Original Article

Study on the Relationship of Happiness, Ethical Climate, and Perceived Stress with Self-esteem of Nursing and Paramedical Students of Jahrom University of Medical Sciences in 2018

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Abstract

Background & Objective: Medical students should have adequate self-esteem to deal with stressful situations and have proper compatibility. Since self-esteem is affected by internal and external factors, the present study aimed to investigate the relationship between students' self-esteem with variables of happiness, ethical climate, and perceived stress at Jahrom University of Medical Sciences.
Materials & Methods: This correlational study was performed in the second semester of 2018-2019 and 316 students were selected by consensus sampling method. Data were collected using the Rosenberg Self-Esteem Scale, Oxford Happiness Questionnaire, Olson's Hospital Ethical Climate Survey, and Cohen's Perceived Stress Scale. Data analysis was performed in SPSS version 16 using descriptive and analytical statistics.
Results: In this study, the mean and standard deviation of self-esteem, happiness, ethical climate, and perceived stress were calculated at 4.06±4.45, 41.87±12.39, 91.28±13.81, and 26.39±6.33, respectively. A significant correlation between happiness (r=0.431, P<0.001) and perceived stress (r=-0.427, P<0.001) with the self-esteem of students was found. On the other hand, there was no significant relationship between ethical climates with the self-esteem of students. According to the multiple linear regression analysis results, happiness and perceived stress of students predicted 26% of the self-esteem variance.
Conclusion: Due to the relationship between students' self-esteem and the variables of happiness and perceived stress, it is recommended that programs be developed to increase happiness and decrease stress in students, so that their self-esteem could be improved.

Introduction

Medical students deal with stress in the hospital environment and patients' problems, which are among the specific problems of medical students, in addition to having common problems with non-medical students. Therefore, they are at risk of psychological health deterioration (1). In this regard, self-esteem has been recently identified as a basic component of psychological health (2). In general, self-esteem is an inner attitude at the root of the construction of the personality and psychic balance and demonstrates a person's ability to generate compatibility and value (3). Moreover, self-esteem is one of the most important operators regarding personality, behavior, motivation, and personal development (1). However, despite the undeniable impact of this concept on mental health, most studies have reported unfavorable self-esteem levels in students. For instance, In the study conducted by Azizi et al. in one of the universities of medical sciences in Tehran 56.5% of nursing students had low self-esteem (4). Megahed et al. also reported a low self-esteem level in nursing students of Saudi Arabia (5). Some studies have found moderate or good self-esteem

levels in students during the study. According to the results obtained by Ibrahim, most nursing students had moderate self-esteem (6). In another study, 91% of all nursing and midwifery students had high self-esteem (7).

Self-esteem is affected by internal and external factors; in this regard, internal factors are those that originate from the inside of the person, whereas external factors are environmental ones (8). Studies have detected a relationship between self-esteem and some negative concepts such as depression, anxiety, loneliness, and suicidal thoughts (9), and positive concepts including emotional intelligence (7) and academic achievement (10). In qualitative research, nursing students' low self-esteem, self-efficacy, and self-confidence, sense of unworthiness, and ineffective interaction with the instructor were identified as the factors affecting the decrease of the participants' self-esteem (11). Given the specific conditions of medical fields, as well as high dropout rates and low self-esteem and self-worth of students (12), it seems vital to better understand students' self-esteem and its relationship with different variables (11).

According to some studies, medical students' self-esteem negatively affected their stress during education, which also harmed their self-confidence and motivation to learn (13-15). Overall, stressful factors of medical students are divided into three categories of education, clinical and personal-social factors. McCarthy introduced clinical and financial issues as the main sources of stress for nursing students in the university. However, the clinical environment had the highest impact in this regard (16). According to the Lazarus stress theory, nursing students' stress in the clinical environment could be due to their different needs in clinical situations and their resources and ability to carry out their responsibilities (17). As observed in a study by Bartlett and Jun, nursing students had a higher stress level, compared to students in general disciplines (18, 19).

Besides, self-esteem was affected by the way people communicate with others (20). Ethical climate in clinical environments is a type of organizational climate that includes interpersonal relationships between the medical staff and physicians and relationships with patients regarding their care and support of patients by the medical staff (21). This issue is so important to students that, from their perspective, a proper environment is one where students are supported and accepted as young colleagues and members of the healthcare team (22). In research in Egypt, there was a relationship between students' self-esteem and their agreement on the educational environment (23).

Results of other studies have also shown a relationship between self-esteem and well-being indicators such as mental health (24) and happiness (25). Happiness is defined as the degree to which an individual judges the overall quality of their own life as a whole favorably (26) and is associated with positive consequences such as physical and psychological health, favorable performance, and entrepreneurship (27, 28). Increased happiness in people activates their immune system and affects various aspects of psychological health through influencing cognitive processes (29). Furthermore, happy people get more positive feedback from other individuals, which means that they are more successful in their interactions with others and have higher self-esteem as a result of that behavior (30).

However, despite the need to assess the factors affecting medical students' self-esteem, research is scarce in this area. The research conducted in this area has been performed on a specific group of students (e.g., nursing students), which has led to an improper understanding of medical students' self-esteem. With this background in mind, this study aimed to investigate the relationship between nursing and para clinical students' self-esteem with three variables of happiness, perceived stress, and ethical climate of the hospital.

Materials and Methods

This correlational study was performed in the second semester of the academic year 2018-2019 in

Jahrom University of Medical Sciences. Subjects were selected by sampling census method from nursing, anesthesiology, operating room, and medical emergency students (n=400), 316 of whom completed the questionnaires (79%).

The inclusion criteria were passing at least one clinical course in a hospital ward in previous semesters and not being a guest or transfer student. On the other hand, the exclusion criteria were unwillingness to participate in the research and incomplete questionnaires.

After receiving permission from the professor, the researcher referred to the classes of different groups of students and distributed the questionnaires following explaining research objectives and receiving consent from the participants. Notably, the completed questionnaires were returned in the same visit. Each questionnaire took 35-45 minutes to complete and the following instruments were applied to collect data:

The Rosenberg Self-Esteem Scale (31): includes 10 items with two agree and disagree options. In this regard, a positive response to each of the 1-5 items was scored (+1) while a negative response to these items was scored (-1). Notably, the items 6-10 were scored reversely. Therefore, a score of zero showed low self-esteem, whereas scores +10 and -10 demonstrated very high and very low self-esteem, respectively. The score range of the scale is -10 to +10 (32). The reliability of the scale was reported at a Cronbach's alpha of 0.77 (33). In the current research, the reliability of the scale was confirmed at a Cronbach's alpha of 0.723.

Oxford Happiness Questionnaire (revised): encompasses 29 multiple-choice questions scored from 0 to 3. According to the questionnaire's instructions, the highest and lowest happiness scores are 87 and 0, respectively. Besides, the normative score is in the range of 40-42 (34). In research, Alipour approved the reliability of the tool at a Cronbach's alpha of 0.91 (35). In the present research, the reliability of the instrument was confirmed at a Cronbach's alpha of 0.862.

Cohen's Perceived Stress Scale (PSS): encompasses 14 items and is scored based on a five-point Likert scale (0-4). Therefore, the score range is 0-56, and a higher score is indicative of higher perceived stress. The total perceived stress scores are divided into three ranges of 0-14, 15-28, and 29-56. The total score of this test shows students' perceived stress levels (36, 37). Alsuni and Latif reported the internal consistency of the scale at a Cronbach's alpha of 0.74 (38). In Iran, Asghari et al. confirmed the internal consistency of the scale at a Cronbach's alpha of 0.84 in a research population of 300 students. Moreover, the content and construct validity of the tool was confirmed by the factor analysis method (39). In the current study, the reliability of the scale was confirmed at a Cronbach's alpha of 0.732.

Olson's Hospital Ethical Climate Survey (HECS) includes 26 items in five fields of communication with colleagues (items 1, 10, 18, and 23), physicians (items 5, 9, 14, 17, 22, and 26), hospital (items 4, 8, 13, 16, 21, and 25), patients (items 2, 6, 11, and 19) and managers (items 3, 7, 12, 15, 20, and 24). According to the survey, people's perception of the ethical climate of hospital wards is scored based on a five-point Likert scale (1=almost never, 2=rarely, 3=sometimes, 4=often, 5=almost always). Therefore, the minimum and maximum possible total scores of the survey are 26 and 130, respectively. Also, the internal consistency of the tool was confirmed at a Cronbach's alpha range of 0.68-0.92 for five areas and 0.91 for the entire survey (40). It is worth noting that the survey was translated into Farsi by Mobasher et al. (2004) and had favorable reliability (0.92) (41). In the current research, the survey's reliability was approved at a Cronbach's alpha of 0.903.

Data analysis was performed in SPSS version 16 using descriptive (frequency, percentage, mean and standard deviation) and inferential statistics, Kolmogorov-Smirnov test (to assess the normal distribution of the data) (P>0.05), Pearson's correlation coefficient (to analyze the relationship between students' self-esteem and variables of happiness, ethical climate, perceived stress, and age),

Eta test (to evaluate the correlation between students' self-esteem and variables of gender, the field of study, marital status, accommodation status, and occupational status), Spearman's test (to assess the association between semester and students' self-esteem), and multiple linear regression test (to predict students' self-esteem based on independent variables of happiness, ethical climate, and perceived stress). Notably, P-value of 0.05 was considered statistically significant.

In this study, we adhered to ethical considerations by explaining the research objectives to the participants and ensuring them of the confidentiality terms regarding their personal information (anonymous questionnaire completion). Also, oral and written consent was obtained before the research. It is noteworthy that the current paper was approved by the vice-chancellor for research of Jahrom University of Medical Sciences with the ethical code of IR.JUMS.REC.1395.074.

Results

In this study, 60.1% of the participants were female and the mean age them was 21.99±2.53 years. Table 1 shows the demographic characteristics of the participants.

Table 1: Demographic Characteristics of Study Participants

Demographic variables		Frequency (percentage)
Gender	Male	126 (39/9)
	Female	190 (60/1)
Field of Study	Operating room	83 (26/3)
	Nursing	151 (47/8)
	Anesthesiology	63 (19/9)
	Medical emergency	19 (6/0)
Semester	Second	48 (15/2)
	Third	45 (14/2)
	Fourth	44 (13/9)
	Fifth	45 (14/2)
	Sixth	47 (14/9)
	Seventh	42 (13/3)
	eighth	45 (14/2)
Marital status	Single	254 (80/4)
	Married	62 (19/6)
Accommodation status	Family home	81 (25/6)
	Dormitory	225 (71/2)
	Student home	10 (3/2)
Employment	No	286 (90/5)
	Yes	30 (9/5)

According to the results, the subjects received a moderate score of happiness (41.87±12.39) and perceived stress (26.39±6.33). However, their self-esteem (4.06±4.45) and perception of the ethical climate of the hospital (91.28±13.81) were above moderate (Table 2).

Table 2: Mean and Standard Deviation of Ethical Climate, Happiness, Perceived Stress and Self-Esteem of Students

Variables	Mean ± Standard deviation	Maximum	Minimum
Ethical climate	91/28 ± 13/81	130	50
Happiness	41/87 ± 12/39	86	6
Perceived stress	26/39 ± 6/33	51	8
Self-esteem	4/06 ± 4/45	10	-8

The results showed a positive correlation between students' self-esteem and the variable of happiness (r=0.431, P<0.0001) while a negative correlation was found between the participants' self-esteem and perceived stress levels (r=-0.427, P<0.001). On the other hand, no significant correlation was found between the ethical climate of the hospital and students' self-esteem (Table 3). Similarly, we detected no significant correlation between students' self-esteem and demographic characteristics (Table 3).

Table 3: Relationship between Ethical Climate, Happiness, Perceived Stress and Demographic Variables with Students' Self-esteem

Variables	P- value	Correlation coefficient with self-esteem (r)	Eta correlation coefficient
Ethical climate	0.085	0.097	---
Happiness	P<0.001	0.431	---
Perceived stress	P<0.001	0.427-	---
Age	0.384	- 0.049	---
Gender	---	---	0.078
Field of Study	---	---	0.113
Marital status	---	---	0.108
Accommodation status	---	---	0.064
Employment	---	---	0.019
semester	0.560	- 0.033	---

According to the multiple linear regression analysis (enter method), the two variables of happiness and perceived stress predicted 26% of the variance of self-esteem (Table 4). The results demonstrated that an increased happiness score was associated with a higher self-esteem score (0.327) while an increase in the perceived stress score of the participants led to a decrease in their self-esteem (0.309).

Table 4: Regression Analysis to Predict Self-esteem in Students based on the Variables of Ethical Climate, Happiness and Perceived Stress

Predictive variable	B	SE	Beta	t	P-value
Constant	0.395	0.194	-----	2.042	0.042
Ethical climate	0.035	0.041	0.042	0.853	0.394
Happiness	0.327	0.054	0.314	6.012	0.001
Perceived stress	0.309-	0.051	0.315-	6.096-	0.001
0.523 a= R		0.274 = R2		0.267 = ADj.R2	

Discussion

The present study aimed to determine the relationship between paramedical and nursing students' self-esteem and variables of happiness, perceived stress, and ethical climate of the hospital. According to the results, there was a positive significant relationship between happiness and self-esteem of the students. Consistent with our findings, some studies have pointed out a correlation between happiness and self-esteem (42-44). For instance, Salavera et al. reported a positive significant relationship between self-esteem and happiness (45). Another study reported a positive significant association between students' self-esteem and variables of happiness and creativity (46). Azizi et al. researched 130 nursing students, reporting a significant correlation between self-esteem and depression. In other words, an increase in the self-esteem of students led to a decrease in their depression scores (1). This can be explained by the fact that being happy depends on how people feel about themselves, and people who feel high about self-worth and self-esteem are usually happy. This can be justified by the fact that being happy depends on how people feel about themselves, and people who have high self-worth and self-esteem are usually happy.

In the current research, there was a negative significant relationship between self-esteem and perceived stress of students, in a way that an increase in their perceived stress led to a decrease in their self-esteem and vice versa. In line with our findings, studies conducted on nursing students have shown a decrease in subjects' self-esteem due to their stressful experiences during the education and the high load of the programs (13, 47). According to Kumar et al., last-year nursing students had lower self-esteem and higher stress levels, compared to first-year students (48). Regarding the relationship between students' self-esteem and perceived stress, it could be explained that people with high self-esteem may use more adaptive self-regulatory strategies to deal with stress, which makes them experience less stress.

In the current research, we detected no significant correlation between students' self-esteem and the ethical climate of the hospital. Notably, no similar study was found in this regard. However, perceived ethical climate can indirectly affect students' self-esteem by affecting their perceived stress (49). According to Fry et al., the more unfavorable the ethical climate of the hospital, the higher the participants' perceived stress and associated complications (50).

According to the regression analysis results, two variables of perceived stress and happiness of students predicted 26% of students' self-esteem. In this respect, Bayat and Yaghobi reported that happiness and creativity justified 62% of the self-esteem variance (46). Studies show a relationship between psychological health and happiness. In other words, those who have a high psychological health level have a high level of happiness. Therefore, not only increased happiness leads to better psychological health, but also it lays the foundation for growth and development of people's abilities and talents, which results in higher self-esteem.

In the current study, we observed no significant relationship between demographic characteristics of the subjects (gender, field of study, semester, marital status, accommodation status, and employment) and their self-esteem. Meanwhile, Peyrovi et al. (51) reported a significant relationship between students' self-esteem and the variables of marital status and accommodation status. This lack of consistency between the results might be due to different married or native participants in the studies. Nevertheless, our findings are congruent with the results obtained by Peyrovi et al. (51) regarding the relationship between self-esteem and other variables, including gender, semester, and employment. In research by Hosseini et al. (52), there was no relationship between students' self-esteem and the variables of accommodation status, marital status, gender, and semester, which is consistent with our findings. It seems that factors

other than gender and semester or accommodation status had a relationship with self-esteem, in a way that both genders experienced this issue during the study. On the other hand, the lack of relationship between students' work experience and self-esteem could be due to its short period.

One of the major limitations of the present study was using the correlational method, which means that the discovered relationships cannot be assumed as causal relations. Another limitation was collecting data through self-report, which might have affected the final results due to a high number of tools and impatience of students. Furthermore, since the participants were selected from one university, the results cannot be generalized to other universities or students of other fields. It is suggested that further studies be conducted on other samples and fields.

Conclusion

Given the fact that the students' self-esteem was above moderate in the current research and those with higher self-esteem had higher happiness and lower perceived stress, it could be concluded that providing educational and stress management programs to increase happiness and vitality in students, especially in the medical sciences department, can increase self-esteem in these individuals.

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Conflicts of Interest: The authors declare that there are no conflicts of interest.

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