Original Article

Assessment of Emotional Intelligence Levels among Students of a Public Medical College of Pakistan amidst the Crisis of Covid-19 Pandemic

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Abstract

Objective: Aim of the study was to determine the standards of emotional intelligence among students of Rawalpindi Medical University, Rawalpindi.

Materials and Methods: A cross-sectional study, employing the use of a self-made online questionnaire, was carried out among the students of Rawalpindi Medical University's 1st year to final year MBBS. Convenience sampling was used to collect data, which was subsequently entered into Statistical Package for the Social Sciences (SPSS) version.25 for analysis.

Results: The average value of emotional intelligence was calculated to be 54.34% ±13.89 SD; mean values for emotional awareness, emotional management, and social awareness were found to be 65.15% ±12.6 SD, 51.12% ±12.12 SD, and 48.4% ±17.39 SD respectively.

Conclusion: The emotional intelligence of the students amidst the Coronavirus pandemic had a noticeably lower value compared to the values determined previously in other studies in the absence of such a pandemic. This result points towards the role of pandemic-induced stress in the apparent decrease of emotional intelligence.

Keywords: Emotional Intelligence, Pandemic, Public Medical College.

Introduction

Emotional intelligence (EI) describes an ability to monitor your own emotions and the emotions of others as well, to distinguish between and label different emotions correctly, and to use emotional intelligence to guide your thinking and influence the behavior of others.[1,2] High EI can contribute to individual cognitive-based performance, which may be equal to or even better than IQ.[3,4]

Results of a study conducted at the University of Alberta, Canada showed a higher level of stress and depression among medical students.[5] The reason for this additional stress is far greater competition among students in this field.

Another study was conducted at King Abdul Aziz University, Jeddah, Saudi Arabia to determine predictors of EI and its relationship with self-efficiency. The results revealed that female gender, age, and non-smoking were the predictors of high EI and it was recommended to conduct training programs to boost EI.[6]

Research conducted in Japan's medical school to determine the association between EI, empathy, and personality traits in medical students revealed that their neuroticism was strongly associated with EI.[7]

In Pakistan, a cross-sectional survey of EI and empathy in medical students of Lahore was performed and it revealed that their overall mean EI score was significantly lower, highlighting that medical students do not seem better than average people in emotional quotient.[8]

Another study investigated the link between EI and academic success among undergraduate students of Kohat University of Sciences and Technology (KUST), Pakistan. The findings indicated that there was a strong positive relationship between EI and academic success among them.[9]

Even though many studies have been conducted on the effect of EI on work performance, very few studies have been done on the effect of EI on medical students in face of a crisis like the COVID-19 pandemic. Our study was aimed at the assessment of the present EI of medical students to give an idea about how they adapt and deal with unfavorable circumstances. It will make us ruminate about where they stand in terms of their capacity to overcome any such crisis in the future and signify the importance of enhancing EI. It will help to initiate steps in the future towards improving EI to master the art of managing catastrophes.

Materials and Methods

It was a cross-sectional study in which a self-made online questionnaire was distributed among the target population to evaluate perceived EI. The confidentiality of participants was taken very seriously. The questionnaire had 3 portions to assess the following 3 dimensions of EI: (1) Emotional Awareness (2) Emotional Management (3) Social Awareness. Each portion had 5 questions each with Likert-type five-point answer scale: 0 (never), 1 (rarely), 2 (sometimes), 3 (often), 4 (always).

The study was conducted in the month of May 2021 at Rawalpindi Medical University for a period of 14 days. The sample size was calculated by taking the response rate/frequency from a reference study (To assess whether an EI program for otolaryngology residents affects patients satisfaction). For an anticipated frequency of 90% with 95% CI, the sample size turned out to be 140. Convenience sampling was applied to collect data from the target population.

Only medical students of Rawalpindi Medical University, from any year of medical training (1st year to final year), both male and female, were eligible to be taken as a sample for this study. Medical students of other medical colleges as well as students from any other field, both male and female were excluded from this study.

Descriptive statistics and logistic regression analysis were performed for statistical assessment. All descriptive statistics were presented as means and standard deviations (SD) for quantitative variables and relative frequencies plus percentages for categorical variables. All recorded data were entered into Statistical Package for the Social Sciences (SPSS) version.25 for analysis.

Results

Out of 140 medical students under study, 101(72.1%) were female and 39(27.9%) were male. 6(4.3%) of them were studying in the first year, 20(14.3%) in the second year, 12(8.6%) in the third year, 78(55.7%) in the fourth year, and 24(17.1%) in the final year. 1(0.7%) was less than 18 years of age, 16(11.4%) were between 18-20 years, 83(59.3%) were between 21-23 years, 38(27.1%) were between 23-26 years and 2(1.4%) belonged to the age group of more than 27 years.

Table 1: Frequencies and Percentages of participants with the given responses to the questionnaire

DATA QUESTIONS		FREQUENCY	PERCENTAGE	CUMULATIVE PERCENTAGE
EMOTIONAL AWARENESS				
Are you able to express your feelings amidst crisis	never	15	10.7	10.7
	rarely	36	25.7	36.4
	sometimes	38	27.1	63.6
	often	30	21.4	85
	always	21	15	100
You can control your emotions whenever you hear an increase in Covid-19 patients	never	5	3.6	3.6
	rarely	18	12.9	16.4
	sometimes	34	24.3	40.7
	often	33	23.6	64.3
	always	50	35.7	100
Do you feel yourself weak by stress associated with this	never	41	29.3	29.3
	rarely	44	31.4	60.7
	sometimes	28	20	80.7
	often	20	14.3	95
	always	7	5	100
Do you feel that this stress is deteriorating your physical health	never	58	41.4	41.4
	rarely	28	20	61.4
	sometimes	35	25	86.4
	often	13	9.3	95.7
	always	6	4.3	100
Do you feel yourself overthinking about the increase in no. of patients	never	54	38.6	38.6
	rarely	32	22.9	61.4
	sometimes	26	18.6	80
	often	19	13.6	93.6
	always	9	6.4	100
EMOTIONAL MANAGEMENT				
Do you feel that your voice tone changes when stressed about people not listening to you	never	15	10.7	10.7
	rarely	30	21.4	32.1
	sometimes	44	31.4	63.6
	often	31	22.1	85.7
	always	20	14.3	100
Are you able to utilize your quarantine time for something useful.	never	20	14.3	14.3
	rarely	29	20.7	35
	sometimes	40	28.6	63.6
	often	34	24.3	87.9
	always	17	12.1	100
Do you feel yourself	never	16	11.4	11.4
depressed about the unavailability of PPE to health care workers.	rarely	22	15.7	27.1
	sometimes	35	25	52.1
	often	41	29.3	81.4
	always	26	18.6	100
Do your emotions affect your behaviour very much	never	8	5.7	5.7
	rarely	33	23.6	29.3
	sometimes	36	25.7	55
	often	34	24.3	79.3
	always	29	20.7	100
Do you maintain yourself composed in stressful times	never	17	12.1	12.1
	rarely	23	16.4	28.6
	sometimes	26	18.6	47.1
	often	49	35	82.1
	always	25	17.9	100
SOCIAL EMOTIONAL AWARENESS				
Do you think your role is upto mark during this pandemic as a medical student	never	19	13.6	13.6
	rarely	52	37.1	50.7
	sometimes	43	30.7	81.4
	often	15	10.7	92.1
	always	11	7.9	100
Do you think your counselling can persuade people to take better care of them	never	10	7.1	7.1
	rarely	34	24.3	31.4
	sometimes	55	39.3	70.7
	often	26	18.6	89.3
	always	15	10.7	100
Does it bother you if you fail to give proper information to people in this pandemic	never	13	9.3	9.3
	rarely	31	22.1	31.4
	sometimes	41	29.3	60.7
	often	36	25.7	86.4
	always	19	13.6	100
Do you get angry at people for not following precautions properly	never	7	5	5
	rarely	28	20	25
	sometimes	33	23.6	48.6
	often	29	20.7	69.3
	always	43	30.7	100
Do you feel your behaviour towards people is empathetic during this pandemic	never	9	6.4	6.4
	rarely	24	17.1	23.6
	sometimes	38	27.1	50.7
	often	35	25	75.7
	always	34	24.3	100

The average value of emotional awareness among the participants was **65.15% ±12.6 SD**, the average value of emotional management was found to be **51.12% ±12.12 SD**, the average value of social awareness was **48.4% ±17.39 SD,** and **the** average value of emotional intelligence was **54.34% ±13.89 SD**.
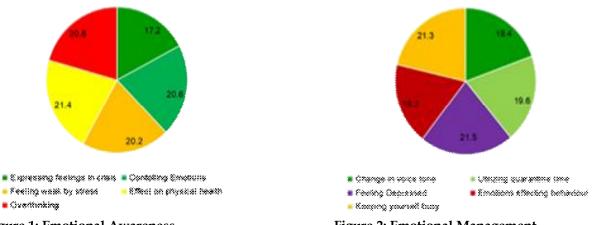

Figure 1: Emotional Awareness
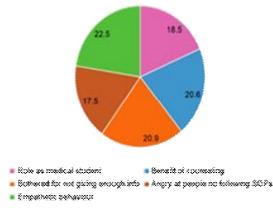

Figure 2: Emotional Management

Figure 3: Social Awareness

Discussion

Results from this study highlight the components of emotional awareness, emotional management, and social awareness individually as well as a subset of EI. The results obtained are in percentages for easier illustration of the values. These were thoroughly compared and contrasted with similar studies conducted. Although a substantial amount of work has been done on the role of EI in academic and occupational performance, the EI of medical students amidst a pandemic has not been assessed. The key point is the fact that a pandemic makes a person physically as well as psychologically vulnerable with continuously fluctuating emotions. Hence, this study has been undertaken to evaluate emotional intelligence and its contribution to the coping strategies of medical students during the prevalent COVID-19 pandemic.

Emotional Awareness
Sample results of emotional self-awareness showed an average value of 65.15%, depicting a significant difference when compared to a value of 86% obtained by a study focused on otolaryngology residents in Kansas, the USA in 2014.[10] This study is conducted on the young participants, 59.3% belonging to the age group 21-23, which may serve as an explanatory hypothesis for the low percentage as compared to the study conducted on participants in their 30s in the above-mentioned study. At a young age, the maturity to access emotions is less.

Emotional Management
No specific values have been inferred in the numerous studies associated with emotional management before this study. The value of 51.12% illustrates that about half of the participants in this study have a good sense of managing their overwhelming emotions triggered

by the pandemic. This value also positively correlates with the EI value of 54.34%. The correlation ties in with the fact that emotional management is a subset of EI and not an independent variable. This has been proved so by the following studies that were conducted in Australia, the USA, and Belgium in 2012[11], 2015[12,] and 2009[13] respectively in order to observe the relation between EI and emotional management, and the response of a person with high EI to managing a range of emotions.

Social Awareness
The component of social awareness evaluation showed an average value of 48.4%, astonishingly higher than the one found in a research conducted in India in 2018[14], which showed an average of 28.57%. This hints at a likely increase in social awareness and empathetic concern for others amongst participants in times of crisis.

Emotional Intelligence (EI)
Inter comparing of the aforementioned EI domains illustrated that participants were found to be more self-aware which coincides with studies conducted in USA and Iran in 2014[10] and 2019[15] respectively. This study indicated an average EI value of 54.43 which in contrast to a value of 116.22, as reported in a study conducted in Jeddah, Saudi Arabia, is comparatively low possibly owing to pandemic induced diminution in stress coping and the bias inculcated by the sampling technique leading to the sampling error. However, it is to be noted that EI score is positively associated with increasing age as reinforced by a study done in India in 2017.[16] Age greatly impacts EI skills as they can be learned and strengthened by specifically structured training programs for every individual and/or life experience.

Conclusion

Our study aiming at the EI assessment of medical students amidst the current covid-19 pandemic concludes that they exhibited better emotional awareness and management of the two important roots of EI; however, the overall emotional intelligence is low in the studied subjects.
Not much work has been done regarding EI in medical students and it limited research results to some extent. Hence, this study needs to be considered for laying the groundwork and literature to improve this attribute. Moreover, the conduction of holistic training programs on EI, leadership, self-efficacy, and stress management at the individual and structural level is recommended to be an integral part of the medical curriculum so that

students develop competency and understand the importance of emotions in such unfortunate outbreaks.

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