

# General Health Status among Students of Islamic Azad University: A Cross-Sectional Study

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## A-R-T-I-C-L-E I-N-F-O

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## A-B-S-T-R-A-C-T

**Background & Aims of the Study:** Health is one of the basic needs of human. There is a close relationship between physical and mental health. Human psyche is directly affected by his physical condition, and mutually his body and actions of human systems are influenced by psychological and mental space. Students because of their particular circumstances are vulnerable to mental health problems. The purpose of this study is to determine the general health status of students of Islamic Azad University.

**Materials & Methods:** This descriptive analytical research was conducted on 478 students of Khalkhal Islamic Azad University. Simple random sampling method was used. General health questionnaire (GHQ-28) was used as research tool. Following data collection, data were analyzed using SPSS Software 13.

**Results:** The results show that mean score of general health of the subjects is higher than cutoff. In this study, 21.3 percent of students were suspected of impaired health. Also, status of general health of female students was worse than male students and significant statistical relationship was observed between general health status and all its sub-scales except depression and gender ( $P < 0.5$ ).

**Conclusions:** General health of students especially female students is impaired which may considerably affect their learning and performance and academic achievement.

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## Background

Health is one of the challenges for most countries (1) and it is one of the human basic needs which plays critical role in sustainable development (2). According to WHO definition, general health includes perfect physical, mental and social health, not merely lack of disease or disability. Also, general health is equivalent to all methods or measures which are used for preventing from mental health (3). Today Medical Knowledge acknowledges close relationship between mental and physical health (4). Human psyche

is directly affected by the physical conditions and mutually human body is affected by the mental and psychological space (5). Mental health concept includes internal feeling of wellbeing and insurance of self-efficacy, self-reliance, capacity to compete, intergenerational dependence, and self-actualization of intellectual and emotional potentials, etc. (6). In a broader scope, mental health includes awareness of spiritual and material factors and motives which cause health of the thinking and positive status and balanced behavior and action, thereby valuable mechanisms is provided for human spiritual and material progress and movement at all areas (7).

Studies in relation with general health in Iranian students reported prevalence of mental disorders as 12.75 to 30.40 percent (9,8). Dastjerdi showed 8.6 percent of the students accepted in Mashhad Ferdowsi University are susceptible to mental disorder (10).

Asgharipour in his study on Mashhad Ferdowsi University students showed male students with mean 20.30 suffer more problems and psychological problems are observed more in single students compared to married students (11) and prevalence of mental disorders was reported as 35.4, 69.3, and 31.6 percent, respectively, in studies by Lotfi, Jahani, and Dibaj (12-14). Benitez *et al.* used GHQ2 and studied prevalence of mental disorders among medical students in Medical School of Chile University. They found 41 percent of students were susceptible to mental disorders and first-year students had worse mental health than fourth year students (15). Due to specific conditions of the student life including family separation, entering into a stressful and, and high-tension collection, economic problems and lack of sufficient income, high volume courses, and intensive competition, students are prone to losing their mental health (16,17) and

Level of their health significantly affects their learning and academic success and increasing their knowledge (18). Jamali and Omidian introduced student life and academic environment as stressful environment and considered attention to factors which promote students' mental health as important (19-20). Current study was conducted to evaluate the general health in students of School of Medical Sciences, Khalkhal.

**Aims of the study:** The aim of this study is to determine the general health status of students of Khalkhal Islamic Azad University.

## Materials & Methods

Current study is a descriptive – analytical research which was conducted on 478 students of Islamic Azad University using simple random sampling method in 2014. 51 questionnaires were excluded since they were filled incompletely, and analysis was done on data from 427 students.

Two-part questionnaire was used as research tool. First included personal – social characteristics of the respondents and second part was General Health Questionnaire (GHQ-28) developed by Goldberg (21). It identifies disorders with duration less than 4 weeks.

The General Mental Health Questionnaire with 28 items (GHQ-28) was employed in this study. The GHQ-28 as a self-report instrument was designed for the detection and assessment of individuals with an increased likelihood of current psychiatric disorders. The GHQ-28 has four subscales: somatic symptoms (7 items), anxiety and insomnia (7 items), social dysfunction (7 items), and severe depression (7 items). The existence of four subscales permits analyses within the subscales and this is an additional advantage of the GHQ-28 scale over other versions of questionnaire. Every area is composed of 7 items and the whole questionnaire includes 28 items. Items for each sub-scale comes consecutively, so that items 1-7 are related to physical symptoms sub-scale, items 8-14 are related to anxiety subscale, items 15-21 are related to disorder in social functioning subscale, and items 22-28 are related to depression subscale. Four-point Likert scale was used for scoring items (no=0, low=1, sometimes=2, and most often=3). Total score of the tool is between 0 to 84 and score of each subscale varies between 0 to 21. Higher score in each scale shows non-optimal status of the subject. Also, in order to determine extent and severity of the health in subscales,

following scores was used: 0-6 = none or minimum, 7-11 = mild, 12-16 = average and 17-21 = severe. Regarding total score, 0-22 = none or minimum, 23-40 = mild, 41-60 = average, and 61-84 = severe. Reliability of General Health Questionnaire was reported as 0.92 by Nazifi *et al.* (2013) using Cronbach alpha (22). Data collection was done using face-to-face interview by a trained interviewer. Prior to data collection, purpose of the study was explained and oral consent of the subjects was taken.

**Data analysis:** Following data collection, data were analyzed using SPSS software 13 and descriptive statistics and ANOVA test.

## Results

The Mean and SD for age of subjects was  $82.22 \pm 4.49$ . Majority of the subjects were single (80.2%), and female (53.1%) and did not live in dormitory (47.3%) (Table 1).

**Table 1) Personal – social characteristics of students participated in the study**

Variable	N(%)	
<b>Gender</b>	Male	199(46.7)
	Female	22 (53.1)
<b>Residency</b>	Dormitory	199(47.3)
	Non-Dormitory	221(53.7)
<b>Marital Status</b>	Single	333(80.2)
	Married	79(19.0)
	Widow	1(0.2)
	Divorced	2(0.5)

Mean and SD for general health score and subscales of physical performance, anxiety, social functioning and depression are given in Table 2. Findings show mean of total score of general health in the subjects was above cutoff (23). Considering cutoff point as 6 for subscales of the questioner, highest mean score was for social functioning (8.1) and lowest mean score was for depression (5.22).

In terms of mental health, 135 ones (46.6%) had no problem, and 93 ones (21.8%) has average and severe problem. Regarding subscales, 28 ones (6.6%) had severe depression, 13 ones (3%) had severe social functioning disorder, 26 ones (6.1%) had severe anxiety, and 16 ones (3.7%) had severe physical functioning disorder.

**Table 2) General health status and subscales of questionnaire based on frequency and percent**

Dimensions	health status	N(%)
<b>Somatic symptoms</b>	none or minimum	232(54.3)
	Mild	134(31.4)
	Average	45(10.5)
	Sever	16(3.7)
<b>Anxiety and insomnia</b>	none or minimum	214(49.9)
	Mild	119(27.7)
	Average	68(15.9)
	Sever	26(6.1)
<b>Social dysfunction</b>	none or minimum	143(35.5)
	Mild	198(46.4)
	Average	73(17.1)
	sever	13(3)
<b>Depression</b>	none or minimum	291(68.1)
	mild	62(14.4)
	average	46(10.8)
	sever	28(6.6)
<b>Total</b>	none or minimum	199(46.6)
	mild	135(31.6)
	Average	71(16.6)
	Sever	22(5.2)

Table 3 gives mean and SD for total score and subscales of general health in terms of both genders. Mean total score of general health and mean of score of all subscales in female students is significantly higher than male students. Considering 23 as cutoff point for total score and 6 for subscales, female students participating in this study are problematic in terms of general health, social functioning, anxiety, and physical functioning. Also, mean score of general health and all its subscales except depression shows significant difference in both genders.

**Table 3) Frequency of general health score and subscales based on cutoff point**

Dimensions	health status	N(%)
Somatic symptoms	Yes	198(46.4)
	No	229(53.6)
Anxiety and insomnia	Yes	186(43.6)
	No	241(56.4)
Social dysfunction	Yes	93(21.8)
	No	334(78.2)
Depression	Yes	275(64.4)
	No	152(35.6)
Total General Health Questionnaire	Yes	210(49.2)
	No	217(50.8)

**Table 4) Mean and SD of total score of general health and subscales in terms of both genders**

Dimensions	health status	Mean ± SD	P-Value
Somatic symptoms	Female	7.5(4.4)	0.01
	Male	6.2(4.5)	
Anxiety and insomnia	Female	8.1(5.2)	0.01
	Male	6.8(4.8)	
Social dysfunction	Female	8.9(3.9)	0.01
	Male	7.9(3.6)	
Depression	Female	5.6(5.9)	0.32
	Male	4.9(5.4)	
Total General Health Questionnaire	Female	30.2(17.0)	0.01
	Male	25.9(15.5)	

## Discussion

Current study's findings showed 52.8 percent of students have disorder in general health, which is above figures reported by Mehri (39%), Momennasab (35.3%), Asadi (46%), Karami (48.3%), Lotfi (35.4%) (12,23-26). However, it is consistent with findings by Hussein (51.8%). In the studies by Mohammadi and Kapour, 19 and 34.4 percent of students were in poor mental health status (27-29).

The study Mehri in Sabzevar showed 35.9 percent of subjects had disorder in physical functioning which is smaller than findings in the current study (53.6%). However, in anxiety area, 56.4 percent of students were in poor status which is not consistent with findings by Mehri in Sabzevar (57.8%) and Esfandiari (10.3%) (23,30).

In social functioning area, 78.2 percent of students had disorders which is smaller than reports by Esfandiari in Birjand (9.1%) (30). In the current study, 36.5 percent of students were suspected to depression, while in the study by Mehri, 23.7 percent of students had depression (23).

Findings in the current study showed there is statistical significant relationship between general health score and all its areas except depression. Mean of total score of the questionnaire and all its subscales is higher in girls compared to boys. In other words, general health of the girls is lower than boys, which is not consistent with findings by Esfandiari, Dastjerdi, Baghiani Moghadam, Lastovika, and Lopez (30,103-33). However, findings by Mehri showed the relationship between gender and anxiety is significant and anxiety is higher in men (23).

Considerable part of the population in our country is consisted of youths. Youths especially students suffer from various mental pressures and they are highly vulnerable to mental harm. Anxiety, depression, physical problems and generally lack of health influence learning. In the study by Abasabadi, inverse significant relationship was observed between anxiety and academic achievement (35). Thus, considering status of mental health in the students under study, necessity for planning in the University for Improvement of mental health status in students is felt. It is suggested recreational and consulting programs are

considered for students vulnerable to mental disorders such as depression and anxiety.

Lack of considering academic grade point average of students and lack of investigation of relationship between mean and mental health are limitations in the current study. Thus, it is recommended grade point average and academic major are studied in the future studies.

## Conclusion

Findings in the current study showed mean score of general health in the students is high and female students have lower general health compared to male students.

## Footnotes

### Conflict of Interest:

The authors declared no conflict of interest.

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