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The Evaluation of Nursing Students' General Health and Its Relationship with Their Grade Point Average

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Authors' contributions

This work was carried out in collaboration between all authors. Authors Zahra Ayazi and SMA designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors MM, Zohreh Amiri and RM managed the literature searches, analyses of the study performed the spectroscopy analysis. Author JM managed the experimental process and author RM identified the species of plant. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: Developments of any society are driven by a trained staffs and identify the factors affecting academic performance improvement is a step towards success in the community. Students are also required dynamism and promote community and assessment of their general health status, is an essential element in the community health program. This study was designed aimed to determine the evaluation of nursing students' qeneral health and its relationship with their grade point Average.
Materials and Methods: This cross-sectional study was conducted in 1391 with collaboration of

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127 nursing students in Shahrekord University of medical sciences, after earned a grade point average, completed personal information, and the standard general health questionnaire (GHQ-28). Data were analyzed with used descriptive and inferential statistical tests in SPSS software (version 19) at P≤ 0.05 significant levels.

Results: Results showed that the general health of 28.6% of students were normal, 51.4% relative health and 20% unhealthy. In this regard, the general health of male students was better than female. The highest prevalence of disturbances was depression and then sleeps disorders, anxiety, physical and psychological, and social dysfunction. Factors such as marital status and employment status were significantly related to students' general health status. In this study there was a significant negative correlation between general health and the average score of students (P= 0.001). Senior students (forth-year), has the highest grade point Average and third-year students, with the best general health status.

Conclusions: The results of this study showed that, students with high academic performance in comparison to other students had better genaral health. Therefore, it should be more concerned to plan the high quality education for promoting life skills and designing communication programs for increase the support activities of families and authorities for psychological assessment and promote their general health.

Keywords: General health; grade point average; nursing student.

1. INTRODUCTION

One of the aspects of community health evaluation is community general health that plays important role in ensuring the dynamic and efficiency of any society. That is, behavior consistent with community, accepting the social realities, and adaptability that has a crucial role in improving the health of the community; Thus, disruption of general health, especially students, have adverse effects on human health [1]. Entering in university is one of the critical periods in the lives of active and effective Young people in any country and often is accompanied by many changes in social and humanity relations [2]. During the collegian period, all students, especially medical students, due to the necessity of coping with stress and cope more appropriately, should be more self-reliance and healthy for Increasing success in order to achieve higher education and promoting professionality. Personality traits, educational and social requirements of university and socio - economic factors, can be considered as intervening variables on their academic status [3]. Students through academic success can be achieved in a situation with using the maximum internal and external resources to achieve the goals of higher education and to achieve the necessary conditions for a successful social life, conversely, lack of academic success, lead to personal and social problems that predisposing the deviation from goals of high educational system [4].

The prevalence of general health disorders in developed countries is 10-12 percent that regardless to its' severity have been identified as one of the major reasons for the expulsion, academic failure, and dropout students [5]. The World Health Organization has predicted that mood disorders will be the second most common disease in the world in 2020 [6]. Emotional and psychological disorders are the important factors increasing the risk of disability and reduced quality of life in all societies. The World Health Organization estimated that one out of every four people, In other words 25% of the world population, Suffer from mental, behavioral, and neural disorders [7]. A large demographic Research during the past decade has identified that issues and problems in the general health field as major problems follow with much financial burden. According to the World Health Organization statistics, the prevalence of general health problems in developing countries is increasing; whereas in the economic and social development planning, the lowest priority is given to them [8].

According to the Control of Diseases Center, 7.8% mens and 12.3% of women with aged 24-18 years suffer from mental health problems, particularly depression [9,10]. While these ages, the timeframe in which students are studying. Increasing in admition of students to the psychological counseling wards, indicate increasing psychological, social, and education problems [11]. Prevalence and severity of mental health problems in students towards non-student population has increased, which may be due to greater awareness and greater access to counseling services. Studies have reported that 46% of male students and 64% females suffer

from anxiety, 12% of male students and 15% females suffer from depression [12,13].

Since the general health of medical students, Because of the stressful nature of study field and continuous contact with patients are important, takes an enormous emotional and mental issues in this group, Considered important and should be addressed [14,15]. Stressful situations can create a barrier to student's education and affects revenue. And thus makes it difficult to achieve the goal of higher education. Scholars believe that stress as one of the main factors that affected physiological and psychological dimension of health and cause 50 - 80 percent of diseases [16]. Anxiety, depression, health problems, and overally poor health are effective in loss of individual learning [17]. In some research has been identified Inverse correlation between the levels of latent, apparent anxiety, and the rate of academic progress [18].

Pavuluri and colleague evaluated general health of the students and declared that mean score of general health in medical students higher than the others that Indicating psychological disorders are more important [19]. Hashemi 2004 in their study with evaluation of 516 students' general health showed that 11.8 % of them had not desirable general health [14]. Shariati and his colleagues in 2004 with a study on 460 medical students reported 42.6 percent mental disorders in them that prevalence disorders was significantly with sex, marital status, and socioeconomic status [2]. Sadeghian and colleagues 2005, reported mental health status of 180 medical students that almost one third of students are susceptible to mental disorders [20].

As can be seen, the Prevalence of general health disorders level is high and many factors affect this rate. Students are the most susceptible segments of society and many of them will be the planners and managers of the future. However, these students, through their education and profession are faced unhealthy Individuals with physical or mental disabilities, the problem is more serious and more danger will threaten them. Most Individuals in this group are nursing students among the various medical professions had the highest contact with patient and perhaps they will effects. Litratures have been reported that the prevalence of general health disturbances in nurses' population 48.8% verses the general population (33.3 percent) [21]. Al-Kandari et al. study on Correlation of the health-promoting lifestyle, enrollment level, and academic performance of College of Nursing students in Kuwait. This descriptive study of 224 nursing students assessed their health-promoting lifestyle profile and correlated it with the levels of enrollment in nursing courses and academic performance. A significant correlation was noted between students' nursing enrollment and level of health responsibility [22].

Awareness of students' general health status and identify those at risk and vulnerability to suicidal attempt and drug abuse, can help universities' responsible and planners in providing the most effective prevention programs and intervention to provide and promote their general health [23]. Given the importance and sensitivity of the student period and consensus on this fact that Health concept can be important role in influencing their future educational and social status of students, this study was conducted aims to determine the level of general health and its relationship in grade point average of nursing students.

2. MATERIALS AND METHODS

This study was Cross-sectional and descriptive - analytic study, with participation of 127 students of Nursing and Midwifery, Shahrekord University of Medical Sciences in 2013, by census method with a desire to participate in the research (119 samples, 93.7% of full completed scale) were selected for the study. (Students who have been admitted beginning of the study at the Shahrekord University of Medical Sciences and mental health of them has been approved by the counseling center of university).

The data collection tool was the standard genreal health questionnaire that included 28 questions. This questionnaire is based on self-reporting methods in a series of clinical diagnosis, are used to trace those suspected of mental disorders. The main purpose of this questionnaire, is not attain to specific diagnosis of mental illness hierarchy, But the main purpose is creating a distinction between mental illness and health. The questionnaire included four 7-item sub-scales: somatization symptoms, anxiety and sleep disorders, Social dysfunction, and major depression. This questionnaire is graded as negative; thus high scores on this scale indicate greater impairment of the general health of individuals. Scores on each scale down from 6 and up to 22 indicate pathological symptoms. According to the cutoff point of 23, generaly students who obtain a score less than or equal to

23, as healthy and those scores were more than 23 have been unhealthy. Therefore, the total score will vary from zero to 84 [24,25]. More than 70 studies have been conducted in the world on the validity of this instrument. Williams Goldberg 1979 meta-analysised these studies and showed that, the mean sensitivity of the questionnaire (GHQ28) was 84% (range 77% to 89%) and mean specificity was 82% (between 78% and 85%), respectively [25]. Noorbala et al. [26] sensitivity and specificity of this questionnaire in the best cut of point, namely 23, respectively achieved 70.5% and 92.3%. Taghavi reported the reliability of this questionnaire wit used split-half method and Cronbach's alpha as 0.93. The correlation between the subscales of the questionnaire scores has been 0.72 to 0.87 [27].

Initially stated research objectives and students satisfaction, the questionnaire was given to each student and at the presence of the researcher researcher in the university or health centers was completed with careful monitoring of the filling in the questionnaire to avoid response bias. After completed the questionnaire, with considering the importance of correct responses achievement such as academic year, grade point average of 2012-2013 academic year, academic record (conditionally or higher ranked on the first and third grade students with visited of the university education) were received and recorded by the researcher. Data were analyzed by SPSS software version 19 by descriptive, Independent T_Test, and ANOVA test for compare groups mean. Chi Square and Logistic Regression analysis were used to analysed qualitative variables. The Pearson correlation coefficient were considered to examine relationships in significance level (α) at P<0.05.

3. RESULTS

Grade point average of students determined in the three groups under 12, 16-12, 16, and above, that Indicating students who have a grade point average below 12 health, their status are unhealthy (Table 1).

The individual, family, and academic research samples, Students aged between 18 and 25 years, with mean ± SD was 21.08±1.4 in female students with mean ± SD 20.97±1.27 and the male students with mean ± SD 21.27±1.6, respectively. Parents of 90.2% students were alive. 46.7 percent of the students were the second child of the family and none of the samples did not mention physical disabilities. The mean and standard deviation of students' general health participated in the study, was 30.39±14.2 respectively. General health score at 28.6 of students was less than or equal to 23% as healthy, and score of 51.4% with 37-23 score as relative health and 20% of them was the above 37 and was unhealthy. Accordance with the contents of Table 2, Independed T-Test test showed that General health status in male students with scored 29.29 scored was better than female students with scored 31.04; However, this difference was not significant (P=0.5). Also, the mean and standard deviation of general health in married student with a score of 19.57 is better than single students with a score of 31.07; this difference was significant (P=0.03).

Table 1. Mean±SD of students' general health according to their grade point average

Grade point average	Number (%)	General health (Mean±SD)
<12	4(3.36%)	43.5±10.63
12-16	70(58.82%)	31.02±15.24
>16	45(37.82%)	28.24±12.16
Total	119	30.39±14.2

ANOVA test showed that, **in** Residency status of students with very little difference, Students living in university house with the general health score 29.66 Compared to students lived in parents houses with in te general health score 29.96 And lived in a dormitory with 31 general health score, Had better general health status, Although this difference was not statistically significant (P=0.92). The test Independed T-Test showed that The mean score of the general health of the students (8%), regardless of job type (full-time, part-time and hourly) with General health score (17.77) Indicates a better condition than students who just studyed and their general health scores were (31.3); this statistically differences was significant (P=0.003). Although the absence of parent can influence the general health status But in this study, ANOVA test showed that, Students who have lost their mother, have poorer general health status (P=0.43).

Interesting point in the findings of this study was the impact of parental education on students' general health status as students who have parents with the underdiploma education with general health score (32.1) verses parents with diploma or bachelor, Had worse general health status (P=0.138). Students in this study was third

child in the family in terms of general health status score (30.54) was worse than students that the first or second child (P=0.4). The Independed T-Test showed that; Students during their study Even have been chosen a term as overriding student with score 28.09 had better general health (P =0.4). Another noteworthy study was the state of general health of students that had a semester of probation on their academic record; these students' general health score (23.1), was better than general health status of normalstudents (P=0.13); although there was no significant association the issues raised by the recent And according to the tables, only three factors such as marital status, employment status, and years of education was significant related to the general health. Logistic Regression Analyzing, Enter Model were used to eliminate the confounding factors, And grades and parent education remained as significant related factors with the general health (Table 2).

ANOVA test showed that **there was a** significant relationship between academic year and students' General health scores (P=0.001). LSD test were represent the difference between the third and fourth year students with first-and second-year students; however, there was no significant difference between the third and fourth year students (Table 3).

Table 2. General health average score's according the student's demographic variables

Variables		Number (%)	Mean ± SD of general health	Grade point average (number)				P. value
				Total	>16	12-16	<12	
Gender	Male	44(37.8%)	29.29±17.4	48	7	40	1	P=0.5
	Female	75(62.2%)	31.04±12.01	75	41	35	3	
	Total	119(100%)	30.39±14.20	127	48	75	4	
Married status	Single	112(94.5%)	31.07±14.04	120	43	73	4	P=0.5
	Married	7(5.5%)	19.57±13.2	7	5	2	0	
	Total	119(100%)	30.39±14.2	127	48	75	4	
Residency status	Dormitory	50(43.3%)	31±15.22	55	20	35	0	P=0.92
	Student House	3(3.1%)	29.66±15.5	4	3	1	0	
	Parent house	66(53.5%)	29.96±13.5	68	25	39	4	
	Total	119(100%)	30.39±14.2	127	48	75	4	
Job status	Employed	9(8%)	17.77±9.76	10	2	8	0	P=0.003
	Unemployed	110(92%)	31.3±14.7	117	46	67	4	
	Total	119(100%)	30.39±14.2	127	48	74	4	
Parents status	lived	107(90.2%)	30.27±13.8	110	42	66	2	P=0.43
	Father death	10(8.2%)	29.5±22.4	10	3	6	1	
	Mother death	2(1.6%)	49	2	1	1	0	
	Total	119(100%)	30.39±14.2	122	46	73	3	
Parents' education	<Diplom	71(62.2%)	32.1±14.6	79	30	46	3	P=0.138
	Diplom	43(33.9%)	28.7±13.7	43	16	26	1	
	Master and higher	5(3.9%)	20.4±10.8	5	2	3	0	
	Total	119(100%)	30.39±14.2	127	75	48	127	
Education history	Elite	22(18.1%)	28.09±12.4	0	0	23	23	P=0.4
	Noneelite	97(81.9%)	30.9±14.5	4	75	25	104	
	Total	119(100%)	30.39±14.2	4	75	48	127	
	Eventual	8(7%)	23.1±21.7	1	5	2	8	P=0.13
	Uneventual	111(93%)	30.9±13.5	3	70	45	118	
	Total	119(100%)	30.39±14.2	4	75	48	127	

Nursing students' grade point average and standard deviation was equal to 15.38±1.6 that the number was variable between 9.28 and 17.96. The mean grade point average of students in female was 16±1.48 that was better than male students. Mean grade point average of students in fourth year with a score of 16.74±1.6 was the best rather than other grades. Students with a grade point average below 12 [4] in the first year and most students with high grade point average as 16 (24 cases) were in the fourth year of study (Table 4).

In terms of general health status, the highest normal students were studied in the fourth year and the unhealthiest students were studied in the first year. Third year students were in the best condition with the general health as 21.95. The relationship between duration of study and grade point average of students was significant (P=0.001).

In evaluation of students' general health, major depression with mean and standard deviation of 5.36±4.1 had the lowest mean score and highest percent. The highest percentage of students (48%) suffered from major depression and in the later stages anxiety and sleep disorders, somatization symptoms and minimum problem was related to social performance with 92.8% of students were in the normal score. There were a significant relationship between the age and general health score, anxiety and sleep disorders, somatization symptoms, and social performance (P=0.001), but There was no significant relationship between major depression and age. Correlation between age and general health scores were significant with P = 0.001 and r =-0.44, and correlation with the grade point average and age was significant with P = 0.026 and r = 0.19 respectively.

Table 3. General health average score's according the student's grades

Educational years	Number (%)	General health scores	Range of score	P. value
1	43(33.8)	36.25±12.3	13-62	
2	28(22.04)	37.56±12.9	13-64	P=0.001
3	24(18.89)	21.95±10.0	2-46	
4	32(25.19)	23.3±13.3	0-49	
Total	127(100)	30.39±14.2	0-64	

Table 4. Mean of grade point average (GPA) according to student's grade and sex

Year of education	Gender	Number (%)	GPA number				Mean ± SD of GPA	P. value (Year of education and GPA)
			<12	12-16	>16	Total		
1	Female	28(22.1%)	3	17	8	28	17.15±1.76	
	Male	15(11.7%)	1	13	1	15	14.25±1.45	
	Total	43(33.8%)	4	30	9	43	14.79±1.6	
2	Female	16(13%)	0	6	10	16	16.06±1.2	
	Male	12(9.4%)	0	11	1	12	14.28±1.01	
	Total	28(22.4%)	0	18	10	28	15.27±1.43	
3	Female	15(11.7%)	0	10	5	15	15.82±0.84	P=0.001
	Male	9(7.1%)	0	9	0	9	14.01±1.3	
	Total	24(18.89%)	0	19	5	24	15.14±1.3	
4	Female	22(17.39%)	0	4	18	22	17.01±1	
	Male	10(7.87%)	0	4	6	10	15.08±2.2	
	Total	32(25.19%)	0	8	24	32	16.74±1.6	
Total	Female	81(62.2%)	3	37	41	81	16±1.48	
	Male	46(37.8%)	1	37	8	46	14.3±1.5	
	Total	127(100%)	4	75	48	127	15.38±1.6	

To examine the relationship between general health students and their grade point average, the correlation between the grade point average all subjects and general health scores was calculated with used Pearson's correlation coefficient. The correlation between grade point average and scores of general health subscales, scores indicate a negative correlation statistically significant difference between grade point average score with physical symptoms and social performance of nursing students. The relationship between grade point average, social dysfunction and somatization symptoms was significant, but this relationship was inverse with correlation coefficient -0.183 (P=0.04) for social dysfunction and correlation coefficient -0.21 (P=0.018) for somatization symptoms. But on the subscales of anxiety and sleep disorders with coefficient -0.032 and depression with coefficient -0.166 the correlation were Inverse but not significant. Overaly The results showed significant negative correlation between participants grade point average scores and General Health scores (P=0.05). In fact grade point average and general health score was inversely correlated with -0.18 coefficients. With considering that the low score of the questionnaire is more representative of the general health, the results indicate that Students with high academic performance compared to students with lower academic performance had better general health.

4. DISCUSSION

The mean score of general health of students that participated in the study was 30.39±14.2, respectively. General health score of 28.6% was less than or equal 23 as healthy and 51.4% in range 37-23 as relative health and 20 percent had high score and more than 37 as unhealthy. These scores are not improbable in the majority of these students with regard to the pressure of exams during the semester, because students are affected with particular stress to passing their courses. It has a very different variety compared with previous studies, as Daneshpajooh et al, determined mean score of students' general health 20.9±4.13 of 84 [8] and Ghamari with mean 26.46±11.43 and 47.2% of disorder in the general health [17], Rezai and colleagues 30.6% of the students [28] and Mossalanejad et al. [29] reported 20.6% of the students suffered from psychological disorders and 3.7% of the significant mental disorders. Zeighami and colleagues also showed that 63.6% of the students [30]. And Ahmadi have reported 66.1% of nursing students and 62.2% of other students impaired theirs' general health [11]. Dadkhah also mentioned that 28.1 percentages of students suspected mental disorder [31], in this regard Hosseini et al, reprted that 40.43% of medical students and 37.95% of paramedical students exposed to the risk of mental health disturbances [32], Adham et al. [33] and Nabavi et al. [34], in their studies' also mentioned that 22.7 and 19.5% of the students suffered from mental disorder respectively. Soleimanizadeh et al. [23] evaluated the relationship between education stressfull factors and mental health of nursing students And Stated in their results that 28 percent of them had psychological disorders.

Hosseini et al. [32], in their study with evalution of 212 students' general health and related factors showed that 43.1% of the students suspected to mental health disorders So that mean of General health scores was 24.21±1.58 respectively. Mentioned differences in the percentage of mental disorders could be due to differences between the tool and the contexual conditions (personal, social, economic, and cultural) As well as the awareness of the disorder and the level of available consultation services.

Evaluation of the studies, show that the prevalence and severity of general health associated problems increase in students, which may be due to greater awareness and access to consultation services. With attention due to this fact that the medical students in the future will be responsible for the management of the community health, understanding of general health issues and problems that could compromise general health of them is essntial. However, the high percentage of general health problems in the present study require More attention of university authorities' in the field of students' general health and emphasis due to the high number of university students in general health disorders, pay attention due to university authorities' to activate the counseling centers are essential.

In determining the level of general health of nursing students in four subscales, The highest prevalence with 48%, were related to major depression And in the following subscales 44% were related to sleep disorders and anxiety, 32%, somatization disorders, and 7.2% were related to social dysfunction. Rezai et al, with evluation of the nursing students' general health, mentioned that the mean score of 28-GHQ subscales in first year students was down than

the forth years. In related to the subscale, Physical problems, anxiety and depression were significant [28]. The findings Mossalanejad studie's showed that the first years and forth years students had the greatest impairment in social functioning and depression [29] that inconsistent with the findings of the present study. Saki [1] and Rezai [28] in their studies showed that students had high social problems that did not match with our findings.

Research in the South Africa in 2005, showed that 14% of students had moderate to severe depression [10]. Also in 2003, London's Royal College of Psychology; Prevalence and severity of mental health problems among college students increased than non-students population And anxiety disorders from 1995 to 2000 has been increasing at a rate of 7% that in the females was 5 times more than males. Kitzrow [13] found that the symptoms of depression in medical students increase after entering the university. Sadeghian reported that 66% of students had severe depression, 11.7% moderate, and 30.6% mild depression And 1.1 percent of students with severe physical and psychological symptoms And 28.8% have mild to moderate symptoms that can be said their findings are consistent with the present subscales nearly [20]. Soleimani et al. [35] reported that the most disorder was major depressive with 22% and then 13% anxiety and sleep disorders, 11% physical and psychosomatic disorders and Finally, 8% have been discussed related to social dysfunction, which is in perfect homogenous with the present study findings. Mental disorders in various scales can indicate the importance of education and conditional factors on students. Anxiety is the most important factor that based on the theory of psychoanalysis is the cause of all mental illnesses and the result of frustration or stress. In the other hand, another common cause of confusion and slow recovery in physical illness is depression [29]. It seems that the high mean scores of depression and anxiety in student's related to financial difficulties, burdensome lessons, concerns about future Such as job insecurity, personal concerns in relation to marriage and demand to provide the life necessity and university environmental stress, adaptation with dormitory condition, and away from family.

In this study, general health status evaluated with demographic and academic grade point average and was compared with the findings of other studies. Male students rather than female students married rather than singles, student residence in student Houses rather than dormitory residents and parents Housing and employed than non-working students were in better condition in the terms of the general health status. The general health of students that their parents' education had bachelor or higher, or was the first child or a semester had been introduced as a elite student also had a more favorable situation.

By the same token, Rezai [28] and Ahmadi [11] mentioned no significant relationship between general health and demographic characteristics, including: Age, marital status, years of education, daily course or night, state of residence, alive parent, educational status, level of parents' education, family socioeconomic status, and students' status in the family. But Shariati et al. [2], has been proposed that the mental disorders had a significant relationship with sex, marital status, and economic status. Khaghani Zadeh et al. [36], with evaluation of the general health level of nurses, found that 43% of them had disorder and 57% were asymptomatic and mentioned that there was no significant correlation between public health and demographic characteristics such as marital status, number of children, and the satisfaction with the economic situation; But there was significant relationship between general health and the work experience variables andovertime and shift work.

The Essex et al. [37], studies' also revealed that the students' general health are decreases with age, marital status, celibacy, death of a parent, disabled, low interest to field of the study. In this study there was no difference between the sexes. Ghamari et al. [3], introduced variables such as educational level, interest in the field of education, ensure the future, mental - emotional disorders - including the factors that affect the academic success of students, But mention that there was no significant relationship between the variables of marital status, gender, satisfaction from roommate, site of university, and general health level of students.

Adham also examine the mental health status of the entering Ardabil University of Medical Sciences students in the 2007-2008 educational year, did not report significant differences in mental disorders between male and female students and showed statistically significant relationship between the Father educational

degrees, family members and maternal employment (P=0.05) [33]. Nabavi et al. [34], in the new entering student of the university revealed that increasing parental education levels reduced mental disorders levels. Soleimanizadeh with evaluation of the nursing students' general health reported that the level of psychiatric disorders in female students with 28.9% was more than the boys with 26.5 % [23].

In the present study, students aged was between 25-18 years and had significant relationship with general health score and psychosomatic - physical disorders, anxiety and sleep disorders, and social functioning; but was not statistically significant between depression and age. With increasing age, the general health of nursing students decreased; this result indicate that the general health is better and this point that should be considered. The reason of improved general health with age, are probably due to the students' accustomed, student academic environment, away from their families, and becoming a student. In this regard, Ahmadi et al. [11], indicated that the general health of students over 24 years are much less than the other students. According to the CDC, 7.8% males and 12.3% of women between 24-18 years suffer from mental health problems, particularly depression. Roberts and colleagues also suggested that Suicide has increased in age 25 and above Students older than 30 years more than others go to counseling centers [10]. Noorbala et al. [26], assessed the general health status of the people over the age of 15 years, and mentioned that the prevalence of mental disorders is significantly correlated with age. Benjet et al. [38], also stated that mental health problems increase with age and educational level As was mentioned previously, compatibility with the lives of students and studing could be an important factor in promotig general health. Findings of this study indicate that general health status of male students with 29.9 points was better than female students with 31.04 points, but the difference was not significant (P=0.5), that convergent with the Dadkhah study [31] and other studies, statistically significant association was not found between gender and general health [47-8-31-30]. Rezai mentioned that the general health problem in female students was prevalently [21]. Daneshpajooh et al. [17], stated that general health score of women was lower than men with no statistically significant difference. But Mossalanejad reported that female students had more dysfunction in general health, but he did not mention the significant difference [29]; Although Adham et al. [33], in their study stated that unmarried female students than married male students had better overall health status.

Hosseini et al. [32], also believe that female students' general health scores have better than boys and there was significant statistically between mental health and sex (P=0.01). While National Mental Health Association with evaluation of the American students' general reported that female students have experienced higher rates of psychiatric disorders than male students [10]. As well as in the Moss study, mens' general health was better than women [39]. Shariati [2] and Sadeghian [20] have mentioned that the general health of the students had a significant relationship with gender and marital status; which is consistent with present study findings.

It seems that girls than boys on the face of stress are more vulnerable and dependent to their families and in terms of psychologically and emotionally are more sensitive than boys, therefore suffer higher stress disorder [6].

In this study, married students with average general health score of 19.57 were better than single students with score of 31.07 and this difference was statistically significant (P=0.05) that is consistent with shariati studies' [2]. Mossalanejad study results' divergent with the present study were indicative that the rates of depression among married students was more than unmarried [29].

Sadeghiyan et al. [20], from personal factors examined, was reported that marital status with P≤0.05 has significant relationship with general health scores. In Saki research, in relation to Students' marital status, married women had better general health than married men [1]. From the findings of this study can be inferenced that Marriage or a marriage status determination, with resolving the ambiguities of the future and the subjective perceptions of students, reduce their concern and has made a positive impact on their general health status.

From the other demographic characteristics, Students' Job situation was significantly associated with the general health (P=0.003). Although the Employed students were outnumbered (8%), but the general health score of them was 17.77 compared with non-employed students with 31.3 score, is considerable. Rezaei

reported that there was not significant relationship between general health and economic status and working conditions of the student and his family [28]. While Shariati et al. [2], has been repoted that there was a significant relationship between the prevalence of mental disorders in students and their economic situation. Ghamari et al. [3], in their studies showed that 92 percent of students who are confident about the future, they are successful. According to The explanations and arguments that presented previously, can be concluded that, when employed students enter to the community outside the campus, the work environment and job security for themselves were pleasant and with enough subservient, their future is hopeful and mental health conditions are more favorable.

With the evaluation of the residency status, Students who have been living in a student house with general health score 29.66 were more favorable mental health status versus students living in dormitories with general health scores 33 and students resident in parents' houses with score of 29.96; Although this association was not statistically significant relationship (P=0.92). Akhavan Tafti et al. [40], have reported no significant relationship between academic performance and general health status of dormtory students and off-dormtory students. Farahbakhsh and Ahmadi in their researches were discussed that there was no significant relationship between students' residency and their general health [11,41]. Bao also showed that dormitory students are the least general health that indicated Iranian students from different cultures and emotions are different compared with foreign counterparts [42]. On the other hand, Dadkhah in its investigation mentioned that student accommodation was significantly associated with their general health status; that is inconsistent with the findings of the present study. He also, in his study reported that the health of native students were better than non-native students [31]. Perhaps student residency independently (Student House - Leased) due to less involvement with other students in the dorm or other family members, provides a higher cause of general health, although this kind of life has its own problems. Although it is not ignored that the important of improving student residences, in order to promote physical and mental health of students.

Parental status, has significantly influence on students' general health but in the present study, students who have experienced the death of mother, has been worseen general health with scores of 49 compared to students their parents are alive or father has died; Although this variable was not significantly associated with general health (P=0.43) But can not ignored the life stress of the absence of parents in the education and general health; and this effect is strong in the absence of the mother. Adham et al, stated that no there was no significant relationship between special stress in students' life like as death of a parent, divorce, and accidents on general health, However, students with special stresses of life, especially the death of a parent, have low quality in general health [33]. Also, Moss in their study showed that Emotional life have a negative influence on general health [39]. And one of the greatest excitements lives that have negative effects can be seen as the absence of parental support.

One of the factors affecting general health can be level of education of students' parents. In this study, the students those who had parents under diploma, their general health score were 32.1 that Lower than students with Parents that their education levels were licensed or higher. In Logesstic Regresion analysis, this variable was significantly related with general health (P=0.01).

Ahmadi in their researches did not show the significant relationship between the levels of general health of students and their parents' education [11]. It should be noted that, as educated people often followed by providing better conditions for their own mental health, would be followed to provide such circumstances for their children and families.

The effect of the numerical position of a student in the family, in this study, students who were a third child with general health score 30.54 than students, whose were been in first or second child of families, Had lower general health status; Although this variable was not significantly related with general health (P=0.4). Adham et al, in their stydie's mentioned that there was no significant relationship between family members and general health; these findings confirm the results of the present study [33]. Based on these results, Perhaps students are as the first or second child in their families, Because of the families' attention due to paid to their children, have better general health status, live in greater comfort, and have higher general health.

In this study, Educational experience of students was evaluated in the two sections of elite and the non-elite, uneventual and eventual students and

the results showed that students in the study have been chosen as elite during a semester, with general health scores 28.09 were in better condition; However, there was no significant relationship between educational background regarding the elite student and general health (P=0.4). Also, students those who have an eventual semesters, although limited in number (7% of samples), contrary to the impression, with the general health score 23.1 were higher status than uneventual students. Also to examine this hypothesis that may be uneventual students identical were the students are employed and married, findings were re-evaluated, however, the information gained that from the 7% of uneventual students, only 1% of them were married and employed, this hypothesis was rejected and there was no significant relationship between students' general health and uneventual condition (P=0.13).

Daneshpajooh et al. [17], disappointed that the self-esteem and general health of uneventual students were significantly better than eventual students; it is important to note that, some features of eventual students affects the academic status as same as their self-esteem and general health. Factors such as: family problems, family chaos and economic - society problems those have negative effects on their academic efficiency.

Zeighami et al. [30], believes that defeat, educational failure and eventuation of students will be reduced general health. Achievement can be one of the challenges of student life and students, who encountered for various reasons with defeats and academic failure, are more susceptible to fatigue and emotional exhaustion than the other students and these factors block the activation and work of coping and consequently this in turn could jeopardize the general health.

In the present study, fourth-year students with academic grade point average of 16.74 were better than the rest of the other years, the students in the second, third, and first year were earned in the subsequent positions Grade Point Average, respectively. It is noteworthy that the students with grade point average below 12 (4 cases) were in the first year and the most students with grade point average high than 16 (24 cases) were in the fourth year of study.

In terms of general health according to compared to the years of education, third year students the with general health score 21.95 were in the best position and fourth, first, and second-year students were the next positions. The possibility that earn higher grade point average of students in the fourth year is related to practical training and internship courses of this year that students evaluate operationally and acquires higher scores than students in the lower years that involved to the theoretical courses. Farahbakhsh contrast with the results obtained in this study believes that the third year students than the first second and fourth year students have lower general health [41].

Rezaei et al. [28], in their researches stated that, 30.6% of all students (first and last) had mental disorders among which 65.4% of individuals with disorder last year and the rest are in the first year of college studying. Mossalanejad et al. [29], evaluated the impact of the vulnerability on general health of the first and last year students of Jahrom Medical University, has mentioned significant relationship between general health in terms of physical problems, anxiety, and depression (P<0.05) Which can indicate the importance and impact of education on students. In this evaluation, there was a negative significant correlation between general health of the students and their academic grade point average, (P=0.001), respectively. Students with higher academic performance compared to the others had better general health scores. Akhavan Tafti believed that coming down of general health is also reduced academic performance [40]. Zeighami also showed that; when the general health of the student's incresed and somatic symptoms, anxiety, insomnia, and depression decresed, their overall academic grade point average has increased [30].

Khaghanizade et al. [36], reported an inverse significant relationship between academic achievement and mental health in Shiraz University student's at significant level of P<0.001. Ghamari also stated that there is a significant negative correlation between the scores of general health, physical health, depression, and academic achievement of their students, however, no significant correlation was found between grade point average and student anxiety scores and social functioning [3]. Struggle to enhance general health in order to promote students' academic achievement with coordination by the University authorities is essential. Also eliminate the factors that are affecting the psychiatric disorders and have influence on the students' academic achievement, have high particular importance in promoting the general health status of students.

From the limitations of this study can be cited the limited cases; Thus, the generalizability of the results should be considered with caution necessary. Therefore, it is suggested that, researches conduct to investigate the influential factors on the pathology of this condition.It also requires that efforts occurs towards promote education and life skills, communication, time management, planning and dealing with the stress.

5. CONCLUSIONS

With regard to this fact that the best way to prevent of the problem, is prevention or early detection of that problem and on the other hand, Increase performance of mental health systems in the Universities is reduce problems and mental- social confusion in the students, atteantion due to the findings of this study indicate that a high percentage of impairment in students in general health, It is necessary to consult with psychologists, psychiatrists, and with the help of the authorities to take action to reduce the risk.

The results of this study can be considerd by the authorities and planners of ministry of health and medical sciences and attracte their view to the importance of planning for the prevention of mental disorders in students and health promotion for students to be considered. The importance of the counseling centers and completed the general health questionnaire during the students' enrollment and analysis of data for future planning and then periodically monitor the status of questionnaires completed by students should not be ignored.

CONSENT

It is not applicable.

ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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