

## Original Research Article

# Cross-sectional study of emotional quotient among post graduate students in Rajarajeswari medical college and hospital, Bengaluru

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## ABSTRACT

**Background:** Medical education in India traditionally emphasizes physician's medical knowledge with less emphasis on interpersonal skills and ability to relate to the patients. Emotional intelligence is desirable among doctors to contribute towards patient centered practice, patient satisfaction as well as effective communication skills. This study was undertaken to assess the emotional quotient of postgraduate medical students and to investigate its relationship with various factors to act as baseline for future work in this area.

**Methods:** A cross-sectional study was conducted among all postgraduate students of Rajarajeswari Medical College and Hospital, Bengaluru over a period of two months. Emotional quotient (EQ) was assessed using a pretested, semi-structured, self-administered questionnaire. Data was analyzed by using SPSS version 21.0. All qualitative variables were presented as frequency and percentages.

**Results:** Total respondents in the study were 173. Emotional Quotient was assessed based on four factors; self-awareness, self-management, social awareness and social skills, by plotting the results on a 1(lowest) to 10(high score) scale. Majority of respondents 79.76% (self awareness) and 71.79% (self management) had low scores (below 6). More females (74.73%) obtained low scores as compared to males (67.94%) in self management. In social awareness 61.53% males had low scores compared to 55.78% in females. Self management and social skills were better in postgraduates of surgical fields whereas postgraduates in medical fields had high scores in social awareness.

**Conclusions:** Emotional quotient with its four main components is low among most of the postgraduates. This was more so in self awareness domain.

**Keywords:** Emotional quotient, Medical postgraduates, Bengaluru

## INTRODUCTION

Emotional quotient (EQ) is "the set of abilities (verbal and non-verbal) that enable persons to generate, recognize, express, understand, and evaluate their own and others' emotions in order to guide thinking and action that successfully cope with environmental demands and pressures".<sup>1,2</sup> Higher EQ correlates positively with an individual's academic success, social skills, better interpersonal relationships and ability to

cope with stressful situations, while low EQ has been associated with deviant behavior, alcohol and drug abuse and poor relationships.<sup>3-8</sup>

Emotional intelligence is a subject of growing interest in medicine and is considered among those non-cognitive factors which are considered to be desirable in future physicians to contribute towards patient centered practice, patient satisfaction as well as effective communication skills.<sup>9,10</sup>

Medical education in India traditionally emphasizes physician's medical knowledge with less emphasis on interpersonal skills and the ability to relate to the patients. Therefore it is desirable to incorporate EQ into the medical teaching curriculum in India.

Most of the research into emotional quotient among medical students has been conducted in developed countries. As there are hardly any Indian studies on this aspect, the present study was undertaken to assess the emotional quotient of postgraduate medical students in a tertiary care hospital in Bengaluru to investigate its relationship with various factors so as to act as a baseline for future work in this area.

## METHODS

The current study was a cross-sectional, descriptive study conducted over a period of two months, November-December 2016. It was conducted in RajaRajeswari Medical College and Hospital, Bengaluru on all Postgraduate students. The study tool was a pretested, semi-structured Questionnaire (emotional quotient self score questionnaire).<sup>11</sup> All post graduate students who consented to take part were included in the study.

After Ethical clearance from Institutional ethical committee was obtained, a complete enumeration of all the students was done. Written informed consent was obtained from all the students and a semi structured, pretested, self-administered, emotional quotient survey questionnaire was administered to the post graduate students and they were asked to mark the answers in the questionnaire. The questionnaire consisted of a total of 40 questions. Emotional quotient was assessed based on four factors: self- awareness, self-management, social awareness and social skills, by plotting the results on a 1 (lowest score) to 10 (high score) scale.

The data was entered into MS Excel sheet and analyzed by using SPSS version 21.0. All qualitative variables were presented as frequency and percentages.

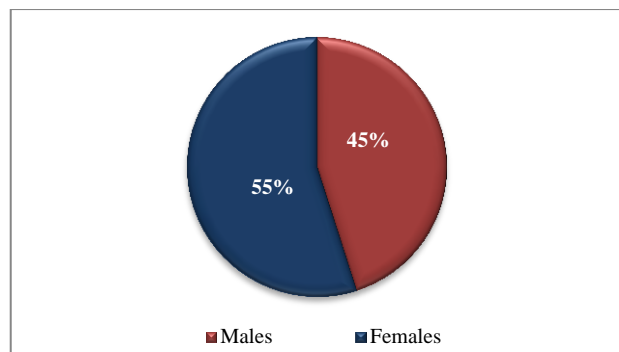
## RESULTS

There were a total of 173 respondents in the study. The age range was from 24-37 years with a mean age 30.5 years. There were 77 (45%) female participants and 96 (55%) male participants.

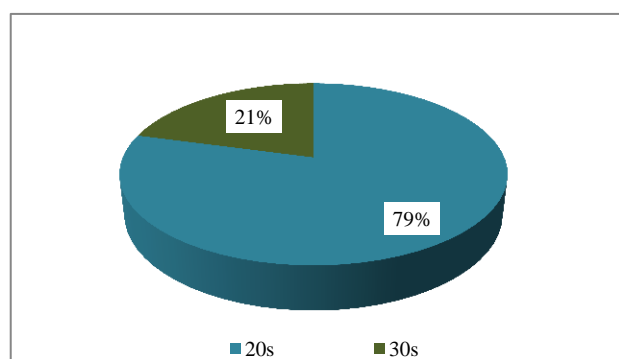
Majority of the participants 137 (79%) were in their twenties whereas 36 (21%) participants were in their thirties.

In the first domain of self awareness, majority (89.01%) of participants obtained scores between 2 and 6.

81.5% participants scored between 3 and 7 in case of self management.



**Figure 1: Gender wise distribution of participants.**



**Figure 2: Age wise distribution of participants.**

**Table 1: Emotional quotient interpretation grid.**

Scores obtained by participants in each domain				
High 10	0	1	3	5
9	4	3	7	10
8	5	3	16	17
7	7	18	31	23
6	19	24	15	19
5	24	30	26	18
4	39	30	25	30
3	55	39	42	34
2	17	15	7	16
Low 1	3	10	1	1
	Self awareness	Self management	Social awareness	Social skills

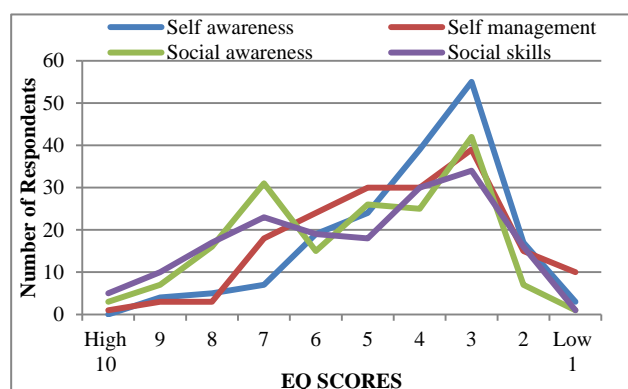
The participant scores in social awareness domain were spread between 3 and 8, and that of social skills between 2 and 9.

Most of the respondents obtained a score of 3 in all four domains (Figure 3).

Majority of respondents obtained scores below 6, namely 79.76% in self awareness and 71.79% in self management.

More number of females (74.73%) had low scores as compared to males (67.94%) in self management. In

social awareness 61.53% males had low scores when compared to 55.78% females.



**Figure 3: Line diagram showing emotional quotient scores.**

Self-management was better among younger postgraduates i.e. those in the twenties age group, whereas social awareness was better among those in their thirties.

## DISCUSSION

The theoretical assumption of emotional intelligence being implied in academic performance is popularized 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>2</sup>

Thus assessment of emotional quotient among medical postgraduates acquires pertinence. The nurturance of these characteristics in early years of medical education will affect academic achievement positively as well as improve patient management on the long run.

The present study participants comprised of 173 medical postgraduates. There were more male correspondents 95(55%) than females 78(45%) in this study which was in concordance with the study conducted by Joshi where males comprised 80.5% and females 19.5%.<sup>12</sup> The study conducted by Imran in Pakistan however revealed more number of female participants (64.5%) as compared to males (31.5%).<sup>13</sup>

Comparison of EQ scores by gender in our study showed significant differences in a few subscales (self management) with trend of men scoring slightly better. This was opposite of what was observed in Imran's study where women had better EQ scores.<sup>13</sup>

Majority of respondents 123 (71%) had lower overall EQ scores in the present study which was similar to the results observed in other studies done by Joshi, Imran and Dixit.<sup>2-14</sup>

Systematic review of emotional intelligence training identified 5 randomized controlled trials all showing positive outcomes with improvement in empathy, communication skills, better patient understanding and supportive behavior.<sup>15</sup> Some medical colleges like MC of Georgia by use of small group teaching as part of Essentials of clinical medicine (ECM) course focuses on increasing their medical students understanding of their own emotional skills with view to help them improve the patient care ultimately.<sup>16</sup> Medical educators of today know that students learn many things via "informal curriculum" in ward rounds, lectures and thus presence of good role models also help in the task of improving EQ. Furthermore we should explore ways to incorporate mindfulness in our medical curriculum to help produce emotionally intelligent physicians.<sup>17</sup>

## CONCLUSION

Emotional quotient with its four main components is low in most of the residents more so in self awareness domain.

The need of the hour is to build emotional intelligence among medical post graduates by including it as a part of training program for post graduates as this will help improve patient care and bridge the doctor –patient communication gap.

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