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A CROSS SECTIONAL STUDY TO DETERMINE EMPATHY LEVELS IN 3RD YEAR MEDICAL STUDENTS OF A PRIVATE MEDICAL COLLEGE IN NORTH INDIA.

Community Medicine

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ABSTRACT

Background: It is a well known fact that possession of empathy in a doctor is associated with positive clinical outcomes in a patient. **Objectives:** To determine empathy levels in 3rd year MBBS students by using JSPE scale. Methods: A cross sectional study was conducted on 3rd year MBBS students of AMCH , Shahabad by using a predesigned Jefferson Scale of Physician Empathy- Student or S version (JSPE) questionnaire. **Results:** The mean empathy score of the students in our study was found to be 98.79 ± 12.02. Empathy scores were further converted into empathy levels whereby a higher proportion of females were found to have better empathy levels than male students and this difference was found to be statistically highly significant (P< 0.01). **Conclusion:** It is important to select students who have the right aptitude for medical training so as to produce empathetic doctors. Sensitization of students towards empathy should also be a part of MBBS curriculum.

KEYWORDS

Empathy, JSPE, doctor- patient relationship

Introduction: The Association of American Medical Colleges has emphasized the importance of empathy in doctor- patient relationships by stating that "physicians must be compassionate and empathetic in caring for patients, and must be trustworthy and truthful in all of their professional dealings."[1] Empathy is a critical construct in the context of the doctor ``patient relationship. Wilmer[2] stated, "the failure to empathize is the basis of the unhappy doctor-patient relationships." It has been well documented that there is a theoretical link between empathy and positive short- and long-term patient outcomes.[3]

Very few studies in India have previously assessed clinical empathy levels in medical students. We have endeavoured in this study to assess this very important trait in budding doctors .

Aims and Objectives:
To determine empathy levels in 3rd year MBBS students by using JSPE scale

Material and Methods:
Study Design: Cross sectional Study

Study Setting: The study was conducted on 3rd year MBBS students of Adesh Medical College and Hospital, Shahabad (M), Kurukshetra

Study Subjects: Students of MBBS 2017 Batch

Study Period: The data for this study was collected in June- July 2020

Sample Size: 146 MBBS students of 2017 Batch

Sampling Technique: Convenience Sampling

Data Collection Tool: A pre designed empathy questionnaire called Jefferson Scale of Physician Empathy- Student or S version was used for data collection.

METHODOLOGY: The MBBS 2017 batch students were invited to take part in the study. Google docs was utilized to administer the questionnaire and collect data electronically. Out of 150 students, 146 participated in our study (response rate = 97.3%). **Jefferson Scale of Physician Empathy- Student or S version (JSPE)** questionnaire was used to find out empathy levels in the medical students. The responses were based on a 7 point Likert scale.

The JSPE is a self-administered inventory that contains 20 questions, half of which are negatively phrased, while the other half are positively phrased. The students marked 1 of the 7 options provided on a Likert scale in response to each item (1=strongly disagree, 2= Disagree, 3= Somewhat Disagree, 4= Neutral, 5= Somewhat Agree, 6= Agree, 7=strongly agree). The scale was reversed (that is, 1= strongly agree to 7= strongly disagree) for the 10 negatively-phrased items. Thus JSPE-S total score ranged from a minimum of 20 to a maximum of 140 with higher values indicating a higher level of empathy. Reverse-scored items were scored accordingly.

The mean empathy scores of the students in our study was found to be 98.79 ± 12.02. We divided the empathy scores of the students into 3 levels or categories: poor, average/satisfactory and good. The Standard Deviation value of 12.02 was added to and subtracted from the mean value (98.79) to get the empathy levels as < 86.77:poor, 86.77-110.81: average/ satisfactory and >110.81: good.

Statistical Analysis: Data collected was entered into Microsoft Excel worksheet and was analyzed by using SPSS Version 21. Qualitative variables were expressed in percentages. The proportion of students having poor, satisfactory and good empathy levels was analyzed. P value <0.05 (<0.01) was considered as significant (highly significant).

Ethical issue involved in study : The present study was undertaken after approval of Institutional Ethics Committee (IEC) of Adesh Medical College & Hospital, Shahabad.

RESULTS:

Table 1 : Socio-demographic profile of the study participants

Variables	Number of Participants	Percentage
Gender		
Female	82	56.2
Male	64	43.8
Age		
≤ 20	32	21.9
>20	114	78.1
Place of Residence		
Rural	39	26.7
Urban	107	73.3
Monthly family Income		
< 50,000	12	8.2
50,000- 1,00,000	42	28.8
1,00,000- 1,50,000	67	45.9
>1,50,000	25	17.1

As can be seen in Table 1, in our study there were more number of female students, students > 20 years of age, resident of urban areas and having monthly family income between1-1.5 lakhs.

Table 2 : Gender wise distribution of study participants according to Empathy levels

Empathy Levels	Females		Males		Total		P value
	No.	%	No.	%	No.	%	
Poor	6	7.3	19	29.7	25	17.1	< 0.01
Average/ Satisfactory	57	69.5	37	57.8	94	64.4	
Good	19	23.2	8	12.5	27	18.5	

Total	82	100.0	64	100	146	100	

Overall, 17.1%, 64.4% and 18.5% of the students had poor, average/satisfactory and good empathy levels respectively. A total of 92.7% of female students had average (69.5%) and good (23.2%) empathy levels whereas in males a total of 70.3% students had average/satisfactory (57.8%) and good (12.5%) empathy levels. On the contrary, only 7.3% of the female students had poor empathy levels as against 29.7% male students with poor levels. This difference, whereby a higher proportion of females had better empathy levels than male students, was found to be statistically highly significant($P< 0.01$).

Discussion:

There was a slight female preponderance (56.2%) in our study as compared to males (43.8%) . This is similar to the findings of Tariq et al (2017)[1] but dissimilar to Biswas et al (2018) [4] who in their study found a slight male preponderance (58.2%).

For a majority of students (73.3%), the place of residence was urban as against rural (26.7%). This is similar to the findings of **Biswas et al** (2018) [4] where most of the sample belonged to an urban area.

The mean empathy scores of the students in our study was found to be 98.79 ± 12.02. It was very similar to the findings of Biswas et al (2018) [4] [98.5] , Chatterjee et al (2017)[5] [96.01], Benabbas et al (2016) [6] [101.2] and Shashikumar et al (2014)[7] [102.9]. It was quite low compared to studies conducted by Santos et al (2016)[8] [119.7] , Quince et al (2016) [9] [113.03], Mostafa et al (2014)[10] [110.4] and Wen et al (2013) [11] [109.6]. It was much higher as compared to the study conducted by Tariq et al (2017) [1] [4.77] .

One of the reasons for the findings of low and very low empathy levels in Indian and Pakistani studies, as compared to Western Studies could be due to the fact that these countries do not have a well placed aptitude assessment for selecting medical entrants which is there in the developed countries. It could also be attributed to the differences in cultural factors, custom, ethnicity, spiritual belief and primary educational system.

In our study, we have found female students to have significantly higher empathy levels as compared to male students. This is similar to the findings of many other studies conducted by Chatterjee et al (2017)[5], Santos et al (2016) [8], Raof and Yassin (2016) [12] and Quince et al(2016) [9]. This could be due to the fact that the female gender has more of caring and nurturing traits which could possibly have a bearing on empathy levels too.

Conclusion: As empathy is an integral part of medical aptitude, it is firstly important to select students who have the right aptitude for medical training. Even after selection, some sort of orientation and sensitization of students towards empathy should be a part of MBBS curriculum. The recent introduction of AETCOM by MCI can prove to be a step in the right direction in this regards. Also as males have been found to have lower empathy levels as compared to females, probably more special attention and guidance needs to be provided to male students so that they don't lag behind their female peers.

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