Abstract

Introduction: Emotional Intelligence helps nurses to recognize and understand their own emotions and that of others. It significantly influences the performance of nursing students and thus the care of the patients. The objective of the study was to assess the emotional intelligence of undergraduate nursing students.

Methodology: A cross-sectional descriptive research design was employed. Using total enumeration technique, 216 undergraduate nursing students were enrolled in the study. Ethical clearance was sought from Ethics Committee of National Institute of Nursing Education. Informed written consent was obtained from each subject. The data was collected using self-administered Dr. Ekta Sharma’s Emotional Intelligence Test (EIT). The data was analyzed using descriptive and inferential statistics.

Results: About 81% of the nursing students obtained average scores, while 19.4% obtained high scores on EIT. The overall mean score on EIT was 207.92 ± 14.95 with the range of 159 to 243. Domain wise, most of the nursing students obtained average scores. No significant association was found between EIT score and socio-demographic characteristics, family profile and variables such as reason for opting nursing profession, involvement in recreational activities, going outdoors with family and friends, visits to religious places, presence of support persons, satisfaction with nursing care provided to patients and self-perception.

Conclusion: All the nursing students had some level of emotional intelligence. Programs to enhance emotional intelligence skills of nursing students should be organized periodically.

Keywords: Emotional Intelligence, Nursing Students
ability to use information as a guide to think and behave.

Emotional Intelligence affects personal life, relations and professional lives of human beings. Personally, it helps human beings to identify and interpret their emotions, manage emotions and use them in various cognitive activities such as thinking and problem-solving. It helps one to establish and maintain good inter-personal relations with their spouse, friends, family, and colleagues at work, their subordinates and their superiors.

Emotional Intelligence has significant impact on physical and mental health of an individual. Schutte NS et al\(^5\) and Martin A et al\(^6\) meta-analytic investigation of relationship between emotional intelligence and health reported that the participants with higher emotional intelligence had good health. Conversely, stress and negative emotions activate sympathetic nervous system which makes us susceptible to a variety of illnesses such as stroke, heart disease and diabetes. Too much stress can affect our ability to deal with stressors by affecting immune system as healthy microbes in our gut are able to survive. On the other hand, laughter increases a positive mood and boosts the body’s immune system and thus reduces hospital stay and readmission rates.

Nursing is a demanding profession that involves interactions with patients and other health care professionals. Thus, they encounter number of challenging situations of adversity, conflict and stress leading to burnout. The delivery of quality care to patients depends on ability of nurses to effectively handle such stress issues. However, the acquisition of skills of emotional intelligence such as self-awareness, self-management, social awareness and relationship management helps them to control and manage their own emotions and of others and stay focussed on their job. This will improve their work performance leading to job-satisfaction and give them the feeling of physical and mental well-being\(^6\).

There are very few studies identified in the literature which measures the emotional intelligence among nursing students which would be future nurses. The present study was thus taken up with the objective to assess the emotional intelligence of under-graduate nursing students. This will provide with the baseline database to plan strategies to develop emotional intelligence among them to make them more productive health professionals.

**Materials and Methods**

A descriptive study design was adopted to assess the emotional intelligence (EI) of nursing students studying in B.Sc. Nursing (4 Years) program at National Institute of Nursing Education (NINE), PGIMER, Chandigarh during the month of March, 2018. 2017-18. Using total enumeration technique, 216 B.Sc. Nursing students enrolled in B.Sc. Nursing 1\(^{st}\) year, 2\(^{nd}\) year and 3\(^{rd}\) year; present at the time of data collection (discussed in last paragraph of the section) and willing to participate were enrolled in the study.

The tools used in the study included ‘Personal Information Sheet’ and EIT developed by Dr. Ekta Sharma. The ‘Personal Information Sheet’ for nursing students consisted of three parts: Part-A dealt with the socio-demographic characteristics of the participants such as name, age, religion, residential background and present residence status. Part-B dealt with family profile of the participants such as family type, number of family members, father’s occupation, mother’s occupation, monthly family income etc. Part-C was regarding the personal profile of the participants such as year of study in B.Sc. Nursing (4 years) program, reasons for opting nursing profession, hobbies, involvement in recreational activities, frequency of engagement in hobbies, etc.

The EIT developed by Dr. Ekta Sharma had total 60 statements categorized under various domains such as ‘Self-Awareness’ (12); ‘Managing Emotions’ (07); ‘Motivating One-self’ (14); ‘Empathy’ (09) and ‘Handling Relationships’ (18). Each domain was assessed on a 5-point likert scale i.e. always, most often, occasionally, rarely and never with the score of 5, 4, 3, 2 and 1 respectively. The tool was available online on the payment of Rs. 1200. The tool was a standardized tool and its validity and reliability was well established in Indian population\(^7\).

The ethical clearance was sought from the ethical committee of National Institute of Nursing Education, PGIMER, Chandigarh. Written permission was taken from the Principal of the institute. The study subjects were given detailed information about the research project and written informed consent was taken from each subject. All subjects were given full autonomy to withdraw from the study at any time.

The data was collected over a period of 10 days. The ‘Personal Information Sheet’ was given to participants to collect information regarding their socio-demographic characteristics, family profile and personal profile. They were then given self-administered Emotional Intelligence Test (EIT). The questionnaire was collected back after 30 minutes.

The data collected during the study was coded and entered into Microsoft Excel Sheet. It was analysed using the SPSS version 20 using descriptive as well as inferential statistics.

**Results**

Table 1, depicts the socio-demographic characteristics of study participants. Mean age of study participants was 19.88 ± 1.12 years. Maximum numbers of study participants were Hindu (62%), belonged to urban area (52%), resides in hostel (60.2%) and were from nuclear families (62%).
Table 1. Socio-demographic characteristics of study participants (N=216)

| Socio-demographic characteristics | f (%) |
|-----------------------------------|-------|
| Religion                          |       |
| Hindu                             | 134 (62) |
| Muslim                            | 18 (8.3) |
| Sikh                              | 61 (28.2) |
| Buddhism, Jainism                  | 03 (1.4) |
| Residential background             |       |
| Urban                             | 112 (51.9) |
| Rural                             | 68 (31.5) |
| Semi-Urban                        | 36 (16.7) |
| Present residence status           |       |
| With parents                       | 66 (30.6) |
| Guardian                          | 19 (8.8) |
| Hostel                            | 131 (60.7) |
| Family type                        |       |
| Nuclear                           | 134 (62) |
| Joint                             | 75 (34.7) |
| Extended                          | 07 (3.2) |

Table 2. Personal profile of study participants (N=216)

| Items                                      | f(%) |
|--------------------------------------------|------|
| Reason for opting nursing profession       |      |
| Parents pressure                          | 35 (16.2) |
| No other option left                      | 83 (38.4) |
| Own willingness                           | 51 (23.6) |
| Others¹                                   | 47 (21.8) |
| Involvement in recreational activities     |      |
| Music, Dance                              | 139 (64.4) |
| Book reading and sleeping                  | 31 (14.4) |
| Others²                                   | 46 (21.3) |
| Frequency of going outdoors with friends and family |      |
| Often                                      | 80 (37) |
| Sometimes                                  | 91 (42.1) |
| Whenever I get time                        | 45 (20.8) |
| Frequency of visits to religious place     |      |
| Often                                      | 89 (41.2) |
| Sometimes                                  | 86 (39.8) |
| Whenever I get time                        | 41 (19) |
| Presence of social support                 |      |
| Family                                     | 190 (88) |
| Friends                                    | 10 (4.6) |
| Others³                                    | 16 (7.4) |
| Satisfaction with the nursing care provided to patients |      |
| Moderately satisfied                       | 59 (27.3) |
| Satisfied                                  | 130 (60.2) |
| Very satisfied                             | 27 (30.5) |
| Self-perception                            |      |
| Positive                                   | 138 (63.9) |
| Negative                                   | 78 (36.1) |

¹Better scope, could not clear PMET; ²Art, Cooking; ³Companions, cousins, colleagues.

Table 2, depicts personal profile of study participants. About one third (38%) of the participants opted for nursing profession because no other option was left, 23.6% opted as per their own will and 16.2% because of parents’ pressure. Around 64% of nursing students were involved in music and dance, 14.4% in book-reading and sleeping and 21.3% in other activities such as art and cooking during their recreational time. Thirty-seven percent of study participants often go outdoors with their family and friends. When asked about frequency of visits to religious places, 41.2% used to visit often while 39.8% were visiting sometimes. About Eighty-eight percent of the study participants reported their family as social support. Around 60% of the study participants were satisfied with the nursing care provided by them to their patients. Sixty-four percent of study participants reported themselves with positive image whereas 36.1% had negative self-perception.

Interpersonal Relationship

Scores of the Subjects as per EIT

Figure 1, shows the scores of B.Sc. Nursing students as per EIT. The total scores obtained on EIT under all domains were categorized into three: Below Average (60-140); Average (140-220) and High (220-300). The study results showed that about 81% of the nursing students obtained average scores, while 19.4% students obtained high scores on EIT.
EIT Score as per Each Domain of the Scale

Figure 2, depicts the distribution of the participants as per each domain of EIT. Under the ‘Self-Awareness’ domain, the scores were categorized as: Below Average (12-28); Average (28-44) and High (44-60). The study results show that 0.5% of nursing students obtained below average, 90.7% obtained average and 8.8% obtained high scores in ‘Self-Awareness’ domain. The scores on ‘Managing Emotions’ were categorized as: Below Average (7-16); Average (16-25) and High (25-35). In the study, 9.7% of nursing students obtained below average, 78.2% obtained average and 12% obtained high scores on the domain of ‘Managing Emotions’. Under the ‘Motivating Oneself’ domain, the scores were categorized as: Below Average (14-33); Average (33-52) and High (52-70). The study results show that 0.5% of nursing students obtained below average, 52.8% obtained average and 46.8% obtained high scores in ‘Motivating Oneself’ domain. The scores on ‘Empathy’ were categorized as: Below Average (9-21); Average (21-35) and High (35-45). In the study, 1.4% of nursing students obtained below average, 92.1% obtained average and 6.5% obtained high scores on the domain of ‘Empathy’. Under the ‘Handling Relationships’ domain, the scores were categorized as: Below Average (18-46); Average (46-70) and High (70-90). The study results show that 1.4% of nursing students obtained below average, 69.9% obtained average and 28.7% obtained high scores in ‘Handling Relationships’ domain.

Mean Score of EIT obtained by Nursing Students

The overall mean score of EIT obtained by the nursing students was 207.92+14.9 (Range=159-243) of the maximum attainable score of 300. Under the domain of Self awareness, the mean score obtained was 38.42+4.80 (Range=28-57); on ‘Motivating Oneself’ domain, it was 51.98+5.84 (Range=32-67); on ‘Managing Emotions’ domain, the mean score obtained was 20.78+3.63 (Range=12-32); under the domain of ‘Empathy’, the mean score was 29.98+3.60 (Range=17-42) and on the domain of ‘Handling Relationships’, the mean score obtained by nursing students was 66.86+7.29 (Range=39-88) (Table 3).

|                      | Mean ± SD | Range |
|----------------------|-----------|-------|
| Self-awareness       | 38.41 ± 4.80 | 28-57 |
| Managing emotions    | 20.78 ± 3.63 | 12-32 |
| Motivating oneself   | 51.98 ± 5.84 | 32-67 |
| Empathy              | 29.98 ± 3.60 | 17-42 |
| Handling relationships| 66.86 ± 7.29 | 39-88 |

Association between socio-demographic characteristics, family profile and personal profile with the emotional intelligence of nursing students

The chi-square test was employed to determine the association of socio-demographic characteristics and personal profile of nursing students with their performance of EIT. The results showed no statistical significant association was found between EIT score and socio-demographic characteristics and variables such as reason for opting nursing profession, involvement in recreational activities, going outdoors with family and friends, visits to religious places, presence of support persons, satisfaction with nursing care provided to patients and self-perception.

Discussion

Emotional Intelligence (EI) is the ability to recognize, understand, manage our own emotions and to recognize, understand and influence the emotions of others.
The present study was conducted to assess the EI of undergraduate nursing students. A descriptive study design was adopted. A total of 216 undergraduate nursing students were administered 60-items Dr. Ekta Sharma’s Emotional Intelligence Test (EIT).

The study results showed that about 81% of the nursing students obtained average scores, while 19.4% students obtained high scores on EIT. The overall mean score on EIT was 207.92±14.95. The findings of the study were inconsistent with the Joshi et al. study, wherein it has been reported that the overall emotional intelligence of the nursing students was average to poor.

Further, it has been found in the present study that most of the nursing students obtained average scores on ‘Self-Awareness’ (90.7%); ‘Managing Emotions’ (78.2%); ‘Motivating Oneself’ (52.8%); ‘Empathy’ (92.1%) and ‘Handling Relationships’ (69.9%) domains of EIT. Kumar et al. study on emotional intelligence and academic achievement among nursing students revealed that the mean scores of nursing students were higher in all the domains of Sterrett’s Emotional Inventory i.e. self-awareness, empathy, self-confidence, motivation, self-control and social competence; however, it was highest in the empathy component and lowest in the social competency component. Thus, the findings of the present study were found inconsistent.

The present study results show non-significant association between socio-demographic characteristics of nursing students such as age, religion, residential background, current residence status and family type with the mean scores obtained by them on EIT. Barkhordari M et al. study found out a significant association between emotional intelligence and father’s education suggesting the students with higher father’s education scored higher on emotional intelligence scale. A non-significant association was also found between the mean score on EIT and the personal profile of nursing students such as reason for opting nursing profession, involvement in recreational activities, frequency of going outdoors with family and friends, frequency of visits to religious places, presence of support persons, satisfaction with nursing care provided to patients and self-perception with their performance on EIT. The findings were inconsistent with the findings from Kumar et al. study on assessment of emotional intelligence and academic achievement among Indian Nursing Students which reported significant association of emotional intelligence with the sleep, recreation, choice of profession, relationship with teachers and colleagues suggesting that the students who slept more, involved themselves in recreational activities quite often and had good relationships with their teachers had higher emotional intelligence.

**Conclusion**

Despite of the limitations such as small sample size and the use of self-reporting method, the present study concluded that all the undergraduate nursing students possess same level of EI irrespective of their demographic characteristics, family and personal profile. Thus, it recommended the periodic conduction of programs to enhance emotional intelligence skills of nursing students.

**Conflict of Interest:** None

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