

# Emotional Intelligence of Medical Post Graduate Students from Central India: A Cross Sectional Study

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## Abstract

**Background:** Emotionally intelligent doctors are better able to perceive the need of the patient. In today's world, where patient satisfaction is one of the most important criteria for a successful medical practice, emotional intelligence of doctors plays a vital role.

**Objectives:** To study emotional intelligence of post graduate medical students.

**Methods:** It is a cross-sectional study conducted in Government Medical College and Hospital, Nagpur during January- February 2019. The study participants were one hundred first - year post graduate students. Data collection was done using quick emotional intelligence self administered questionnaire. Data was entered in Microsoft office excels and analyzed with the help of epi info.

**Results:** In the present study total 100 post graduate students were assessed of which 56% were male. Emotional awareness and emotional management was better in male post graduate students in comparison with the females and the difference was found to be statistically significantly. The scores of the other two domains were almost equal in both. More than half of the study participants had a satisfactory EI score i.e. 25-34.

**Conclusion:** Male post graduate students had better EI. Most of the study participants had a satisfactory EI score.

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## Introduction

Emotional Intelligence (EI) is increasingly being recognized in the present era where reading and managing emotions in social contexts are important for success in a variety of interpersonal as well as career related domains<sup>1,2</sup>. Emotional intelligence (EI) has been defined as “the ability to monitor one’s own and other people’s emotions, to discriminate between different emotions and label them appropriately, and to use emotional information to guide thinking and behaviour”. has the following common components or factors: perceiving, understanding, using, and managing emotions<sup>3,4</sup>. Higher EI correlates positively with an individual’s academic success, social skills, better interpersonal relationships and ability to cope with stressful situations, while low Ei has been associated with deviant behaviour, alcohol and drug abuse and poor relationships<sup>5-7</sup>. Healthcare, as a whole, is not provided by an individual, but by a team. As the leader of the healthcare team, the doctor is expected to successfully manage both themselves as well as the rest of the team members in order to succeed as effective practitioners. Therefore, there has been a shift in thinking – from individual achievement to team achievement<sup>8</sup>. Emotionally intelligent doctors are better able to perceive the need of the patient and are then able to address issues if any arise. In today’s world, where patient satisfaction is one of the most important criteria for a successful medical practice, emotional intelligence of doctors plays a vital role. Research has shown an increase in patient satisfaction scores after a period of emotional intelligence training of medical residents, as compared to previous scores<sup>9</sup>. In this context, EI of post graduate medical students carries importance as these students will come in direct contact with the general population as a part of their profession. EI of post graduate students from Central India is an unexplored area. Hence the present study was conducted with the aim and objectives to study the EI of the study group and also to know about the domains of EI.

## Methods

The present descriptive cross-sectional study was conducted in Government Medical College and Hospital Nagpur during January- February 2019. The

study participants were the medical postgraduate students of various departments. Total number of post graduate intake in every year is around 160. The complete list of 1<sup>st</sup> year students (junior residents 1) who had taken admission during 2018 was procured. Considering the feasibility criteria this study was specifically carried out in JR!s and a sample size of 100 was decided.

Ethical clearance was obtained from the Institutional ethics committee regarding the conduct of the study. Written informed consent was obtained from all the study participants. Data collection was done with the help of a pretested, semi-structured Questionnaire (quick emotional intelligence self administered questionnaire) with total 40 questions. Four domains of EI viz. Emotional Awareness, Emotional Management, Social Emotional Awareness and Relationship Management with 10 questions each were assessed with this self administered questionnaire. The responses were recorded on a five point Likert scale where 0 indicated never and 4 indicated always. Minimum score for each domain was 0 and maximum score was 40. Thus total score including all domain score was 160.

## Statistics

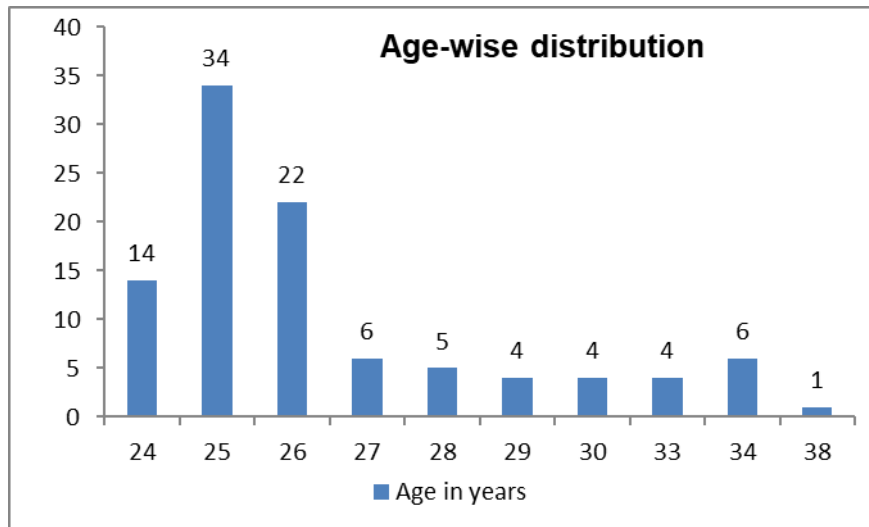
The data was entered in Microsoft office excels and analyzed with the help of epi info. Percentage, average ( i.e. mean, mode and median) and standard deviation (SD) were calculated. Chi-square test was applied to know level of significance. Pearson correlation coefficient was applied to establish the correlation.

## Results

The mean age of the study participants was 26.7 years with a standard deviation (SD) of 3.11 years. The age was in the range of 24 to 38 years. The detailed age-wise distribution is depicted in the graph 1 ahead.

Total number of post graduate male students was 56 (56%) and female students were 44 (44%).

EI as determined from the quick questionnaire included 4 domains. The domain-wise average scores of EI are shown in table 1. The various statistical averages i.e. mean, median and mode are being shown as there were different values for the three averages. The age of



Graph 1. Age – wise distribution of study participants

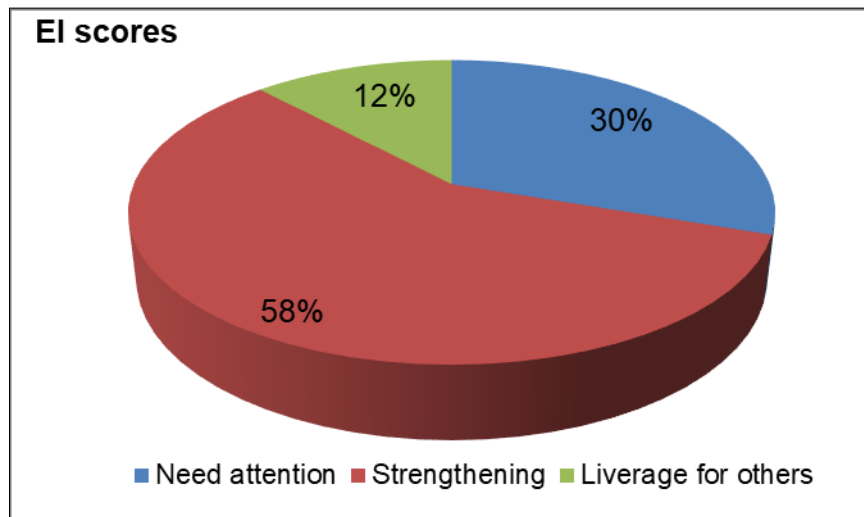
Table 1. Domain-wise average scores

Domain	Mean	Median	Mode	SD
Emotional Awareness (40)	26.5	28.5	35	7.41
Emotional Management (40)	23.94	25.5	23	9.31
Social Emotional Awareness (40)	29	30.5	34	7.19
Relationship Management (40)	27.58	29.5	35	8.76
Total EI (160)	107.02	112	113	25.08

Table 2. Gender-wise mean scores of EI

Domain	Mean score ± SD		p-value
	Males (n=56)	Females (n=44)	
Emotional Awareness	27.71±7.53	24.95±7.11	0.1941
Emotional Management	26.85±8.19	20.22±9.50	0.0109*
Social Emotional Awareness	29±6.12	29±8.52	1.0000
Relationship Management	27.92±9.20	27.13±8.35	0.7546

\* Indicates statistically significant difference



Graph 2. Distribution according to EI scores

the study participants was compared with the EI scores with the help of Pearson correlation coefficient. The value of R was 0.0928 thus establishing a positive but weak correlation between the variables.

The gender-wise mean scores of EI in the four domains were calculated. These are presented in Table 2.

Domain-wise EI scores are being graded wherein 0-24 represent poor score which need attention, 25-34 stand for satisfactory score in which strengthening is to be considered and score more than 35 is regarded as a good score and such individuals can use that domain as leverage for others. This distribution of the scores of EI is depicted in graph 2.

In the present study one-fourth participants had score between 0-24. Fifty eight percent had EI score 25-34. Remaining 12 study participants had EI score more than 34

## Discussion

The assessment of EI among medical postgraduates is desirable because if this area is nurtured while medical education is granted, it will improve patient management skills as well as affect the doctor patient relationship positively. This is also mentioned by Goleman's emotional intelligence theory which highlights that one's learning and overall life success is determined by emotional regulation, especially through self-awareness, social-awareness, self-management and relationship management<sup>10</sup>.

In the present study total 100 post graduate students were assessed of which 56% were male and 44% were female students. Similar composition of study participants with more male post graduates was conducted by other authors also<sup>7,11</sup>.

Comparison of age with EI revealed a positive weak correlation. This finding is coherent with that of other studies<sup>3,12</sup> wherein they have quoted that life experiences of a person increase with their age, and as they mature, they become more sensitive to their own feelings and to those of others.

In the present study the gender-wise comparison of EI revealed that emotional awareness and emotional management was better in male post graduate students in comparison with the females and emotional management was proven to be statistically significantly more in males. The scores of the other two domains were almost equal in both. The study finding is similar to another study<sup>13</sup>. This finding is in contrast with a study at Bangalore by Subramanian A et al<sup>7</sup> observed that comparison of EI scores by gender showed significant differences in a few subscales (self management) with trend of men scoring slightly better. The variation from the finding from our study could be due to the different geographical locations and cultural differences of the study participants.

The Ei scores of the four domains showed a wide range with the minimum score of 4 in emotional awareness domain and a maximum score of 40 in social

emotional awareness domain. Hence the total EI scores also had a range of observations. This is reflected as high standard deviation (SD) values. The reason of this variation in scores could be the different opinions and perceptions of the study participants. The different statistical averages were calculated and mean was found to be less than mode and median indicating a skewed distribution of the study participants. Although there were extremes of values of EI in the 4 domains as well as total score most of the study participants had an EI score of more than the mean value as indicated in mode which was higher in all aspects. Similar findings have been reported by other authors in their study<sup>14</sup>.

In the present study more than half of the study participants had a satisfactory EI score i.e. 25-34. This finding is similar to the observations of another study<sup>3</sup>. It is in contrast with the finding of another study from Bangalore<sup>7</sup>. The workload of doctors also affects their emotional intelligence scores<sup>3</sup> and heavy workload and study participants from all post graduate years might have resulted in low EI.

The small sample size is a limitation of this study. So the results cannot be generalised.

## Conclusion

Male post graduate students had better EI than female post graduates. Most of the study participants had a satisfactory EI score. Out of the four domains of EI, Social Emotional Awareness was the most developed one followed by Relationship Management. Although there is a need for more studies to be carried out on larger sample size and including medical post graduates from all years to know the associated factors, the importance of present study findings cannot be neglected as it has highlighted about various EI domains.

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