

Relationship between Emotional Maturity and Perceived Stress Regarding Life among Nursing Students: A Cross-sectional Study

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ABSTRACT

Introduction: Nursing students experience high levels of perceived stress as they interact with a wide variety of individuals including colleagues, clients and families in a high stress environment. The ability to cope with stress inducing stimuli and manage emotions is referred to as emotional maturity. An emotionally mature person has full control over the expression of his feelings. Data on the correlates of emotional maturity and perceived stress among nursing students remains limited hence there was the need of this study.

Aim: To study the correlation between emotional maturity and perceived stress regarding life among nursing students.

Materials and Methods: The present study was a cross-sectional study carried out in April 2021. Data were collected from 205 first year Bachelor of Science (B.Sc) nursing students selected purposively from Athena, Yenepoya, Dr MV Shetty and Laxmi Memorial College of Nursing, Mangalore, Karnataka, India. A predesigned, semi structured proforma was used to collect

demographic details from the participants. Emotional maturity scale was used to assess their emotional maturity and perceived stress scale developed by Cohen was used to assess their perceived stress. Data were analysed by Statistical Package for the Social Sciences (SPSS) version 21.0. Data was analysed using descriptive and inferential statistics. Karl Pearson correlation coefficient was used to find the correlation between the variables.

Results: Majority of the students were in the age group of 17-19 years (96.1%). The ratio of males to female was 1:11.8. Majority (87.3%) of the participants had experienced moderate perceived stress. Mean scores of emotional maturity were 19.13 (± 4.287) and that of perceived stress scores were 102.902 (± 25.93). Emotional maturity positively correlated to perceived stress of nursing students ($r=0.275$, $p<0.05$). Significant association was found between emotional maturity and perceived stress of nursing students with their place of residence.

Conclusion: Emotional maturity was found to be correlated with perceived stress of nursing students.

Keywords: Clinical training, Emotions, Stressors, Undergraduate

INTRODUCTION

Adolescence is a period of transition when the individual changes physically and psychologically from a child to an adult. It is a period when rapid physiological and psychological changes demand for new social roles to take place. The adolescents, due to these changes often face a number of crises and dilemmas. It is the period when the child moves from dependency to autonomy. It demands significant adjustment to the physical and social changes. It is the stage of stress, strain and storm. It brings many ambiguities in life. During this phase one really does not know where he or she stands. It is believed that this uncertainty about one's role causes many conflicts. It is a period when there is a rise in delinquency, suicides, alcohol and drug addiction. It is the time when career is planned and philosophies of life are molded [1].

In healthcare education, learning to care for and help patients is associated with a variety of emotions. Students may experience interest, joy and satisfaction while there might be negative feelings too such as- sadness, guilt, anxiety, anger and shame. The healthcare students must learn to manage their emotions while performing their duties towards the patients [2].

Emotions are great motivating forces throughout the span of human life as they influence several aspects of one's behaviour. Emotional maturity is not an inborn character. It is developed and shaped by our day to day experiences with people and environment. Emotional maturity can be understood in terms of ability of self-control i.e., accepting responsibility for one's own emotions and dealing maturely with all the ups and downs [3].

Stress is defined as conditions that cause tissue damage far beyond the daily wear and tear of living [4]. Undergraduate students can

experience stress during their study in different disciplines. Nursing is one of the health disciplines that could be challenging and stressful for undergraduate students [5]. Nursing students are subjected to several stressors, including challenging course subjects, extended study periods, the anxiety of clinical training, and the need for critical thinking [5,6]. Additional stressors include extensive assignments, limited knowledge of the English language, and the fear of exams. Nursing students also have to deal with the stress of starting clinical training. The fear of hurting or damaging patients, especially as they begin their clinical practice, may have an impact on their practice. They are also worried about getting along with other staff members or patients, possible gaps in their professional training, the fear of facing unusual instances, and other worries [7].

Research conducted on nursing students showed that they had moderate level of perceived stress and they were emotionally immature [8-10]. Previous studies have shown negative correlation between emotional maturity and perceived stress [11,12]. There have also been contradictory findings with the correlation between emotional maturity and perceived stress in individuals [13,14]. Further there have been no studies carried out to find the correlation between emotional maturity and perceived stress of nursing students. Hence, the study aimed to find the correlation between emotional maturity and perceived stress regarding life among nursing students.

MATERIALS AND METHODS

The present cross-sectional study was conducted in April 2021. Data was collected from 205 first year B.Sc nursing students selected purposively (47 from Athena, 62 from Yenepoya, 44 from Dr MV Shetty and 52 from Laxmi Memorial College of Nursing). Permission

of Institutional Ethics Committee (IEC) was taken from AJ Institute of Medical Sciences and Research Centre and written informed consent was taken from all participants. The study is registered in Clinical Trial Registry of India (CTRI/2021/04/032802).

Sample size calculation: The sample size was calculated using the formula $Z\alpha^2 s^2/d^2$, where $Z\alpha=1.96$ at 95% confidence level, $s=\text{standard deviation}$ and $d=\text{relative precision of mean}$. With 95% confidence level and 90% power sample size came to 185 and with 10% non response error total sample size was approximated to 205.

Inclusion criteria: The study included first year BSc nursing students; both male and female, in the age group of 17 to 22 years and those who were willing to participate in the research study.

Exclusion criteria: Nursing students who were not willing to participate in the study.

Study Procedure

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 was assured. A predesigned, semistructured proforma was used to collect demographic details (age, gender, type of the family, order of birth, place of residence, occupation of father, occupation of mother, monthly income of parents and financial support for their education) from the participants. Emotional maturity scale [15] was used to assess their emotional maturity and Perceived Stress Scale (PSS) was used to assess their perceived stress. It consists of 48 items. The scale's items were in question form, requiring information for each of the five options with the scoring system of: very much-5, much-4, undecided-3, probably-2, never-1. The interpretation of the scores were: 185 and above extremely high; 166-184 high; 145-165 above average; 118-144 average; 98-117 below average; 78-97 low; and 77 and below extremely low level of emotional maturity.

Perceived Stress Scale (PSS) is a standardised scaled developed by Cohen. PSS scores are obtained by reversing responses (e.g., 0=4, 1=3, 2=2, 3=1 and 4=0) to the four positively stated items (items 4, 5, 7, 8) and then summing across all scale items. Five possible modes of responses are provided such as: 0=never, 1=almost never, 2=sometimes, 3=fairly often and 4=very often. The interpretation of scores: 0-13 low perceived stress, 14-26 moderate perceived stress, 27-40 high perceived stress [16].

After obtaining permission from the Institutional Ethics Committee, 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 was assured. Based on the inclusion criteria the emotional maturity and perceived stress scale was administered to the students.

STATISTICAL ANALYSIS

Data entry and tabulation was done in Microsoft Excel Sheet 2016 and it was analysed by SPSS 21.0. Karl Pearson correlation, Chi-square were used and the statistical significance level was fixed at $p<0.05$.

RESULTS

Majority of the students were in the age group of 17-19 years (96.1%), were female (92.2%), were second born (45.4%), residing in hostel (94.1%), had parents support their education (65.4%) [Table/Fig-1].

Majority (30.2%) of the nursing students had below average and low level of emotional maturity (30.2%) and 0.5% had extremely high level of emotional maturity [Table/Fig-2]. The mean of the emotional maturity scores was 102.902 (± 25.93).

Majority (87.3%) of the participants experienced moderate perceived stress [Table/Fig-3]. The mean of the perceived stress scores of nursing students was 19.13 (± 4.287), indicating moderate perceived stress among nursing students.

| Demographic variables | | N (%) |
|---------------------------------------|---------------------|------------|
| Age (years) | 17-19 | 197 (96.1) |
| | 20-22 | 8 (3.9) |
| Gender | Male | 16 (7.8) |
| | Female | 189 (92.2) |
| Type of family | Nuclear | 164 (80) |
| | Joint | 39 (19) |
| | Extended | 2 (1) |
| Order of birth | First | 91 (44.4) |
| | Second | 93 (45.4) |
| | Third or higher | 21 (10.2) |
| Place of residence | Home | 12 (5.9) |
| | Hostel | 193 (94.1) |
| Occupation of father | Daily wage worker | 30 (14.6) |
| | Self employed | 87 (42.4) |
| | Government employee | 20 (9.8) |
| | Private employee | 33 (16.1) |
| | Unemployed | 4 (2) |
| | Retired | 26 (12.6) |
| | Died | 5 (2.4) |
| Occupation of mother | Homemaker | 148 (72.2) |
| | Self employed | 16 (7.8) |
| | Government employee | 16 (7.8) |
| | Private employee | 15 (7.3) |
| | Daily wage worker | 2 (1.0) |
| | Other (Died) | 8 (3.9) |
| Monthly income of parents | Rs. 10,000-20,000 | 100 (48.8) |
| | Rs. 20,001-30,000 | 39 (19.0) |
| | Rs. 30,001-40,000 | 26 (12.7) |
| | >Rs. 40,000 | 40 (19.5) |
| Financial support for their education | Parents | 134 (65.4) |
| | Educational loan | 71 (34.6) |

[Table/Fig-1]: Demographic characteristics of participants (n=205).

| Level of emotional maturity | N (%) |
|-----------------------------|-----------|
| Extremely low | 30 (14.6) |
| Low | 62 (30.2) |
| Below average | 62 (30.2) |
| Average | 40 (19.6) |
| Above average | 6 (2.9) |
| High | 4 (2.0) |
| Extremely high | 1 (0.5) |
| Total | 205 (100) |

[Table/Fig-2]: Distribution of level of emotional maturity of nursing students (n=205).

| Level of perceived stress | N (%) |
|---------------------------|------------|
| Low perceived stress | 20 (9.8) |
| Moderate perceived stress | 179 (87.3) |
| High perceived stress | 6 (2.9) |
| Total | 205 (100) |

[Table/Fig-3]: Distribution of perceived stress score of nursing students (n=205).

Relationship between emotional maturity and perceived stress regarding life of nursing students: There was a weak positive correlation between emotional maturity and perceived stress of nursing students ($r=0.275$, $p<0.05$).

Significant association was found between emotional maturity scores of nursing student with their place of residence ($p<0.05$)

[Table/Fig-4]. Significant association was found between perceived stress scores of nursing student with their place of residence ($p<0.05$) [Table/Fig-4].

| Demographic variable | Emotional maturity | | | Perceived stress | | |
|---------------------------------------|--------------------|----|---------|------------------|----|---------|
| | χ^2 value | df | p-value | χ^2 value | df | p-value |
| Age | 0.583 | 1 | 0.445 | 0.262 | 1 | 0.609 |
| Gender | 0.004 | 1 | 0.951 | 0.546 | 1 | 0.460 |
| Type of family | 2.152 | 1 | 0.142 | 1.103 | 1 | 0.294 |
| Order of birth | 1.372 | 2 | 0.504 | 0.133 | 2 | 0.936 |
| Place of residence | 5.420 | 1 | 0.020* | 4.514 | 1 | 0.034* |
| Monthly income of parents | 2.101 | 3 | 0.552 | 0.919 | 3 | 0.821 |
| Financial support for their education | 1.366 | 1 | 0.243 | 0.104 | 1 | 0.747 |

[Table/Fig-4]: Association of emotional maturity and perceived stress with selected demographic variables (n=205).

*Significant

DISCUSSION

Nursing is a complex profession requiring professional nurses to interact with a variety of individuals including colleagues, clients and families in high stress environment [17]. Overcoming these stressors requires emotional and personal maturity [11].

Majority (87.3%) of the participants experienced moderate perceived stress and 2.9% experienced high perceived stress. The mean PSS score of undergraduate medical students of Mysore Medical College was found to be 17.7, indicating a moderate level of stress [18]. Another study conducted among northern Indian nursing undergraduate students showed that their PSS score was 28.67, indicating high level of stress [19]. In a study conducted in Ireland, 48% of the final year psychiatric nursing students experienced severe stress [20]. In a study conducted among medical students in Kolkata, 55.7% experienced moderate stress and 35.4% experienced high stress [21]. The results from the current study support the findings from the previous ones, showing that undergraduate students experience moderate perceived stress. Contrary to the above findings low perceived stress was found among 60% of 17-19 year-old adolescents [11]. Different geographical area, college environment and regional socio-cultural factors might have caused the difference in the level of perceived stress among adolescents. Higher levels of stress lead to increase in negative emotions like depression, anger and anxiety [22]. Stress negatively impacts the social, academic and overall quality of life of students [23,24].

In the current study, majority (30.2%) of the nursing students had below average and low level of emotional maturity (30.2%) and 0.5% had extremely high level of emotional maturity. These findings are supported by a study conducted in JIPMER [10]. In a study conducted by Kalaiselvan S and Maheswari K majority of the postgraduate students had moderate level of emotional maturity [25]. The difference in findings could be due to the small sample size and the study population being an older student group. Similar findings were seen in a study conducted by Ofole NM [26]. Similarly, the current study supports these findings and concludes that students have low level of emotional maturity at the beginning of their undergraduate education.

The present study has seen that there is a weak positive correlation between emotional maturity and perceived stress of nursing students ($r=0.275$, $p<0.05$). There was no significant association between emotional intelligence and perceived stress among undergraduate students of arts and science colleges in Puducherry [27]. Negative correlation was found between emotional intelligence and perceived stress score among nursing students in Egypt [28]. This is supported by a study conducted by Shah S and Mistry N where a moderate positive correlation was found between emotional maturity and perceived stress among individuals [13]. Significant positive relationship between emotional maturity and perceived stress was found among

young adults [14]. On the contrary, adolescents with higher emotional maturity were found to be low in stress [11].

In the present study, no significant association was found between emotional maturity scores of nursing student with regard to their age, gender. But emotional maturity was significantly associated with age in a study conducted by Rachel C et al., [10]. Gender was significantly associated with emotional intelligence of undergraduate students of arts and science [27], Bagh BS found that there was no significant difference in emotional maturity of adolescent with respect to gender [29]. On the contrary Gosh S concluded that boys were more emotionally mature than girls as girls became anxious sooner and feel frustrated easily as compared to boys [30].

There was no significant association of perceived stress of nursing students with age, gender, type of family, order of birth, monthly income of parents and financial support for their education. This is in contrast with another study conducted in Ambala where female nursing students experienced more stress [28]. This was also supported by a study conducted on undergraduate medical students where no association was found with gender [18]. Contrasting results were found in another study where males experienced more stress than females [8].

Limitation(s)

Data were collected by a self-report questionnaire with a potential risk of social desirability answers.

CONCLUSION(S)

The study concluded that there was a positive relationship between emotional maturity and perceived stress by nursing students. Measures can be taken to reduce the stress of nursing students. Students can be equipped with better life skills like appropriate time management, study planning, and relaxation techniques like yoga, meditation and extracurricular activities. Measures to enhance mental health of students can be included in the curriculum like organising an orientation program focusing on the students' personal needs before the students begin nursing courses in order to reduce the sources of stress during the students' first year, development programmes aiming to bring changes in the students' behaviour, social and attitudinal outcomes may be frequently established.

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