

Effectiveness of Nurse Led Intervention Programme on self-esteem among nursing students

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Abstract—Introduction: Adolescence is an intermediary phase from childhood to adulthood and it is a delicate phase of life. There are about 69.7 million adolescent girls representing about 7% of the entire world's population. Self-esteem is the third most frequently occurring theme in psychological literature. College is the time when most students are developing their sense of identity. Hence health providers must take measures to increase the level of self-esteem in adolescents. So, this study aims to assess the effectiveness of nurse led intervention program on self-esteem among nursing students.

Methods: Quantitative approach and True Experimental Pre-test-post-test design (Repeated Measures Design) was used. Institutional Ethical clearance was obtained. 65 nursing students from RNSCON (Experimental group) and 65 nursing students from SIIHS (Control group) were selected using probability-multistage sampling technique. Rosenberg Self Esteem Scale was used. Cronbach's alpha was 0.88. Pre test was done. Nurse Led intervention programme was provided in 4 sessions (Each session for 90 minutes/Week). Interventional package included ice breaking sessions, interactive sessions, delivering content using PPT, videos, self-monitoring, evaluation session and exercises. Post test was done at the end of 1st month, 3rd month and 5th month.

Result: In the experimental group, in pre test, 30.8 %, in post test 1, 4.6 %, in post test 2 and 3, no subjects were having low self-esteem. In control group, in pre test, 38.5 %, in post test 1, 9.2 %, in post test 2, 7.7% and in post test 3, 9.2% subjects were having low self-esteem. There was a significant difference in self-esteem score of pre test and post test 1 ($p=0.001$), pre test and post test 2 ($p=0.001$), pre test and post test 3 ($p=0.001$), post test 1 and post test 2 ($p=0.001$), post test 1 and post test 3 ($p=0.001$) and post test 2 and post test 3 ($p=0.001$) in experimental group. There was a significant difference in self-esteem score of pre test and post test 1 ($p=0.001$), pre test and post test 2 ($p=0.001$), pre test and post test 3 ($p=0.001$), post test 1 and post test 3 ($p=0.001$) and post test 2 and post test 3 ($p=0.001$) in

control group. There was no significant difference in pre test self-esteem scores between groups ($t=0.748$; $p=0.456$). There was a significant difference in post test 1 ($t=4.180$; $p=0.001$), post test 2 ($t=10.027$; $p=0.001$) and post test 3 ($t=9.676$; $p=0.001$) between groups. Time effect ($F=211.840$; $p=0.001$) and interaction effect ($F=44.802$; $p=0.001$) was statistically significant.

Discussion: This study concluded that self-esteem score among experimental group overtime was significantly greater as compared to control group. This indicated that Nurse Led Intervention Programme was effective in developing high self-esteem. This study also recommended that more interventional programmes need to be provided to improve positive self-esteem in adolescents.

Index Terms—Nurse Led Intervention Programme; Self-esteem & Nursing Students

I. INTRODUCTION

Self-esteem is an evaluative component of self-concept and it is an overall appraisal of the individual's worthiness, expressed in a positive or negative orientation towards the self¹. Self-esteem refers to the amount of realistic respect that one has for herself or himself. It is an essential for a person to have a healthy self-esteem in order to lead a blissful and thriving life in personal and professional life².

According to Rosenberg (1965), self-esteem is an indicator of self-acceptance, self-respect and satisfaction with oneself, but does not encompass feelings of superiority and perfection³. The development of self-esteem is of profound significance during adolescent period. It is noteworthy that adolescents constitute 1.2 billion world's population and account for approximately 253 million of the Indian population who form the future working population of the nation⁴.

An adolescent is a phase of life where they develop a high level of competition and start to live their lives independently. At this age having a good self-esteem

is highly appreciated so that an individual can compete and live his or her life. The conviction that peoples have about themselves decides who they are and what is their character and purpose in life. These strong inner influences help to discover the paths in life and monitor one's own behaviour⁵.

If adolescents are given suitable directions during this period; their self-esteem levels can be elevated which will have impact on their personality development. Nursing is a profession that face challenges at every step. Self esteem is a key quality that is considered as a specific prerequisite for healthcare professionals. Nurse's encounter with patients and their performance positively reinforces hospital customer satisfaction. However, very few studies were undertaken for the formation and development of self concept and self-esteem among the nursing students. Hence health providers must take measures to increase the level of self esteem in adolescent. So this study aims to assess the effectiveness of nurse led intervention program on self esteem among nursing students¹.

II. OBJECTIVES

1. To assess the self-esteem among nursing students.
2. To evaluate the effectiveness of Nurse led intervention programme on self-esteem within and between experimental group and control group.
3. To associate the pre-test score of self-esteem with selected demographic variables of experimental group and control group.

Hypotheses

H₁: There will be a significant difference in self-esteem within and between experimental group and control group.

H₂: There will be a significant association of pre test score of self-esteem with selected demographic variables of experimental group and control group.

III. METHODOLOGY

This study adopted quantitative approach. The research design of the study was True Experimental Pre-test-Post-test design (Repeated Measures Design). 130 nursing students who were studying nursing courses in selected nursing colleges at Uttara Kannada District, Karnataka and are above the age of

18 years but not more than 21 years and who fulfills inclusion and exclusion criteria. (65- Control group and 65- experimental group) were selected using non probability – multi stage sampling technique. Nursing students who were studying the nursing courses in regular mode and who were able to read and write Kannada or English were included in the study. Nursing students who were diagnosed with major physical or psychiatric illness were excluded in the study.

Demographic proforma and Rosenberg Self Esteem Scale was to collect the data. Demographic proforma included 26 baseline variables of nursing students. Rosenberg self-esteem Scale was the 10 item Likert scale with items answered on a 4-point scale from strongly agrees to strongly disagree. The score ranges from 0-30. The maximum score was 30 (10 items x 3= 30). Scores of 15 to 25 were considered average. A higher score indicated high self-esteem. The scores were classified into 3 categories that included low self-esteem (Score of 1- 14), average self-esteem (Score of 15-25 and high self-esteem (Score of 26-30). The Cronbach's alpha for the Rosenberg Self-Esteem Scale was 0.88.

Nurse led intervention programme included ice breaking sessions, interactive sessions, delivering content using PPT, videos, self-monitoring and evaluation session and home based activities. Structured teaching programme on self esteem was provided and subjects were asked to do home based activities such as "Give a compliment" (self esteem tree), motivational stories (video), balloon activity, achievement diary an 'I am' activity Mini book about me. The interventional module was validated.

Ethical clearance was obtained from Institutional Ethics Committee. The study was done from 20th July 2024 to 7th December 2024. 30 Nursing colleges from Uttara Kannada District in Karnataka were listed. From 30 Nursing colleges, 2 Nursing colleges were selected by using simple random sampling technique with lottery method. These 2 colleges were allotted to experimental and control group randomly by using simple random sampling technique with lottery method. A formal permission was obtained from the concerned authority of the selected nursing colleges.

Experimental group: Researcher approached the concerned authority of selected college and got the list of total number of students enrolled under Basic B Sc Nursing and Diploma in General Nursing and

Midwifery course. 360 nursing students were enrolled. Researcher prepared the list of 360 students. From 360 students, 65 Nursing students were randomly selected by using simple random sampling technique with lottery method. The researcher introduced herself. The subject information sheet was given to the subjects and informed consent was obtained from them. The weight and height was checked. The demographic proforma and Rosenberg Self-Esteem Scale was used. The above-mentioned tool was self-administered. The subjects took 30 minutes to answer all the items in the tool. Nurse Led Intervention Programme on improving self-esteem was administered to the experimental group. The post test was done at the 1st, 3rd and 5th month.

Control group: Researcher approached the concerned authority of selected college and got the list of total number of students enrolled under Basic B Sc Nursing and Diploma in General Nursing and Midwifery course. 390 nursing students were enrolled. Researcher prepared the list of 390 students. From 390 students, 65 nursing students were randomly selected by using simple random sampling technique with lottery method. The subject information sheet was given to the subjects and

informed consent was obtained from them. The weight and height was checked. The demographic proforma and Rosenberg Self-Esteem Scale was used to collect the data. The above-mentioned tool was self-administered. The subjects took 30 minutes to answer all the items in the tool. The assessment was done at the 1st, 3rd and 5th month.

The data collected was categorized and analyzed using descriptive and inferential statistics. All the analysis was carried out using SPSS version 29.0. Descriptive statistics such as frequency, percentage distribution and range of score, mean and standard deviation were used to assess the self esteem among nursing students. Inferential statistics such as Paired t test was used to compare the self esteem with in experimental group and control group. Independent t test was used to compare the self esteem between experimental group and control group. Repeated measures ANOVA was used to assess the time effect and interaction effect between experimental group and control group. Association of pre-test score of self esteem with selected demographic variables was performed using independent t test and Analysis of variance test. Post hoc test was performed using Bonferroni.

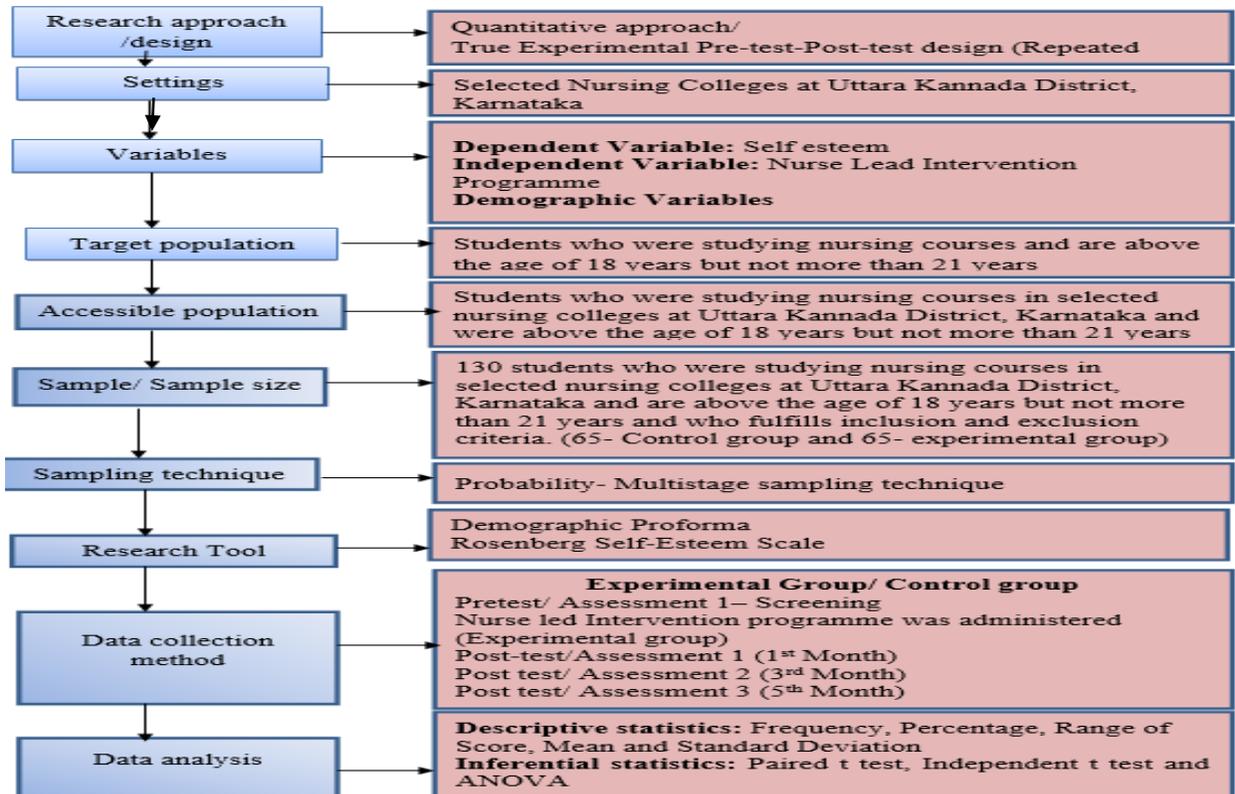


Figure 1: Illustration of schematic representation of research design

IV. RESULT

Findings related to demographic variables of the nursing students

With regard to homogeneity of the experimental and control group, the present study revealed that age of the subjects, course of the study, year of the study, education of the mother, education of father, occupation of mother and father, family income, place of residence, birth order, type of family were comparable between experimental and control groups, with no significant association. The proportion of siblings were significantly different between experimental and control group. The proportion of subjects attended session on the topic on self esteem was significantly higher in the experimental group.

With regard to demographic variable of experimental group the present study revealed that, 44.6 % of nursing students were in the age group of 19 years. 76.9% were Basic B Sc Nursing students and 41.5% were studying in 1st year. 46.1 % subject's mother studied up to high school certificate. 33.8% subject's father studied up to high school certificate. 87.7% subject's mother was semiskilled worker and 58.5% subject's father was a semiskilled worker. 41.5 % subject's family income per month was Rs 19,759-26,354. 61.5% subjects were residing in urban area. 49.2% subjects were having 1 sibling. 43.8%

subject's birth order was 2. 81.5% subjects were belonging to nuclear family, 92.3 % subjects were non-vegetarian. 56.9 % subjects attended the session about self esteem through class room teaching and internet. 53.8 % read about the self esteem from text book, class room teaching and internet. No subjects were physically challenged.

With regard to demographic variable of the control group, the present study revealed that, 53.8% of nursing students were in the age group of 19 years. 61.5 % were Basic B Sc Nursing students and 46.2 % were studying in 1st year. 30.8 % subject's mother studied up to higher secondary certificate/ post high school diploma. 33.8% subject's father studied up to higher secondary certificate/ post high school diploma. 78.4% subject's mother was semiskilled worker. 55.5% subject's father was a semiskilled worker. 24.6% subject's family income per month was Rs. 19,759-26,354, 24.6% subject's family income per month was 2,641-7886 and 76.9% subjects were residing in urban area. 41.5% subjects were having 2 siblings. 49.2% subject's birth order was 1. 87.7 % subjects were belonging to nuclear family, 95.4% were non-vegetarian. 36.9 % subjects attended the session about self esteem through class room teaching and internet. 36.9 % read about the self esteem from text book, class room teaching and internet. No subjects were physically challenged.

Table 1: Frequency and percentage distribution of self-esteem scores of nursing students before and after intervention in experimental group and control group

Assessment	Experimental group (n=65)			Control group (n=65)		
	Frequency (f)/ Percentage (%)			Frequency (f)/Percentage (%)		
	Low self esteem (score 1-14)	Average self esteem (Score 15-25)	High self esteem (Score >25)	Low self esteem (score 1-14)	Average self esteem (Score 15-25)	High self esteem (Score >25)
Pre-test	20 (30.8)	43 (66.2)	2 (3)	25 (38.5)	39 (60.0)	1 (1.5)
Post test 1	3 (4.6)	55 (84.6)	7 (10.8)	6 (9.2)	54 (83.1)	5 (7.7)
Post test 2	0	47 (72.3)	18 (27.7)	5 (7.7)	58 (89.2)	2 (3.1)
Post test 3	0	41 (63.1)	24 (36.9)	6 (9.2)	53 (81.6)	6 (9.2)

Table 2 Range of score, mean and standard deviation of self esteem scores of nursing students before and after intervention in experimental group and control group

Assessment	Experimental group (n=65)			Control group (n=65)		
	Range of score	Mean	SD	Range of score	Mean	SD
Pre-test	3-27	16.26	4.16	8-27	15.77	3.28
Post test 1	12-30	21.17	3.60	11-29	18.46	3.77

Post test 2	17-30	24.05	2.82	12-30	18.51	3.44
Post test 3	19-30	24.77	2.71	12-22	19.22	3.74

Table 3: Mean, SD, t-value and p-value to compare the self-esteem scores within experimental and control group.
S*: Significant at 0.05 level, NS: Not Significant

Assessment	Experimental group (n=65)				Control group (n=65)			
	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value
Pre-test	16.26	4.16	9.013	<0.001*S	15.77	3.28	6.650	<0.001*S
Post test 1	21.17	3.60			18.46	3.77		
Pre-test	16.26	4.16			14.904	<0.001*S	15.77	3.28
Post test 2	24.05	2.82	16.936	<0.001*S	18.51	3.44		
Pre-test	16.26	4.16			15.77	3.28	8.813	<0.001*S
Post test 3	24.77	2.71			19.22	3.74		
Post test 1	21.17	3.60	8.052	<0.001*S	18.46	3.77	0.284	0.778NS
Post test 2	24.05	2.82			18.51	3.44		
Post test 1	21.17	3.60	10.147	<0.001*S	18.46	3.77	4.051	<0.001*S
Post test 3	24.77	2.71			19.22	3.74		
Post test 2	24.05	2.82	6.661	<0.001*S	18.51	3.44	5.920	<0.001*S
Post test 3	24.77	2.71			19.22	3.74		

Table 4: Mean, SD, t-value and p-value to compare the self esteem scores between experimental group and control group

Assessment	Experimental group (n=65)		Control group (n=65)		t-value	p-value
	Mean	SD	Mean	SD		
Pre-test	16.26	4.16	15.77	3.28	0.748	0.456 NS
Post test 1	21.17	3.60	18.46	3.77	4.180	<0.001* S
Post test 2	24.05	2.82	18.51	3.44	10.027	<0.001* S
Post test 3	24.77	2.71	19.22	3.74	9.676	<0.001* S

S*: Significant at 0.05 level; NS: Not Significant

Table 5: Mean, SD, F-value and p-value to assess the overall time-effect and interaction-effect on self esteem scores within and between experimental and control group

Assessment	Experimental group (n=65)		Control group (n=65)		Time effect		Interaction effect	
	Mean	SD	Mean	SD	F- Value	p- Value	F-Value	p-Value
Pre-test	16.26	4.16	15.77	3.28	211.840	<0.001*S	44.802	<0.00 *S
Post test 1	21.17	3.60	18.46	3.77				
Post test 2	24.05	2.82	18.51	3.44				
Post test 3	24.77	2.71	19.22	3.74				

S*: Significant at 0.05 level

Findings related to association of pre-test score of self-esteem with selected demographic variables of experimental group and control group With regard to self esteem, the present study revealed that in experimental group, there was significant association

of self esteem score with family income/ month (p= 0.001) and type of family (p=0.001), since subjects belonging to nuclear family had higher self esteem score. Self esteem score was not significantly associated with age in years (p=0.234) course of

study ($p=0.384$), education of mother ($p=0.956$), place of residence ($p=0.739$, number of siblings ($p=0.665$) and attended the session on the topic self esteem ($p=0.565$). In control group, self esteem score was not significantly associated with age in year ($p=0.083$) course of study ($p=0.279$), education of mother ($p=0.110$), place of residence ($p=0.892$), family income/ month ($p= 0.334$), number of siblings ($p=0.110$), type of family ($p=0.558$) and attended the session on the topic self esteem ($p=0.789$).

V. DISCUSSION

The present study revealed that in experimental group, in pre test, 30.8 %, in post test 1 4.6 %, in post test 2 and 3, no subjects were having low self esteem. In control group, in pre test, 38.5 %, in post test 1, 9.2 %, in post test 2, 7.7% and in post test 3, 9.2% subjects were having low self esteem. A study that was conducted by Thakur K and Andal S (2020) to assess the effectiveness of bundle of intervention package on level of self esteem among final year nursing students in selected college at Kanpur, India revealed that in pre-test, 97.14% students had low level of self-esteem and in post-test, 100% students had normal level of self-esteem². The present study revealed that there was a significant difference in self esteem score of pre test and post test 1 ($p=0.001$), pre test and post test 2 ($p =0.001$), pre test and post test 3 ($p =0.001$), post test 1 and post test 2 ($p =0.001$), post test 1 and post test 3 ($p =0.001$) and post test 2 and post test 3 ($p =0.001$) in experimental group. There was a significant difference in self esteem score of pre test and post test 1 ($p= 0.001$), pre test and post test 2 (p value =0 .001), pre test and post test 3 ($p =0.001$), post test 1 and post test 3 ($p = 0.001$) and post test 2 and post test 3 ($p = 0.001$) in control group. A study that was conducted by Kumari, A et al (2025) to assess the effectiveness of assertiveness training on self-esteem among nursing students at Eastern India revealed that there was significant difference in Pre-test and post-test 1 ($p<0.001$), Pre-test and post-test 2 ($p<0.001$) and Post test 1 and post test 2 ($p<0.001$)⁶. The present study revealed that, there was no significant difference in pre test self esteem scores between groups ($t=0.748$; $p= 0.456$). There was a significant difference in post test 1 ($t =4.180$; $p=0.001$), post test 2 ($t= 10.027$; $p =0.001$) and post test 3 (t value =9.676; $p=0.001$)

between groups. Time effect ($F = 211.840$; $p=0.001$) and interaction effect ($F = 44.802$; $p=0.001$) was statistically significant. An experimental study that was conducted by Mishra, A et al (2022) to assess the effectiveness of cognitive behaviour therapy (CBT) on level of self esteem of nursing students in selected nursing colleges of Delhi / UP revealed that there was a significant difference in post test score between the group since calculated t value 1.9546 was more than the table value which was statistically significant at $p< 0.05$ ¹. This study concluded that there was a significant change in self esteem after the intervention in experimental group when compare to control group, this indicated that Nurse Led Intervention Programme was effective in developing high self-esteem in experimental group when compare to control group. This study also concluded that self esteem score among experimental group in overtime was significantly greater as compared to control group. As well this study also concluded that interaction effect between time and group was statistically significant. These results indicated that Nurse Led Intervention Programme was effective in developing high self esteem. This study result recommended that more interventional programmes need to be provided to improve positive self esteem in adolescents.

VI. RECOMMENDATION

- A similar study can be conducted in adolescents in home, school, college, university setting and in child and adolescent psychiatric unit.
- A similar study can be done as comparative study between boys and girls in home, school, college, university setting and adolescent psychiatric unit.
- A similar study can be done as comparative study in adolescents residing in urban and rural setting
- A similar study can be done as comparative study in adolescents studying in government and private educational institutions.
- A similar study can be done as comparative study in adolescents studying different courses.
- A similar study can be done as comparative study in adolescents studying medical and non medical courses.

- Interventional studies with the use of educational material can be conducted to increase the awareness on importance of self esteem in adolescents.
- A similar study can be conducted by including other psychological intervention such as play therapy and other form of recreational and craft activities to improve the self esteem in adolescents.
- An interventional study can be conducted to create awareness on significance of self esteem in adolescent's period for parents having adolescents and teachers who are dealing with adolescents. .

VII. CONCLUSION

This study concluded that the Nurse Led Intervention Programme was effective in developing high self-esteem within experimental group. This study inferred that there was a significant change in self-esteem after the intervention in experimental group when compare to control group, hence the Nurse Led Intervention Programme was effective in developing high self-esteem in experimental group when compare to control group. This study concluded that self esteem score among experimental group in overtime was significantly greater as compared to control group. This study also concluded that interaction effect between time and group was statistically significant. This study recommends that more interventional programme to be provided to improve self esteem. This study also recommends that this type of intervention can be incorporated in school and college curriculum in improving the self esteem in children and adolescents.

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