

ORIGINAL RESEARCH

Study of Emotional Intelligence among Undergraduate Students in a Medical College in Maharashtra

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ABSTRACT

Introduction: Emotional Intelligence (EI) is the ability to monitor one's own and other people's feelings and emotions, to discriminate and appropriately label different emotions and to use emotional information to guide thinking and behavior (1). Studies show that EI is associated with medical students' clinical and academic performance, communication skills and also in dealing with stress. Hence, this study was planned amongst medical students to assess their level of emotional intelligence and sociodemographic factors associated with it. **Materials and Methods:** A cross-sectional, questionnaire-based study was conducted among 100 medical students of tertiary care hospital in Maharashtra using Schutte self-reporting emotional intelligence test (SSEIT), which is a standardized semi-structured questionnaire. Data was compiled using Microsoft office Excel and Test of significance was used to find associations between emotional intelligence and other demographic characteristics. **Results:** 58% of students had moderate level of Emotional Intelligence. 60.9% students were between 21-22 years of age. 57.1% of participants were males. 81.9% students belonged to urban areas, 70.5% students completed their high school education from private school; 81% belonged to nuclear family, 76.2% resided in hostel; 42.9% of students had monthly family income of more than 1 lakh Rupees. Our study findings showed that, there was no significant relationship between EI and gender, type of family, locality, current residence, monthly family income and type of schooling. **Conclusions:** Mean EI scores of students were in an agreeable range, with maximum students showing moderate levels of Emotional Intelligence. Further research with larger sample size is required.

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INTRODUCTION

Emotional Intelligence (EI) is the ability to monitor one's own and also other people's feelings and emotions, to discriminate between different emotions, appropriately label them and to use emotional information to guide thinking and behavior (1). Though there are many factors associated with patient satisfaction one of the important ones is the behavior of the doctor with the patient. Emotional intelligent doctors are better able to perceive the need of the patient and are then able to address issues if any arise. (1).

Empathy and compassion in the physician makes the patient perceive a sense of wellbeing which aids in speeding their recovery. It is also seen that for physician to effectively work as a team among nurses, hospital managers and other allied health professionals, Emotional Intelligence plays an important part. (2).

The Important domains of EI are self awareness and control of emotions, motivating oneself and empathy. These are necessary to handle any relationship. (3) In doctor patient relationships, professionals must respond to technical as well as associated emotional aspects of the disease. While attending to patients, managing their own responses and emotions are also of great importance. (3). Studies have shown that doctors who demonstrate empathy are more effective in eliciting a good history from their patients.

EI can also be defined as the capacity to be aware of and control and express one's feelings and to handle interpersonal relationships judiciously and empathetically. (4)

EI has four common components or factors viz., perceiving, understanding, using and managing emotions. EI also plays a role in communication skills, job satisfaction, academic and clinical

performance, alleviating stress and burnout, maintaining a good doctor-patient relationship.(5)

In the present era, EI is increasingly being recognized in a variety of career related as well as interpersonal domains, where reading and managing emotions in social contexts are important for success. Higher EI correlates positively with an individual's academic success, social skills, better interpersonal relationships and ability to cope with stressful conditions.(6)

In order to be successful and effective medical practitioners, they must learn to perceive and manage their own emotions as well as the emotions of patients and other team members, many times in high tension and charged situations. (7)

EI has the potential to deepen and also enrich the students understanding of competency during medical training. It enables the students to understand and regulate emotions to promote personal growth (8) EI also includes factors such as awareness and being able to modulate one's own emotional responses and to understand others(9)

It has been proven in the case of medical students in response to stress, students with a low EI score have a greater risk of indulging in health damaging behaviour. On the other hand, students with higher EI are more likely to manage their stress with the help of social support.(10-14).

EI is related not only to academic but also to professional success. People and college students with higher EI show more positive social functioning in interpersonal and intrapersonal relationships and are regarded by peers as prosocial, less antagonistic and conflictual.(12,13)

EI can be used to identify individuals who may need education of special skills to deal with stress. (14)

Attention to Feelings, Empathic Concern, and Perspective taking were significantly positively correlated with communication skills(15)

Empathy is also an important factor associated with clinical competence and positive patient outcomes.(16,17)

In recent years, EI has emerged as one of the vital elements of success and interpersonal relations in everyday family life.(18,19) Assessment of EI among medical students would help them to develop better clinical skills and put in best health care practice.(20)

Considering the growing importance of Emotional Intelligence in today's world, a study was planned amongst the medical students of tertiary care hospital in Maharashtra, to assess their level of emotional intelligence and the sociodemographic factors associated with it.

MATERIALS AND METHODS

This is a cross sectional study. The participants were 100 undergraduate students studying in final year MBBS- in a Medical College, in Western Maharashtra.

Sample size was calculated by the formula:

$$n = \frac{(z\alpha/2)^2 * (SD)^2}{(l)^2}$$

Where n=sample size, z=confidence=2.6, SD=standard deviation=16.4,l=allowable factor=5.37 ... (1)

Using the above formula, sample size is 63. So we interviewed 100 undergraduate students from final year studying in a medical college.

Ethical clearance was obtained from the Institutional Ethics Committee.

After that, written permission of head of the institution was obtained and a list containing the names of all the undergraduates studying in the institution was prepared. After taking their consent, the students were given the questionnaire (Schutte Self Report EI Test) online via Google Forms. (1)

The survey instrument consisted of the following components:

1. Socio-demographic characteristics of the student like including age, gender, etc and
2. Schutte Self Report Emotional Intelligence Test(2)

Emotional Intelligence was measured using the Schutte Self Report Emotional Intelligence Test. It is a 33 item validated, self reported measure of emotional intelligence developed by Schutte, et al. based on the EI model proposed by Salovey and Mayer. Participant's response to each question is based on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. The total score ranges from minimum 33 to maximum 165. The Schutte scale has four subscales consisting of: a) perception of emotion, b) managing one's own emotions, c) managing other's emotions, and d) utilization of emotions. The sum of these four subscales gives the total Emotional Intelligence score of the individual.(1)

Data was compiled using Microsoft office Excel and Tests of significance (Chi square test) was used to find the associations between emotional intelligence and other demographic characteristics

OBSERVATIONS AND RESULTS

Data of 100 students was collected via Google forms and then it was represented on a spreadsheet. The scores of all questions of a particular student were added and this gave us the total Emotional Intelligence Score.

For analysis and comparison, the EI scores of the participants were divided into low(96-114), moderate(115-133) and high(134-153).

Table no-1 Table showing EI scores of participants.

EMOTIONAL INTELLIGENCE	SCORE
LOW(96-114)	19
MODERATE (115-133)	58
HIGH (134-153).	23

The above table shows that majority (58%) of the students had moderate level of Emotional Intelligence . 23% students had high level of Emotional Intelligence. The common age of these students was between 20-23. Most of them were between 21-22 years of age.(60.9%). 57.1% of the participants were males and 42.9% were females.

Majority of the students belonged to urban areas i.e. (81.9%). 18.1% of the students were from rural areas. Most of the medical students completed their basic high school education from a private school(70.5%). Only a 29.5% percent of them went to a government high school

When participants were asked about the type of family they live with, we got a rather predictable response- that 81% of them had a nuclear family and only 19% of them lived in a joint family. Most of the medical students lived in hostel- 76.2% resided in the hostel

whereas the rest were living elsewhere, as paying guests or at home.(23.8%).

As far as marital status of parents was concerned, 94.3% of students answered that their parents were married and the rest (5.7%) preferred not to answer.

When monthly family income was asked, 42.9% of students replied that they had an income of more than 1lakh and 41% had an income between 50 thousand to 1lakh; 16.2% had an income below 50 thousand .Most of the students had 1 or two siblings . Only a handful of them had either none or 3 siblings.

90% of the students did not have any terminally ill relative. Only 6.7% people had a terminally ill relative.

The table below shoes the relation between High , Moderate and Low EI scores of the study participants with gender, nativity, place of stay, family income, type of family and type of schooling.

Table no-2: Relation between EI and sociodemographic variables

Variables	Category	High EI score	Moderate EI	Low EI	P value
Gender	Females	12(9.89) [0.45]	23(24.94) [0.15]	8(8.17) [0.00]	.588396
	Males	11(13.11) [0.34]	35(33.06) [0.11]	11(10.83) [0.00]	
Nativity	Urban	20(19.09) [0.04]	46(48.14) [0.10]	17(15.77) [0.10]	0.501805
	Rural	3(3.91) [0.21]	12(9.86) [0.46]	2(3.23) [0.47]	
Place of current stay	Hostel	21(17.94) [0.52]	42(45.24) [0.23]	15(14.82) [0.00]	1.79323
	elsewhere	2(5.06) [1.85]	16(12.76) [0.82]	4(4.18) [0.01]	
Family income	<50000	1(3.68) [1.95]	10(9.28) [0.06]	5(3.04) [1.26]	.336856
	50000-1lakh	12(9.20) [0.85]	22(23.20) [0.06]	26(25.52) [0.01]	
	>1,00000	10(10.12) [0.00]	26(25.52) [0.01]	8(8.36) [0.02]	
Type of family	Nuclear	17(18.86) [0.18]	49(47.56) [0.04]	16(15.58) [0.01]	.515765
	Joint	6(4.14) [0.84]	9(10.44) [0.20]	3(3.42) [0.05]	
Type of schooling	Government	8(6.90) [0.18]	13(17.46) [1.11]	9(5.70) [1.91]	0.101808
	Private	15(16.10) [0.08]	45(40.60) [0.48]	10(13.30) [0.52]	

From the above table, it is clear that, though majority of our students had moderate level of Emotional Intelligence, there is no relation with any of the 6 socio-demographic characteristics.

So, in our group of 100 students, Emotional

Intelligence is not affected by gender (male or female), type of family(nuclear or joint), locality (urban or rural), current residence(hostel or localite), monthly family income and type of schooling.

DISCUSSION

Emotional intelligence is a very important part of the repertoire of doctors, where sensitivity and tact are needed in dealing with patients in their everyday practice. It includes the ability to understand and control emotions, to be empathetic, to be socially competent and these qualities in turn also improve the overall communication skills.(3)

The present study is a cross-sectional study that was carried out in a group of 100 medical students in a medical college of Maharashtra to assess their level of emotional intelligence.

It also aimed to compare the Emotional Intelligence levels of students with their socio-demographic characteristics.

In our study there was no significant relation between Emotional Intelligence and gender. This result is in contrast with the result obtained in a study conducted among medical students in Chennai, which states that women were more emotionally intelligent in their response to emotional vignettes than men ($p=0.056$). Similar finding was also seen in the study by Q. Mohammad et al (23). Surprisingly however in another study conducted by Professors of GMC Nagpur on central India Medical students, males had higher EI than females.(6)

On comparing the emotional intelligence of urban and rural medical students, there was no difference seen in The Emotional Intelligence of urban and rural students, which is similar to the result seen in the study by S Sundarajan et al.(2) The EI is also similar to the study by Taneja et al(22). Also, in our study, there was no significant relation between a student living in a hostel and a student living at home(day scholar) in terms of emotional intelligence.

In our study, no significant relation was seen between family's monthly income and emotional intelligence .This result was similar to the result seen in the study by Q. Mohammed et al.(23)

There are very few studies which have compared emotional intelligence with type of family, In our study, it was seen that there is no significant relation between Emotional Intelligence and type of family(Nuclear or Joint). The relation was similar to the result found in the study by A. Sarrionandia et al. (21)

In our study, there was no significant relation between the type of schooling and level of emotional intelligence. But in the study conducted among medical students in Chennai, Students who went to government schools for high school education had greater emotional intelligence than students from private schools ($p=0.044$)(2).

CONCLUSION

The mean EI scores of students were in an agreeable range, with maximum students showing moderate levels of Emotional Intelligence. However, our study findings showed that , there was no significant relationship between EI and gender, type of family

(nuclear or joint), locality (urban or rural), current residence, monthly family income and type of schooling. This can be attributed to variable geographic distribution and cultural differences among medical students of this institute. Further researches should be conducted at larger scales with larger sample sizes to prove or disprove this study's findings

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