

Effectiveness of Structured Teaching Program on Knowledge and Attitude Regarding use of Braden Scale Among Staff Nurses Working in Different Hospitals of Moradabad, U.P.

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Abstract

Skin is the largest organ in our body. One-third of the blood that the body circulates passes through it. Skin often serves as an indicator of our general wellness; healthy skin makes you feel good and makes you look nice. Basic patient care also includes regular skin assessment in every shift and should be cross check by the team leader or supervisor in that particular ward or ICU. One of the most important aspects of nursing is to maintain the integrity of patient's skin. Braden scale is a standard technique to assess the possibility of skin ulcers in patients at hospitals and nursing homes. The main objective of the research was to determine efficacy of structured teaching program on knowledge and attitude about use of braden scale within staff nurses working in different hospitals of Moradabad. Design of the study was pre-experimental (one group pre-test post-test design). This research was carried out at Teerthanker Mahaveer University Hospital of Moradabad. 80 staff nurses were used as sample, which was chosen using a convenience sampling method. According to the study findings, out of 80 samples, 49 (61.2%) of staff nurses had inadequate knowledge, 25 (31.3%) were had moderate knowledge & 6 (7.5%) were had adequate knowledge with respect to pre-test attitude within staff nurses, among 80 samples, 53(66.3%) were having unfavourable attitude and 27(33.7%) were having favourable attitude. after structured teaching programme mean of post-test knowledge is (25.58), SD is (3.65) & mean pre-test level of knowledge is (14.13), standard deviation is (5.39) and with a mean difference of (11.45), with regard to assessment of attitude level the mean post-test attitude score is (43.48), standard deviation is (3.35) and mean pre-test level of attitude is (24.22), standard deviation is (6.15) and with a mean difference of (19.26), study concluded that structured educational program on knowledge & attitude about utilization of braden scale within Staff nurses was effective.

1. Introduction

Skin serves as a barrier against heat, light, chemicals, and physical exertion. The skin offers us the ability to feel touch, heat, and cold, shields us from viruses and environmental variables, and helps control body

temperature. To fight infection, it actively works with the immune system. In addition to small scrapes, cuts, tears, blisters, or burns, destruction or skin breakdown can involve tissue degeneration that extends all the way to the bone. Anaemia, malnutrition, and diabetes are some of the primary risk factors that might result

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in pressure ulcers either individually or in combination. Pressure is another word for stress or strain. It is the force an object applies to another. In pressure regions of the body, such as the sacrum, superior trochanters, heels, where tissues may be destroyed, persistent pressure will reduce the area's blood supply, resulting in ischemia and eventually necrosis. In regards to improve prophylactic methods and lower the prevalence of pressure ulcers, Bergstrom et al. created the Braden Scale in 1987. The six subscales that make up Braden Scale, applied for determine likelihood to developing pressure sore. Five categories are assigned a score between 1 (least favourable) and 4. (Most favourable). From 1 to 3, the friction and shear subscale is rated. There are a total of 23 points available. The patient is more likely to get a pressure ulcer if their score is lower. The scale was designed to aid nurses as well as other medical professionals to measure the client's risk of establishing bedsores. For nurses' assistants & licensed practical nurses, reliability varied from $r = 0.83$ to $r = 0.94$; When practiced by the registered nurses $r = 0.99$, this tool is very reliable and has more sensitivity and specificity than other devices. Despite significant advancements in modern medicine, the problem of bedsores is still significant today as it was a few decades ago. Understanding bed sores, their causes, how they form, how to assess risk factors, and how to prevent them is essential for effective treatment. The ability to treat bedsores successfully requires knowledge of their causes, mechanisms of development, assessment of risk factors, and preventative measures.

OBJECTIVES

1. To assess the pre test and post test level of knowledge regarding the use of Braden Scale among Staff Nurses
2. To assess the pre test and post test level of attitude regarding use of Braden Scale among Staff Nurses.
3. To evaluate the effectiveness of structured teaching program on knowledge and attitude regarding use of Braden Scale among Staff Nurses.

4. To find out the association between the knowledge and attitude regarding use of Braden Scale with their selected demographic variables.

ASSUMPTIONS

The researcher assumes that-

- Pressure sore is one of the main complications faced by the prolonged bed ridden patient.
- Having good knowledge of braden scale will help the Nurses to prevent pressure sore of their patients up to certain extent.
- Teaching programme may help for increasing level of competence with using the Braden scale

HYPOTHESES

All hypotheses were tested at 0.05 level of significance

H₁: There is a significant difference between pre-test and post-test knowledge regarding use of Braden Scale among staff nurses.

H₂: There is a significant difference between pre-test and post-test attitude regarding use of Braden Scale among staff nurses.

H₃: There is a significant association between pre-test level of knowledge regarding use of Braden Scale among staff Nurses with their selected demographic variables.

H₄: There is a significant association between pre-test level of attitude regarding use of Braden Scale among staff Nurses with their selected demographic variables.

2. Materials and Methods

RESEARCH APPROACH - Quantitative Research Approach

RESEARCH DESIGN –Pre-Experimental (One group pre-test post-test design)

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Table 1 – Research Design Representation

Group	Pre-test	Intervention	Post-test
One group (Staff Nurses)	O1	X	O2

KEY'S

01- A pre test implementation of self administered knowledge questionnaire & modified Five-Point Likert Scale within Staff Nurses at Teerthanker Mahaveer University Hospital, U.P.

X- Administration of educational programme about Braden Scale within staff nurses working in Teerthanker Mahaveer University Hospital, U.P.

02- A Post-test to evaluate effectiveness using same self structured knowledge questionnaire & 5 Point Likert Scale after 7 days of administration of the Educational Programme.

VARIABLES

Dependent Variable: Knowledge and Attitude

Independent Variable: Structured Teaching Programme on use of Braden Scale.

Demographic variables: Age ,Gender, Religion, Professional Educational ,Marital status ,Knowledge about Braden Scale ,Working experience , Area of

practice , Area of residence , Exposure any in service education about Braden scale

SAMPLE: Staff Nurses

SAMPLING TECHNIQUE: Convenience sampling technique.

SAMPLE SELECTION CRITERIA

INCLUSION CRITERIA

- All nurses working in Teerthanker Mahaveer University hospitals of Moradabad.
- Nurses who agreed to participated in study.

EXCLUSION CRITERIA

- Nurses who were on leave when data was collected
- Nurses having night shifts.

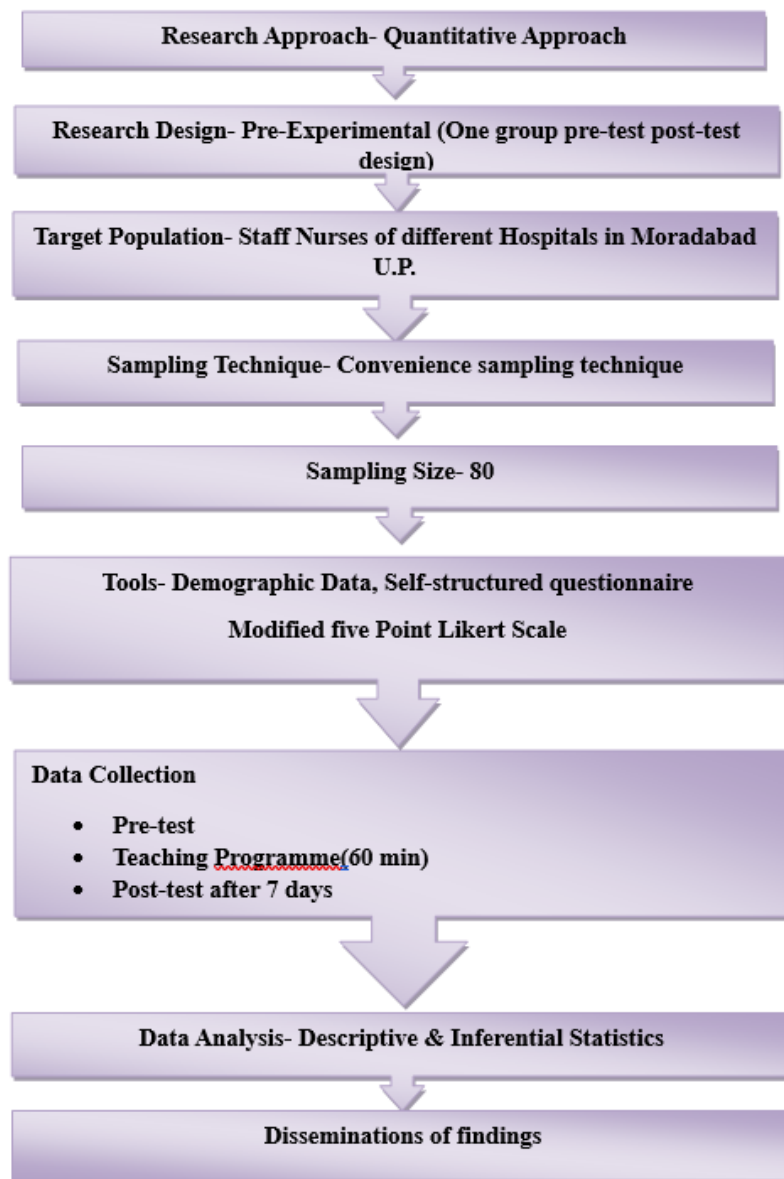
TOOL DESCRIPTION

Tool I - Demographic Data

Tool II - Self-Structured questionnaire

Tool III - Modified Five Point Likert Scale

Figure 1: Diagram illustrating the Research Methodology



3. Result

The following sections were used to organize and presented the data:

Section A: Frequency & Percentage dispersion of Demographic characteristics.

Section B: Findings related to Pre test & post test level of knowledge about Braden Scale within Staff Nurses.

Section C: Findings related to pre test & post test level of Attitude about Braden Scale within Staff Nurses

Section D: Findings related to efficacy of an educational Program on Knowledge & Attitude about Braden Scale within Staff Nurses.

Section E: Findings related to Association between knowledge & Attitude about Braden scale within Staff Nurses with their selected demographic variables.

SECTION A: Frequency and Percentage dispersion of Demographic Variables.

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S.No	Demographic variables	Frequency	Percentage
1.	Age - 18-25 years 26-33 years 34-40 years More than 40 year	25 29 22 04	31.2% 36.3% 27.5% 5%
2.	Gender - Male Female	42 38	52.5% 47.5%
3.	Educational Qualification - GNM Bsc (N)/PBBsc. (N)	33 47	41.2% 58.8%
4.	Marital Status unmarried Married	38 42	47.5% 52.5%
5.	Working Experience – Less than 1 year 1 to 2 years 3 to 5 years More than 5 year	9 22 30 19	11.2% 27.5% 37.5% 23.8%
6.	Area of Practice- Intensive Care Unit General ward Private ward OPD	36 24 18 02	45% 30% 22.5% 2.5%
7.	Attended any in service education about Braden Scale- Yes	08	10%

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	No	72	90%
8.	Area of Residence-		
	Rural	14	17.5%
	Semi-Urban	32	40%
	Urban	34	42.5%

Table 2: Frequency & Percentage of dispersion of Demographic Variables.

Most respondents were in Age 26-33 years, 29 (36.3%), as per Gender majority of 42 (52.5%) were Males and 38 (47.5%) were Female, as per marital status most of Staff Nurses 42 (52.5%) were married, 38 (47.5%) were unmarried, as per Professional Education most of Staff Nurses 47 (58.8%) were Bachelor of Nursing, 33 (41.2%) were Diploma in Nursing. Most of Staff Nurses have working experience between 3-5 Years 30 (37.5%), As per

Area of Practice Majority of Nurses working in Intensive Care Unit 36 (45%), General ward 24(30%), Private Ward 18 (22.5%), OPD 2 (2.5%). Attended any in Service Education about Braden Scale 8 (10%), No 72 (90%). As per area of residence 14(17.5%) were from the remote area, 32 (40%) from the semi-urban area, and 34 (42.5%) from the urban area.

SECTION-B-Findings related to pre-test & post-test knowledge about Braden scale within staff nurses.

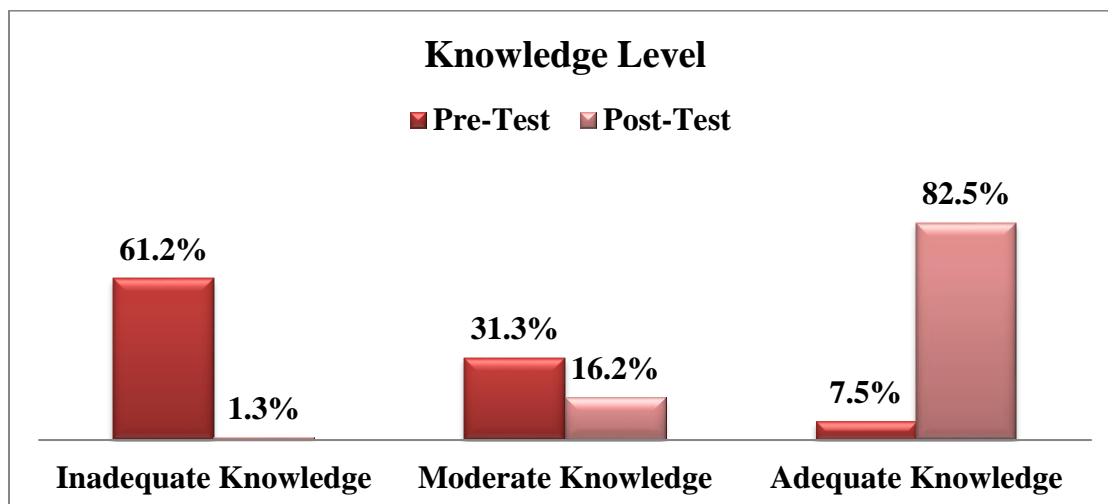


Fig 2 Bar graph indicates the percentage of participants built on knowledge level of the Staff Nurses Pre-test & Post-test. It discloses, participants in a pre-test 61.3% belonged to inadequate knowledge, 31.3% belonged to moderate knowledge, 7.5% belonged to adequate knowledge whereas in the post-test, 1.3% belonged to inadequate knowledge, 16.2% belonged to moderate knowledge, and 82.5% belonged to adequate knowledge.

SECTION C- Findings related to pre test & post test Attitude about Braden Scale within Staff Nurses

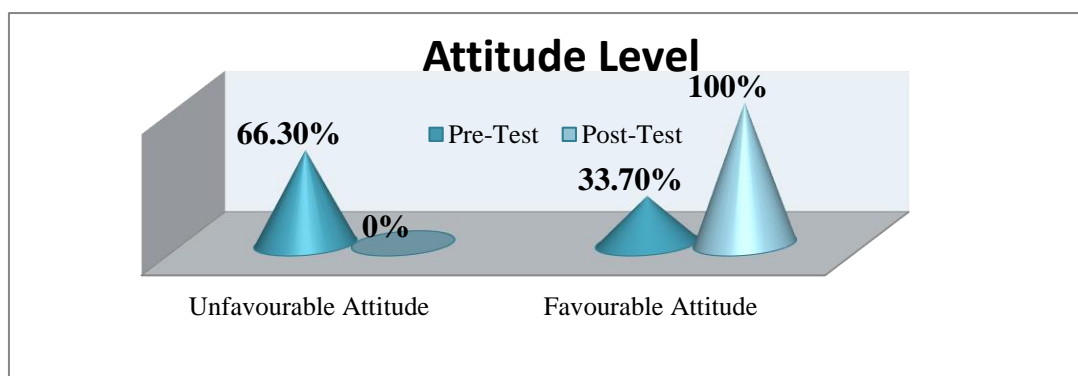


Fig 3 Cone chart exhibits percentages of participant's attitude level on pre- and post-test. It revealed that all participants in pre-test 66.3% belonged to a unfavourable attitude, 33.7% belonged to a favourable attitude and participants in the post-test 0% were belongs to a unfavourable attitude, 100% were belongs to a favourable attitude.

SECTION D-Findings related to efficacy of teaching Programme on knowledge & Attitude with reference to Braden Scale within Staff Nurses.

Table 3 Assessment, Mean, SD, Mean Difference, Degree of freedom, Paired t-test value and P value of pre-test and post-test knowledge regarding use of Braden Scale among Staff Nurses.

S.No	Assessment	Mean (\bar{x})	SD (σ)	Mean Difference	Df	Paired ' t' test value	P value
1	Pre-test	14.13	5.39	11.45	79	28.58	0.000*
2	Post-test	25.58	3.65				

Table 3 highlights mean post-test knowledge scores (25.58) were more afterward mean pre-test score of (14.13) with a mean difference of (11.45) and p value was 0.000*, Hence it shows that educational programme is effective within respondents about braden scale .So , the stated Hypotheses **H₁** was accepted.

Table 4 Assessment, mean, SD, mean difference, Degree of freedom, Paired t-test value & P value of pre-test and post-test attitude regarding use of Braden scale within Staff Nurses.

S.No	Assessment	Mean (\bar{x})	SD (σ)	Mean Difference	df	Paired t test value	P value
1	Pre-test	10.86	2.94	12.52	79	35.16	0.000*
2.	Post-test	23.38	2.08				

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Table 4- revealed mean post-test attitude degree (43.48) were more than mean pre-test score of (24.22) with a mean variation of (19.26) and P value was 0.000*. Hence it shows educational programme is effective for Staff Nurses about use of braden scale .So, the stated hypothesis H_2 was accepted.

SECTION E -

TABLE 5: Association between Pre-test knowledge scores with their selected Demographic Variables.

S.NO	Demographic variables	Inadequate Knowledge (0-15)	Moderate Knowledge (16-22)	Adequate Knowledge (23-30)	Total	Df	Chi-square P value χ^2	
1.	Age -	19	4	2	25	6	P=0.34	
	18 to 25 years	17	10	2	29			P>0.05
	26 to 33 years	11	10	2	22			NS
	34 to 40 years	02	01	1	4			
	>40years							
2.	Gender –	25	13	4	42	2	P=0.76	
	Male	24	12	2	38			P>0.05
	Female							NS
3.	Professional Education –	25	8	0	33	2	P=0.03	
	Diploma in Nursing GNM	24	17	6	47			P<0.05
	Bachelor of Nursing Bsc Nursing/ PBBsc							*S
4.	Marital Status	26	10	2	38	2	P=0.43	
	Married	23	15	4	42			P>0.05
	Unmarried							NS

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5.	Working Experience	7	2	0	9	6	P=0.42
	<1year	14	6	2	22		P>0.05
	1-2 Years	20	9	1	30		NS
	2-5 Years	8	8	3	19		
	>5Years						
6.	Area of Practice						
	Intensive Care Unit	21	10	5	36		P=0.31
	General Ward	17	7	0	24	6	P>0.05
	Private Ward	9	8	1	18		NS
	OPD	2	0	0	2		
7.	Attending any in Service Education about Braden Scale						P=0.59
	Yes						P>0.05
	No	6	2	0	8	2	NS
		43	23	6	72		
8.	Area of Residence	12	1	1	14	4	P=0.04
	Rural	19	13	0	32		P<0.05
	Semi Urban	18	11	5	34		*S
	Urban						

P= <0.05

***S-Significant, NS-Non Significant**

Table 5 This table described the knowledge marks showed chi square value were greater than the table value in all demographic variables except in Professional Education and Area of Residence. So, the questionnaire's pre-test score analysis revealed that there was a statistically significant association between pre-test scores with their selected socio-

demographic variables of Professional Education and Area of residence. Hence the stated hypothesis **H₃** - There is a significant association between pre-test level of knowledge of Staff Nurses regarding use of Braden Scale with demographic variables is partially accepted in Professional Education and Area of Residence.

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Table 6 Association between Pre-test Attitude scores with their selected Demographic Variables

S.NO	Demographic variables	Unfavourable Attitude (0-25)	Favourable Attitude (26-50)	Total	df	Chi-square P value χ^2
1.	Age -	15	10	25	3	P=0.30
	18 to 25 years	23	6	29		P>0.05
	26 to 33 years	13	9	22		NS
	34 to 40 years	2	2	4		
	>40years					
2.	Gender –	29	13	42	1	P=0.57
	Male	24	14	38		P>0.05
	Female					NS
3.	Professional Education –	20	13	33	1	P=0.37
	Diploma in Nursing GNM	33	14	47		P>0.05
	Bachelor of Nursing Bsc Nursing/ PBBsc Nursing					NS
4.	Marital Status	26	12	38	1	P=0.69
	Married	27	15	42		P>0.05
	Unmarried					NS
5.	Working Experience	5	4	9	3	P=0.64
	Less than 1year	16	6	22		P>0.05
	1 to 2 Years	21	9	30		NS
	2 to 5 Years	11	8	19		
	>5Years					

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6.	Area of Practice	21	15	36	3	P=0.41
	Intensive Care Unit	18	6	24		P>0.05
	General Ward	12	6	18		NS
	Private Ward	2	0	2		
	OPD					
7.	Attending any in Service Education about Braden Scale.	4	4	8	1	P=0.30
		49	23	72		P>0.05
	Yes					NS
	No					
8.	Area of Residence	10	4	14	2	P=0.81
	Rural	20	12	32		P>0.05
	Semi Urban	23	11	34		NS
	Urban					

P= <0.05

*S-Significant, NS Non Significant

Table 6 Association table described that the attitude level present in Table 6 displays the chi-square values were excess than the table value. So, it proves that there was a statistically non-significant association between the pre-test attitude with their selected demographic variables. Hence that shows stated hypothesis **H₄** was rejected.

4. Conclusion

The investigation came to the following conclusion that Braden Scale knowledge amongst Staff Nurses was generally inadequate as the attitude was also unfavourable. Most of the Staff Nurses beliefs my clinical judgement is better than Braden scale scoring, as also they have lack of awareness about the Braden Scale scoring. The result from this study shows that the Teaching Programme was effective in educating Staff Nurses. It helped to enhance the awareness and approach of use of Braden Scale amongst Staff Nurses.

CONFLICTS OF INTEREST - The author declares that they have no conflicts of interest.

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