

Prevalence and Influencing Factors of Self-Esteem in Undergraduate Nursing Students from Public and Private Institutions in Karachi: A Cross-Sectional Analysis

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Abstract:

Introduction: Self-esteem is a critical determinant of nursing students' academic achievement and mental health. It affects their confidence, communication, and coping with clinical challenges. Nevertheless, self-esteem can differ based on individual and socio-demographic factors, which affect students' learning experiences and professional growth. **Objectives:** To compare the levels of self-esteem among undergraduate nursing students in public and private institutions in Karachi another is to determine socio-demographic determinants of self-esteem among these students. **Methodology:** Comparative cross-sectional study was carried out at two different nursing colleges in Karachi, Pakistan. The population for the study consisted of Generic BSN students from all years of study. A sample of 192 students was chosen using non-probability convenient sampling. Data was collected through a validated structured questionnaire, consisting of a socio-demographic section and the Rosenberg Self-Esteem Scale (RSES). Data analysis was conducted using SPSS version 21.0, where p-values ≤ 0.05 were regarded as statistically significant. **Results:** The study revealed that 20.3% of students exhibited low self-esteem, 72.4% normal self-esteem, and 7.3% high self-esteem. Gender, year of study, and socioeconomic status were strongly correlated with levels of self-esteem. Low self-esteem was reported by female students and students from lower socio-economic groups. **Conclusion:** Most of the nursing students had normal self-esteem, with some socio-demographic characteristics determining their level of self-esteem. Targeted interventions to enhance self-esteem in vulnerable groups can be recommended based on these findings, which can lead to improved academic and professional performance.

Key words: Prevalence, Self-Esteem. Undergraduate Nursing Students

Introduction:

Self-esteem is an essential psychological concept that has a powerful influence on individuals' mental well-being, school performance, and general health. It is a subjective assessment of one's self-worth and capabilities, including self-confidence, self-respect, and self-acceptance, without attributing superiority or perfection (1). Research has repeatedly established that self-esteem emerges from individuals' self-perceptions of their own self-concept (2). Among undergraduate nursing students, self-esteem is a crucial factor in shaping professional identity, enhancing patient care skills, and influencing educational experiences (3). Nevertheless, low self-esteem among nursing students has been increasingly raised as a concern worldwide (4). Academic pressure, social comparison, personal experience, and socio-demographic factors mostly account for low levels of self-esteem (5, 6). In Pakistan, the nursing practice is

confronted with distinctive cultural and societal issues such as gender role demands and mental illness stigmatization, which have a deepening effect on students' self-esteem (7). The learning environment, either public or private, also shapes students' self-concepts and belief in themselves (8). For instance, a Karachi study documented that 61% of nursing students had low levels of self-esteem, highlighting the imperative to introduce specific interventions to enhance mental health and professional growth (4). Socio-demographic characteristics like age, gender, family history, and socioeconomic status have also been found to affect self-esteem among nursing students. Lower socioeconomic and younger students are likely to face increased difficulties in establishing a positive self-image (6,9). Furthermore, other international research has similarly identified trends; for example, among Saudi Arabian students who were studying nursing, 18.9% had low self-esteem, 74.4% had normal self-esteem, and 6.7% had high self-esteem (10). This connection between self-esteem and mental health outcomes, including social anxiety, has been additionally emphasized through research. Among Palestinian nursing students, a study revealed a considerable negative correlation between social anxiety and self-esteem ($r = -.35, P < .001$) (11). Moreover, longitudinal studies among Chinese college students have indicated that low self-esteem can predict increased anxiety over time, further underscoring the importance of fostering positive self-esteem during the educational journey (12). Given these findings, understanding the prevalence and influencing factors of self-esteem among undergraduate nursing students in Karachi's public and private institutions is essential. This research seeks to examine these factors in-depth, yielding important insights to formulate effective support mechanisms capable of strengthening students' psychological resilience, academic achievement, and career advancement. Thus, the current study seeks to:

Evaluate the undergraduate nursing students' levels of self-esteem in public and private institutions in Karachi and determine the socio-demographic determinants of self-esteem among these students. By using a cross-sectional study, this study aims to add to the increasing evidence regarding the mental health of nursing students and recommend evidence-based measures for developing an enabling learning environment in Karachi.

Methodology:

The study was carried out in two nursing colleges in Karachi, Pakistan. The population of interest was all the students studying the Generic Bachelor of Science in Nursing (BSN) program in different semesters. A comparative cross-sectional study design was used to attain the study goals. The study was undertaken within six months after approval of the synopsis by the Institutional Research Committee (IRC) and Institutional Review Board (IRB) of the concerned institution. The sample size was estimated by using OpenEpi version 3.0, and the required sample size came out to be 192 participants, which was calculated at a 95% confidence level at a 5% margin of error. A non-probability convenience sampling method was employed to choose the participants. Students taking the Generic BSN program from the first, second, third, and fourth years were involved in the study. Exclusion included students who had repeated academic years, students diagnosed with mental illnesses (conditions impacting cognition, emotion, and behavior), students undergoing treatment for such illnesses, and physically disabled students. Data were gathered using an open-access, validated, and structured questionnaire with two sections: a socio-demographic profile (Apex-1) and the Rosenberg Self-Esteem Scale (RSES) (Apex-2). The RSES, a ten-item scale that comprises five positively phrased and five negatively phrased statements, was utilized to quantify students' self-esteem level. Summated scores were calculated to classify self-esteem as high or low. The Rosenberg Self-Esteem Scale has also been found to have good psychometric properties, with high internal consistency with Cronbach's alpha ranging from 0.77 to 0.88 in different studies (Sinclair et al., 2010). It also had good test-retest reliability with correlation coefficients ranging from 0.82 to 0.88 after a one-week period (Rosenberg, 1965).

Analysis was carried out with SPSS version 21.0. Standard deviation and mean were computed for quantitative variables, while percentages and frequencies were computed for qualitative variables. A p-value of ≤ 0.05 was used as statistically significant. Ethical clearance was sought from the Ethical Review Committee (ERC) and the Research Committee prior to data collection. Informed written consent was obtained from all participants, and utmost care was taken to maintain the privacy, confidentiality, and anonymity of the information of the participants.

Result:

A sample of 192 undergraduate nursing students took part in the study. Participants were drawn from two nursing colleges in Karachi, Pakistan. The participants' mean age was 21.4 years (SD = 1.8). Of them, 63.5% (n = 122) were females and 36.5% (n = 70) were males. The majority of the students (89.1%, n = 171) were unmarried as shown in table 01.

Table 1: Socio-Demographic Characteristics of Participants (n = 192)

Variable	Frequency (n)	Percentage (%)
Gender		
Male	70	36.5%
Female	122	63.5%
Marital Status		
Single	171	89.1%
Married	21	10.9%
Year of Study		
1st Year	58	30.2%
2nd Year	47	24.5%
3rd Year	49	25.5%
4th Year	38	19.8%
Socioeconomic Status		
Low	64	33.3%
Middle	102	53.1%
High	26	13.6%

According to the Rosenberg Self-Esteem Scale (RSES) scoring, it was revealed that 20.3% (n = 39) of the students had low self-esteem, and 72.4% (n = 139) of the students had normal self-esteem. Moreover, 7.3% (n = 14) of the students were revealed to have high self-esteem as shown in table 02.

Table 2: Distribution of Self-Esteem Levels among Participants (n = 192)

Self-Esteem Level	Frequency (n)	Percentage (%)
Low Self-Esteem	39	20.3%
Normal Self-Esteem	139	72.4%
High Self-Esteem	14	7.3%

Table 03 show the chi-square test was used to determine the association between socio-demographic variables and levels of self-esteem. The analysis indicated that gender was also significantly related to self-esteem levels ($p = 0.03$) and that slightly higher levels of low self-esteem were reported by female students compared with male students. In a similar vein, study year demonstrated a strong correlation with self-esteem ($p = 0.01$) since first-year students had a greater incidence of low self-esteem than terminal-level students. In addition, socioeconomic status was also significantly correlated with self-esteem ($p = 0.02$), with lower socioeconomic status students having higher rates of low self-esteem compared with higher socioeconomic status students.

Table 3: Association between Selected Socio-Demographic Variables and Self-Esteem Levels

Variable	p-value
Gender	0.03
Year of Study	0.01
Socioeconomic Status	0.02

Discussion:

The purpose of this study was to evaluate the prevalence of self-esteem levels and examine the correlation of socio-demographic factors among public and private institute undergraduate nursing students in Karachi.

A cross-sectional study among nursing students in Noida revealed that 59.2% of the students had a moderate level of self-esteem, and 23.6% had high self-esteem. Another study identified that 68.6% of nursing students had normal self-esteem, and 31.4% had low self-esteem (13). In contrast, the results of the current study indicated that 72.4% of the students had normal self-esteem, 20.3% had low self-esteem, and 7.3% had high self-esteem. These findings are somewhat in line with existing literature, mainly with respect to the prevalence of students with normal self-esteem, although the rate of high self-esteem was found to be slightly lower in this study. A different study conducted at King Saud University revealed that 23.6% of the medical students suffered from low self-esteem and 42% of them had imposter syndrome, with all significant correlations with gender, mother's education, and GPA (14). As compared to that, the present study among Karachi nursing students revealed that 20.3% of them had low self-esteem. Both studies point to the increased prevalence of low self-esteem for females and first-year students, which stresses the immediate need for mental health interventions in schools for improved student well-being. In addition, a study conducted at the University of Saudi Arabia found that 8.1% of the students had high self-esteem, 76.6% had moderate self-esteem, and 15.3% had low self-esteem (15). Likewise, in 2022, a study conducted at an Indian private healthcare college discovered that self-esteem of nursing students was affected by academic performance, social support, and personal characteristics (16). Conversely, the current research identified that 7.3% presented high self-esteem, 72.4% presented normal self-esteem, and 20.3% presented low self-esteem, with similar trends but higher rates of low self-esteem. Yet another cross-sectional study of 500 medical students reported that 52% were smartphone addicted. While smartphone addiction was strongly related to sleep disturbance, smartphone addiction was not associated with low self-esteem (17). Contrarily, the current study mostly explored the levels of self-esteem among nursing students and established significant correlations between self-esteem and socio-demographic categories like gender, year of study, and socioeconomic status. In contrast to the smartphone research, our results highlighted intrinsic factors affecting self-esteem over extrinsic behaviors such as smartphone usage. Another cross-sectional study in the UAE among 518 adolescents showed that emotional abuse was the most prevalent type of child maltreatment, which was significantly correlated with lower self-esteem and increased depressive symptoms (18). In contrast, the current study among nursing students also found factors influencing self-esteem, but it emphasized socio-demographic factors instead of adverse childhood experiences. Both studies emphasize that external factors—either previous maltreatment or present socio-demographic issues, have a significant influence on self-esteem levels. In addition, a cross-sectional study evaluated low self-esteem (LSE) and mental distress among 422 undergraduate medical students and found 19% with LSE, while poor academic performance and social support were found to be the predictors (19). Likewise, in this current study of nursing students at Karachi, socio-demographic predictors like socioeconomic status and study year were found related to self-

esteem scores. Both of these studies point out that internal and external issues lead to low self-esteem, impacting students' general mental health and educational experience.

Conclusion:

The most undergraduate nursing students had average self-esteem and a smaller percentage had low or high levels of self-esteem. There was a strong association between self-esteem and socio-demographic variables including gender, level of study, and socioeconomic status. Comparison with other studies in the country and worldwide shows that the level of self-esteem among student populations is affected by academic and personal factors. These findings highlight the importance of supportive interventions in school settings to promote students' self-esteem and general well-being.

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