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Relationship of emotional intelligence and stress in undergraduate medical students

Abstract

Objective: Medical education is considered as highly stressful. The role of emotional intelligence in managing stress and in better adjustment is well-recognised. Therefore, this study aimed to investigate the association of emotional intelligence and its subcomponents with stress in undergraduate medical students.

Method: Total sample consisted on 238 undergraduate medical students including 73 males, and 165 females. Demographic form, the scale of emotional intelligence and perceived stress scale were administered to assess the study variables.

Results: Linear regression analysis was computed. Level of stress was found to be higher among females than males. Moreover, results showed that subcomponents of EI including optimism (B= -257, p<.01), problem solving (B= -257, p<.01), flexibility (B= -273, p<.01) and interpersonal skills (B= -.127, p<.05) were found to be negatively correlated with stress.

Conclusion: It can be concluded that medical student's use of emotions intelligently helps towards off the stress. Study results pointed toward the need of incorporating the programs for enhancement of emotional intelligence to manage the stress in better way.

Keywords: emotional intelligence, stress, medical students

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Introduction

Studying in a medical school is stressful because students not only have to face enormous pressure to attain good grades but also deal with death and sufferings. Estimated prevalence of emotional disturbance due to stress in medical students is found to be quite high.[1] Stress in a medical school is highest at undergraduate levels[2,3] and continues throughout the training period.[4] It not only affects cognitive functioning and learning of medical students[5] but also lead many of them to substance use.[6] However there are many students who continue to perform remarkably well and deal effectively with the burden of daily stress at medical school while others flounder with the same level of stress and soon succumb to it. According to Vaezi and Fallah[7] the reason behind some people's better adjustment with stress is their emotional intelligence. People who have high emotional intelligence (EI) are better equipped to deal with effects of stress and are better adjusted.[8] EI has increasingly been studied in reference to medicine and other disciplines because of its importance in mental health of the professionals and their practice.[9] EI helps one to build stronger relationships, succeed at work, and achieve career and personal goals. EI entails understanding and discriminating emotions both of self and others, control of emotions, empathy and social competence. These qualities equip an individual with good communication skills which in turn improves performance in medical training and help to attain career and personal goals.[10] EI also incorporates motivation. A person who is motivated does not easily surrender to stress. Motivation to work through the problems and attain goals minimizes effects of stress. Students who are less motivated in the pursuit of their goals tend to get easily discouraged with stressors that are part of studying in a medical school.

The aim of the present study is to explore the relationship of emotional intelligence and stress as perceived by undergraduate medical students. Medical students tend to become overwhelmed by pressure of studying and dealing with daily ailments. At these times they are very prone to become emotionally distraught. Irritable, difficulty handling anger followed by frequent anger outbursts, mood swings and declining grades is all signs of emotional disturbance of students under stress. Ability to regulate emotions enlarges vision and helps manage stress and seek solutions to problem instead of reacting to them. Beside its importance, there is scarce of studies in Pakistan regarding emotional intelligence in general and particularly in field of medicine. Considering it, this study aims to answer the following question; is there a significant relationship of emotional intelligence (EI) and its subcomponents with stress in undergraduate medical students?

Material & methods

Sample

A total of 238 undergraduate (73 males, 165 females) medical students participated in this study. Their age ranged from 18 to 26years with mean age of 21.8 + 2.2years.

Material

Demographic form: Demographic information including age, gender, and education level was collected by using a demographic form, designed for this study.

Perceived stress scale: The Perceived Stress Scale[11] measure the degree of generalized perceive stress in individuals' lives. The PSS is a 10 item scale rated on a 5-point answer scale ranging from 0: "never" to 4: "very often". Researches confirmed PSS as reliable and valid measure to assess the perception of stress.[12] Urdu version of PSS was used in this study.[13]

The scale of emotional intelligence: The Scale of Emotional Intelligence (SEI) is self-report measure developed by Batool and Khalid.[14] Each item is rated on four point Likert type scale (1= never true of me; 4=always true of me). High score reflects high emotional

intelligence and the low scores reflect low emotional intelligence. The Cronbach's alpha was α = .95 and Split half reliability was .92.

Procedure

The data was collected from December 2013 to February 2014. Guidelines provided by the Declaration of Helsinki were followed in this study. Permission for the data collection was obtained from the concerned authorities of medical college. Participants were informed that their participation is voluntarily. Students were assured that information would be confidential and use for only research purpose. Their right to withdraw from study at any time, without penalty, was also discussed with them. After the consent of respondents demographic form, perceived stress scale and the scale of emotional intelligence was administered respectively in classroom-like settings. After completion of questionnaires the researcher debriefed the participants and also answered any questions they had about study.

Results

Out of 238 students, 69.3% were females and 30.7% were males. Mean age of the participants was 21.8 ± 2.2, as shown in Table 1.

Table 1 Descriptive statistics of demographic variables

Variables	N	%
Gender		
Males	73	30.7
Female	165	69.3
Mean age ± SD for Total Sample	21.8 ± 2.2	

As reported in Table 2, obtained score of EI of total sample was 157.9 ± 15.5 and there was significant difference in mean score of few subcomponents of EI between the two genders. Females had a higher mean score on impulse control (12.9+3.2) and empathy (15.4+3.3) than males. Whereas male had a higher score on problem solving (14.5+ 3.4), stress tolerance (14.4+4.7), flexibility (14.4+3.2) and assertiveness (19.7+3.5). Moreover, female found to be more stressed (19.1+ 6.4) than males (17.5+ 6.0).

As indicated in Table 3, total score of EI is significantly related to perceived stress (B= -230, p<.01). Furthermore, subcomponents of EI including optimism (B= -257, p<.01), problem solving (B= -257, p<.01), flexibility (B= -273, p<.01) and interpersonal skills (B= -.127, p<.05) were inversely correlated with level of stress.

Table 2 Mean and SD of study variables

Variables	Total Sample (M±SD)	Males (M±SD)	Females (M±SD)	t	df	Sig
Total SEI	157.9±15.5	159.0±17.6	157.4±14.6	.733	236	.465
Optimism	14.9±2.5	15.1±2.8	14.8±2.4	.979	236	.329
Emotional Awareness	14.5±2.5	14.3±2.5	14.6±2.5	-.771	236	.441
Problem Solving	13.8±3.4	14.5±3.4	13.4±3.4	2.267	136.321	.025
Flexibility	13.79±2.8	14.4±3.2	13.5±2.6	2.155	118.188	.033
Impulse Control	12.5±3.0	11.7± 2.6	12.9±3.2	-3.059	168.992	.003
Self-Regard	16.3±3.1	16.4±3.4	16.3±3.1	.215	236	.830
Assertiveness	19.06±3.5	19.7±3.5	18.8±3.4	1.978	134.094	.050
Interpersonal Skill	24.6±4.7	24.3±4.7	24.7±4.7	-.637	236	.462
Empathy	14.99±3.3	14.1±3.3	15.4±3.2	-2.742	134.876	.007
Stress tolerance	13.4±3.7	14.4±4.7	13.0±3.1	2.255	100.824	.026
Stress	18.6±6.3	17.5±6.0	19.1±6.4	-1.813	145.542	.072

Table 3 Summary of Linear Regression: Emotional Intelligence and its subscales as predictor of Perceived Stress

Variables	B	SE B	B
Total SEI	-0.094	0.026	-.230**
Optimism	-0.641	0.157	-.257**
Emotional Awareness	0.067	0.165	0.026
Problem Solving	-0.471	0.115	-.257**
Flexibility	-0.607	0.139	-.273**
Impulse Control	-0.057	0.136	-0.027
Self-Regard	-0.162	0.13	-0.081
Assertiveness	-0.07	0.118	-0.039
Interpersonal Skill	-0.171	0.087	-.127*
Empathy	0.054	0.126	0.028
Stress Tolerance	-0.158	0.11	-0.093

SEI; O, R2=.066; EA, R2= .001; PS,R2=.066; F, R2=.075; IC, R2=.001; SR, R2=.007;A, R2=.001; IS, R2=.016;E, R2=.001; ST, R2=.009

II p < .01**, p < .05*

Discussion

Obtained results showed that the total score of EI is inversely correlated with perceived stress in targeted sample which indicated that those students who have higher level of EI experienced less perceived stress and vice versa. Findings of current study corroborated previous findings which confirmed that people who are emotionally intelligent perceived less stress.[15–18] Furthermore, there is statistically significant relationship between some subscales of EI and stress. There are number of reasons that can be inferred from how emotional intelligence and its components help to deal with stress.

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Obtained results showed that those students who have positive outlook of future they reported less stress. As stress is inevitable and cannot be completely eliminated, a person needs to change his attitude of looking at things. They may see positive and brighter side of stressful situation, acknowledge hidden learning opportunity in difficult tasks or situations and takes these pressures as a challenge. This positive outlook of situation largely reduces the burden of stress and they deal with sufferings as a way to strengthen one's nerves. As a result, they become skilled in dealing successfully and efficiently with current as well as future pressures which is also evident from finding of this study. In a similar vain, flexibility motivate towards keep going in tough times by seeking alternative solutions or coping strategies to reduce the stress which is also indicated by current findings. Previous studies have also found that flexibility and problem solving abilities help to reduce the psychological distress and enhance general competency.[19–21] Another component of emotional intelligence is formation of interpersonal relationships which help to deal with stress as evident from findings of current and previous studies.[22–24] An emotionally intelligent individual is better able to form and maintain close relationship as compared to a person who lacks emotional intelligence. EI empowers a person to be intoned with his own and other people's emotions which makes it easier to form closer bond with people. Socialization with family, friends and others minimizes chances of burnouts and time out from stress producing environment enhance involvement in pleasurable activities. Peterson[25] reported that the easiest way of being happy and feeling pleasant is to have good social relationships and to spend time with them.

Obtained results indicated that females reported higher mean scores compared to males on impulse control and empathy. This is not surprising for females in Pakistan as they are expected to inhibit the emotions as well as lack of assertion in females is appreciated by Pakistani society. Moreover, females are thought of having higher ability to understand and relate with other relatively to males which is also in congruence with previous studies.[26,27] Males of current study reported higher scores on assertiveness, problem solving, flexibility and stress tolerance compared to females. Similarly, Baron[28] found that male seems to be more flexible, have better coping skills, stress tolerance level and self-acceptance compared to females. These different gender patterns might be the result of expectations associated with gender roles. As in Pakistan, males are expected to be tough, dependable, control their emotions effectively to deal with stressors and to adapt new situations.

This study based on correlational design, therefore, casual factors of how emotional intelligence effect stress cannot be drawn on the basis of this study. Limited number of medical students limits the generalizability of findings.

Conclusion

This study provides preliminary information on the relationship between emotional intelligence and stress in medical students in Pakistan. Finding highlighted to incorporate certain emotional competencies in medical training to prepare well-balanced doctors for society who can constructively deal with their own personal issues as well as other miseries. Present study can be concluded on a note that improving emotional intelligence is an excellent way of lightening the burden which is part of studying in a medical school.

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Conflicts of interest

Author declares there are no conflicts of interest.

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References

1. Abdulghani HM, AlKanhal AA, Mahmoud ES, et al. Stress and Its Effects on Medical Students: A Cross-sectional Study at a College of Medicine in Saudi Arabia. *J Health Popul Nutr*. 2011;29(5):516–522.
2. Shaikh B, Kahloon A, Kazmi M, et al. Students, stress and coping strategies: A case of Pakistani medical school.*Educ Health (Abingdon)*. 2004;17(3):346–353.
3. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among US and Canadian medical students. *Acad Med* . 2006;81(4):354–373.
4. RosalMC, Ockene IS, Ockene JK, et al. A longitudinal study of students' depression at one medical school.*Acad Med*. 1997;72(6):542–546.
5. Dahlin M, Joneborg N, Runeson B. Stress and depression among medical students: a cross-sectional study. *Med Educ*. 2005;39(6):594–604.
6. Makanjuola AB, Daramola TO, Obembe AO. Psychoactive substance use among medical students in a Nigerian University. *World Psychiatry*. 2007;6(2):112–114.
7. Vaezi S, Fallah N. Sense of Humor and Emotional Intelligence as Predictors of Stress among EFL Teachers. *J Lang Teach Res*. 2012;3(3):584–591.
8. Ciarrochi J, Chan A, Caputi PA. Critical evaluation of the emotional intelligence construct. *Pers Individ Dif.* 2000;28(3):539–561.
9. Pau AK, Croucher R. Emotional intelligence and perceived stress in dental undergraduates. *J Dent Educ*.2 003;67(9):1023–1028.
10. Smrithi SC, Venkatappa KG, Parakandy SG, et al. Assessment of Emotional Intelligence in First Year Medical Students: A Questionnaire Based Study. *J Dent Med Sci.* 2013;3(4):23–26.
11. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav*. 1983;24(4):385–396.
12. Cohen S Williamson GM. Perceived stress in a probability sample of the United States. In: Spacapan S and Oskamp S (Eds.), *The social psychology of health*. 1988. p.31–67.
13. Sarwar A, Mariam A, Bashir A, et al. Translation of perceived stress scale-10 Items. International Islamic University, Islamabad, Pakistan. 2011.
14. Batool SS, Khalid R. Development and validation of emotional intelligence scale and emotional intelligence as a predictor of marital quality. Unpublished PhD Thesis. University of Punjab, Lahore, Pakistan. 2009.
15. Miri MR, Kermani T, Khoshbakht H, et al. The relationship between emotional intelligence and academic stress in students of medical sciences. *J Educ Health Promot*. 2013;2:40.
16. Bar-On R. Emotional intelligence: An integral part of positive psychology. *S Afr J Psychol*. 2010;40:54–62.
17. Arora S, Russ S, Petrides KV, et al. Emotional intelligence and stress in medical students performing surgical tasks. *Acad Med*. 2011;86(10):1311–1317.
18. Naidoo S, Pau A. Emotional intelligence and perceived stress. *SADJ* . 2008;63(3):148–151.

19. Cheng C. Cognitive and motivational processes underlying coping flexibility: a dual-process model. *J Pers Soc Psychol*. 2003;84(2):425–438.

20. D'Zurilla TJ, NezuAM. Development and preliminary evaluation of the Social Problem-Solving Inventory. *J Consult Clin Psychol*. 1990;2:156–163.

21. Heppner PP, Pretorius TB, Wei M,et al. Examining the Generalizability of Problem Solving Appraisal in Black South Africans. *J Counselling Psychol.* 2002;49(4):484–498.

22. Drakopoulos S. The paradox. In: Bormans L (Ed.), The world book of happiness. 2010. p.26–28.

23. House JS, Landis KR, Umberson D. Social relationships and health. *Science*. 1988;241(4865):540–545.

24. Kirchler E. Money in the box. In: Bormans L (Ed.), The world book of happiness. Singapore. 2010. p.56–57.

25. Peterson C. Discover the other in yourself. In: Bormans L (Ed.), The world book of happiness. Singapore. 2006. p.16–19.

26. Shashikumar R, Chaudhary R, Ryali VS, et al. Cross sectional assessment of empathy among undergraduates from a medical college. *Med J Armed Forces India*. 2014;70(2):179–185.

27. Wheelwright S, Baron-Cohen S, Goldenfeld N, et al. Predicting autism spectrum quotient (AQ) from the systemizing quotient-Revised (SQ-R) and Empathy Quotient (EQ). *Brain Res* . 2006;1079(1):47–56.

28. Bar-On R. The Emotional Quotient Inventory (EQ-i): Technical manual. Multi-Health Systems, Toronto, Canada. 1997.

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