

Emotional Intelligence and Academic Performance of Final Year (7th Semester) Medical Students

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ABSTRACT

BACKGROUND

Due to changing priorities of medical students in the present day scenario, an insight of their Emotional Intelligence (EI) can serve as a predictor of their compassionate and understanding domain. The relation of EI with academic performance will give an idea on how the emotional or indirectly psychological component plays a role in the manner the medical students perform. Importance of Emotional Intelligence (EI) is increasingly recognised. It is more relevant in medical professionals who have an inbuilt touch of emotions to the profession. The study was conducted to evaluate EI of 7th semester MBBS students and also to determine the relation if any of EI with their academic performances.

METHODS

This descriptive cross sectional study was conducted in a Government Medical College in Central India. The study was carried out among 159 medical students. Data collection was done with the aid of a structured, pretested questionnaire which had questions based on the Quick Emotional Intelligence self-administered questionnaire. Academic scores of previous MBBS years were considered. The relation between emotional intelligence and academic scores was studied. Data was entered in Microsoft excel. Statistical analysis was done with help of Open Epi Info.

RESULTS

Mean \pm Standard Deviation of Emotional awareness, Emotional Management, Social Emotional Awareness, and Relationship Management scores were 23.94 ± 4.86 , 24.56 ± 6.49 , 27.75 ± 5.77 and 25.91 ± 6.46 respectively. Mean total Emotional Intelligence score including all domains was 102.16 ± 18.38 . A weak positive correlation was established between EI and academic scores.

CONCLUSIONS

EI of medical students was directly associated with their academic scores.

KEY WORDS

Emotional Intelligence, Medical, Academic Scores, Students

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BACKGROUND

Emotional Intelligence (EI) is the quality of being able to monitor one’s own and others’ feelings and emotions, to discriminate among them, and to use this as a guide to one’s thinking and actions.^{1,2} Students with higher emotional intelligence are found to have high positive social functioning in interpersonal relationship and are regarded by peers as pro-social, less antagonistic and conflictual.^{3,4} Improved social relationships facilitate cognitive and intellectual development leading to better academic performance.^{4,5} EI is linked to success in academics and professionalism and contributes to excellence in cognitive-based performance which is much more that can be attributed to general intelligence.⁶ In medical education emotional intelligence also enhances clinical performance and leads to greater academic achievement.⁷ Thus EI is imperative for improvising clinical care and also has an equally important role for management of all aspects of human relationships which may emerge during the course of medical treatment offered. EI is undoubtedly indispensable for the efficient medical team work with the physician as leader and other allied health professionals along with nurses and hospital managers as part of the team.^{8,9} EI is vital to interact efficiently with patients’ family members and their friends while the patients are undergoing treatment.¹⁰

Significance of Emotional Intelligence (EI) is increasingly recognized. It is more relevant in medical professionals who have an inbuilt touch of emotions to the profession. Literature search revealed that there are very few studies on the EI of students from medical field and more so on the academic performance being influenced by EI in medical education specifically in the current study area. This might be due to evolving of the concept in the last few decades. With this in mind the present study was carried out to know the emotional intelligence of final year medical students and find out association of EI with their academic performance.

METHODS

The present study was a descriptive cross sectional study which was conducted amongst all the 3rd year (7th semester) MBBS students at a Government Medical College in Central India and thus universal sampling technique was applied. These medical students were considered as they have an enough exposure to medical studies and the patients during various clinical postings.

A self-administered, pretested questionnaire based mainly on the “Quick Emotional Intelligence Self-Assessment Questionnaire” which includes 4 domains¹¹ was used to know the emotional intelligence. This questionnaire was preferred in the present study as it provides an insight into the various domains of EI and the participant can his own area of strength. Second year MBBS marks were also enquired and noted. The survey questionnaires were distributed to the students during their class hours. Response to each question was marked on a 5 - point Likert scale ranging from never to always (0 - 4). For every domain there were 10 questions (thus making score of 40 for each domain) with a maximum possible score of 160 altogether.

Ethics

An Institutional Ethical Committee (IEC) clearance regarding conduct of the study was obtained before initiation of the data collection in the study. Nature and purpose of the study was explained to the study participants and an informed consent was taken from them for their voluntary participation in the study.

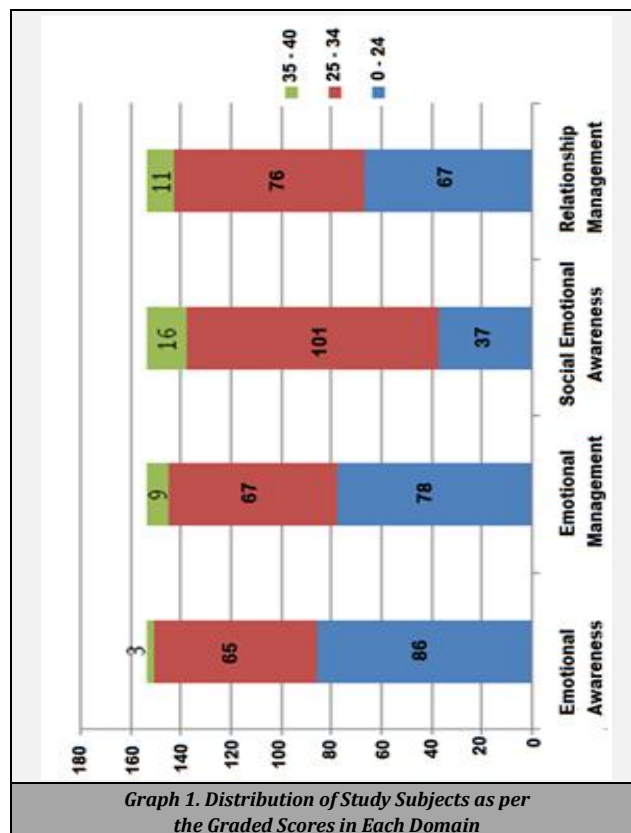
Statistical Analysis

Obtained data was entered in Microsoft Excel Spreadsheet. Mean and percentages were calculated. Data analysis was done with the help of Open Epi Info. The association of EI with the academic scores was assessed with the help of Pearson correlation coefficient.

RESULTS

159 students were present for the class on the survey day. Of these, 5 students were excluded due to non-consent to participate. Finally total number of study participants was 154 (response rate of 96.85 %). Of the total study participants, 78 (50.65 % of 154) were male students and remaining 76 (49.35 % of 154) were female students. Their mean age was 21.32 years with a standard deviation (SD) of 0.84 years.

Emotional Intelligence was assessed with the Quick emotional intelligence scale. Mean ± Standard Deviation of emotional awareness, emotional management, social emotional awareness and relationship management scores were 23.94 ± 4.86, 24.56 ± 6.49, 27.75 ± 5.77 and 25.91 ± 6.46 respectively. Mean total Emotional Intelligence score including all domains was 102.16 ± 18.38.



Grading of the domains of EI can be on the basis of these scores, significance of the grades being score of 0 to 24 indicates area for enrichment and many opportunities for attention and development are there. Score between 25 to 34 means that effective functioning is present and one can consider strengthening. The score of 35 to 40 are a good sign and signify that those skills are enhanced, are an asset and thus can be used as leverage to develop weaker areas.¹¹ The distribution according to the classified scores is shown in Graph 1.

Study participants had to mark from 0 to 4 for each of the 10 questions for the respective EI domain wherein 0 indicated never and 4 indicated always. Question-wise mean score of emotional awareness was 2.39, emotional management was 2.46, social emotional awareness was 2.78 and relationship management was 2.33. Social emotional domain appeared to be more developed than the other domains. The questions from SEA domain are shown in Table 1.

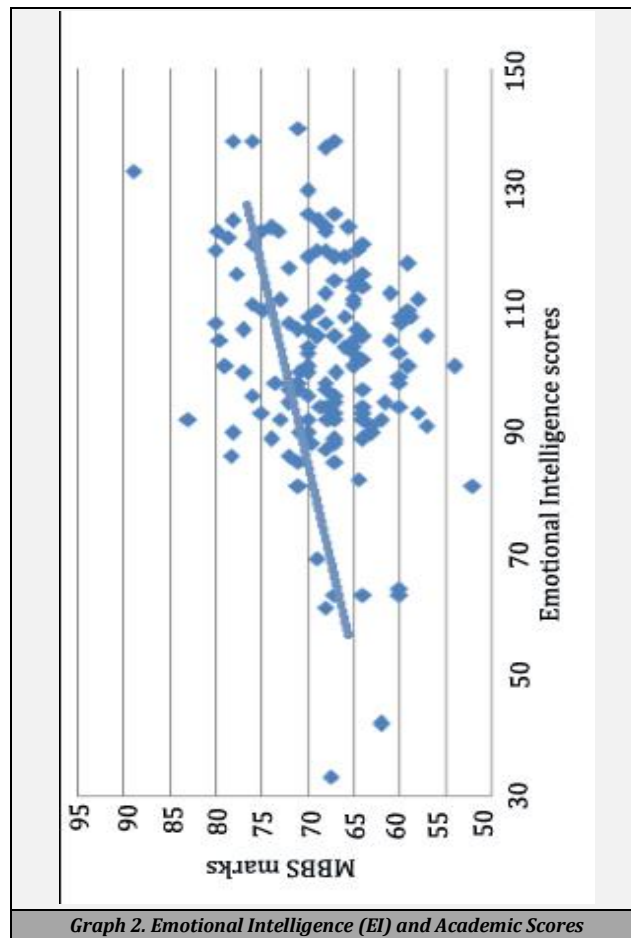
Sl. No.	Statement	Mean	Standard Deviation
1	I care what happens to other people.	2.99	0.88
2	I sense it when a person's mood changes.	2.92	0.92
3	It genuinely bothers me to see other people suffer.	2.91	0.91
4	I usually know when to speak and when to remain silent.	2.80	0.99
5	I am able to be supportive when giving bad news to others.	2.79	1.05
6	I can easily tell if people around me are becoming annoyed.	2.79	0.96
7	I am generally able to understand the way other people feel.	2.71	0.91
8	I consider the impact of my decisions on other people.	2.66	1.01
9	My friends can tell me intimate things about themselves.	2.62	1.03
10	I understand when people's plans change.	2.51	0.99

Table 1. Statements from Social Emotional Awareness Domain Arranged in Descending Order of Mean

The study also aimed at assessing the relation of EI of the students with their second year MBBS marks. The minimum reported 2nd year university exam score was 52 % and maximum was 80 %. The range of MBBS marks of study participants was 55.88 % to 79.64 % with the mean being 67.76 % ± 5.94 %. These marks representing the academic performance of the study subjects were compared with total EI scores. Graph 2 depicts relation of academic performance with EI.

The scatter plot Emotional Intelligence (EI) and academic scores shows the line of intersection is moving upwards indicating higher EI scores have a better academic performance. However this upward rise is not very sharp. On applying the Pearson Correlation Coefficient for Emotional intelligence and 2nd year MBBS marks, the value of R calculated is 0.1518. In other words although technically a positive correlation is obvious the relationship between the two variables is weak.

Apart from knowing the EI, the questionnaire had three open ended questions based on their views an example of how they demonstrate their strength in daily life or work for the strongest domain of EI, example of how the weakest domain affects their life and suggestions how the weaker EI domains can be improved. The common responses of it are presented ahead.



Graph 2. Emotional Intelligence (EI) and Academic Scores

Example of How They Demonstrate Their Strength in Daily Life or Work for the Strongest Domain of EI as Expressed by the Study Participants

- Even if I am upset with someone I don't let it affect for the other person who is in need and I try to be supportive.
- I can sometimes cheer someone and I can also end a fight by talking to the people.
- I am very friendly and easy to talk to, people can always relate to me
- I focus on my goals without getting affected by my feelings
- I feel hurt when I see people in trouble, connect to them and so help them
- I tend to keep negative people and negativity out of my life. I ignore insulting comments directed towards me by people who do not matter in my life.
- I am very good in expressing my concern, love towards other people.
- Social emotional awareness is pretty nice, I can actually console and help people out of sadness, confusion and advise them for life.

Few Expressed Views or Gave Example of How the Weakest Domain Affects Their Life

- I get attached to people easily and I tend to get upset if I don't get the same love, sometimes get angry on very small or stupid things with my fellow colleagues, but I afterwards realizing my fault also apologize.

- Even if I get late for any work, I remain calm, thinking that doing things in a panic won't help for which I face criticism.
- Relationships - I don't talk much to many people and don't give them proper time.
- I am short tempered and get easily angry at harsh words by people close to me.
- Mood swings may affect my behaviour with my family members and my colleagues.
- My emotional balance has lately been affected as I got rejected by a girl recently. Such loneliness gets me upset often.
- I worry a lot. Even though things are going to be perfect I feel that something can come in between and can cause problem.
- I get anxious easily and depressed sometimes.
- I get easily distracted now a days, especially mobile videos games and others, can't do studies nor exercises which eventually disturbs my behaviour.
- It was not a case when I was in high school, grades were upright at that time, but now my grades have fallen, and I hold myself solely responsible for that.
- I am not very good at consoling people.
- Sometimes over think of unnecessary things.
- Relationship Management. It's not easy for me to make friends. Difficulty in communicating with new person.
- I am a bit patient person but certain things are just unbearable which breaks my patience easily and force me to become a person which I don't want to be.
- I don't feel very empathetic towards others sadness. I just show externally that I am just to make them feel better
- Unable to express my love towards family members but I can express my anger and frustration very easily to them.
- Being diplomatic and not able to say no to others, feeling of being taken for granted & compromising my own plans
- I might overreact to very petty issues at times which definitely affects the ones near to me
- I always try to control my anger but sometimes rarely when I lose my temper I say things which are very hurtful

Suggestions as Mentioned by the Study Participants as to How the Weaker EI Domains Can Be Improved

- I should try to become more independent and confident.
- I think I should start accepting the situation & that person.
- To be more patient n calm about small or big however the things may be n try not to become impatient on anyone without any cause.
- I should learn to value other people in my life.
- Not reacting impulsively before thinking through the consequences of my actions.
- Always get motivation from others & motivate other.
- My weakness is a way of life I believe in to live with - It is what I would do for people and would expect from them. Not expecting from others is the solution.
- Control temper.
- Stop bothering about what other people are doing in their life.
- I should remind myself all the time about what my ultimate goal is because according to me the cause or

reason or target can be the only true driving force for any work to be done.

- I plan to start talking to the people whom I was previously attached to but have a problem now and keep it at a medium level of friendship so that I can practice complete apathy with them and be free from the negative influence of rejection.
- Try to be more social and affectionate.
- To express feelings to others I should try to talk more to people and interact more.
- By doing meditation, keeping calm, smoothly overcome the difficulties and controlling anger.
- Making an attempt to communicate with people rather than avoiding.
- I think I should control myself at certain points and find some easy way to find solutions to those things which annoys me the most.
- Don't deep think about others. And don't put your suggestion without other permission. Put your efforts to make your present best. It will make you feel good.
- Maybe, thinking and understanding that not everyone is capable of hiding their feelings and controlling their moods like I do, will help.
- I am currently trying to keep calm in every situation and deal it.
- Control myself whenever angry, not to scream on them reason being others expressing love towards them.
- Don't think so much about any theme be happy always and share your problems to your parents and someone on whom you trust.
- I need to be emotionally more strong and stable.
- I need a mobile holiday, someone please take away my mobile for like 21 days and then give it to me, but there are very important stuffs to do on phone for studies in today's time.
- I must improve my abilities to express my thoughts in words appropriately n enthusiastically.
- I think I should control my temperament so that I can deal with the situation easily.
- Understanding from friends and family.
- Increasing efforts from my end to try to talk and socialize with other people.
- Meditation helps to concentrate and stay away from distractions.

DISCUSSION

This dynamic process of creating a professional medical doctor imparts knowledge with technical skills as well as develops their ethical and interpersonal skills. Emotional intelligence potentiality is the building block which will allow students of medical institute to build healthy doctor patient relationships later on.¹² There has been very little focus globally on training medical students in emotional intelligence. Present study attempted to gain an insight into the emotional intelligence of medical students and its relation with their academic performance. Mean value of total EI score was 102.16 ± 18.38 which is in coherence with another study carried out by

Sundararajan, S and Gopichandran V in Chennai.¹² It was also noted that emotional intelligence was above the average score of 21. This observation is in coherence with the findings of other studies.¹²⁻¹⁴

There was a weak positive correlation for EI and academic scores which can be explained on the basis of wide variation of scores of the study participants. This might be the possible reason behind not getting a strong association of the academic performance with EI. This is also in coherence with other similar studies.¹⁵ However in contrast to this finding, it was reported earlier that emotional intelligence has no relation with academic achievement.¹⁶ The difference in the observation from the previous literature could be because that was based on a study conducted long back and not in medical students. As medical field demands an understanding and not just calculations a well-developed emotional intelligence adds to the overall development of the students. Possibly there exists a vicious cycle of emotional intelligence and the intelligence quotient.

The open ended questions revealed that the common strengths were communicating well to others, not losing temper and understanding others. Indeed it is good sign to identify one's own strong points and thus utilise them for dealing with self and others' emotions. Being compassionate will add on to the communication with the patients. Weaker areas perceived by the participants appear to be getting angry quickly, worrying or thinking too much and difficulties with relationship management.

The participants being youngsters apparently by relationships the concern was more towards the interactions with opposite gender persons. These issues need to be handled in a correct manner so that the individual turns into a higher EI one by overcoming the negativity. Suggestions given by the participants indicate well that they have an insight about their own strengths and weaknesses. Important suggestions given were performing meditation, accepting the surrounding situations and sorting help about the emotional ups and downs from the parents or close ones and expressing the troubles with trusted people. Guidance probably is needed to develop the EI.

Therefore, emotional intelligence should be tested and adequate guidance for the same should be included in the medical education curriculum. In addition it being an all-round development the ways to improve and strengthen EI should also be an inbuilt part in medical teaching.

CONCLUSIONS

Emotional intelligence scores were good for the undergraduate medical students. Academic performances were well associated with emotional intelligence which points towards the importance of this component.

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