Relationship between attachment styles and happiness in medical students

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ABSTRACT

Background: Attachment theory is one of the most important achievements of contemporary psychology. Role of medical students in the community health is important, so we need to know about the situation of happiness and attachment style in these students. Objectives: This study was aimed to assess the relationship between medical students' attachment styles and demographic characteristics. Materials and Methods: This cross-sectional study was conducted on randomly selected students of Medical Sciences in Kurdistan University, in 2012. To collect data, Hazan and Shaver's attachment style measure and the Oxford Happiness Questionnaire were used. The results were analyzed using the SPSS software version 16 (IBM, Chicago IL, USA) and statistical analysis was performed via t-test, Chi-square test, and multiple regression tests. Results: Secure attachment style was the most common attachment style and the least common was ambivalent attachment style. Avoidant attachment style was more common among single persons than married people (P = 0.03). No significant relationship was observed between attachment style and gender and grade point average of the studied people. The mean happiness score of students was 62.71. In multivariate analysis, the variables of secure attachment style (P = 0.001), male gender (P = 0.005), and scholar achievement (P = 0.047) were associated with higher happiness score. Conclusion: The most common attachment style was secure attachment style, which can be a positive prognostic factor in medical students, helping them to manage stress. Higher frequency of avoidant attachment style among single persons, compared with married people, is mainly due to their negative attitude toward others and failure to establish and maintain relationships with others.

Keywords: Attachment styles, demographic characteristics, happiness, medical students

Introduction

Attachment is a relatively stable emotional bond which is created between child and mother or those with whom an infant regularly interacts. [1,2] Parents' responses to the signs of child's attachment behavior and their availability in stressful situations, provides a safe place and condition for children, based on which, children organize their expectations from the environment. [3,4] The attachment between child and primary caregiver (usually mother) would become internalized and later act as a mental model which

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is used by the adult person to use as a base for building friendship and romantic relationships;^[5,6] it can affect the attitudes of people in their adulthood as well.^[2,3,7]

Adult attachment styles are subdivided into three categories: (1) Secure: Secure people are intimate and comfortable in making relationships, and they are sure that others would like them. They have a positive image of themselves and have positive expectations of others. (2) Anxious-ambivalent: They have a strong desire for close relationships but also have many concerns of rejection. These people have a negative image of themselves, but a positive attitude toward others. (3) Avoidance: For this

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group of people, self-reliance is the most valuable issue. People with avoidance attachment style have negative expectations and attitudes toward others. [8,9] Hence, it can be said that attachment styles affect other aspects of one's life and have an impact on persons' relationships with other people after childhood. [2,10,11]

One of the important aspects of life is happiness. In recent decades, many researchers and authorities have shifted their focus toward the topics such as joy, happiness, life satisfaction, and positive emotions. [9,12-15] According to many theories of emotions, one of the six great emotions is happiness; the six great emotions include surprise, fear, anger, happiness, disgust, and worry.^[16] Happiness is a type of conception about individual's own life; it includes items such as life satisfaction, positive emotions, and mood, lack of anxiety and depression and its different aspects of emotions.[15,17] When people are satisfied with their living conditions and are frequently experiencing positive and less negative emotions, it is said that they are at high levels of mental health.[14] Increased levels of happiness is directly associated with the better status of health, appetite, sleep, memory, family relationships, friendships, family status, and ultimately mental health.[18]

The relationship between subjective well-being and emotion regulation with attachment styles in various studies has been explained. [19] Despite the important role of medical students in public health and the significance of their happiness which is related to their attachment styles, [20] so far, little research has been carried out in this area especially in Iran. This research was aimed to assess the relationship between attachment styles and happiness and demographic characteristics of medical students.

Materials and Methods

This descriptive and analytical study was conducted on medical students in Kurdistan University of Medical Sciences, in 2012. As exclusion criteria, students who were unwilling to fill out a questionnaire and guest students were excluded from the study. Since there were five independent variables in the study and it was needed to include 35 samples for each variable in the regression model, the calculated sample size was 175 people; a total of 200 students were included in the study. Samples were chosen through stratified sampling method (different levels of education) and each stratum was proportional to the size of each class.

To collect the data, after obtaining permission from the Ethics Committee of Kurdistan University of Medical Sciences, list of all medical students, which was classified by educational level, was obtained from education office. The samples were systematically selected from the list provided by education office; they were selected in proportion to the number of students in each educational level (Physiopathology, Extern, Intern level). After taking their consent to participate in research and explaining the objectives, questionnaires were given to the participants. The questionnaires were filled out by the students and were collected the same day. Before completing the questionnaire (47 questions),

students were assured that all information will be confidential, and they were also asked to answer the questions accurately. They were allowed to ask their questions in case of facing any ambiguity in the questionnaire.

Data collection tools

Hazan and Shaver's attachment style measure

This scale is developed by Hazan and Shaver (1987) and it has 15 items, with five items for each of the three types of secure attachment, ambivalent attachment, and avoidant attachment style. It is scored from never (zero) to almost always (score = 4). The score of each attachment subscale is obtained by calculating the mean of five items for each subscale. In various studies, the reliability of the questionnaire has been calculated from 0.78 to 0.81;^[8,21] moreover, its reliability in Iranian culture was tested by Boogar *et al.*, the obtained results for the entire test, the ambivalent, avoidant, and secure attachment styles were 0.75, 0.83, 0.81, and 0.77, respectively.^[22]

Oxford happiness inventory

To measure the happiness variable, the revised oxford happiness inventory was used which had an overall reliability of 0.91. [23,24] The scale has 29 items which is scored on a range of zero to four; it has five marks including life satisfaction with eight items, self-esteem with seven items, subjective well-being with five items, satisfaction with four items, and positive manner with three items. Because two items have a correlation coefficients of <35% with any of the five other components, they are not included in any of the components, but they are included in the total score. [12] The reliability of this scale among Iranian students has been reported to be 0.93. [25]

Data analysis

The collected data were entered into SPSS version 16 (IBM, Chicago IL, USA). Quantitative data were described using the mean and standard deviation (SD), and string variables were described using frequency and percentage. The correlation between happiness score and attachment style scores were assessed using Pearson's correlation coefficient. The difference between the happiness score and the scores of different attachment styles in each sex were compared using independent tests. The scores for different educational levels were compared using one-way ANOVA. Finally, using multiple regressions (enter method), happiness variable as the dependent variable and the score of different attachment styles, gender, educational level, and grade point average (GPA) as the independent variables, if applicable, were entered into the model.

Results

The mean (SD) of participants' age was 22.42 (2.45) years. Of all, 122 students (61%) were female and 185 persons (92.5%) were single. A total of 89 students (44.5%) were in basic sciences educational level and the majority of participants, i.e., 97 students (48.5%) had GPA of 15–17 [Table 1].

Overall, the mean (SD) score of happiness was 62.71 (17.61), secure attachment style was 11.46 (2.56), avoidant attachment style was 9.34 (3.32), and ambivalent attachment style was 7.93 (3.47). There was no significant relationship between gender and attachment styles, however, the happiness score was 67.2 (17.2)

Table 1: The distribution of demographic variables in studied subjects

Variable	Group	Frequency	Percentage			
Gender	Male	78	39			
	Female	122	61			
Marital status	Single	185	92.5			
	Married	15	7.5			
Educational level	Basic sciences	89	44.5			
	Physiopathology	26	13			
	Externship	67	33.5			
	Intern	18	9			
Grade point average	12-15	71	35.5			
	15-17	97	48.5			
	17-20	12	6			

in men and 59.9 (17.36) in women, and the difference was statistically significant (P = 0.005). The avoidant attachment style was 9.48 (3.34) in singles and 7.6 (2.66) in married people, and the difference was also statistically significant (P = 0.03) [Table 2].

There was no significant relationship between the happiness score and educational level. The score of secure attachment style in students with GPA of 17–20 was about 9.91 (2.9), which was lower compared to those with lower GPAs (P = 0.051). No significant relationship was observed between happiness score and other attachment styles with students' GPAs. Age was not significantly correlated with happiness scores (P = 0.797, r = -0.019).

In the multivariate analysis, the relationship between attachment styles and happiness scores were compared and the results showed that after controlling for important factors, the variables of secure attachment style (P = 0.001), male gender (P = 0.004), and GPA (P = 0.047) were associated with higher happiness scores ($R^2 = 0.180$) [Table 3].

Table 2: The relationship between gender and marital status of the studied subjects with attachment styles and happiness scores

Questionnaire's area	Variable	Frequency	Mean	SD	t or F statistics	Significance level
Secure attachment style	Female	122	11.56	2.62	0.72	0.49
	Male	78	11.29	2.46		
Avoidant attachment style	Female	119	9.59	3.22	1.32	0.19
	Male	78	8.96	3.46		
Ambivalent attachment style	Female	122	7.95	3.68	0.05	0.95
	Male	77	7.92	3.13		
nappiness score	Female	118	59.9	17.36	-2.84	0.005
	Male	74	67.2	17.2		
Secure attachment style	Single	185	11.41	2.56	-0.84	0.39
	Married	15	12	2.61		
Avoidant attachment style	Single	182	9.48	3.34	2.13	0.03
	Married	15	7.6	2.66		
Ambivalent attachment style	Single	184	8.06	3.43	1.79	0.07
	Married	15	6.4	3.66		
Happiness score	Single	177	62.62	18.03	-0.20	0.84
	Married	15	63.6	12.01		
Happiness score	Basic sciences	82	63.71	17.9	1.686	0.171
	Physiopathology	26	61.15	15.1		
	Externship	66	64.34	17.9		
	Intern	18	54.44	17.2		
Secure attachment style	12-15	71	11.87	2.6	3.034	0.051
	15-17	97	11.57	2.4		
	17-20	12	9.91	2.9		
Avoidant attachment style	12-15	70	9	3.5	0.494	0.611
	15-17	95	9.5	3.3		
	17-20	12	9.5	2.1		
Ambivalent attachment style	12-15	71	8.23	3.9	1.049	0.353
	15-17	96	7.93	3.1		
	17-20	12	6.6	2.8		
Happiness score	12-15	70	59.42	18.8	2.306	0.103
	15-17	93	65.1	16.5		
	17-20	12	59.6	13.2		

SD: Standard deviation

Table 3: Comparison of the relationship between happiness scores and attachment style and other variables using multiple regression analysis

Variable	Nonstandard coefficient		Standardized coefficient	t	Significance level	CI of 95% for beta	
	β	SE	β			Lower limit	Upper limit
Constant coefficient	27.651	20.122		1.374	0.171	-12.095	67.396
Avoidance attachment style	-0.428	0.441	-0.082	-0.971	0.333	-1.298	0.443
Secure attachment style	1.924	0.553	0.281	3.478	0.001	0.831	3.017
Ambivalent attachment style	-0.460	0.401	-0.090	-1.147	0.253	-1.253	0.332
Age	0.266	0.861	0.036	0.309	0.758	-1.434	1.966
Sex	7.971	2.701	0.218	2.952	0.004	2.637	13.305
Marital status	0.936	5.076	0.015	0.184	0.854	-9.090	10.961
Educational level	-1.267	1.816	-0.075	-0.697	0.487	-4.854	2.321
Grade point average	4.571	2.287	0.156	1.999	0.047	0.054	9.088

This analysis showed that after controlling for important factors, the variables of secure attachment style (P=0.001), male gender (P=0.004), and grade point average (P=0.047) were associated with higher happiness scores (R²=0.180). CI: Confidence interval; SE: Standard error

Discussion

The most common attachment style among students was secure attachment style that was consistent with the results of other studies. [8,26-32] Secure attachment style leads to activation of a system which Bowlby calls the discovery system. This system allows a person to explore his/her environment and experience its own ability to control the condition. Secure attachment gradually creates a sense of mastery and ability to handle frustration, and finally, in the context of a secure attachment relationship, then the person is enabled to reflect his/her emotions and positive beliefs about personal values and effectiveness. [33] Positive perfectionism, self-esteem, personal control, greater happiness in relationships better emotional management, less stress, and greater job satisfaction are among the specifications of secure attachment style; [26,27,31,34-36] these features may be a positive prognostic factor in medical students who usually endure much stress.

In our study, the minimum frequency was observed in ambivalent attachment style; our finding was similar to other studies. [8,31] In Asgharinejad *et al.*'s study^[37] as well as Ahadi *et al.*'s study^[38] avoidant attachment style was the most common and secure attachment was second common style. Due to differences in statistical samples and scales, which have been used in these two studies, these differences can be justified.

There was no significant relationship between attachment style and gender. In Besharat *et al.*'s study^[39] and Boogar *et al.*'s study^[22] the results were similar. Attachment theory is focused on cognitive schema; the schema affects the organization of individual's relations with others and his/her perceptions of the world around. Usually, the schema does not change without treatment. Attachments formed in childhood can affect adulthood and the attachment between child and primary caregiver (usually mother) is internalized and serves as a mental model. [40] According to the mentioned explanations, we can conclude that attachment styles are formed based on schemas and inner experiences, experiences which obtained through interaction with parents and others over time, the role of these factors is much stronger than the effect of gender alone.

According to our results, there was a significant relationship between avoidant attachment style and marital status, and avoidant attachment style was more common among single people than married; so, avoidant attachment could be a barrier to marriage. This finding is consistent with the results of Simpson *et al.*'s study.^[41] Finney and Noler believe that adults with avoidant attachment style have the same characteristics as those with dismissive attachment style (self-positive model, others negative, with a low anxiety, and high avoidance).^[42] People with avoidant attachment styles have a negative attitude toward others and have difficulty in communicating with others and maintaining relationships; they have a high sense of self-esteem and put low values on close relationships with others,^[43] which confirms our findings.

The results showed no significant relationship between attachment style and GPA of individuals; however, secure attachment style was less common in participants with high GPA. Individuals with a secure attachment style are better able to interact with the environment, so they are expected to have better educational status, but the results of our study did not confirm this idea. It might be that struggling to get a higher score, sometimes help individual to compensate for a sense of frustration and low self-control. It is also possible that the educational system would create an unhealthy competitive environment and promote negative behaviors such as blind imitation without critical thinking. On the other hand, in our study, it was not determined to which educational level and age range each GPA belongs. In addition, the effects of other factors were not considered, and they have not even been considered in other studies as well, and this is one of the limitations of our study.

The average happiness score of students in the study was 62.71. In Sheikhmoonesi *et al.*'s study^[44] the average score of subjects in the happiness inventory was 41.23 and the average score of happiness in students of Tehran University of Medical Sciences in 2010 was 47.13.^[45] Based on these results, our students had higher levels of happiness which could be due to facilities, the status of their field of study and university, their future career

perspectives, and their inner attitudes. On the other hand, the statistical sample size, the age range, and demographic conditions can justify these differences.

In our study, secure attachment style was associated with higher happiness scores and this finding was consistent with the findings of other studies. [22,37,46-48] People with secure attachment style are successful in making relationships with others and have positive attitudes about self and others; the mentioned items are effective in creating higher levels of happiness. Researches also show that people with insecure attachment styles are more affected with emotional and psychological challenges and with increasing the feeling of helplessness in the marital relationship, they will be at lower levels of happiness. [21,49] In a study, girls with secure attachment style, compared with girls with avoidant attachment style, were more satisfied with relationships with their fathers. [26]

As another results of our study, there was a significant relationship between happiness scores and gender; accordingly, the happiness scores in boys was higher than that in girls. In Keshavarz et al.'s study, [50] contrary to the results of our study, there was a positive relationship between female sex and happiness that could be due to differences in the studied populations. We studied students, while in Keshavarz et al.'s study,[50] Yazd population (males and females) were studied. In Danesh study^[48] and Solymani's et al. study, [51] no significant relationship was observed between sex and happiness. However, in Solymani's et al. study, [51] men achieved higher scores in subscales of life satisfaction and self-esteem while men had higher scores in a positive manner and inner satisfaction. To interpret these differences, it can be said that working and educational condition, society's attitudes toward gender, which is strongly influenced by cultural factors, can affect a person's happiness.

In our study, there was a negative correlation between age and happiness scores; however, this relationship was not significant. In Sheikhmoonesi et al.'s study^[44] the happiness scores in people aged below 22 years were higher than that in people aged more than 22 years. To justify the consistency between the two studies, we can note the similarities in the field of study and age range. In Keshavarz et al.'s study,[50] older age was associated with greater happiness which could be due to differences in population and age range. In Boogar et al.'s study, [22] Job satisfaction among younger nurses was higher than that in older people. In our studied population, individuals at different ages are not facing the same stressors and expectations; indeed, the course materials, environmental conditions, and people whom they are communicating with (professors, personals working in different wards, and patients) are different at any stage. Life satisfaction is not an objective and stable trait, rather it is sensitive to situational changes and is shaped based on individual's perceptions and perspectives.[52]

In multiple regression analysis which was performed with the control of key factors, variables of secure attachment style, gender, and GPA were associated with higher happiness scores. Such an analysis has not been carried out in other studies and is one of the strengths of our study. The higher GPA was associated with higher happiness scores and other studies have not addressed this issue. There was higher level of dissatisfaction and expectation among people with lower GPAs; on the other hand, students with higher GPAs are dealing with more stress of keeping current situation and they have more competition with others. Moreover, mediocre GPA did not indicate higher dissatisfaction, and it might even signify less competitive pressure and family expectations; this greatly originates from individual's attitudes and expectations. Perfection-seeking individuals may excessively get higher scores, but they are less satisfied and happy. According to our results, the satisfaction score was not significantly associated with educational level which was consistent with the results of Sheikhmonesi et al.'s study.[44] Every educational level brings up different external conditions and stressors which may have different effects depending on the internal characteristics, student's ability to cope with environment, and individual's expectation, behavior, and social interaction with others.

Conclusion

Based on the findings of this study, the most common attachment style was secure attachment style, which could be a positive prognostic factor in medical students, helping them to manage stress. The frequency of avoidant attachment style among single persons was higher than that in married people, which is mainly due to their negative attitude toward others and failure to establish and maintain relationships with others. The variables of secure attachment style, male gender, and average GPA were associated with higher happiness scores these factors can be taken into account while planning for promoting happiness levels in students.

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Conflicts of interest

There are no conflicts of interest.

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