

# Empathy among male and female medical professionals: A cross-sectional study



Chibi Rushitha<sup>1</sup>, Kumaran V<sup>2</sup>, Nithiya S<sup>3</sup>, Devandiran RS<sup>4</sup>, Sai Sailesh Kumar Goothy<sup>5</sup>

<sup>1</sup>Assistant Professor, Department of Community Medicine, Government Medical College, Tiruppur, <sup>2,3,4</sup>Assistant Professor, Department of Community Medicine, Government Tiruvannamalai Medical College and Hospital, Tiruvannamalai, Tamil Nadu, <sup>5</sup>Associate Professor, Department of Physiology, Sri Madhusudan Sai Institute of Medical Sciences and Research, Muddenahalli, Karnataka, India

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## ABSTRACT

**Background:** The measurable index for selflessness in medical professionals is empathy with patients. Thus, the relationship between a doctor and a patient is mainly based on empathy. Several studies measured the empathy scores before and after medical education and there are ambiguous results. **Aims and Objectives:** The present study was undertaken to assess the empathy among medical professionals in a tertiary care institute in North-east India. **Materials and Methods:** Three hundred undergraduate students were part of the study. Willing participants were recruited for the study. The standard tool to assess the empathy JSE-S was used in the study. This tool consists of 20 questions. **Results:** The empathy scores of female participants were significantly higher compared to male participants ( $P < 0.0001$ ). In both the residences wise that is a hostel and home, female participants' empathy scores were higher than males ( $P < 0.0001$ ). **Conclusion:** The study explains higher empathy scores in both male and female students. In comparison, females are having higher scores than males. The study highlights need for future multicentric studies in this area to better understand the empathy of medical students and plan the curriculum accordingly.

**Key words:** Medical students; Empathy; Physicians; Patient satisfaction

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## INTRODUCTION

In the medical profession, the most important skills required are communication skills and interpersonal relationships.<sup>1,2</sup> Proper communication with the patients helps the physician to understand the problem correctly and ends with accurate diagnosis and effective treatment. This also increases the satisfaction score of the patients.<sup>3</sup> When there is adequate communication happens between the physician and the patients, it leads to a decrease in the incidence of medical errors.<sup>4</sup> Selflessness increases the communication skills among the students of the medical profession.<sup>5</sup> Selflessness is the most important character every medical student should develop.<sup>6</sup> The measurable index for selflessness in medical professionals

is empathy with patients. Thus, the relationship between a doctor and a patient is mainly based on empathy.<sup>7</sup> As empathy is an important professional feature, all the students must be trained in this aspect. This kind of training helps them to become successful physicians. The Jefferson Scale of Physician Empathy is the available standard questionnaire to assess empathy.<sup>8</sup> Several studies measured the empathy scores before and after medical education and there are ambiguous results.<sup>9,10</sup> Hence, the present study was undertaken to assess the empathy among medical professionals in a tertiary care institute in North-east India.

### Aims and objectives

The present study was undertaken to assess the empathy among medical professionals.

### Address for Correspondence:

Dr. Devandiran RS, Assistant Professor, Department of Community Medicine, Government Tiruvannamalai Medical College and Hospital, Tiruvannamalai, Tamil Nadu, India. **Mobile:** 9940471531. **E-mail:** dr.dev1988@gmail.com

## MATERIALS AND METHODS

The present study was a cross-sectional study. A total of three hundred undergraduate students were part of the study. Willing participants were recruited for the study. Those who are not willing were excluded from the study. The age group of the participants was 18–24 years. Both male and female students were part of the study. The standard tool to assess the empathy JSE-S was used in the study. This tool consists of 20 questions. This questionnaire was developed by Dr. Mohammadreza Hojat. It has three versions one for students and another for physicians and health-care professionals. It can be administered on paper and online mode. It was translated in 59 languages. The hard copy of the questionnaire was distributed among the students and they were given instructions about filling it. After filling out, the questionnaires were collected back for assessment.<sup>11</sup> The institutional human ethical committee approved the study protocol (IEC-44-23). Informed consent was obtained from all the participants. Data were analyzed using SPSS 20.0 version. A Student's t-test was applied to observe the significance of the difference in the scores. Data were presented as mean and SEM.

## RESULTS

Demographic data were presented in Tables 1 and 2 presents the empathy scores of male and female

Variable	Males (n=100)	Females (n=200)	P-value
Age (years)	19±0.20	20±0.14	<0.0001***
Height (cm)	160±5.80	153±3.18	0.2510
Weight (kg)	70±2.40	55±1.27	<0.0001***

Data were presented as mean and SEM. \*\*\*P<0.001 is significant

Variable	Males (n=100)	Females (n=200)	P-value
My understanding of how my patients and their families feel does not influence medical or surgical treatment	3.76±0.14	4.22±0.127	0.0259*
My patients feel better when I understand their feelings	4.42±0.19	5.12±0.11	0.0009***
It is difficult for me to view things from my patient's perspectives	3.11±0.12	3.56±0.10	0.0110*
I consider understanding my patient's body language as important as verbal communication in caregiver patient's relationships	5.1±0.12	4.8±0.12	0.1155
I try to imagine myself in my patient's shoes when providing care to them	4.6±0.17	4.9±0.11	0.1349
Because people are different, it is difficult to see from my patient's perspective	4.8±0.15	4.2±0.07	0.0001***
I try not to pay attention to my patient's emotions in history taking or in asking about their physical health	3.8±0.12	4.5±0.12	0.0003
Attentiveness to my patient's personal experiences does not influence treatment outcomes	4.2±0.13	4.7±0.11	0.0071**
I have a good sense of humor that I think contributes to a better clinical outcome	4.3±0.16	3.9±0.12	0.06
My patients value my understanding of their feelings which is therapeutic in its own right	5.2±0.13	4.9±0.106	0.0892*

Data were presented as mean and SEM. \*P<0.05 is significant, \*\*\*P<0.001 is significant, \*\*P<0.01 is significant

participants in different semesters. The empathy scores of female participants were significantly higher compared to male participants ( $P<0.0001$ ). Table 3 presents the empathy scores of male and female participants residence-wise. In both the residences wise that is a hostel and home, female participants' empathy scores were higher than males ( $P<0.0001$ ).

## DISCUSSION

Understanding other's emotional status is critical portion for a successful medical professional. This is called as empathy. It improves the interpersonal relationships between the physician and the patients. Patient satisfaction was higher when a physician with high empathy attended to the patients.<sup>10</sup> In short, empathy is beneficial for both the physician and the patient. For physicians, it helps for easy and accurate diagnosis. For patients, it helps for better treatment outcomes. Hence, the medical curriculum must be designed in such a way that the students will be trained in empathy toward the patients. Students should be trained in empathy if possible, with hands-on experience. Medical teachers should train the students in this aspect.

Empathy plays a pivotal role in molding the individual as a successful physician and also improves treatment outcomes.<sup>12</sup> When the physician has more empathy, it increases the communication between him and his patients which causes an increase in the patient's confidence in the physician.<sup>13</sup> Better treatment outcomes were reported by earlier studies in patients who underwent treatment with physicians of more empathy.<sup>14,15</sup> The present study found higher scores of empathy in both males and females. Females exhibited significantly higher scores than males in all the semesters. However, some studies have reported a decline in empathy scores during medical education.<sup>16-18</sup> The

**Table 3: Empathy scores of the male and female participants (n=300)**

Variable	Males (n=100)	Females (n=200)	P-value
Patients' illnesses can be cured only by medical or surgical treatment therefore emotional ties to my patient do not have a significant influence on medical or surgical outcomes	4±0.122	5.2±0.093	0.0001***
Asking patients about what is happening in their personal lives is not helpful in understanding their physical complaints	3.9±0.134	4.4±0.086	0.0012**
I try to understand what is going on in my patient's minds by paying attention to their nonverbal cues and body language	3.8±0.090	4.2±0.113	0.0209*
I believe that emotions have no place in the treatment of medical illness	5±0.13	5.4±0.1011	0.0193*
Empathy is a therapeutic skill without which success in the treatment is limited	4.2±0.11	4.7±0.120	0.0079**
An important component of the relationship with my patients is my understanding of their emotional status as well as those of their families	4.7±0.14	4.8±0.12	0.6117
I try to think like my patients in order to render better care	3.6±0.11	3.9±0.085	0.0368*
I do not allow myself to be influenced by strong personal bonds between my patients and their family members	5.1±0.14	5.4±0.113	0.1119
I do not enjoy reading the non-medical literature of arts	5.6±0.15	5.8±0.0078	0.1914
I believe that empathy is an important therapeutic factor in the medical or surgical treatment	5.1±0.05	5.6±0.120	0.0043**

Data were presented as mean and SEM. \*P<0.05 is significant, \*\*\*P<0.001 is significant. \*\*P<0.01 is significant

possible reasons that contribute to the decrease in empathy explained are lack of sleep and excessive working hours.<sup>19</sup> In contrast, other studies reported that there is no decrease in empathy during medical education.<sup>20,21</sup> Similarly, few studies reported that empathy declined only in males and not females.<sup>19</sup> The higher scores of empathy observed in the present study were consistent with the earlier studies.<sup>22-24</sup> In contrast, few studies reported that empathy decreases during medical training.<sup>19,25</sup> As observed in the present study, earlier studies also reported higher empathy scores in females.<sup>26</sup> Further, this difference is statistically significant when compared with males.<sup>27</sup>

### Limitations of the study

The study was conducted at one center, hence the results may not be generalized.

## CONCLUSION

The study explains higher empathy scores in both male and female students. In comparison, females are having higher scores than males. The study highlights need for the future multicentric studies in this area to better understand the empathy of medical students and plan the curriculum accordingly.

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**Authors' Contributions:**

**NS and DRS**- Concept, and design of the study results interpretation, review of the literature and preparing the first draft of the manuscript;  
**CR and KV**- Concept, and design of the study, results interpretation, review of the literature, and preparing the first draft of the manuscript;  
**CR and DRS, SSKG**- Concept, and design of the study, statistical analysis and interpretation, revision of the manuscript.

**Work attributed to:**

Government Medical College, Tiruppur, Tamil Nadu, India.

**ORCID ID:**

Chibi Rushitha - <https://orcid.org/0000-0002-4979-6850>  
 Dr. Kumaran V - <https://orcid.org/0000-0002-4660-266X>  
 Dr. Nithiya S - <https://orcid.org/0000-0002-1349-8501>  
 Dr. Devandiran RS - <https://orcid.org/0000-0002-5928-2167>  
 Dr. Sai Sailesh Kumar Goothy - <https://orcid.org/0000-0002-2578-6420>

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