Effectiveness of self-instructional module on knowledge regarding use of Braden scale for prevention of pressure ulcer among staff nurses working in a selected hospital of Moodbidri

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Abstract:
Pressure sore, an injury to the skin and underlying tissue, occurs as result of direct, unrelieved pressure of soft tissue against bones, when friction occurs between the patient and the surface of a bed or chair, or as a result of shear force which frequently accompanies both direct pressure and friction. Preventative measures are risk assessment on admission, systemic, inspection of skin, minimum force and friction during cleaning, skin protection during transfers, changing positions and turning, adequate hydration to maintain the skin integrity, using of water mattress. "A study to assess the effectiveness of self-instructional module on knowledge regarding use of Braden scale for prevention of pressure ulcer among staff nurses working in a selected hospital of Moodbidri."

Material And Methods:
The study sample consisted of 50 staff nurses of selected hospitals of Moodbidri The sampling technique used for the study was purposive sampling technique. Demographic Performa and structured knowledge questionnaire were used to collect data from the staff nurses. Intervention was given in the form of self-instructional module on prevention of pressure ulcer. Descriptive and inferential statistics were planned to be used to analyse the collected data to compute the data, a master data sheet was prepared by the investigator.

Results: *Results revealed that in the pre-test, most of the staff nurses (12%) had average knowledge, were (36%) had good knowledge, and (52%) had good knowledge. On the other hand in the post test, most of staff nurses had (52%) acquired very good knowledge, were (41%) acquired good knowledge, (7%)acquired average knowledge. the knowledge level had statistical significance relationship with educational qualification calculated p value is 0.03 which is less than 0.05 hence there is association between level of knowledge and educational qualification.*

Conclusion: *The researcher was pleased after study being conducted which was a very new experience. The participants were co-operative and willingly participated in the study. The experience gained during this study will motivate the investigator to take other research studies. The results obtained will motivate other researchers for future studies*

Key Word: *Effectiveness • Self-Instructional Module (SIM)   -• Knowledge: -• Pressure ulcer-• Staff nurses*

I. Introduction

The skin is an active and largest organ in our body. The skin protects, secretes, excretes, regulates temperature and also is a sense organ. The three primary layers of the skin are the epidermis, dermis and subcutaneous tissue. The epidermis shields underlying tissue against water loss and injury and prevents entry of micro-organisms. The dermis continue with nerve fibres, blood vessels sebaceous and sweat glands and hair follicle. Subcutaneous tissue insulates and cushions the skin. A sound skin makes you feel good and look good. Healthy skin is often an indicator of our holistic wellness. Maintenance of a glowing, healthy skin needs good personal hygiene, unpolluted environment, avoiding contact with chemicals, good eating habits and proper rest and sleep and peace and happiness. Illness brings about changes in both the involved individual and in the family. Certain illness can also change the client's body image or physical appearance, especially if there is severe scarring or loss of a limb or special sense organ. It often necessitates a change in life style. Pressure sore, an injury to the skin and underlying tissue, occurs as result of direct, unrelieved pressure of soft tissue against bones, when friction occurs between the patient and the surface of a bed or chair, or as a result of shear force which frequently accompanies both direct pressure and friction. Preventative measures are risk assessment on admission includes, systemic inspection of skin, minimum force and friction during cleaning, skin protection

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during transfers, changing positions and turning, adequate hydration to maintain the skin integrity, using of water mattress. Pressure ulcers are localized areas of narcotic soft tissue that occur when pressure applied to the skin over time is greater than normal capillary closure pressure, which is about 32mm of Hg . Critically ill patients have a lower capillary closure pressure and greater risk of pressure ulcers. Patients who are prone to pressure ulcers include those confined to bed for longer periods, those with motor or sensory dysfunction, and those who experience muscular atrophy and reduction of padding between overlying skin and underlying bone. The initial sign of pressure is erythema caused by reactive hyperaemia, which normally resolves in less than 1 hour unrelieved pressure results in tissue ischemia or anorexia. The cutaneous tissue become broken or destroyed leading to progressive destruction and necrosis of underlying soft tissue and the resulting pressure ulcer is painful and slow to heal . Immobility, impaired sensory perception or cognition, decreased Tissue perfusion, decreased nutritional status, friction and shear forces and increased moisture, age related skin changes all contribute to the development of pressure ulcers. Scales such as the Braden scale/Norton scale may be used to facilitate systematic assessment and quantification of a patient's risk for pressure ulcer. The Braden scale for predicting pressure ulcers risk is a tool that was developed in 1987 by Barbara Braden and Nancy Bergstrom. The purpose of this scale is to help health professional, especially nurses, assess a patient's risk of developing a pressure ulcers. A score of 2 ,3 means there is no risk for developing a pressure ulcer , while the lowest possible score of 6 points represents the severest risk for developing a pressure ulcers.

II.   Material And Methods

In order to achieve the objectives of the study an evaluative approach was found to be appropriate and selected for the study.

RESEARCH DESIGN
The research design adopted for the present study was quasi experimental one group pre-test post-test design. This design was adopted to assess the knowledge gained by the staff nurses regarding use of Braden scale for prevention of pressure ulcer following administration of self-instructional module.

RESEARCH SETTING The physical location and condition in which data collection takes place in a study. The study was conducted at G.V PAI Hospitl, Alvas Health Centre ,Alvas Ayurveda hospital and Alvas niramaya of Moodbidri.

POPULATION The population is all elements (individuals, objects) that meet certain criteria for inclusion in a study. In this study population consist of staff nurses of selected hospitals of Moodbidri.

SAMPLE A sample is a subset of population that is selected for particular study and the members of a sample are the subjects. The study sample consisted of 50 staff nurses of selected hospitals of Moodbidri.

SAMPLING TECHNIQUE Sampling is a process of selecting subjects who are representative of the population being studies. The sampling technique used for the study was purposive sampling technique.

SAMPLING CRITERIA
 Inclusion Criteria Staff nurses who are

➢ willing to participate in the study.

➢ available during the period of data collection.

EXCLUSION CRITERIA

➢ the staff nurses who are not involved in direct patient care.

DATA COLLECTION INSTRUMENTS Demographic Performa and structured knowledge questionnaire were used to collect data from the staff nurses. Intervention was given in the form of self-instructional module on prevention of pressure ulcer.

DEVELOPMENT OF THE TOOL Data collection tools are the procedures or instruments used by the researcher to observe or measure the key variable in the research problem. The present study aim to evaluate the effectiveness of self-instructional module on knowledge regarding use of Braden scale for prevention of pressure ulcer among staff nurses working in a selected hospital of Moodbidri. Hence, the data collection instrument of the study consisted of demographic Performa, structured knowledge questionnaire were developed as the tools to collect data.

TESTING OF THE INSTRUMENTS To ensure the content validity, the tool along with answer keys and selfinstructional module were submitted to 9 experts. The experts were requested to give their opinion regarding accuracy, relevance and appropriateness of the content. Necessary modifications were made based on the suggestions of the experts. Demographic Performa: There are 5 items in demographic Performa. There was 100% agreement for all items. Structured knowledge questionnaire: There were 32 items in the tool. There was 100% agreement for 29 items and on 3 items there was 90% agreement, necessary modification were made and the total number of items were 32.

Description of the final tool Part 1: Demographic Performa Demographic preforma included 5 items such as Age, Gender, Educational qualification, Total working experience, previous knowledge about Braden scale. Part 2: Structured knowledge questionnaire It consist of 32 questions Each multiple choice had 4 options with 1

correct response. Each item has a score of 1 for the correct answer and 0 for the wrong answer .The maximum possible score was 32 and the minimum score was 0.

Data collection process Data collection refers to the steps of gathering information needed to address a research problem. Formal written permission was obtained from the authorities. The data was collected 50 staff nurses working in a selected hospitals of Moodbidri who met the study criteria .Subjects were asked to participate in the study after self introduction by the investigator. The subjects were informed about the purpose of the study and the consent was taken from them. Pre-test was administered followed by distribution of self-instructional module. Post-test was conducted using the same structured knowledge questionnaire on the seventh day. Plan for data analysis Descriptive and inferential statistics were planned to be used to analyse the collected data to compute the data, a master data sheet was prepared by the investigator. Demographic proforma containing sample characteristic would be analysed by using frequency and percentage. Knowledge score would be analysed by computing frequency, percentage, mean, median, mean percentage and standard deviation. The mean pre-test and post- test knowledge score difference would be analysed by paired t- test to find the effectiveness of self-instructional module. Chi –square test would be used to find out the association between pre-test knowledge score and selected demographic variables. For the interpretation of hypothesis and findings, the level of significance would be set as 0.05.

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- Knowledge score would be analysed by computing frequency, percentage, mean, median, mean percentage and standard deviation.
- The mean pre-test and post- test knowledge score difference would be analysed by paired t- test to find the effectiveness of self-instructional module.
- Chi –square test would be used to find out the association between pre-test knowledge score and selected demographic variables.
- For the interpretation of hypothesis and findings, the level of significance would be set as 0.05.

III. Result

TABLE 1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE ACCORDING TO DEMOGRAPHIC CHARACT ERISTICS.

N 50

Sl no	Demographic Variables	Frequency	percentage
1	Age in years		
	a)21-30	16	32
	b)31-40	20	40
	C)41-50	12	24
	d)51-60	02	04
	total	50	100
2.	Gender		
	a. Male	02	04
	b. Female	48	96
	total	50	100
3	Educational qualification		
	a. ANM	09	18
	b. GNM	39	78
	c. BSc Nursing	02	04
	d. PC BSc Nursing	00	00
	total	50	100
4.	Total working experience in years		
	a. 0-5	34	68
	b. 5-10	02	04
	c. 10-15	00	00
	d. Above15 Year	14	28
	total	50	100
5.	Previous knowledge about Braden scale		

	yes	7	14
	no	43	86
	total	50	100
	5a. if yes source of information		
	a. Friends	1	14.3
	b. Health care worker	2	28.6
	c. Mass Media	3	4.9
	d. Clinical Experience	1	14.3
		7	100

TABLE 2: DISTRIBUTION OF SUBJECT ACCORDING TO KNOWLEDGE SCORE

N 50

Level of	Pre-test		Post-test	
knowledge	frequency	percentage	frequency	percentage
Average	6	12	1	2
Good	18	36	23	46
Very good	26	52	26	52
total	50	100	50	100

Table showed that in the pre test, most of the staff nurses (12%) had average knowledge, were (36%) had good knowledge, and (52%) had good knowledge. On the other hand in the post test, most of staff nurses had (52%) acquired very good knowledge, were (41%) acquired good knowledge, (7%)acquired average knowledge.There is significant difference in pre test knowledge score after self instructional module programme on pressure ulcer by using Barden scale. So the research hypothesis accepted.
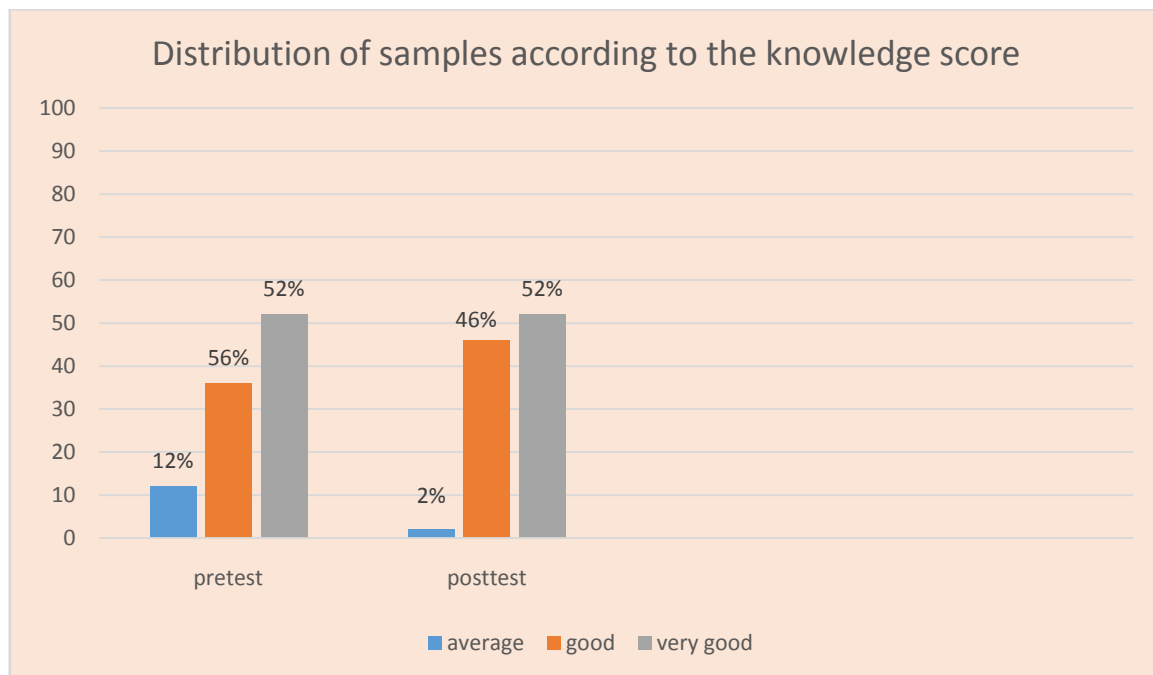

TABLE 3: EVALUTION OF EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE IN TERMS OF GAIN IN KNOWLEGDE SCORE

N50

period	N	Mean	Mean percentage	Std. Deviation
pretest	50	23.480	73.375	5.285
posttest	50	23.720	74.125	3.441

The data presented in the table revels that in pre-test mean is 23.480 and std. deviation is 5.285. In post test mean is 23.720 and std. deviation is 3.441. This shows that there is there is increase in the post test mean knowledge score following the self instructional module

Mean percentage of pretest and posttest knowledge score
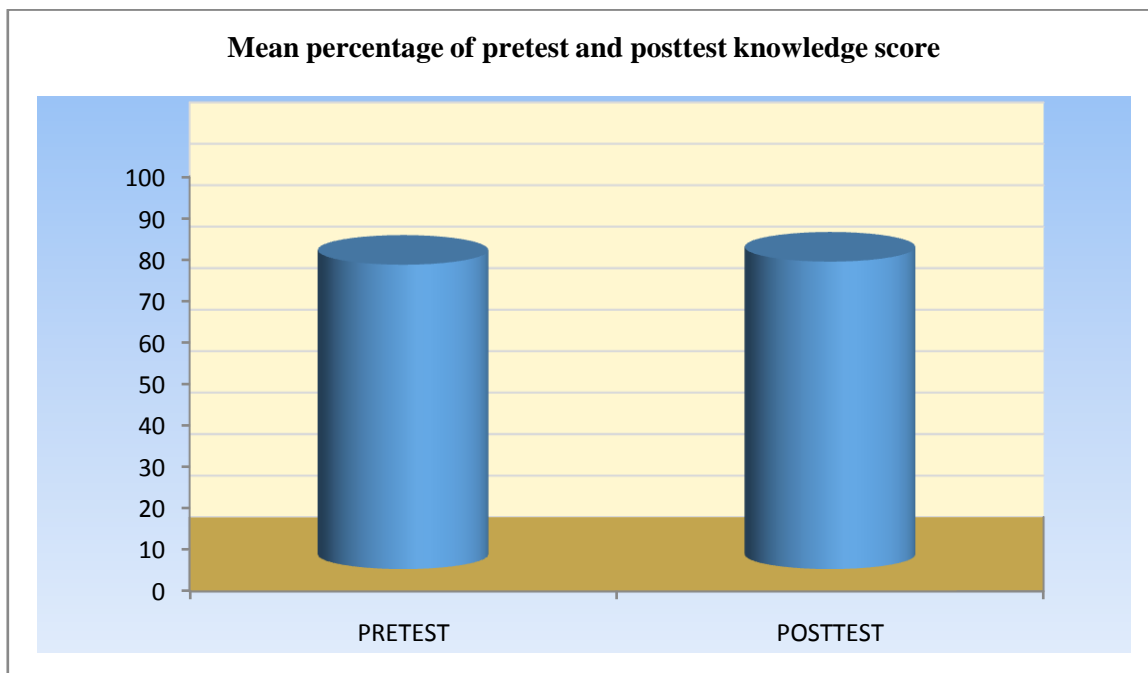
TABLE 4: ASSOCIATION BETWEEN KNOWLEDE SCORE AND SELECTED DEMOGRAPHIC VARIABLE.

N50

Demographic variables	Chi Square value	df	P value
Age group	4.633	6	.592
Gender	1.923	2	.382
Educational qualification	16.411	4	.003 HS
Experience	7.841	4	.098
Previous knowledge	2.118	2	.347

CONCLUSION The following conclusions were drawn on the basis of the findings of the study. • In the pretest, most of the staff nurses 12% had an average knowledge,36% had good knowledge and 52% had poor knowledge. In the post test, 52% acquired very good knowledge, 46% had good knowledge, 2% acquired average knowledge. • The mean percentage of the pretest knowledge score of staff nurses was 73.375% and mean percentage of posttest knowledge score was 74.125%. • The difference between the mean pretest and the mean posttest knowledge score was found to be statically significant(t(cal)=19.10,table value(59)=2.0010,p<0.05)which showed that the SIM was effective in increasing the knowledge score of staff nurses. There was no significant association between pretest knowledge score and demographic variables (age, sex, years of experience, previous knowledge)the table further showed that there was significant association between pretest knowledge score and demographic variables educational qualification.

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