

A Study to Evaluate the Effectiveness of Planned Teaching Programme on Prevention of Pressure Ulcer among Fracture Patients in Selected Hospital At Kolar

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Abstract:

Pressure ulcers is an area of the skin that breaks down when the client stays in one position for too long without shifting the weight. This often happens if he uses , a wheel chair or he is bed ridden, even for a short period of time . the constant pressure against the skin reduced blood supply to that area and the affected tissue dies.

Aim of the study: To assess the effectiveness of planned teaching programme on prevention of pressure ulcer among fracture patients in selected hospitals at kolar.

Material and Method: A pre- experimental study was carried out among 60 fracture patients of selected hospitals at kolar.

included 60 fracture patients from selected hospitals at kolar .A planned teaching programme was implemented to assess its effectiveness in prevention regarding pressure ulcers among the fracture patients. Non-probability sampling technique was used to collect the samples .The study was conducted by using structured knowledge questionnaires' for data collection .study was analyzed by using descriptive and inferential statistics.

Result: The study pretest knowledge score was 30(SD=3.53)which significantly improved to 80.4% in the posttest ($t=11.4$ $p<0.001$) The findings indicate a statistically significant improvement in knowledge towards the prevention of pressure ulcers among the fracture patients on following planned teaching strategies.

Conclusion: The study found that a planned teaching programme significantly improved knowledge of pressure ulcers among the fracture patients.

KEYWORDS: fracture, pressure ulcers, knowledge, prevention

Introduction

Skin is the largest organ covering the entire outside of the body. It receives one third of the body's chemical and physical action. The skin protects us from microbes and the elements, helps regulate body temperature, and permits the sensations of touch, heat, and cold. It plays an active role with the immune system, protecting us from infection. Destruction or skin breakdown can range from minor scrapes, cuts,

tears, blisters or burns with destruction of tissue down up to the bone. Anemia, malnutrition, and diabetes are some of the important risk factors, that occur individually or in combination, and can lead to form pressure ulcer.¹

The word pressure means stress or strain. It is the force exerted by one object upon another. In the pressure areas of the body where the tissues may be compressed between the bed and underlying bone, especially the sacrum, greater trochanters, and heels, constant pressure against the pressure areas will reduce the blood supplies to the area and the affected tissue will become ischemia and leads to necrosis.³

A pressure ulcer is an area of skin that breaks down when the client stays in one position for too long without shifting the weight. This often happens if he uses a wheel chair or he is bedridden, even for a short period of time (for example after surgery, an injury). The constant pressure against the skin reduces blood supply to that area and the affected tissue dies. The most common place for pressure ulcers are over bony prominence (bone close to the skin) like the elbow, heels, hips, ankles, shoulders, back and the occiput of the head.⁴

Pressure ulcers are defined by the National Pressure Ulcer Advisory Panel (NPUAP) as “localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction.” Pressure ulcers are a common condition, affecting an estimated 3 million in the United States. In 2006, pressure ulcers were reported in more than 500,000 hospital stays. Estimates of pressure ulcer prevalence range from 0.4 to 38 percent in acute care hospitals, 2 to 24 percent in long-term nursing facilities, and 0 to 17 percent in home care settings. The prevalence of facility acquired pressure ulcers was 6 percent in 2008 and 5 percent in 2009.⁵

STATEMENT OF THE PROBLEM :

“A STUDY TO EVALUATE THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON PREVENTION OF PRESSURE ULCER AMONG FRACTURE PATIENTS IN SELECTED HOSPITAL AT KOLAR.” Design

Objectives

1. To assess the pre-existing knowledge regarding prevention of pressure ulcer among fracture patients in selected hospital at Kolar.
To determine the effectiveness of planned teaching programme regarding prevention of pressure ulcer among fracture patients in selected hospital at Kolar.
2. To compare the pretest and posttest knowledge regarding prevention of pressure ulcer among fracture patients in selected hospital at Kolar.
3. To find the association between pre-test knowledge scores with selected demographic variables i.e. age, sex, education, occupation, type of diet, family income and source of information.

Material and methods

The main aim of the study was to assess the knowledge regarding prevention of pressure ulcers among fracture patients at hospitals of Kolar. The research design selected for the study was pre-experimental study with one group pre-test –post-test design. The knowledge regarding prevention of pressure ulcers among fracture patients is assessed by using a structured knowledge questionnaire and an rating scale. Formal permission was obtained from SNR hospital, Kolar. The study was conducted among 60 fracture patients, who were selected by using a non probability sampling technique.

Results

Analysis is a detailed examination of the elements or structure of something . in research, analysis means communication of certain measures along with searching for patterns of relationship that exist among data group .

This chapter deals with the analysis and interpretation of data obtained from 30 pressure ulcer among fracture patients to assess the effectiveness of planned teaching programme among fracture patients at selected hospitals of kolar.

Descriptive and inferential statistics were used to analyze the data that was collected . the findings of data has been finalized and orgined in accordance with the plan for data analysis.

These are presented under the following section.

- **SECTION-I:** This section deals with the data pertaining to demographic characteristics of fracture patients
- **SECTION-II:** This section deals with the data pertaining to assessment of pre and post-test knowledge level of fracture patients regarding prevention of pressure ulcer.
- **SECTION-III:** This section deals with comparison between the pre and post-test knowledge scores of the fracture patients by using paired 't'test.
- **SECTION-IV:** This section indicates with the association between the pre-test knowledge scores with fracture patients socio-demographic variables.

SECTION-I

This section deals with the data pertaining to demographic characteristics of fracture patients.

TABLE -1

FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FRACTURE PATIENTS BY THEIR AGE IN YEARS.

SL. NO.	AGE IN YEARS	FREQUENCY	PERCENTAGE
a)	16-20	15	25%
b)	20-25	35	58.3%
c)	>25	10	16.6%
TOTAL		60	100

Table -1 shows that among the 60 fracture patients, majority of 35(58.3%) were in the age group of 20-25 years, 15(25%) were in the age group of 16-20 years and 10(16.6%) were in the age group of >25 years.

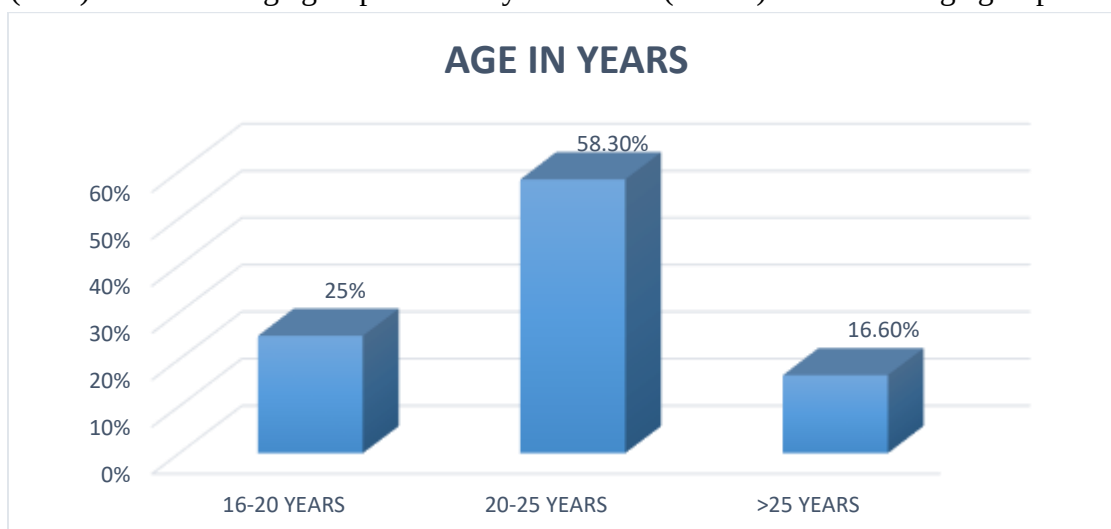


TABLE -2
FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FRACTURE PATIENTS
BY THEIR SEX.

N=60

SL. NO.	SEX	FREQUENCY	PERCENTAGE
a)	Male	48	80%
b)	Female	12	20%
TOTAL		60	100

Table -2 shows that among the 60 fracture patients, majority of 48(80%) were males, and 12(20%) were females.

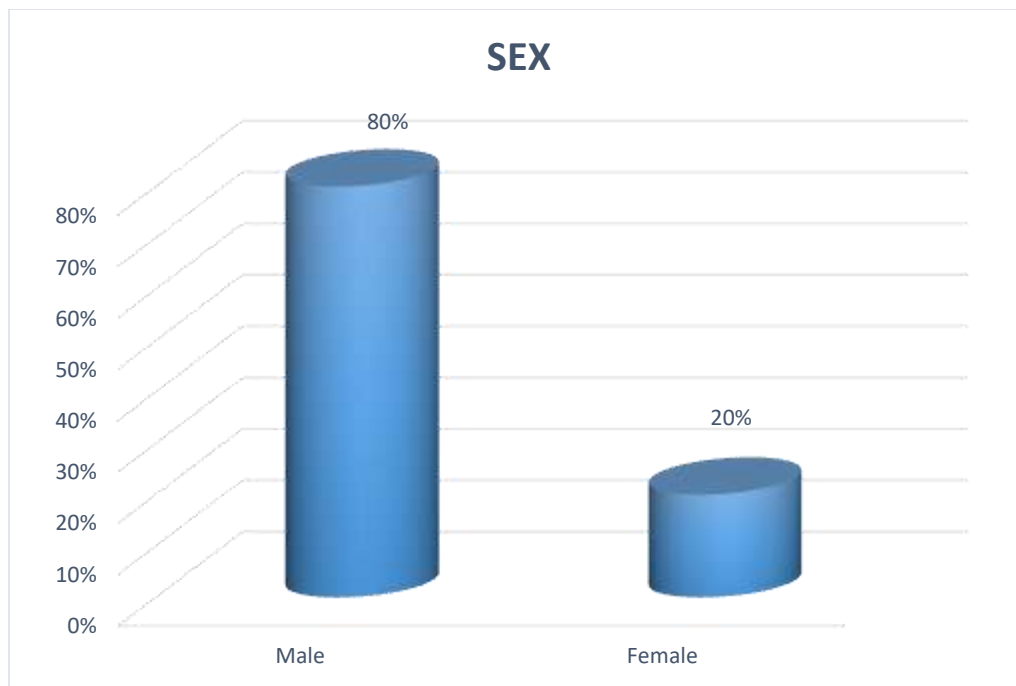


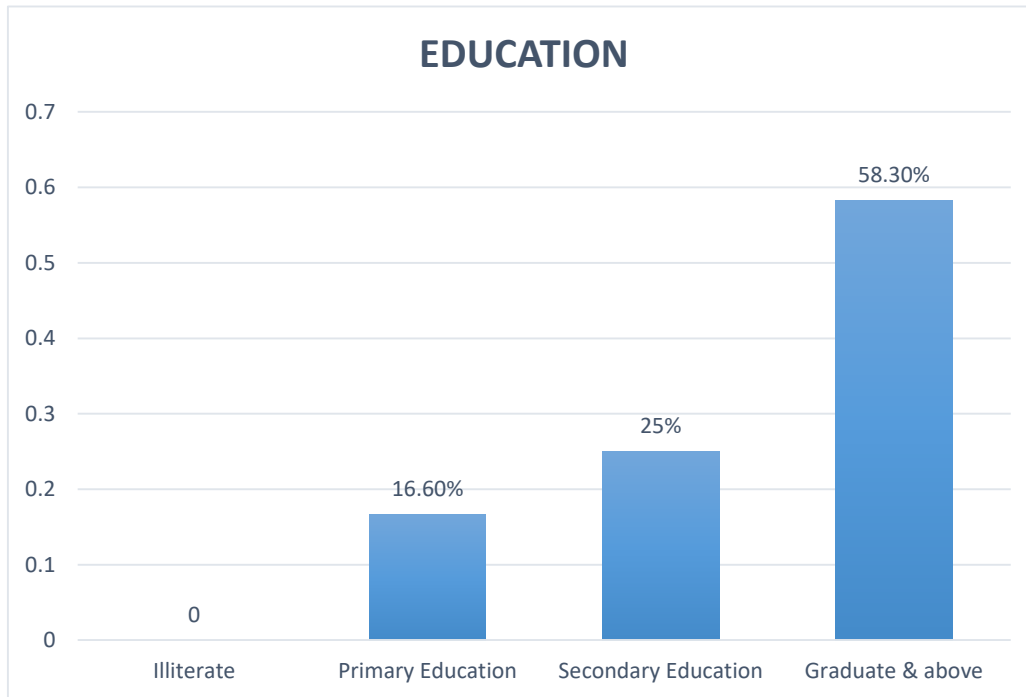
TABLE -3
FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FRACTURE PATIENTS BY
THEIR EDUCATION.

N=60

SL. NO.	EDUCATION	FREQUENCY	PERCENTAGE
a)	Illiterate	-	-
b)	Primary Education	10	16.6%
c)	Secondary Education	15	25%
d)	Graduate & above	35	58.3%
TOTAL		60	100

Table -3 shows that among the 60 fracture patients, majority of 35(58.3%) has got secondary education, 15(25%) has got secondary education, 10(16.6%) has got primary education and none of them are illiterate.

TABLE -4



FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FRACTURE PATIENTS BY THEIR OCCUPATION.

SL. NO.	OCCUPATION	FREQUENCY	PERCENTAGE
a)	Student	38	63.3%
b)	Employee	12	20%
c)	Manager	02	3.3%
d)	Unemployed	08	13.3%
TOTAL		60	100

Table -4 shows that among the 60 fracture patients, majority of 38(63.3%) are students, 12(20%) are employees, 08(13.3%) are unemployed and 02(3.3%) were managers.

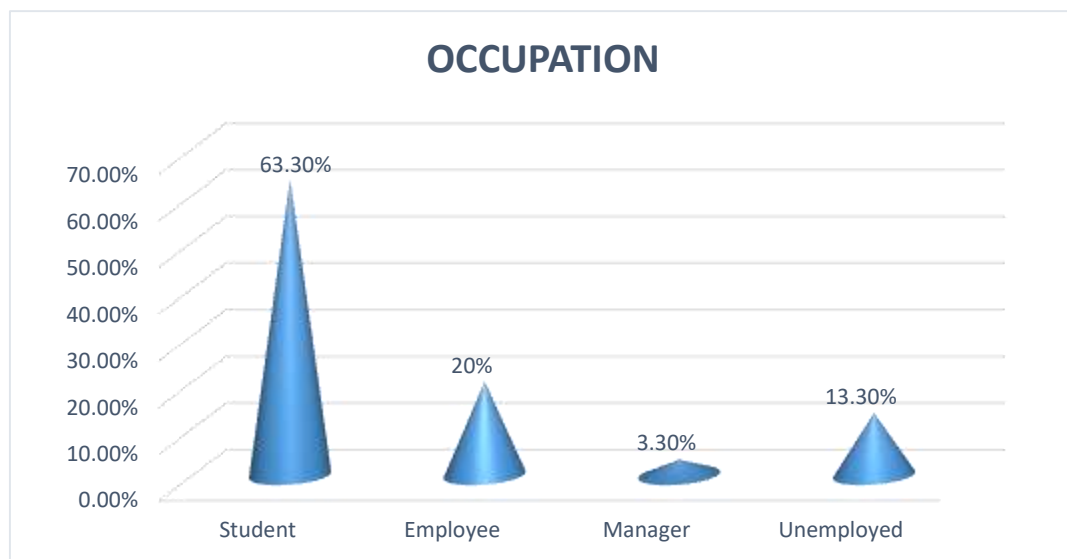


TABLE -5

FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FRACTURE PATIENTS BY THEIR TYPE OF FAMILY.

SL. NO.	TYPE OF FAMILY	FREQUENCY	PERCENTAGE
a)	Nuclear	56	93.3%
b)	Joint	04	6.6%
c)	Extended	-	-
TOTAL		60	100

Table -5 shows that among the 60 fracture patients, majority of 56(93.3%) are nuclear family, 04(6.6%) are joint family and nobody are extended family.

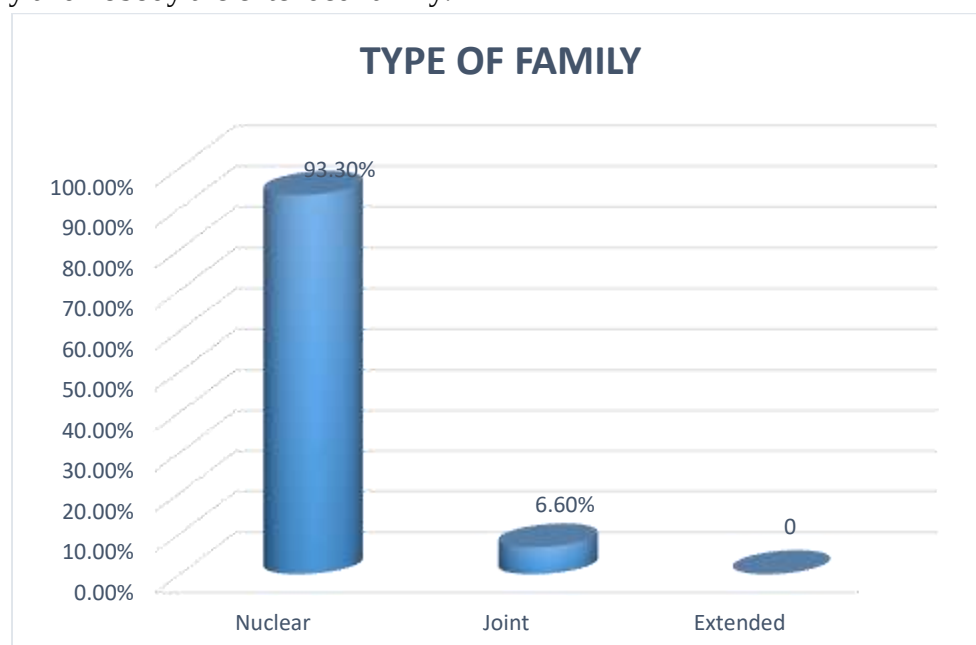


TABLE -6
FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FRACTURE PATIENTS BY
THEIR FAMILY INCOME.

N=60

SL. NO.	FAMILY INCOME	FREQUENCY	PERCENTAGE
a)	Below 5000	-	-
b)	5000 to 10,000	18	30%
c)	10,000 to 15,000	22	36.6%
d)	>15,000	20	33.3%
TOTAL		60	100

Table -6 shows that among the 60 fracture patients, majority of 22(36.6%) had a family income within Rs.10,000-15,000/-, 20(33.3%) had a family income within above Rs.15,000/, 18(30%) had a family income within Rs.5,000-10,000.



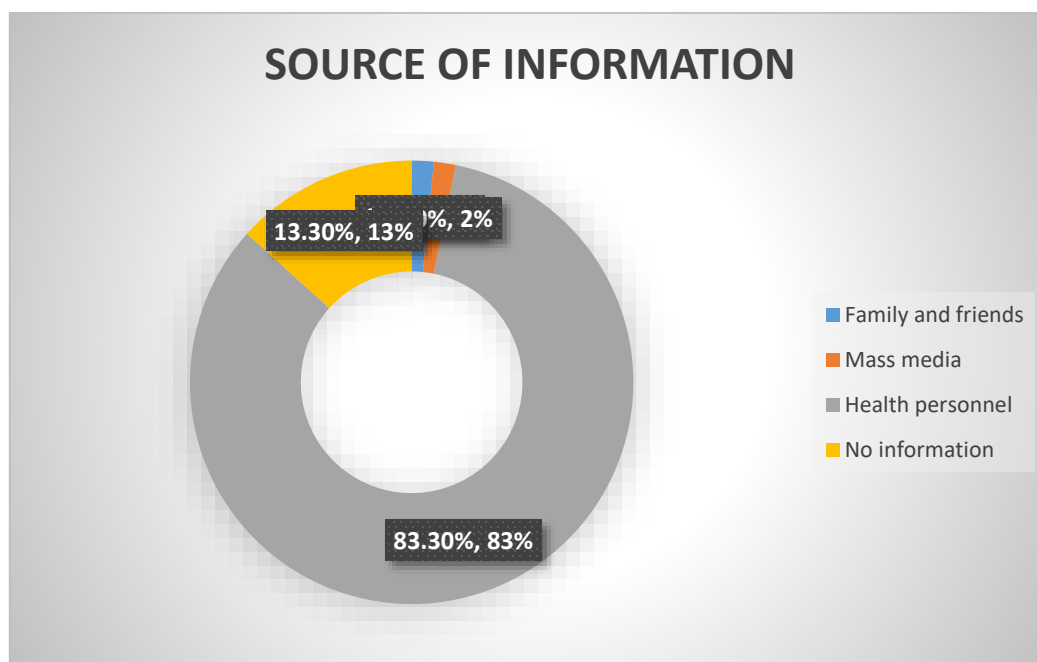
TABLE -7
FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FRACTURE PATIENTS BY
THEIR SOURCE OF INCOME.

N=60

SL. NO.	SOURCE OF INCOME	FREQUENCY	PERCENTAGE
a)	Family and friends	01	1.6%
b)	Mass media	01	1.6%

c)	Health personnel	50	83.3%
d)	No information	08	13.3%
TOTAL		60	100

Table -7 shows that among the 60 fracture patients, majority of 50(83.3%) received information from health personnel, 01(1.6%) received information from family/friends & even from mass media and 08(13.6%) had got no information.



SECTION-II:

This section deals with the data pertaining to assessment of pre and post-test knowledge level of fracture patients regarding prevention of pressure ulcer.

TABLE-8
FREQUENCY & PERCENTAGE DISTRIBUTION OF THE PRE-TEST KNOWLEDGE LEVEL OF FRACTURE PATIENTS ON PREVENTION OF PRESSURE ULCER.

SL NO.	GRADING	SCORE INTERPRETATION (%)	FREQUENCY	PERCENTAGE
1.	Inadequate Knowledge	0-50	60	100
2.	Moderate Knowledge	51-75	-	-
3.	Adequate Knowledge	76-100	-	-
TOTAL			60	100

The data in the table-8 explains that all the fracture patients had inadequate knowledge and none of them had moderate or adequate knowledge prevention of pressure ulcer.

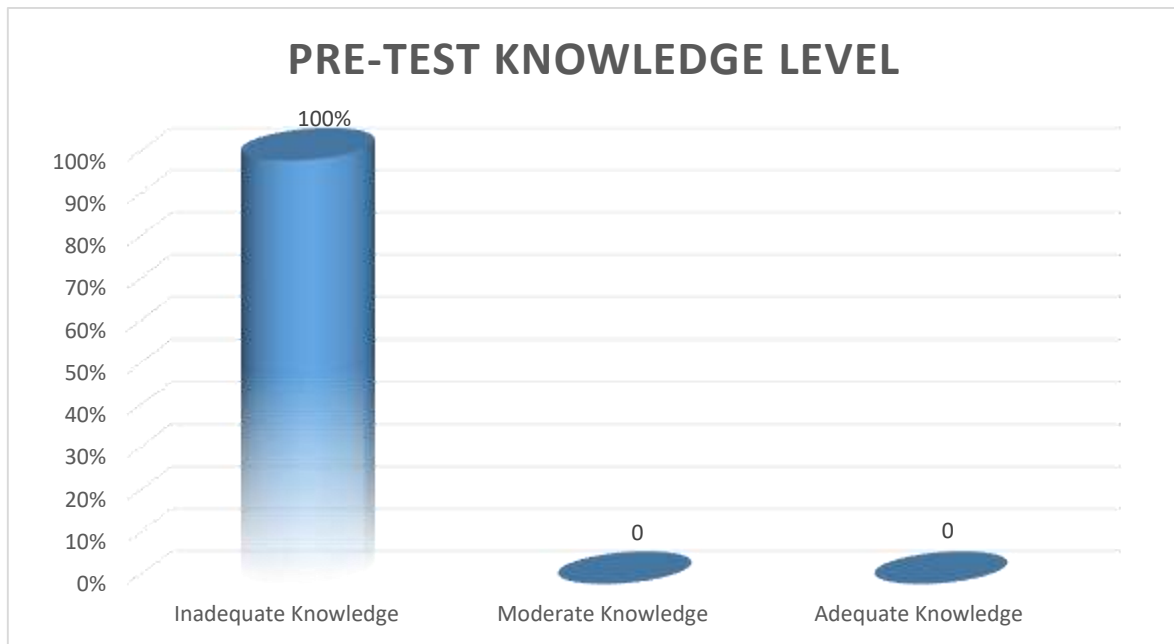
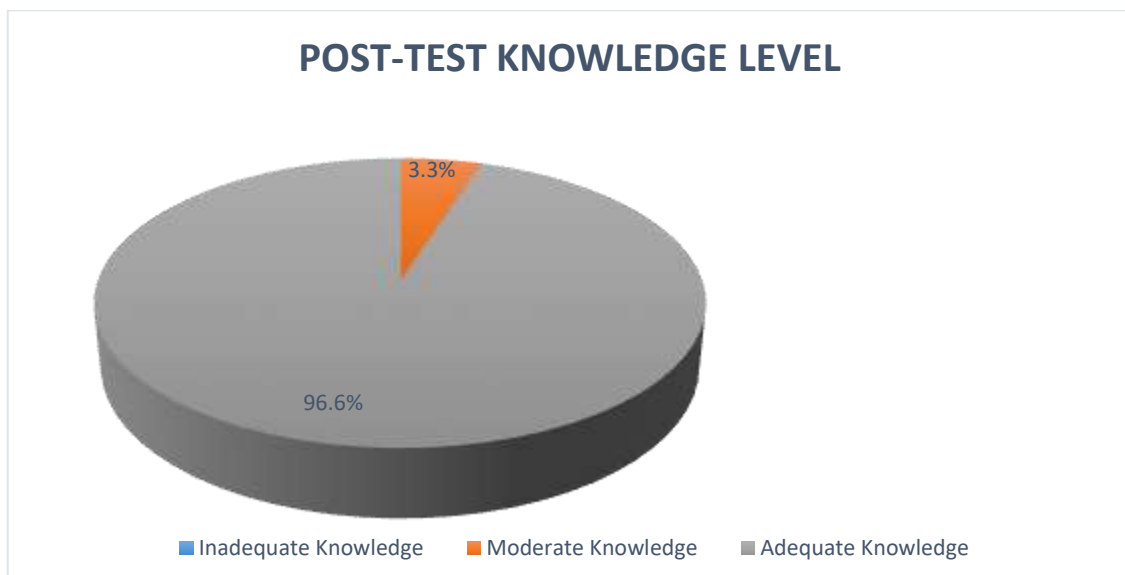


TABLE-9

FREQUENCY & PERCENTAGE DISTRIBUTION OF THE POST-TEST KNOWLEDGE LEVEL OF FRACTURE PATIENTS ON PREVENTION OF PRESSURE ULCER.

SL NO.	GRADING	SCORE INTERPRETATION	FREQUENCY	PERCENTAGE
4.	Inadequate Knowledge	0-50	-	-
5.	Moderate Knowledge	51-75	02	3.3%
6.	Adequate Knowledge	76-100	58	96.6%
TOTAL			60	100

The data in the table-9 explains that 58(96.6%) of the fracture patients had adequate knowledge and 02(3.3%) had moderate and none of the patients had inadequate knowledge regarding prevention of pressure ulcer.



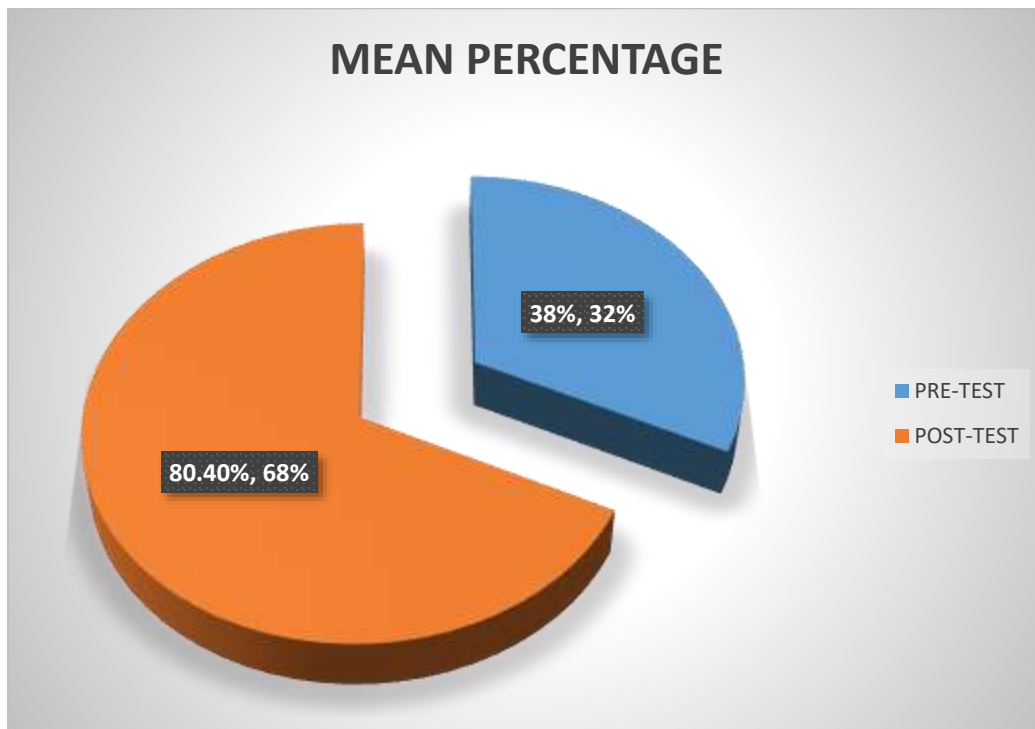
SECTION- III

This section deals with comparison between the pre and post-test knowledge scores of the fracture patients by using paired 't'test.

TABLE – 10
COMPARISON OF PRE AND POST- TEST MEAN PERCENTAGE KNOWLEDGE SCORES
OF FRACTURE PATIENTS ON PREVENTION OF PRESSURE ULCER.
N= 60

KNOWLEDGE	MAX. SCORE	MEAN	SD	MEAN %	STATISTICAL INFERENCE
Pre-test	30	22.14	3.53	38.0	$t_{cal}=11.4$ $t_{tab}=3.84$ $P<0.001$ (SS)*
Post- test	30	38.86	4.42	80.4	

The above table-10 explains that the pre-test average mean percentage was 38.0% with the mean(22.14) and SD(3.53) and the post- test average mean percentage was 80.4% with the mean(38.86) and SD(4.42). Thus it shows that the fracture patients haverise in the knowledge level regarding prevention of pressure ulcer compared to that of pre-test.



SECTION-IV

This section indicates with the association between the pre-test knowledge scores with fracture patients socio-demographic variables.

TABLE – 11
ASSOCIATION BETWEEN KNOWLEDGE LEVEL OF FRACTURE PATIENTS WITH THEIR DEMOGRAPHIC VARIABLES

SL NO.	DEMOGRAPHIC DATA	CATEGORIES	BELOW MEDIAN	ABOVE MEDIAN	CHI SQUARE χ^2	df
1.	AGE IN YEARS	16-20	10	05	$\chi^2= 6.883$ $t_{tab}= 5.991$	df= 2 SS*
		20-25	25	10		
		>25	08	02		
2.	SEX	Male	36	12	$\chi^2= 1.248$ $t_{tab}= 3.84$	df= 1 NS
		Female	07	05		
3.	EDUCATION	Illiterate	0	0	$\chi^2=5.897$ $t_{tab}= 7.815$	df= 3 NS
		Primary Education	07	05		
		Secondary Education	09	05		
		Graduate & above	20	15		
4.	OCCUPATION	Student	26	12	$\chi^2=8.46$ $t_{tab}= 7.815$	df= 3 SS*
		Employee	05	07		
		Manager	01	01		
		Unemployed	05	03		
5.	TYPE OF FAMILY	Nuclear family	48	08	$\chi^2=2.338$ $t_{tab}= 5.991$	df= 2 NS
		Joint family	02	02		
		Extended family	0	0		
6.	FAMILY INCOME	Below 5000	0	0	$\chi^2= 7.89$ $t_{tab}= 5.991$	df= 2 SS*
		5000 to 10,000	10	08		
		10,000 to 15,000	16	06		
		>15,000	05	15		
7.	SOURCE OF INFORMATION	Family and friends	01	0	$\chi^2=12.38$ $t_{tab}= 5.991$	df= 3 SS*
		Mass media	0	01		
		Health personnel	32	18		
		No information	05	03		

CHAPTER-IV

DATA ANALYSIS AND INTERPRETATION

Analysis is a process of organizing the data in such a way that research question can be answered. It includes the synthesis of research data and the testing of research hypothesis using those data. Interpretation is the process of making some of the result and of examining the implication of the finding within a broader content.²⁰

This chapter deals with the analysis and interpretation of data collected from the fracture patients in selected hospital, Kolar. The data was collected from 60 fracture patients. The data was compiled, and analyzed and then tested for their significance through statistical analysis.

OBJECTIVES:

To assess the pre-existing knowledge regarding prevention of pressure ulcer among fracture patients in selected hospital at Kolar.

To determine the effectiveness of planned teaching programme regarding prevention of pressure ulcer among fracture patients in selected hospital at Kolar.

To compare the pretest and posttest knowledge regarding prevention of pressure ulcer among fracture patients in selected hospital at Kolar.

To find the association between pre-test knowledge scores with selected demographic variables i.e. age, sex, education, occupation, type of family, family income and source of information.

PRESENTATION OF DATA:

The collected data are analyzed and presented in 4 sections.

SECTION-I: This section deals with the data pertaining to demographic characteristics of fracture patients.

SECTION-II: This section deals with the data pertaining to assessment of pre and post-test knowledge level of fracture patients regarding prevention of pressure ulcer.

SECTION-III: This section deals with comparison between the pre and post-test knowledge scores of the fracture patients by using paired 't' test.

SECTION-IV: This section indicates with the association between the pre-test knowledge scores with fracture patients socio-demographic variables.

Discussion

The present study aimed to evaluate the effectiveness of planned teaching on prevention of pressure ulcer among fracture patients at selected hospitals of kolar. The study assessed pre-existing knowledge and prevention of pressure ulcer, measured the impact of planned teaching programme, and examined association with selected socio-demographic variables. The findings provide valuable insight into the role of educational intervention in improving the awareness, care of pressure ulcer among fracture patients.

Key Findings and Interpretation

The results revealed a significant improvement in both knowledge and attitude following the planned teaching programme intervention. The mean pre-test knowledge score was 38.0% (SD = 3.53), which significant enhancement significantly increased to 80.4 % (SD = 4.42) in the post-test, with a mean difference of 20.91. The paired t-test value was 11.4 ($p < 0.001$), indicating a statistically in knowledge. Similarly, the demographic variables are fracture patients is 68.3% belong to 18-22 years of age, fracture patients is 68.3 % to hindu mothers ,mothers of preterm babies 51.7% are primary education, mothers of preterm babies 48.4% are housewives ,mothers of preterm babies 96.7% are not had previous experience of handling preterm babies , mothers of preterm babies 58.4% belongs to rural area , mothers of preterm babies 56.6 % had caesarean section and These findings confirm that the VSD was effective in enhancing

students' knowledge and fostering a more positive attitude towards home care management of preterm babies.

The results align with previous studies that have explored the effectiveness of educational interventions on home care management of preterm babies. A similar study conducted in selected hospitals of silvasa, Dadra and nagar haveli the result shows that t'' test was conducted to assess difference between the area wise score value of pretest and posttest. Thus, the difference observed in the mean score value of pretest and posttest were true difference and not by chance.

That an educational program significantly improved knowledge and attitudes regarding home care management of preterm babies, emphasizing the importance of kangaroo mother care in promoting babies health. Another study by S.Manoranjitham who assessed effectiveness of learning package on knowledge and practice in care of preterm babies among postnatal mothers in selected neonatal intensive care units the findings shows that there is no significant association of pretest level of knowledge score with their selected demographic variables such as age of the mother, educational status, maternal illness during antenatal period, gestational age and birth weight

Strengths and Limitations

One of the key strengths of this study is that it focused on nursing students, who are future healthcare professionals and can further disseminate knowledge about menstrual cups in their practice. Additionally, the use of a planned teaching program (STP) ensures a standardized and systematic approach to delivering information, increasing its effectiveness. The large sample size (N = 220) strengthens the reliability of the find

However, the study has some limitations. It was conducted in selected nursing colleges in Kolar, limiting the generalizability of the findings to a broader population. Additionally, the study assessed immediate post-test improvements but did not include a follow-up to evaluate knowledge retention and long-term attitude changes. Future research should consider longitudinal studies to determine the sustained impact of educational interventions on menstrual health awareness.

Implications and Recommendations

The findings of this study highlight the importance of pressure ulcers among fracture patients in improving the effectiveness of pain. Given the significant improvement in knowledge and attitude scores, planned teaching should be integrated into nursing curricula to ensure that future patients of adults are well educated others about prevention of pressure ulcers care practices.

Additionally, public health initiatives should focus on breaking myths and misconceptions surrounding home care management of preterm babies through community-based interventions. Nursing students, as healthcare educators, can play a vital role in advocating for managing pressure ulcer patients at hospitals, emphasizing their cost-effectiveness, environmental benefits, and health advantages of health care professionals. Future research should explore the barriers home care management of preterm babies and assess the long-term impact of educational interventions across diverse populations.

Conclusion

The study demonstrated that a planned Teaching programme significantly improved adults patients knowledge and attitudes regarding prevention of pressure ulcers. The statistically significant findings

emphasize the need for education-based interventions to enhance prevention of pressure ulcers, particularly among fracture patients

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