



ORIGINAL RESEARCH PAPER

Physiology

THE STUDY OF EMOTIONAL INTELLIGENCE AND PERCEIVED STRESS IN FIRST YEAR MBBS STUDENTS

KEY WORDS: Emotional Intelligence (EI), Perceived Stress (PS).

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ABSTRACT

Emotions are inherent component of human life, having their effect on almost all aspects of our life i.e. decision making, behavior, inter personal relations, profession etc. Emotional intelligence is increasingly discussed as having a potential role in Medicine, Nursing and other healthcare professions. Stress is very high for students in healthcare courses. This study is looking at emotional intelligence in medical students in their first year of MBBS and examines the relationship with perceived stress. We have calculated emotional intelligence and perceived stress by using a questionnaire based scale . We did this on two occasions first on admission and second before the final examination of the first year MBBS . After using appropriate statistical analysis, we have found out that there is significant inverse correlation between EI and PS. That means the students with higher EI score have less perceived stress.

Introduction:

Emotion is a conscious mental reaction, which is subjectively experienced as a strong feeling usually directed toward a specific object or an individual and is typically accompanied by physiological and behavioral changes in the body. They are necessary for survival and cannot be removed or reduced. This study will investigate whether measures of EI and stress differed among students in medical profession and whether there is evidence that EI might serve as a buffer for stress.

All students experience the demands of course work, a new environment and new people and for those living away from home for the first time learning to manage financially, emotionally and socially by themselves. In addition medical students encounter other potential sources of stress such as the emotions involved in dealing with patients and the learning of applied clinical skills. Stress in healthcare students has been associated with increased level of depression, use of drugs and alcohol and increased anxiety etc. which have a heavy impact on the personality of the budding healthcare provider which himself / herself is important for the society.

The expense involved in training medical professionals represents a considerable investment. Therefore it is important to identify the students who experience their course more stressful than their peers in order to identify them early for help and support.

The concept of EI was introduced over a decade ago by Salovey and Mayer and is described as a type of social intelligence that involves the ability to monitor one’s own and other’s emotions, to discriminate among them and to use this information to guide one’s thinking and actions.

Aims and Objectives

Aim: To study the relation between the emotional intelligence and perceived stress in first year medical students

Objectives:

1. To calculate emotional intelligence and perceived stress in first year medical students by using Schutte Emotional Intelligence Scale.
2. To calculate stress in medical students by using Perceived Stress Scale.
3. To study the relation between the emotional intelligence and perceived stress in medical students.

Materials and Methods:

1. **Study Design:** Observational and Cross sectional study.
2. **Selection of sample:** The study was carried out on volunteers who were first year medical students of tertiary health centre of

Municipal Corporation of Greater Mumbai. All apparently normal and healthy students in the age group of 18-20 years were included in the study.

3. Calculation of sample size: Data was collected using complete enumeration method so we included all the individuals as study subjects and also 180 is not a big sample size and it helped to avoid personal biases.

4. Inclusion criterion:

- a) First year medical students in apparently normal physical and mental health.
- b) Age group is 18-20 yrs.
- c) The subjects of both the sexes were included.
- d) Volunteers who have provided proper informed written consent.

5. Exclusion criterion:

- a) History of any major physical and mental illness.
 - b) Individual with major deformity or handicap.
6. Equipments:
- a) The Schutte Emotional Intelligence Scale
 - b) The Perceived Stress Scale
 - c) Questionnaire for demographic information

7. Study procedure:

Proper informed written consent of the volunteers was obtained before the procedure. History taking, General examination and systemic examination were done to rule out any major physical and mental illness. Volunteers were provided with EI scale and PS scale and demographic questionnaire at the start of the first MBBS and before the final first year exam.

Schutte Emotional Intelligence scale consists of 33 questions and about 10 minutes were allowed to solve it. The Perceived Stress scale consists of 10 questions and about 5 minutes were allotted to solve it. The emotional intelligence score was calculated for every participant with the help of Schutte EI scale which is in the range of 33-165. The perceived stress score was calculated with PS scale which is in the range of 10-40.

Appropriate statistical tests of significance along with descriptive statistics were used to analyze the data.

Observation and Result: Table No. 1

Parameters	Values
No. of cases	N = 180
#Age(yrs)	
Mean	18.56
SD	0.69

Range	17-21
@Sex (%)	
Male	104
Female	76

- by ANOVA

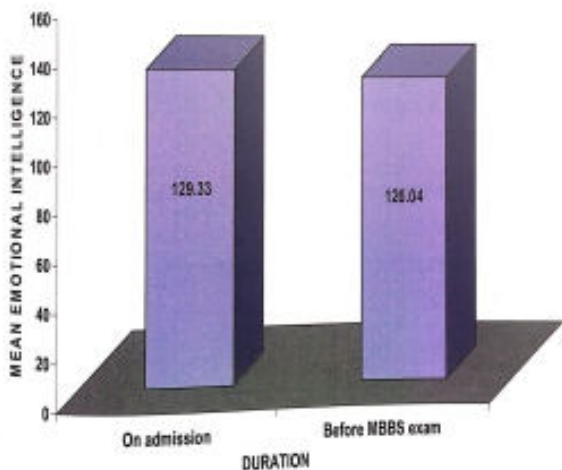
@ - By Chi Square test

Table No. 2 – Correlation between Perceived Stress Scale and Emotional Intelligence

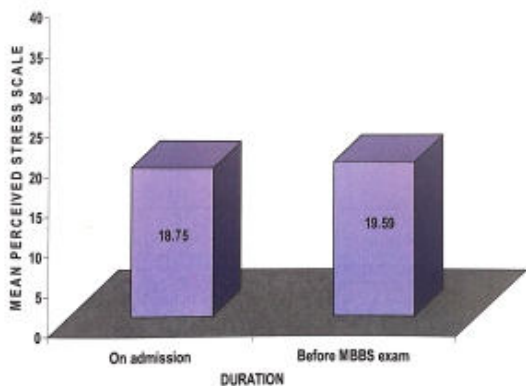
Parameter	Mean (X ± SD)	
	On Admission (N= 180)	Before MBBS exam(N = 180)
PSS	18.75 ± 6.42	19.59 ± 6.31
EI	129.33 ± 11.66	126.04 ± 14.01
r	-0.3544	- 0.2798
P value	*0.0000	*0.0000

According to this table there is significant inverse correlation between PSS and EI, that is as EI score increases there is decrease in PSS score.

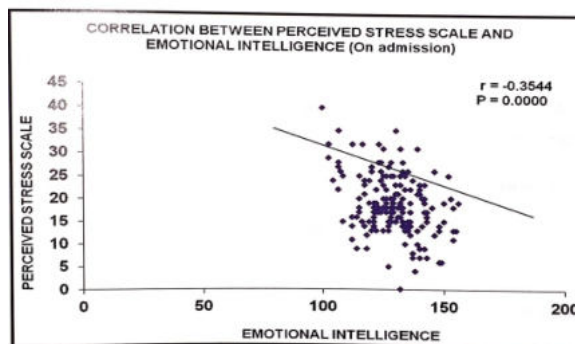
CHANGES IN MEAN EMOTIONAL INTELLIGENCE AMONG THE STUDY CASES



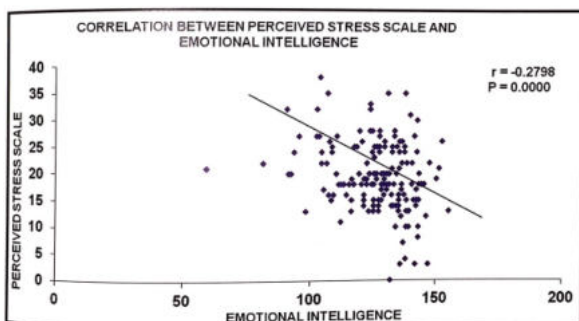
CHANGES IN MEAN PERCEIVED STRESS SCALE AMONG THE STUDY CASES



ON ADMISSION: Figure No.1



BEFORE FIRST YEAR FINAL EXAM: Figure No.2



Discussion

The corporate world has accepted the concept of emotional intelligence as a predictor of employee’s performance but this is less true within the health profession where detailed research is lacking. Most health professions have an age old history of relying upon traditional marker of intelligence (eg. High scores in exam) to predict successful completion of a degree program and individual mastery of topics.

The use of newer, less traditional measures is facing resistance and question of reliability. This study examined the hypothesized link between perceived stress and emotional intelligence in the first year MBBS students. Previous work had suggested a positive link between EI and Perceived Stress in different healthcare student population. In this study data were collected from 180 first year MBBS students of which 104 were males and 76 were females.

We have calculated mean EI and PSS on two occasions i.e. on admission and before final first year exam. By using Pearson correlation coefficient it is proved that there is significant inverse correlation between EI and PSS which means students showing higher EI scores have less perceived stress.

Mean PSS score before the first year final exam showed an increase of 4.5% in comparison to on admission value, but the difference is not statistically significant.

However there is 2.5% fall in mean EI score before the exam compared to on admission score which is statistically significant.

We can correlate this finding to the fact that the students are first time facing a professional course exam which is having more stressful scenario in the form of huge syllabus, different environment (as many of them are away from their home town etc.), managing everything on their own.

Conclusion:

We can conclude that medical students showing higher EI scores suffered less perceived stress. Emotional intelligence in this context appears to be at some level a moderator of stress. However its effect seems to be slightly less pronounced at time two, where generally higher level of stress were reported, may be due to

upcoming exams.

Because of the correlational nature of the study ,we cannot point out any causal connection. It may be that as people get more stressed ,their EI scores decrease or that as EI score decrease for whatever reason , stress increases.

However ,given that EI is more stable than PS, it might make sense to hypothesize that it is EI that is affecting stress rather than the other way round.

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