



# The Relationship between Emotional Intelligence, Self-Esteem, and Empathy among Nursing Students—A Pilot Study (Part 1)

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J Health Allied Sci<sup>NU</sup> 2024;14:219–223.

## Abstract

**Objectives** The aim of this study was to determine the relationship between emotional intelligence, self-esteem, and empathy of nursing students undergoing clinical experience in pediatric units.

**Materials and Methods** A cross-sectional survey was conducted and data were gathered from 60 BSc nursing students undergoing clinical experience in pediatric units. Self-report questionnaires assessing emotional intelligence, self-esteem, and empathy were used and information about demographic details was collected.

**Statistical Analysis** Pearson's correlation was used to find relationship between the constructs.

**Results** Nursing students had moderately high level of emotional intelligence. Nursing students had below average level of empathy. There was no significant relationship between emotional intelligence and empathy of nursing students. There was a significant positive relationship between emotional intelligence and self-esteem of nursing students. There was no significant relationship between empathy and self-esteem of nursing students.

**Conclusion** More research needs to be conducted to find the relationship between emotional intelligence, self-esteem, and empathy of nursing students so that proper training measures can be adopted to enhance these qualities which are crucial in providing quality care to the patients.

## Keywords

- ▶ emotional intelligence
- ▶ empathy
- ▶ nursing students
- ▶ self-esteem

## Introduction

Emotional intelligence (EI), self-esteem, empathy, and communication are psychosocial abilities that are now seen as essential qualities for health practitioners. EI, self-esteem, and empathy have a complex relationship where each appears to have an impact on the other.<sup>1</sup> There is growing evidence that in order to deliver clinically sound and emotionally responsive

healthcare, health practitioners need a wide variety of interpersonal and intrapersonal skills.<sup>2–5</sup> The technical and critical thinking skills required of nursing graduates must be complemented with the ability to manage “soft” people skills. EI skills have been referred to as “soft” people skills.<sup>6</sup> In the field of nursing, EI is referred to as a nurse's positive capacity to employ self-awareness, empathy, and emotion regulation that promotes and distinguishes the core of expert caring

article published online  
June 13, 2023

DOI <https://doi.org/10.1055/s-0043-1769584>.  
ISSN 2582-4287.

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Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

and nursing. To deliver high-quality care, a nurse must be able to connect with patients, control their own emotions, and empathize with patients.<sup>7</sup> Students studying nursing are frequently put in uncomfortable, emotionally sensitive social situations. EI can have an impact on a nursing student's capacity to think critically, learn successfully, make wise decisions, and empathize with patients and their families.<sup>8</sup> EI has manifested its contribution to self-esteem directly.<sup>9,10</sup> A very significant occupation that requires excellent mental health is nursing. The state of the nursing students' mental health will have a direct impact on how well they study and live their everyday lives, as well as how well they will perform as nurses in the future and how stable the nursing team will be.<sup>11</sup> In the field of healthcare, empathy is considered an essential quality for professionals in relating to patients.<sup>12</sup> Nursing profession requires empathy because it is the cornerstone for comprehending patients' needs, problems, and feelings.<sup>13</sup> Empathy among healthcare professionals has been associated with better patient care,<sup>14</sup> increased patient satisfaction,<sup>15</sup> and shorter hospital stays.<sup>8,16</sup> Research conducted on student nurses in Ludhiana showed that majority of the nursing students had average EI.<sup>17</sup> From the beginning to the completion of the curriculum, nursing students' scores on empathy significantly decreased, according to several studies.<sup>18,19</sup> Contrary findings are reported with regard to the self-esteem levels of nursing students.<sup>20,21</sup> Research conducted among Iranian nursing students showed that there was a positive correlation between EI and empathy ( $r = 0.499$ ,  $p < 0.001$ ).<sup>16</sup> A positive significant relationship was found between EI and self-esteem among nursing students abroad ( $0.307$ ,  $p < 0.05$  and  $0.82$ ,  $p < 0.05$ , respectively).<sup>7,8</sup> A positive association between self-esteem and empathy was found among Chinese medical students ( $r = 0.510$ ,  $p < 0.01$ ).<sup>22</sup> There are no research studies conducted in India to find the relationship between EI, self-esteem, and empathy of nursing students. In order to provide quality care to the patients, it is essential to identify how these constructs are related to each other. Therefore, this study aimed to determine the possible relationship between EI, self-esteem, and empathy of nursing students.

## Materials and Methods

### Study Design, Settings, and Participants

This cross-sectional study was conducted in March 2022. Sixty, third-year BSc nursing students undergoing clinical experience in selected pediatric units of Mangalore, were purposively selected.

### Eligibility Criteria

The study included male and female undergraduate nursing students, undergoing clinical experience in pediatric units in the age group of 17 and 48 years and those who were willing to participate in the research study.

### Exclusion Criteria

Nursing students who were not willing to participate in the research study.

### Data Collection Methods

Permission of Institutional Ethics Committee (IEC) was taken from A.J. Institute of Medical Sciences and Research Centre (AJEC/REV/291/2019) and written informed consent was taken from all the participants. Permission was obtained from the respective colleges for conducting the study. The purpose of the study was explained to the students and the anonymity and confidentiality of their response were assured. A predesigned, semistructured proforma was used to collect demographic details (age, gender, type of family, order of birth, number of siblings, place of domicile, mother's education, father's education). The EI (Pc-Sc), Rosenberg self-esteem scale, and the Toronto Empathy Questionnaire were used to assess EI, self-esteem, and empathy of nursing students, after seeking permission from the authors. The EI (Pc-Sc) is a standardized scale developed by Dr Sandhya Mehta and Ms Namrata Singh (2013),<sup>23</sup> which had 69 items, and was a 5-point rating scale having anchors: extremely low competence—1, low competence—2, not sure—3, high competence—4, extremely high competence—5. The total EI reliability coefficient value was found to be 0.91. The EI (Pc-Sc) scale has 2 subscales: personal and social competence. Parameters of personal subscale include self-awareness, self-motivation, and emotion regulation. Parameters of social subscale include social awareness, social skills, and emotional receptivity. A high score indicated a high level of EI in a particular subscale category and a low score indicated low level of EI in a particular subscale category. The total of all the subscales is added to get the total EI score. The Rosenberg self-esteem scale had 10 items with anchors, strongly agree—3, agree—2, disagree—1, and strongly disagree—0. Higher scores indicated higher levels of self-esteem. Internal consistency for the Rosenberg self-esteem scale ranges from 0.77 to 0.88. Test-retest reliability for the Rosenberg self-esteem scale ranges from 0.82 to 0.85. The Toronto Empathy Questionnaire had 16 items. It was developed by Nathan Spreng et al (2009).<sup>24</sup> Five possible modes of responses are provided such as 0 = never, 1 = rarely, 2 = sometimes, 3 = often, and 4 = always. Higher scores indicated high levels of self-reported empathy, while scores below 45 were indicative of below average empathy levels. The test-retest reliability of the Toronto Empathy Questionnaire was 0.81.

### Statistical Analysis

Data entry and tabulation was done in Microsoft Excel Sheet 2016 and it was analyzed by SPSS 21.0. Karl Pearson correlation was used and the statistical significance level was fixed at  $p$ -value less than 0.05.

## Results

Data in ► **Table 1** shows that majority of the students were in the age group of 20 to 21 years (78%), were female (97%), belonged to nuclear family (93%), were first born (53%), had one sibling (55%), and belonged to a rural background (72%).

Data in ► **Table 2** depicts that mean EI scores were higher in the area of emotional regulation ( $51.1 \pm 6.95$ ) and low in the area of self-motivation ( $32.41 \pm 4.89$ ). The mean of

**Table 1** Demographic characteristics of nursing students ( $n = 60$ )

Demographic variables		<i>n</i> (%)
Age (years)	20–21	47 (78)
	22–23	13 (22)
Gender	Male	2 (3)
	Female	58 (97)
Type of family	Nuclear	56 (93)
	Joint	4 (7)
	Extended	–
	Single parent	–
Order of birth	Only child	3 (5)
	First	32 (53)
	Second	20 (33)
	Third or higher	5 (9)
Number of siblings	Nil	3 (5)
	One	33 (55)
	Two	21(35)
	Three	3 (5)
	Four and more	–
Place of domicile	Urban	17 (28)
	Rural	43 (72)

**Table 2** Range, mean, standard deviation, and median of emotional intelligence scores of nursing students ( $n = 60$ )

	Range	Mean	SD	Median
<b>Personal competence</b>				
Self-awareness	25–52	43.51	5.19	44
Emotion regulation	27–63	51.1	6.95	52.5
Self-motivation	16–42	32.41	4.89	33
<b>Social competence</b>				
Social awareness	22–43	34.62	4.34	34
Social skills	33–60	48.23	6.18	48
Emotional receptivity	31–54	44.46	5.06	44.5
<b>Overall EI</b>	177–301	254.35	26.06	257

Abbreviations: EI, emotional intelligence; SD, standard deviation.

overall EI score was 254.35 ( $\pm 26.06$ ), interpreted as higher the score, higher the EI.

– **Table 3** shows that majority (65%) of the students had below average level of empathy and 35% had high level of empathy. The mean empathy score was 42.67 ( $\pm 7.32$ ), indicating below average level of empathy among nursing students.

– **Table 4** shows that the mean self-esteem score of nursing students was 17.27 ( $\pm 4.35$ ), interpreted as higher the score, higher the self-esteem.

**Table 3** Distribution of empathy scores of nursing students ( $n = 60$ )

Level of empathy	<i>n</i> (%)
Below average (<45)	39(65)
High level empathy ( $\geq 45$ )	21(35)

**Table 4** Range, mean, standard deviation, and median of self-esteem scores of nursing students ( $n = 60$ )

	Range	Mean	SD	Median
Self-esteem	6–25	17.27	4.35	18

Abbreviation: SD, standard deviation.

### Relationship between Emotional Intelligence and Empathy of Nursing Students

There was no significant relationship between EI and empathy of nursing students ( $r = 0.051$ ,  $p = 0.701$ ).

### Relationship between Emotional Intelligence and Self-Esteem of Nursing Students

There is a significant positive relationship between EI and self-esteem of nursing students ( $r = 0.548$ ,  $p < 0.05$ ).

### Relationship between Empathy and Self-Esteem of Nursing Students

There is no significant relationship between empathy and self-esteem of nursing students ( $r = -0.068$ ,  $p < 0.05$ ).

## Discussion

Nursing students that exhibit EI in their work are better able to manage pressure from their patients and interact with them.<sup>25</sup> Data from our study revealed that the mean EI scores were higher in the area of emotional regulation ( $51.1 \pm 6.95$ ) and low in the area of self-motivation ( $32.41 \pm 4.89$ ). Overall mean of EI score was 254.35 (maximum possible score being 354 and higher score indicating higher EI). The mean in the area of regulation of emotion was found to be 68.68 ( $\pm 11.15$ ) among Saudi nursing students, which was second highest after utilization of emotion.<sup>26</sup> In a study conducted among executives in Tamil Nadu, highest mean percentage was seen in the area of empathy (88.5%).<sup>27</sup> Nursing students in a middle eastern university showed higher cores in the area of well-being ( $4.57 \pm 0.88$ ).<sup>5</sup> Contrary to the above findings, low emotion regulation was seen in patients in intestinal stoma.<sup>28</sup> The difference in the findings could be due to the different tools being used to assess EI and the tools having different areas.

In this study, majority (65%) of the students had below average level of empathy and 35% had high level of empathy. Similar findings were seen in a cross-sectional study conducted among medical students in Kuwait University Medical School where the mean empathy score on the Jefferson Scale was  $104.6 \pm 16.3$ .<sup>29</sup> Also nursing students

enrolled in the Nursing Program of the Faculty of Health Sciences at the University of Tolima, Colombia, reported low levels of empathy.<sup>30</sup> The overall mean empathy score was found to be 42.57 (assessed using the Toronto Empathy Questionnaire) among medical students in Lahore that is similar to our study finding results 42.67 ( $\pm 7.32$ ).<sup>31</sup>

In our study, the mean self-esteem score of nursing students was 17.27 (the maximum possible score being 30 and higher score indicating higher self-esteem). Mean self-esteem score was found to be 15.08 ( $\pm 1.462$ ), among 35 second year BSc nursing students in a research conducted in Bangalore. The researchers concluded the busy life and stress was the cause for low self-esteem among the nursing students.<sup>20</sup> Contrary to the above findings, higher self-esteem scores were seen in nursing students in College of Nursing, University of Mosul, Iraq ( $29.3 \pm 0.2$ ).<sup>32</sup>

There this study has seen that there was no significant relationship between EI and empathy of nursing students. Contrary to the above findings, a strong positive correlation between empathy and EI was seen in a cross-sectional study among nursing students at Tehran University of Medical Sciences ( $r=0.499$ ,  $p < 0.001$ ).<sup>16</sup> Sa et al also reported positive relationship between EI and empathy ( $r=0.21$ ,  $p < 0.001$ ) among students from six health professional programs (dentistry, medicine, nursing, optometry, pharmacy, and veterinary medicine).<sup>1</sup> A significant weak positive relationship was seen between the variables among 220 student nurses in Ludhiana, concluding that EI and empathy ( $r=0.435$ ,  $p < 0.05$ ) were interrelated and interdependent.<sup>17</sup>

In this study, there is a significant positive relationship between EI and self-esteem of nursing students. Similar findings were found in a study carried out among 400 nursing students along the four academic levels in Egypt ( $r=0.307$ ,  $p=0.001$ ).<sup>8</sup> EI and self-esteem were positively correlated ( $r=0.704$ ,  $p < 0.001$ ) in Bachelor Students of Nursing and Midwifery Schools in Hamadan, since those who have high EI are capable of striking a balance between reason and emotion that is backed by strong self-esteem.<sup>21</sup>

This study showed no significant relationship between empathy and self-esteem of nursing students. Contrary to the above findings, a positive association between empathy and self-esteem ( $r=0.510$ ,  $p < 0.01$ ) was seen in Chinese Medical Students and concluded that self-esteem was one of the many factors that contributed to medical students' empathy.<sup>22</sup> A statistically significant positive correlation was found between their self-esteem and empathy skills in pediatric nurses and pediatricians in a study conducted in Turkey.<sup>33</sup> The findings in our study could be due to a small sample size.

## Conclusion

Nursing students had moderately high level of EI. Nursing students had below average level of empathy. There was no significant relationship between EI and empathy of nursing students. There was a significant positive relationship between EI and self-esteem of nursing students. There was no significant relationship between empathy and self-esteem of nursing students. Students level of EI, empathy, and self-

esteem needs to be assessed prior to admission and measures should be taken to enhance these attributes throughout their period of study. EI abilities can be taught through soft skill training programs, modelling, supportive supervision, and mentorship. Empathy can be enhanced by organizing workshops to develop interpersonal skills, adding training courses to the nursing curriculum that teach empathy, and by using innovative and creative approaches like simulation, role playing, storytelling, reflective discussion, and listening directly from healthcare consumers.

## Conflict of Interest

None declared.

## Acknowledgements

The authors sincerely acknowledge the nursing students for their participation in the study.

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