International Journal of Community Medicine and Public Health
Durga A et al. Int J Community Med Public Health. 2026 May;13(5):2443-2447
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20261434

Original Research Article

Assessment of emotional intelligence among medical students in Hyderabad: a cross-sectional study

A. Durga[1]*, K. Adarsh Kumar[2], K. Krishna Chandrika Maudgalya[3], Khan Sufiyan Mushtaque[1], J. Srinithya[1], K. Sathwika[1], K. Sai Srilatha[1]

[1]Department of Community Medicine, ESIC Medical College and Hospital, Hyderabad, Telangana, India
[2]Yashoda Hospitals, Hyderabad, Telangana, India
[3]ESIC Medical College and Hospital, Hyderabad, Telangana, India

Received: 03 April 2026
Accepted: 18 April 2026

***Correspondence:**
Dr. A. Durga,
E-mail: dr.durga26@gmail.com

ABSTRACT

Background: Emotional intelligence (EI) refers to the ability to recognize, understand, manage, and use emotions effectively in oneself and others. In the context of medical education, EI is increasingly recognized as a core competency alongside clinical knowledge and technical skills. It is integral to the formation of compassionate, adaptable, and competent healthcare professionals. In this framework, EI is conceptualized not solely as a personality attribute but as a modifiable and teachable construct that facilitates the acquisition of core competencies such as professionalism, effective interpersonal communication, and patient-centred care.
Methods: A cross-sectional study was conducted for a period of one month among 301 undergraduate medical students at ESIC Medical College and Hospital using a semi structured validated questionnaire containing socio-demographic details and questions on EI test. The questionnaire was administered to the students through Google form. The questionnaire consists of two parts: sociodemographic details and the Schutte self-report EI test (SSEIT). Data was entered in Microsoft excel. Descriptive statistics and Inferential statistics were applied using SPSS version 21. $P<0.05$ was considered statistically significant.
Results The mean age of the participants was 20.10±1.70. Out of 301 medical students participated in the research, 123 (40.9%) were males and 178 were females (59.10%). The 52.2% of participants had good EI score, 46.2% had average EI score, 1.6% had poor EI.
Conclusions: Strengthening EI among medical students is not merely an added advantage but a fundamental necessity for effective medical practice and improved patient outcomes.

Keywords: Emotional intelligence, Medical students, Professional competence, Empathy

INTRODUCTION

Emotional intelligence (EI), as coined by psychologists Peter Salovey and John Mayer, refers to the capacity to recognize, understand, manage, and effectively use one's emotions and the emotions of others. It encompasses the ability to perceive emotions, integrate them into thought processes, understand their implications, and regulate emotional responses in a way that facilitates interpersonal relationships, self-awareness, and overall well-being.[1] Evidence suggests that the highly emotionally intelligent student groups have better academic performance, better emotional awareness, and relationship management.[2]

EI is important for the physician to work effectively as a team among nurses, hospital managers, and other allied health professionals.[3,4] It is also important to communicate effectively with the relatives, friends, and family of the patients under their treatment. In recent times we are witnessing several instances of violence

against doctors in India as well as many low- and middle-income countries.

The components of EI include self-awareness, self-regulation, motivation, empathy, and social skills. Those with high EI will have better empathy, leading to better patient communication, adherence to treatment, and higher patient satisfaction. EI also serves as a protective factor against burnout and stress, which is vital during intensive clinical training. Higher EI helps medical students manage "moral outrage" and emotional trauma, leading to more constructive responses in ethically challenging situations.

In recent times, competency-based medical education (CBME) has shifted the emphasis from purely theoretical knowledge to the development of practical competencies required for effective clinical practice. The integration of EI within this framework is achieved through several key strategies. The attitude, ethics, and communication (AETCOM) modules introduced by the National Medical Commission (NMC) in India explicitly address components of EI, including empathy, ethical reasoning, and communication skills. Reflective practices, such as reflective writing and case-based discussions, enable students to better understand the influence of their emotions on clinical decision-making. Furthermore, EI development is recognized as a continuous, longitudinal process rather than a one-time intervention, necessitating ongoing mentorship, feedback, and experiential learning. The objectives of this study are to assess the level of EI among medical students and to determine the factors that influence EI among medical students in Hyderabad.

METHODS

Study site

Study carried out at ESIC Medical College and Hospital, Sanath Nagar, Hyderabad.

Study population

Undergraduate medical students were selected in study.

Study design

It was a cross-sectional study.

Sample size

Based on the study done by Sundararajan et al the mean EI score was 107.58 (SD 16.44).[5] By using the formula- $n=(Z)^2\sigma^2/d^2$

The sample size was calculated as 63.

Sampling technique

Convenient sampling technique was used in this study.

Study period

Study conducted from October to November 2024.

Inclusion criteria

All undergraduate MBBS students belonging to ESIC Medical College and Hospital and those who were willing to participate in the study were included.

Exclusion criteria

Those who do not give consent/ unwilling to participate in the study were excluded from the study.

The study was conducted for a period of one month among undergraduate medical students at ESIC Medical College and Hospital using a semi structured validated questionnaire containing socio-demographic details and questions on EI test. The questionnaire was administered to the students through Google form. The questionnaire consists of two parts: sociodemographic details and the SSEIT.

The SSEIT questionnaire contains a total of 33 questions. The total score ranges from 33 to 165. The participants were asked to rate the extent to which they agree or disagree with each statement on a 5-point scale (1=strongly disagree and 5=strongly agree). Three of the questions (5, 28, and 33) are reverse scored, being negative questions. The sum of the individual score gives the total EI score of the individual. Those who scored more than 80% of the maximum score, i.e., a score of 132, were considered as having good EI, those who scored between 60% and 80% were considered to have average EI, and those who scored <60% of the maximum score were considered to have poor EI. The cut off was selected from a validated study with Cronbach's alpha=0.90.4.[6]

Statistical methods

Mean EI scores were calculated. Level of EI assessed based on scores. Descriptive statistics was expressed in percentage and frequencies. Chi square test of significance was applied for categorical variables. $P<0.05$ was considered to be statistically significant.

Novelty of study

There is a need to impart EI skills as part of medical education in creating sensitive and empathetic physicians for the future. This study will help us to assess levels of EI among the students and to explore their understanding of the role of emotions in medical practice.

RESULTS

The mean age of the participants was 20.10±1.70. Out of 301 students participated in the research, 278 (92.35%)

belong to the age group of 17-22 and 23 (7.65%) belong to age group of 23-28 (Table 1).

Out of 301 medical students participated in the research 123(40.9%) were males and 178 were females (59.10%) and the females have high average EI score compared to males, though it was not statistically significant (Figure 1).

Among the study participants majority belong to urban areas (78.10%) and 21.90% belong to rural areas (Figure 2).

Among the study participants majority (82%) are from nuclear family, 13% participants belong to joint family and 5% belong to three generation family.

Mean score of EI among the study participants were 123.5±13.02. Table 2 shows that majority of the study participants (52.2%) had average EI score whereas 46.2% had good EI score and only 1.6% had poor score.

Table 3 shows that there was no significant association between sociodemographic factors and level of EI.

Table 1: Age distribution of the study participants.

Age (in years)	N	Percentages (%)
17-22	278	92.35
23-28	23	7.646

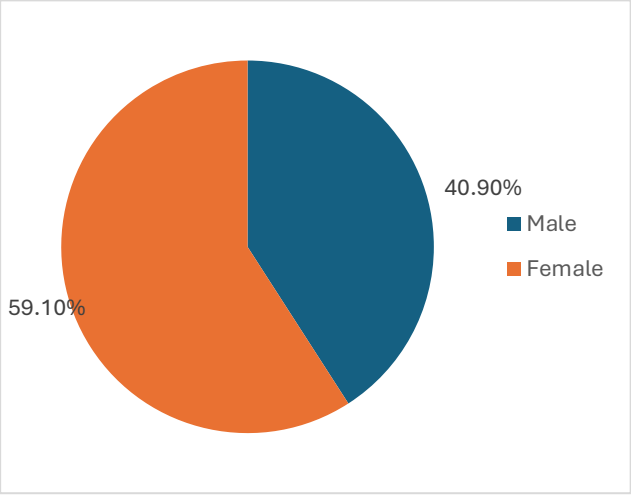

Figure 1: Gender distribution of study population (n=301).

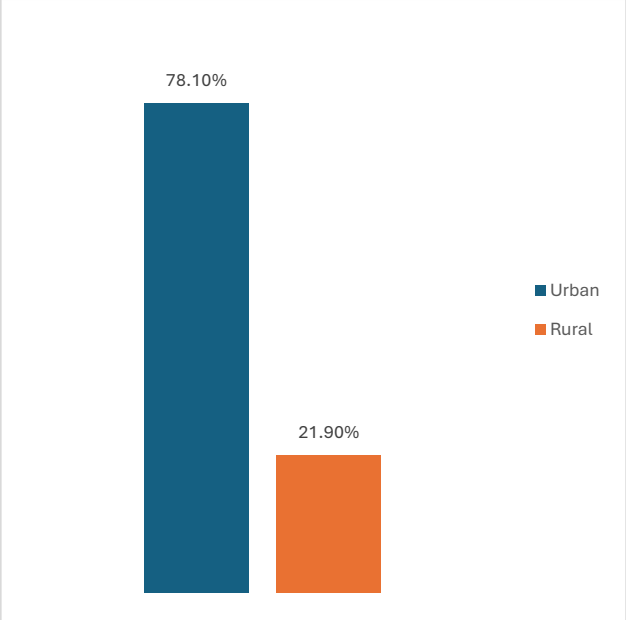

Figure 2: Distribution of study population based on place of residence (n=301).

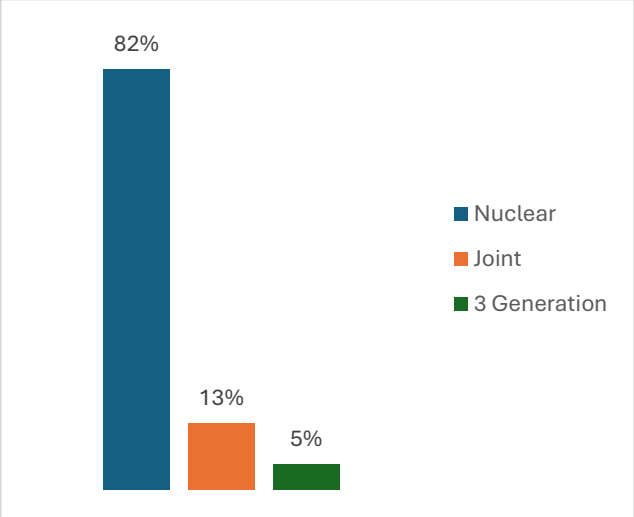

Figure 3: Type of family of study population (n=301).

Table 2: Level of EI of study population (n=301).

EI category	N	Percentages (%)
Good EI	139	46.20
Average EI	157	52.20
Poor EI	5	1.6

Table 3: Factors influencing EI scores among study participants.

Variables	Category	EI score			P value
		Good	Average	Poor	
Age (in years)	17-22 (278)	127	147	4	0.278
	23-28 (23)	12	10	1	
Gender	Male	56	63	4	0.257
	Female	83	94	1	

Continued.

Variables	Category	EI score			P value
		Good	Average	Poor	
Religion	Hindu	118	135	4	0.194
	Muslim	7	12	1	
	Christian	13	6	0	
	Others	1	4	0	
Type of family	Nuclear	7	8	0	0.706
	Joint	15	23	1	
	Three generation	117	126	4	
Place of residence	Urban	37	29	0	0.147
	Rural	102	128	5	
Father's education	Primary or below	12	8	0	0.270
	Secondary	17	15	0	
	Higher secondary	28	21	0	
	Graduate	82	113	5	
Mother's education	Primary or below	22	15	0	0.214
	Secondary	29	25	2	
	Higher secondary	21	21	0	
	Graduate	67	96	3	
Type of school	Private	114	130	5	0.808
	Government	25	27	0	

DISCUSSION

The present study was conducted among 301 undergraduate medical students. Majority of the study participants were females (59.10%) and 123 (40.9%) were males. Females had higher EI scores compared to males, though this was not statistically significant. This was consistent with the study done by Sundararajan et al which also showed no significant association between gender and EI scores.[5] The better score among females may be attributed to more socialization. In the present study, the mean age of the participants was 20.10±1.70. Out of 301 students participated in the research, 278 (92.35%) belong to the age group of 17-22 and 23 (7.65%) belong to age group of 23-28. There was no statistical significance between age and the EI level. Similar findings were seen in study by Todres et al and George at al which showed no significant association between the age and EI scores.[7,8] In contrast, another study done by Ibrahim et al among medical students shows that age has a statistically significant association with the EI scores.[9] It showed that as age increases the EI score also increases. In the present study 78.1% were from the urban area and only 21.9% were from rural areas. There was no significant association between the place of residence and EI scores. Similar findings were also seen in the study done by George et and Ibrahim at al.[8,9] Among the study participants majority (82%) are from nuclear family, 13% participants belong to joint family and 5% belong to three generation family. There was no significant association between type of family and EI score. Among the 301 study participants, 66% of the participants fathers were graduates while 55% of the mothers were graduates. In a study conducted by Coskum et al it was observed that that students whose mothers had higher level of education had more EI performance which was found to be statistically significant.[10] But in the present study no significant association was found between parent's educational status and EI.

This study showed that, 46.2% of participants had good EI score, 42.2 % had average EI score, 1.6% had poor EI. In studies done by George et al and Puliyakkadi et al showed that majority of the students showed an average EI level with a noted decline in empathy during clinical years, highlighting the need for longitudinal EI training throughout the course.[6,8]

Limitations

The study design itself was one if the limiting factor as causal associations could not be established between the factors and EI. The study of qualitative aspects of EI will provide more insights. The study also has limited generalizability as it was conducted only in single institution.

CONCLUSION

The study revealed that medical students had an overall average level of EI, suggesting a moderate ability to perceive, understand, and manage emotions. This indicates that while students possess basic emotional competencies, there is considerable scope for further development. Strengthening EI through targeted training programs, workshops, and supportive learning environments could enhance students' coping skills, communication, and professional competence. Integrating such interventions into the medical curriculum may help in producing more empathetic and emotionally competent healthcare professionals.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Brackett M, Delaney S, Salovey P. Emotional intelligence. In Biswas-Diener R, Diener E (Eds), Noba textbook series: Psychology. Champaign, IL: DEF publishers. 2024.
2. Alvi T, Nadakuditi RL, Alotaibi TH, Aisha A, Ahmad MS, Ahmad S. Emotional intelligence and academic performance among medical students-a correlational study. Europ Rev Med Pharmacol Sci. 2023;27(4):1230-37.
3. McQueen ACH. Emotional intelligence in nursing work. J Adv Nurs. 2004;47:101-8.
4. McCallin A, Bamford A. Interdisciplinary teamwork: is the influence of emotional intelligence fully appreciated? J Nurs Manag. 2007;15:386-91.
5. Sundararajan S, Gopichandran V. Emotional intelligence among medical students: a mixed methods study from Chennai, India. BMC Med Edu. 2018;18(1):1-9.
6. Puliyakkadi S, Chalil S, Abraham R, Dipin J, Raj A, Dayan S. Dimensions of emotional intelligence of doctors in a tertiary care centre in kerala. J Integrat Health Sci. 2019;7(2):48.
7. Todres M, Tsimtsiou Z, Stephenson A, Jones R. The emotional intelligence of medical students: an exploratory cross-sectional study. Med Teach. 2010;32(1):42-8.
8. George PS, Anuradha M, Rose BM, John A. Emotional intelligence among medical students: a cross sectional study from central Kerala, India. Int J Community Med Public Health. 2022;9:1338-46.
9. Ibrahim NK, Algethmi WA, Binshihon SM, Almahyawi RA, Alahmadi RF, Baabdullah MY. Predictors and correlations of emotional intelligence among medical students at King Abdulaziz University, Jeddah. Pak J Med Sci. 2017;33(5):1080.
10. Coskun K. An investigation on the relationship between maternal education level, maternal employment, and emotional intelligence performance of 10 years old children. Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi. 2017;18(3):456-70.

Cite this article as: Durga A, Kumar KA, Maudgalya KKC, Mushtaque KS, Srinithya J, Sathwika K, et al. Assessment of emotional intelligence among medical students in Hyderabad: a cross-sectional study. Int J Community Med Public