

Self-Esteem among Undergraduate Students in a Nursing College in Kathmandu: A Descriptive Cross-sectional Study

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ABSTRACT

Introduction

Nursing is a stressful and demanding profession and requires positive self-esteem to develop confidence for healthy interaction with patients and health professionals. So, this study aimed to find out the self-esteem of undergraduate nursing students in a nursing college.

Methods

A descriptive cross-sectional study was conducted among 118 undergraduate nursing students studying in first and third year of BSc Nursing and Bachelor of Nursing Science programs at Maharajgunj Nursing Campus, using proportional stratified simple random sampling. Data was collected through self-administered questionnaire with Likert Scale that measure self-esteem. Data analysis was done in SPSS version 16 using descriptive and inferential statistics.

Results

Among 118 undergraduate nursing students, 63.6% (75) students had high self-esteem, 34.7% (41) had average self-esteem and 1.7% (2) had low self-esteem. Regarding the dimensions of self-esteem, mean percentages of the respondents were 78.7% (mean score 23.61 ± 3.59) for personal self-esteem, 80.1% (mean score 8.01 ± 1.48) for parentally derived self-esteem, 75.5% (mean score 26.44 ± 3.92) for academic self-esteem and 72.6% (mean score 18.15 ± 3.07) for social self-esteem. There was statistically significant association of self-esteem with age ($p=0.001$) and nursing education as their first professional choice ($p=0.008$).

Conclusion

Majority of undergraduate nursing students have high level of self-esteem. More than one-third of them have average self-esteem. Self-esteem was low in academic and social dimension in comparison to personal and parental dimension. To strengthen students' self-esteem teachers and campus administration, student support committee need to create supportive learning environment.

Keywords

Nursing students; self-concept; self-esteem; undergraduate

INTRODUCTION

Self-esteem is the degree of acceptance and self-worth in relation to self.¹ Students with high self-esteem show confidence and positive expectations in new situations and take actions to adapt to them, whereas students with low self-esteem show negative feelings and maladjustment.²

Nursing students deal with situations concerning human life, misery, pain, death, and emergencies,³ which might affect their personality, psychological wellbeing and interpersonal relationships.⁴ Positive self-esteem is correlated with positive coping styles ($p < 0.05$) that aid students in resolving their problems or emotions and in achieving effective communication and professional behaviour among nurses.⁵ Conversely, nursing students with low self-esteem face difficulties in communication with co-workers and patients⁶ and have increased frustration, fear of failure and lack of confidence resulting in poor academic performance.⁷ Later in profession, they may display negative attitude and behaviour as self-esteem is strongly correlated with anger expression ($p < 0.05$),⁸ which may eventually lead to lower quality of patient care and standard of nursing practice.⁹

Many studies have found low to moderate level of self-esteem among nursing students.^{10,11,12} To ensure nurses are strong internally, they must have positive self and professional development during their study period, one important aspect of which is self-esteem.¹³ So, nursing students' self-esteem need to be explored. Thus, this study aimed to assess the self-esteem among undergraduate nursing students in a nursing college.

METHODS

A descriptive cross-sectional study was conducted in Institute of Medicine, Maharajgunj Nursing Campus, Kathmandu. Study population was nursing students who were studying at undergraduate; Bachelor of Science in Nursing (BSc. Nursing) and Bachelor of Nursing Science (BNS) program. The sample size was 118, calculated by using Cochran formula with prevalence rate of 78%¹⁴ and 5% allowable error, adjusted using finite population correction factor and by adding 10% non-response rate. Samples were selected using proportional stratified simple random sampling.

Sample size of each stratum = (sample size/ population size) \times stratum size

Second year students of both programmes were not available at the study time and BSc Nursing fourth year students were excluded due to probability of data contamination.

The research instrument was self-administered questionnaire contained three parts: first socio-

demographic information, second choice of nursing education, and third Likert Scale containing statements to measure the level of self-esteem. The Likert Scale was developed by adopting items from standard scales (Rosenberg Self-esteem Scale, Coopersmith Self-esteem Inventory-Adult form, Revised Janice and Field Feeling of Inadequacy Scale and Multidimensional Self-esteem Scale). There were 20 statements, six statements for personal self-esteem, two statements for parentally-derived self-esteem, seven statements for academic self-esteem and five statements for social self-esteem. There were eleven positive and nine negative statements, rated using Five-point Likert scale. Scoring was done for positive statements as Strongly Agree = 5, Agree = 4, Neither agree nor disagree = 3, Disagree = 2, and Strongly Disagree = 1 and negative statements were reverse-scored. Score range was 20 to 100. Level of self-esteem was categorized as: low self-esteem (Score 20-46), average self-esteem (score 47-73), and high self-esteem (score 74-100).

Ethical approval was obtained from Institutional Review Committee of Institute of Medicine, Ref no. 108(6-11) E2; and permission for data collection was obtained from campus administration. Data was collected in August, 2022. Prior to data collection study purpose was explained and written informed consent was taken from each student. After completing the class, self-administered questionnaires were distributed by the researcher to the students in classroom, asked them to fill, and returned. Data entry and analysis was carried using SPSS version 16. Data was analysed using descriptive statistics number, percentage, mean, SD, median, quartile to describe socio-demographic variables and level of self-esteem and inferential statistics (Chi-square test, Fischer's exact test) to measure association between self-esteem and selected variables.

RESULTS

Table 1 shows that majority (64.4%) of the students were in age-group 18-23 years with mean age 22.9 (SD \pm 3.06) years. Nearly half (45.8%) were Brahmin, 93.2% followed Hinduism and 89% were unmarried. More than two-third (69.5%) lived in hostel and 61.9% were currently living with friends. Almost 55% were from BNS and 45% from BSc Nursing program and 64.4% students choose nursing education was the first professional choice.

Table 2 depicts students' response on different components of self-esteem. Regarding personal self-esteem, nearly half (44.9%) of the respondents agreed and almost one-third (32.2%) strongly agreed that they were satisfied with self. More than half (55.9%) agreed and nearly one-third (30.5%) strongly agreed that they felt they had good

Table 1. Respondents' socio-demographic and academic information

Characteristics		Number	Percentage
Age in completed years	18-23	76	64.4
	24-29	36	30.5
	30-35	6	5.1
Mean age \pm SD		22.91 (\pm 3.06) years	
Ethnicity	Brahmin	54	45.8
	Janajati	30	25.4
	Chhetri	23	19.5
	Madhesi	6	5.1
	Dalit	3	2.5
	Muslim	2	1.7
Religion	Hinduism	110	93.2
	Buddhism	5	4.2
	Islam	2	1.7
	Christianity	1	0.8
Marital status	Unmarried	105	89.0
	Married	13	11.0
Place of living	Hostel	82	69.5
	Out of hostel	36	30.5
Currently living with	Friends	73	61.9
	Family	34	28.8
	Alone	9	7.6
	Relatives	2	1.7
Academic program	Bachelor of Nursing Science	65	55.1
	BSc. Nursing	53	44.9
Academic year	BNS 1st year	32	27.1
	BNS 3rd year	33	28.0
	BSc Nursing 1st year	27	22.9
	BSc Nursing 3rd year	26	22.0
Nursing is the first professional choice		76	64.4

qualities. Almost half (54.2%) were agree and one-third (32.2%) were strongly agreed that they were able to do things like others, 40.7% disagreed that they don't have much to be proud of, and nearly one-fifth (19.5%) agreed they felt useless at times. Regarding parentally derived self-esteem, almost half (49.2%) agreed that they had made their parents proud and 44.9% were disagree that they were not unable to meet parents' expectations. Regarding academic self-esteem, almost half (44.9%) and almost one-fourth (23.7%) respectively agreed and strongly agreed that they were proud of choosing their course. Majority (58.5%) agreed that they performed good academically and 62.7% agreed that they performed good practically. Similarly, 51.7% were agree that they felt confident to give class presentations and 52.7% were agree that they were able to satisfy teachers with their work. Nearly half (44.1%) and more than half (57.6%) respectively agreed that they were able

to learn new skills and information and handle challenging situations in profession. Regarding social self-esteem, highest proportion (44.9%) were agreed that they felt comfortable on meeting new people and nearly half (49.2%) agreed that they did not feel scared or shy to approach people in profession. Majority (59.3%) agreed that they could connect and communicate with new people. Highest proportion (39%) were neither agree nor disagree on they were dependable for other people. Moreover, 40.7% and 23.7% respectively agreed and strongly agreed that they were unbothered by what others think of them.

Table 3 depicts students' score in median percentage in which highest 80% on personal self-esteem and parentally derived self-esteem followed by 77.1% for academic self-esteem and 72.0% for social self-esteem.

Table 4 illustrates that almost two-third (63.6%) of

Table 2. Respondents' perceived self-esteem in different dimensions

Items	Strongly agree No. (%)	Agree No. (%)	Neither agree nor disagree No. (%)	Disagree No. (%)	Strongly disagree No. (%)	Median	Q1-Q3
<u>Personal self-esteem</u>							
Satisfied with self	38 (32.2)	53 (44.9)	23 (19.5)	3 (2.5)	1 (0.8)	4	4-5
Feeling of having good qualities	36 (30.5)	66 (55.9)	14 (11.9)	2 (1.7)	-	4	4-5
*Feeling of failure	1 (0.8)	2 (1.7)	11 (9.3)	64 (54.2)	40 (33.9)	4	4-5
Able to do things like most other people	38 (32.2)	64 (54.2)	7 (5.9)	4 (3.4)	5 (4.2)	4	4-5
*Not having much to be proud of	5 (4.2)	18 (15.3)	21 (17.8)	48 (40.7)	26 (22)	4	3-4
*Feeling useless at times	4 (3.4)	23 (19.5)	20 (16.9)	46 (39.0)	25 (21.2)	4	3-4
<u>Parentally derived self-esteem</u>							
Feel that one has made parents proud	44 (37.3)	58 (49.2)	12 (10.2)	4 (3.4)	-	4	4-5
*Feeling unable to meet parents' expectations	4 (3.4)	7 (5.9)	25 (21.2)	53 (44.9)	29 (24.6)	4	3-4.25
<u>Academic self-esteem</u>							
Proud of choosing one's course	28 (23.7)	53 (44.9)	27 (22.9)	8 (6.8)	2 (1.7)	4	3-4
Feeling of performing good academically	17 (14.4)	69 (58.5)	21 (17.8)	9 (7.6)	2 (1.7)	4	3-4
Feeling of performing good practically	22 (18.6)	74 (62.7)	18 (15.3)	4 (3.4)	-	4	4-4
*Unconfident to give class presentations	7 (5.9)	16 (13.6)	16 (13.6)	61 (51.7)	18 (15.3)	4	3-4
Feeling able to satisfy teachers with one's work	17 (14.4)	62 (52.5)	28 (23.7)	11 (9.3)	-	4	3-4
*Doubt ability to learn new skills and information required for profession	6 (5.1)	18 (15.3)	11 (9.3)	52 (44.1)	31 (26.3)	4	3-5
*Doubt ability to handle challenging situations in profession	4 (3.4)	9 (7.6)	10 (8.5)	68 (57.6)	27 (22.9)	4	4-4
<u>Social self-esteem</u>							
*Feeling uncomfortable on meeting new people	7 (5.9)	18 (15.3)	19 (16.1)	53 (44.9)	21 (17.8)	4	3-4
*Scared and shy to approach people in profession	4 (3.4)	18 (15.3)	13 (11.0)	58 (49.2)	25 (21.2)	4	3-4
Can connect and communicate with new people	23 (19.5)	70 (59.3)	19 (16.1)	4 (3.4)	2 (1.7)	4	4-4
Being dependable	6 (5.1)	45 (38.1)	46 (39.0)	17 (14.4)	4 (3.4)	3	3-4
Unbothered by what others think of them	28 (23.7)	48 (40.7)	27 (22.9)	13 (11.0)	2 (1.7)	4	3-4

* Reverse scored

Table 3. Respondents' median score on dimensions of self-esteem

Self-esteem Dimensions	Minimum	Maximum	Obtained Score Range	Median (IQR)	Median Percentage
Personal Self-esteem	6	30	14-30	24 (5)	80.0
Parentally derived Self-esteem	2	10	3-10	8 (2)	80.0
Academic Self-esteem	7	35	14-35	27 (5)	77.1
Social Self-esteem	5	25	8-25	18 (4)	72.0

Table 4. Respondents' level of self-esteem (n=118)

Level of Self-esteem	Number(%)
High (74-100)	75 (63.6)
Average (46-73)	41 (34.7)
Low (20-46)	2 (1.7)

Possible score: 20-100; Obtained score: 44-100

the respondents have high self-esteem, more than one-third (34.7%) have average self-esteem and only a few (1.7%) have low self-esteem.

Table 5 shows that there is statistically significant association of self-esteem with age ($p=0.001$) and whether nursing education was respondents' first professional choice ($p=0.008$).

No significant association with place of living, with whom respondents are currently living, year of study, academic program, and influencers for choosing nursing education. Although high self-esteem was found more among third-year students (69.2% in BSc Nursing and 78.8% in BNS) than among first-year students (53.8% in BSc Nursing and 21.2% in BNS).

DISCUSSION

The findings of the present study on self-esteem shows that almost three in five students have high self-esteem. This result may be related to factors such as the students' age, familial support, and their self-perception across different dimensions of self-esteem. In the context of Nepal, these findings are important as students with higher self-

Table 5. Association between level of self-esteem and socio-demographic and nursing education related characteristics

Variables		Level of self-esteem No. (%)		χ^2 value	p value
		Average	High		
Age	≤ 23	35 (46.7)	40 (53.3)	11.903	0.001
	> 23	6 (14.6)	35 (85.4)		
Place of living	Hostel	29 (35.8)	52 (64.2)	0.025	1.00
	Out of hostel	12 (34.3)	23 (65.7)		
Living with	Alone	1 (12.5)	7 (87.5)		0.26*
	In company#	40 (37.0)	68 (63.0)		
Academic program	BSc Nursing	20 (38.5)	32 (61.5)	0.401	0.56
	Bachelor of Nursing Science	21 (32.8)	43 (67.2)		
Academic year BSc Nursing	First year	12 (46.2)	14 (53.8)	1.300	0.39
	Third year	8 (30.8)	18 (69.2)		
Academic year BNS	First year	14 (45.2)	17 (54.8)	4.159	0.06
	Third year	7 (21.2)	26 (78.8)		
First professional choice	Yes	20 (26.3)	56 (73.6)	7.863	0.008
	No	21 (52.5)	19 (47.5)		
Influencers for choosing nursing education	Self	20 (29.0)	49 (71.0)	3.014	0.11
	Others# #	21 (44.7)	26 (55.3)		

#Friends, family, relatives # #Family, peer, not successful in other university exams

* p-value of Fisher's exact test

esteem are likely to be more confident and resilient in their studies and future nursing careers. High self-esteem can improve communication skills, leadership abilities, and the overall quality of care they provide. Only 1.7% of students reported low self-esteem in this study that is linked with mental health challenges, poor academic performance, and difficulty in forming interpersonal relationships, all of which can hinder a students' success in both the theoretical and clinical practices. Supporting and encouraging educational environment and familial support in Nepal may be playing a role in fostering students' positive self-perceptions.

This finding is similar with a study in Brazil, where 68% of nursing students had high, 30% had average and 2% had low self-esteem.¹⁵ Another study among PCL and BSc Nursing students in Pokhara, Nepal, 72% had high self-esteem, 27% had moderate self-esteem and 1% had low self-esteem.¹⁶ The reason behind similar finding could be similar educational environments, socio-cultural values emphasizing familial and community support throughout the country despite the difference in regions. On contrary, study among nursing students in Iraq showed that 54.7% had moderate self-esteem, 29% had high self-esteem and 16.3% had low self-esteem.¹⁷ This is probably due to the prolonged political instability, conflict, and social unrest in Iraq, which may have negatively impacted students' psychological well-being. Additionally, familial stressors such as economic hardship, displacement, and loss of family members could contribute to lower self-esteem levels among Iraqi students compared to those in Nepal.

Regarding socio-demographic variables, in the present study, there is statistically significant association between self-esteem and age ($p=0.001$). Greater proportion of respondents (85.4%) having age >23 was found to have high self-esteem in comparison to respondents having age ≤ 23 (53.3%). This finding is similar with study in Nepal College of Health Sciences, Jorpati, there is significant association between age and self-esteem of nursing students ($p=0.001$).¹⁸ This finding is contrary with a study among BSc Nursing students in Chitwan there was no statistically significant association between self-esteem and age ($p=0.17$).²⁰ Present study finding is contradictory with the findings of a study by Chris et al. among first year nursing students in Karnataka, India no significant association between age and self-esteem ($p=0.68$).² This difference may be due to the fact that only the first-year nursing students having minor difference in age (18-23 years) were taken as population in that study. There is no statistically significant association of self-esteem with place of living and with whom respondents are currently living. This finding is supported by the study among undergraduate students in Pokhara,

which also showed no significant association of self-esteem with place of living ($p=0.165$) and with whom respondents are currently living ($p=0.206$).¹⁹

Similarly, in the present study no significant association was found between self-esteem and academic program, which is different from study by Shrestha et al.¹⁸. In the present study, among a total of 53 BSc Nursing students, 60.4% of them were found to have high self-esteem, whereas among a total of 65 BNS students, 66.2% had high self-esteem. Although the number of respondents with high self-esteem were comparatively more in BNS than in BSc Nursing program, no significant association was found between level of self-esteem and academic program ($p=0.562$). This finding is different than a study in NCHS there was significant association ($p=0.034$) between academic program and level of self-esteem.¹⁸ This difference may be due to variation in sample groups and research tool.

In relation to year of study, no statistically significant association was seen between year of study and self-esteem level in BNS program ($p=0.062$) and BSc Nursing program ($p=0.393$) although number of respondents having high self-esteem were more in BNS third year (69.2%) than in BNS first year (53.8%) as well as in BSc Nursing third year (69.2%) than in BSc Nursing first year (53.8%). This finding is coherent with study in Chitwan²⁰ there was no statistically significant association between self-esteem and academic year ($p=0.45$). Present study finding is contrast with the finding of a study among PCL and BSc Nursing students from Pokhara, had significant association between level of study and self-esteem ($p=0.035$).¹⁶ Similarly, a study among undergraduate nursing students in Iraq also showed significant association as opposed to the present finding.²¹

This study also revealed that nursing education was the first professional choice of majority of the respondents (64.4%), and more than half of the respondents (58.5%) had chosen nursing education as a career by self, followed by influence of family (22.9%), being unsuccessful in other career or university admission exams (14.4%) and peer influence (4.2%). The findings are different from the findings of a study conducted among undergraduate nursing students in Brazil in 2011, in which nursing education was the first professional choice of only 40.7% of the respondents and 37.8% selected nursing education by self-interest, followed by failure in another interested field (25.2%).¹⁵ This difference might be due to advancement in scope of nursing practice in recent years which might have motivated students to choose this professional field. Interestingly, statistically significant association was seen between level of self-esteem and whether nursing education was respondents' first professional choice ($p=0.008$) with high self-

esteem among majority of respondents responding that nursing education was their first professional choice (73.6%) in comparison to those who responded that nursing education was not their first choice (47.5%). However, statistically significant association wasn't found between self-esteem and influencers for choosing nursing education ($p=0.11$). This is consistent with the findings of the study from Brazil which showed no significant association between self-esteem and this variable.

In terms of professional implications, the development of self-esteem among nursing students is critical for their future roles as healthcare providers. Nurses with high self-esteem tend to be more effective in-patient care, as they are better equipped to manage difficult situations, communicate clearly with patients and colleagues, and make confident decisions in high-pressure environments. Additionally, strong self-esteem fosters empathy and compassion, which are fundamental qualities in nursing profession. As such, fostering high self-esteem among nursing students can play a key role in shaping their personal and professional growth, leading to better outcomes in both education and patient care.

To measure the undergraduate nursing students' self-esteem, items were adopted from different standard tools, Rosenberg Self-esteem Scale, Coopersmith Self-esteem Inventory-Adult form, Revised Janice and Field Feeling of Inadequacy Scale and Multidimensional Self-esteem Scale). Previous studies were assessed on personal self-esteem, but this study included social and interpersonal aspects as well as academic and parentally derived self-esteem thus it measured many dimensions of self-esteem. Random with proportionate sampling was used thus findings would be generalize in similar settings.

CONCLUSION

Study concludes that the majority of undergraduate nursing students have a high level of self-esteem. However, more than one-third students have average self-esteem. Among the dimensions of self-esteem, social and academic have relatively low self-esteem. A statistically significant association was found between self-esteem and age and whether nursing education was their first professional choice. Third-year students exhibited higher self-esteem than first-year students in both academic programs. Nurse educators, campus administration, and health professionals from clinical practicum need to support students by creating and fostering a supportive learning environment, helping them finding and dealing with professional challenges, and building self-confidence, self-worth, communication skills, and the competence required in nursing.

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CONFLICT OF INTEREST

The author(s) declare that they do not have any conflicts of interest with respect to the research, authorship, and/or publication of this article.

AUTHOR CONTRIBUTIONS

Prajina Kansakar

- Conceived and designed the study
- Conducted the literature review and data collection.
- Performed statistical analysis and data interpretation.
- Contributed to revising the manuscript based on feedback provided.

Devaka Kumari Acharya

- Provided critical insights for study design.
- Assisted with the methodology and overall research strategy
- Supervised the data collection and analysis process.
- Wrote the manuscript draft for important intellectual content.

REFERENCES

1. Ghezalbash S, Rahmani F, Peyrovi H, Inanloo M, Shekarchian S. Comparison of self-esteem among first to fourth year nursing students from Universities of Medical Sciences in Tehran. *Thrita*. 2015 Mar 30; 4(1):1-5. <https://doi.org/10.5812/thrita.24336>.
2. Chris E, Pais M, Kumar SP, Sisodia V. Perceived self-esteem amongst first-year nursing students - A cross-sectional survey. *Int. J. Health. Rehabil. Sci.* 2012; 1(2):74-80.
3. Schluter PJ, Turner C, Huntington AD, Bain CJ, McClure RJ. Work/life balance and health: the Nurses and Midwives e-cohort study. *Int. Nurs. Rev.* 2011 Mar; 58(1):28-36. <https://doi.org/10.1111/j.1466-7657.2010.00849.x>
4. Megahed M, Mohammad F. Effect of cooperative learning on undergraduate nursing students' self-esteem: A quasi-experimental study. *J. Nurs. Educ. Prac.* 2014; 4(11):1-7. <https://doi.org/10.5430/jnep.v4n11p1>
5. Ni C, Lo D, Liu X, Ma J, Xu S, Li L. Chinese female nursing students' coping strategies, self-esteem and related factors in different years of school. *J. Nurs. Educ. Prac.* 2012 Oct 1; 2(4):33-41. <https://doi.org/10.5430/jnep.v2n4p33>
6. Valizadeh L, Zamanzadeh V, Gargari RB, Ghahramanian A, Tabrizi FJ, Keogh B. Pressure and protective factors influencing nursing students' self-esteem: A content analysis study. *Nurse Educ. Today*. 2016 Jan 1; 36:468-72. <http://dx.doi.org/10.1016/j.nedt.2015.10.019>
7. Taylor H, Reyes H. Self-efficacy and resilience in baccalaureate nursing students. *Int. J. Nurs. Educ. Scholars.* 2012 Feb 17; 9(1). <https://doi.org/10.1515/1548-923X.2218>
8. Karagözoğlu Ş, Kahve E, Koç Ö, Adamişoğlu D. Self-esteem and

- assertiveness of final year Turkish university students. *Nurse Educ. Today*. 2008 Jul 1; 28(5):641-9. <https://doi.org/10.1016/j.nedt.2007.09.010>
9. Cha NH, Seo EJ. The relationship between anger expression and self-esteem in nursing college students. *J. Korean Acad. Community Health Nurs*. 2012 Dec 1; 23(4):451-9. <https://doi.org/10.12799/jkachn.2012.23.4.451>
 10. Kupcewicz E, Grochans E, Mikla M, Kadučáková H, Jóźwik M. Role of global self-esteem in predicting life satisfaction of nursing students in Poland, Spain and Slovakia. *Int. J. Environ. Res. Public Health*. 2020 Aug; 17(15):5392. <https://doi.org/10.3390/ijerph17155392>
 11. Thakur K, Andal S. A study to assess the effectiveness of bundle of intervention package on level of self-esteem among final year nursing students in selected college. *J. Med. Dent. Sci. Res*. 2020 Dec; 7(9):12-21.
 12. Shrestha T. Self-esteem and stress coping among Proficiency Certificate Level nursing students in nursing campuses. *J. Nepal Health Res. Coun*. 2013 Sep; 11(25):283-8. <https://doi.org/10.3314/jnhrc.v11i25.406>
 13. Edwards D, Burnard P, Bennett K, Hebden U. A longitudinal study of stress and self-esteem in student nurses. *Nurse Educ. Today*. 2010 Jan 1; 30(1):78-84. <https://doi.org/10.1016/j.nedt.2009.06.008>
 14. Acharya Pandey R, Chalise HN. Self-esteem and academic stress among nursing students. *Kathmandu Univ. Med. J*. 2015 Oct 1; 13(4):298-302. <https://doi.org/10.3126/kumj.v13i4.16827>
 15. Chaves ECL, Prado Simão T, Siqueira de Oliveira I, Prado de Souza I, Hollanda Iunes D, Alves Nogueira D, et al. Assessment of nursing students' self-esteem at a university in the South of Minas Gerais (Brazil). *Invest. Educ. Enferm*. 2013 Jul; 31(2):261-9.
 16. Shrestha S. Assertiveness and self-esteem among nursing students of Manipal College of Medical Science of Pokhara, Nepal. *J. Chitwan Med. Coll*. 2019 Jun 21; 9(2):54-9. <http://doi.org/10.3126/jcmc.v9i2.24535>
 17. Ibrahim RH. Assessment of self-esteem among nursing students. *J. Health Med. Nurs*. 2015; 16:34-6.
 18. Shrestha K, Limbu G, Twati S, Shrestha P. Study of self-esteem of nursing students in a nursing college in Kathmandu. *Global J. Med. Public Health* 2018; 7:1-8.
 19. Paudel S, Adhikari C, Chalise A, Gautam H. Factors associated with self-esteem among undergraduate students of Pokhara Metropolitan, Nepal: A cross-sectional study. *Europasian J. Med. Sci*. 2020 Dec 9; 2(2):43-50. <https://doi.org/10.46405/ejms.v2i2.189>
 20. Shrestha S, Ghimire S. Stress and self-esteem among nursing students at private medical college, Chitwan. *J. Chitwan Med. Coll*. 2019 Mar 9; 9(1):41-6. <https://doi.org/10.54530/jcmc.390>
 21. Alzeyadi S, Mohammed SH. Measures self-esteem among undergraduate nursing students. *Med. Legal Update*. 2020 Jan 1; 20(1):754-8. DOI: 10.37506/v20i1/2020/mlu/194415