. Data were also entered into SPSS-v16 and analyzed with Chi-square and McNemar tests, and regression analysis was used for determining predicting factors. The significant level was considered as  $p < 0.05$ .

**Results:** The mean general health scores of students participating in the study were  $31.05 \pm 9.24$  and 79.6% of them had impaired mental health. The highest mean was belonged to social function subscale ( $12.33 \pm 3.78$ ) and the lowest to depression ( $4.59 \pm 4.55$ ). Between age, gender, faculty, birth order, parental status, university entrance semester, and mental health of students, there were not significant differences ( $P \geq 0.05$ ), but the variables "marital status" ( $P < 0.02$ ), "interest in the field of study" ( $P < 0.02$ ), and "last semester average" of students ( $P < 0.000$ ) were related to mental health. Finally regression analysis showed that "interest in the field of study" ( $P < 0.003$ ) was the predicting factor of mental health in this students.

**Conclusion:** Considering the high prevalence of mental disorders in these students, it is essential to activate student counseling centers in the field of mental health promotion plans. Specifically, life skills training, is needed to enhance their skills, abilities and mental capacity.

**Keywords:** mental health, students, General Health Questionnaire.

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## I. INTRODUCTION

Mental health is one of the important components of public health (1) and plays an important role in ensuring the dynamics and efficiency of individuals in each community (2). According to researches conducted by the Harvard School of Health and also statistics published by the World Health Organization, mental disorders are considered as one of the most important and significant components of the overall burden of the disease, which accounts for 10.5-11% of the total burden of diseases related to mental illness (3).

Since that students are from the selected sectors of society and future forces of each country, their mental health is considered important in learning and raising scientific knowledge (4). However, entering university as a critical section in life is often associated with student stress and concern (2), far away from the family, the lack of welfare facilities, economic problems, the desire for multiple social amusements, the tendency to study and the need for progress in lessons against the sense of inadequacy of a period of psychological stress (2 and 4), are the conditions that can cause or exacerbate mental illness or problems and lead to loss of function (2). As the studies indicate that the incidence of mental illness in students is increasing and this concern is important for universities to consider respectively. The results of a longitudinal study of 13 years showed that today's, students refer to Academic counseling centers more than past and their problems have become more complicated (5). On the other hand, in the context of vocational training and stressful educational environments, this is an important problem for students of medical science universities. For example, a study by Johnson and Jones in Scotland on nursing students determined stress on education, including dissatisfaction with discipline, lack of coordination in theoretical and clinical trainings, exams, inappropriate methods of studying, high class work, lack of time and fear of failure to pass the course unit, etc. (6). Mahat's study in United States on nursing students shows that the stresses of clinical environment and medical centers, including lack of clinical knowledge and experience to perform the duties of care, inability to take responsibility, fear of failure in the delivery of care, and so on (7). Also studies have shown that in recent years in Iran, the rate of referral to psychiatric counseling units has increased in universities (8). On the other hand, students with mental health problems have problems such as absence in class, impairment of logical thinking and academic failure (2). Hence, many researchers have studied the mental health of students and assessed factors affecting on it (2 and 9, 10, 11, 12). The results of many of these studies indicate a significant outbreak of this disorder in students of medical universities across the country. As the results of these studies indicate that the prevalence of the disorder among students in universities in Iran such as Shahed 28.6%, Ardabil 22.7, Ilam 17%, Qom 38.7%, Shiraz 24.8%, Tabriz 38.6%, Mazandaran 52.2%, Zabul 56.26 %, Kerman 28% and Tehran 16.3% (13,14, 11, 15, 16, 2, 17, 10, 9, 18). Studies that examine factors influencing this situation have also reported different results. For example, in many studies, there is a contradiction between the demographic factors affecting mental health (2, 4, 17, and 19). Also, there are some contradictions between the educational factors such as the average mean of students with mental health. In the study of Arteshab and colleagues and Anbari and colleagues between the mean scores of students (as an indicator of academic achievement) associated with mental health, significant relationship has been reported (2, 20), while Farah bakhsh and colleagues and Jadidi and colleagues did not find significant relationship between these variables (19 and 4). This contradiction is also seen in the relationship between mental health and other variables such as the semester (2, 19, and 17), interest in the field of study (2 and 17), and the study period (daily / nightly) (2, 19, 15 and 17). On the other hand, referring to various studies on mental health of students in the universities of medical sciences, studies that focus on the mental health of students in health and paramedics are less. Despite the fact that the disciplines of these faculties (such as medical emergency, operating room, anesthesiology, etc.), like other medical sciences, have stressful environments and require forces with good mental health and well-informed and well-functioning to deal with Stressful conditions. Therefore, this study was conducted with the aim of determining mental health and its predictive factors in students of health and paramedical faculties of Qazvin province, with the hope that the results of this study by providing knowledge about the mental health status of these students and its different dimensions, as well as identifying its predictive factors can be a step in the direction of future planning to provide health and to balance the influential factors.

## II. MATERIALS AND METHODS

In this descriptive-analytic cross-sectional study conducted in the academic year of 2014-2015, the mental health level and its predictive factors were studied in 110 students of the Faculty of Health and Para-medicine of Qazvin University of Medical Sciences using classified sampling (each faculty as a one class) and from each class in a randomized manner and based on the size of the sample. The criteria for entering this study related to students of the Faculty of Health and Paramedical Sciences of Qazvin University of Medical Sciences were oral satisfaction achievement of samples, passing a minimum of one semester, non-acute or chronic physical problems according to one's own words, the absence of acute stress during a recent month (divorce, Death of relatives and ...) and the lack of coincidence in completing the questionnaires with the time of the end of the exams. Study instrument included Goldberg Mental Health (GHQ-28) questionnaire with 28 questions and a demographic questionnaire (gender, age, marital status, residency, family status, parental education) and education (field of study, course (daily / night) , Semester, grade, term, or academic year, and