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A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding Prevention of Pressure Sore among the Family Members of Immobilized Patient in Selected Hospital at Selected City

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Abstract: ***A pressure sore can be defined as "an area of localized damage to skin and underlying tissues caused by pressure, friction and or combination of them.The objective of the study to assess the knowledge regarding prevention of pressure sore among the family members of immobilized patient and to evaluate the effectiveness of planned teaching program on prevention of pressure sore. The research design was descriptive research design. The sample size was 50 family members of immobilized patient at selected city, a non-probability purposeful sampling technique were used. The data was collected by using standardized questioner tool. The findings of this study revealed that knowledge of family members of immobilized patient have improved after the planned teaching program which showed that planned teaching programme is an effective intervention to improve the knowledge of the subjects.***

Keywords: Immobilized patient, prevention, pressure sore, family member, knowledge

1. Introduction

"Good nursing care should prevent pressure sore".

Amanda Hahn

Pressure sore have a significant effect on both patient and health care provider. A pressure sore can be defined as "an area of localized damage to skin and underlying tissues caused by pressure, friction and or combination of them. A setting or lying still without shifting your position can cause damage to your skin and the underlying tissues called as "pressure sore". Some people more likely to develop pressure sore, but they are usually preventable. Most people naturally shift position after a while when they are in sitting position or lying down. When asleep, for example: people will normally change their positions up to 20 times during night, however some people are too ill or week to be able to an if the body stays in same position for period of time the skin become damaged**.** Although pressure sore can be treated with dressings and creams. In some people they can be more severe and leads to life threatening complications[1].All patients are potentially at risk of developing a pressure ulcer. However they are more likely to occur in people who are seriously ill, have a neurological condition, impaired mobility, impaired nutrition, or poor posture or a deformity. Also, the use of equipment such as seating or bed which are not specifically designed to provide the pressure relief, can cause pressure ulcers. As a pressure ulcers can arise in a number of ways, intervention for prevention and treatment need to be applicable across a wide range of settings including community and secondary care. This may require organizational and individual change and a commitment to effective delivery.[2]

Relieving direct pressure such as change position and keep moving as much as possible, stand up to relieve pressure if you can, ask your carer to reposition you regularly if you can't move, change position at least every 2 hours, use special pressure relieving mattresses and cushions, don't drag your heels or elbows when moving in your bed or chair. Skincare such as keep your skin clean and dry, avoid scented soaps as they can be more drying, moisturise your skin thoroughly after washing, avoid using talcum powder as this dries the skins natural oils, keep your skin well moisturised. General tips such as make sure the bedsheets are smooth and not wrinkled when you are lying in bed, sheets should be cotton or silk like fabric, eat a well-balanced diet, have at least 2 litres of fluid a day, tell your doctor or nurse if you notice any skin changes or discomfort as soon as possible.[3]

2. Literature Survey

Review of literature is a systematic identification, location, strutting, and summary of written material that contain information on research problems.

A study done on "Impact of prevention structures and processes on pressure ulcer prevalence in nursing homes and acute-care hospitals."A total of 7377 residents in 60 nursing homes and 28,102 patients in 82 acute-care hospitals in India participated in annual point prevalence surveys. The result was

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samples within the arranged groups showed no clinically relevant demographical differences. Nosocomial prevalence rates in hospitals dropped from 26.3% in the first year to 11.3% in the last year (nursing homes from 13.7% to 6.4%). The use of pressure ulcer-related structures remarkably increased during each repetition to more than 90%.[4]

The incidence of pressure ulcers vary greatly depending on setting in the hospitals incidence rate having range from 1% to 30%. Higher rates are noted in ICUs were patients are less mobile and have severe systemic illnesses. The fourth National pressure ulcers prevalence survey found and annual hospital prevalence rate of 10% in long term care setting incidence and prevalence rate have range from 3% to 30% less is known about pressure ulcer in home care but studies have reported incidence 4.6% to 15% and prevalence rate have 5% to 15%.[5]

An experimental study was conducted on prevention of pressure ulcer among immobilized orthopedic patients. The aim of this study was to improve the quality of care and patient safety with a hip fracture. A total of 478 patients with a hip fracture were included between April 2003 and March 2004. A clinical pathway was introduced on 1-10 2003. The results from the first 210 patients in the control group and the last 210 patients in the experimental group were revealed. The study shows, experimental group, acquired pressure ulcers decreased by 50% ($p < 0.007$). It is possible to reduce the development of hospital acquired pressure ulcers among elderly patients with a hip fracture even though it is not possible to eliminate the effect of factors such as increased age and the patients' medical status.[6]

A study was conducted on prevention of pressure ulcer an evaluation of awareness in the families of patients at risk. 62 caregivers (78% family members and 22% non-related) filled out the questionnaire related to the prevention and treatment of pressure sores. The result showed that only 11% knew about the pressure ulcer, 42% of care givers were not aware of the possible pressure ulcer causes, and 54.8% were not able to mention any pressure ulcer risk factors. They concluded that the families and care givers of bedridden patients have insufficient knowledge of pressure ulcer prevention, indicating the need of providing knowledge regarding pressure ulcer prevention.[7]

Pre-experimental study conducted onEffect of an educational program on a family caregiver's prevention and management of pressure ulcers in bedridden patients after discharge from hospitals in Palestine. The sample size was 80 caregivers Preexperimental, prospective, with pretest and posttest, design was followed. The result of the study was about 58.8% of the caregivers were women and 53.8% aged younger than 30 years. The performance of the caregivers has significantly improved after the program in most of the items ($P < 0.05$). Scores of subscales: wound care and dressing, proper nutrition, maintaining personal hygiene, incontinence training and knowledge about ulcers were all significantly higher after training ($P < 0.05$). The difference between the total domains after the program ($M = 3.47$) was significantly higher than the total domains before the program ($M = 3.30$; t test 4.87; $P = 0.00$). Conclusion of the study was the study revealed a high effectiveness of this educational-training program in managing and preventing pressure ulcers for bedridden patients by caregivers at their homes.[8]

A cross sectional study was conducted in Varanasi, India to find out the prevalence of pressure ulcer among immobilized patients and predisposing factors for ulceration. A total of 445 patients were included from medical and surgical wards. The hospitalized patients examined for site, number, grade of pressure ulcer, Hemoglobin, serum albumin and blood sugar levels of these patients were also reported. Result showed that, the prevalence pressure ulcer was high (4.94%) among these hospitalized patient. The study identified the risk factors for ulceration such as anemia, malnutrition and diabetes. Morbidity was reported among prolonged hospitalized patients (40.9%), especially in neurological wards.[9]

Problem Definition

"A study to assess the effectiveness of structured teaching program on knowledge regarding prevention of pressure sore among family members of immobilized patient in selected hospital at selected city."

Objectives of Study

1) To assess the pretest knowledge score regarding prevention of pressure sore among the family members of immobilized patient.
2) To evaluate the effectiveness of planned teaching program on prevention of pressure sore.
3) To compare the pretest and posttest knowledge.
4) To find out association between knowledge and selected demographic variables.

3. Material and Methods

A single group pretest and posttest (quasi-experimental) design was chosen for the study. In the present study a pretest was administered by means of structured questionnaire depicted as P1 and then planned health teaching was given depicted as X, a post test was conducted using the same structured questionnaire depicted P2.The study design is depicted as –

Pre Test	Planned health teaching	Post Test
P1	X	P2

A quantitative approach in pre experimental research design was found to be more appropriate to assess the effectiveness of planned health teaching regarding prevention of bed sore. The proposed study was undertaken in at family members of the selected immobilized patient admitted in Hospitals. The population and samples family members of the selected immobilized patients who were fulfilling the inclusion and exclusion criteria and the sample consisted of 50 family members of the selected immobilized patients. The sampling

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technique used in this study was purposive sampling technique. Tools used for data collection include two section namely demographic variable and structured knowledge questionnaires.

4. Results

A structured questionnaire is used for data collection. The analysis was done with the help of descriptive and inferential statistics.

Sr. No.	Data analysis	Method	Remark
1.	Descriptive statistics	Mean, standard deviation, mode.	Knowledge on prevention of pressure sore
2.	Inferential statistics	Paired‘ t’-test	Effectiveness of planned teaching
		$\chi 2$ test	Associate demographical variable with level of knowledge and practice.

The data was analyzed and is presented in the following sections:-

The collected data is analyzed on the bases of objectives of the study in the following way:

Section1: Description on frequency and percentagewise distribution of baseline data.

Section 2: Description on frequency level and percentagewise distribution of prevention of pressure sore.

Section 3: Chi-square test – association between demographic variables.

Section 4: Karl Pearson’s correlation test

Section 5: Hypothesis testing

There will be significant increased in knowledge regarding prevention of pressure sore among family members of immobilized patient

Knowledge Area	Mean knowledge score	Mean %	S.D.	‘t’ value	‘p’ value
Pre test	10	50%	19.69	17.69	>0.05
Post test	14.8	74%			

The P value is less than the level of significance that is 0.05. This indicates that the gain in posttest knowledge is significant. It proves the significance of planned health teaching in the improvement of the knowledge statistically.

5. Discussion

The finding of the study was discussed with reference to the objectives and with the findings of the other studies in this section. The present study was undertakento assess the effectiveness of the structure teaching program on knowledge regarding prevention of pressure sore among the family members of immobilized patient in selected hospital. Excellent skin care is an attribute of quality care. Prevalence of skin break down and pressure injuries has become a standard by which hospitals are evaluated and assessed with pressure injuries recognized as an international patient safety problem. preventions involves ongoing risk assessment of all patients, implementation of prevention strategies including skin inspection and repositioning patients at regular intervals, analysis of casual factors in the event of pressure injury development and selection of appropriate pressure reliving devices. The pressure sore remains a common health problem worldwide within the different health care setting. Thus, the objective of our study was to assess the knowledge regarding prevention of pressure sore among the family members of immobilized patient and to evaluate the effectiveness of planned teaching program on prevention of pressure sore.

So, accordingly the major findings of this study is as follow-

- In the pre-test knowledge score, (64%) of family members had good knowledge, and (20%) had average knowledge, and (6%) family members had poor knowledge.
- After the intervention during posttest, it was observed an increase knowledge score of patients with maximum (82%) of family members having very good knowledge & (18%) having good knowledge.
- Paired t-test with two-tailed P value was less than 0.0001, i.e. extremely statistically significant with 95% confidence interval, therefore it could be concluded that the planned health teaching regarding prevention of of pressure sore.

6. Conclusion

The planned health teaching programme significantly brought out improvement in the knowledge of family members regarding prevention of bed sore. Analysis of data showed that there was significant difference between pretests and posttest knowledge score and effectiveness of planned teaching regarding prevention of pressure sore among the family members of immobilized patient in selected hospital and there is no significant association between demographic variable.

7. Future Scope

The future scope of this study has implications for nursing administration, nursing education, nursing research and nursing practice.

Nursing Services

Nurses working in the clinical practice and community set up can benefit from such researches, as it will provide more insight regarding the prevention of bed sore among family members. They should know the importance of the preventive aspect with regard to bed sore.

Nursing Education

The nursing teachers can use the result of the study as an informative illustration for the students. Nursing education should help in inculcating values and a sense of responsibility in the students to educate the prevention of bed sore and to foster the practice of health education to promote and prevent complications.

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Nursing Administration

Nursing administration can depute nurses for various workshops, conferences, and special courses; and also in-service education programs can be arranged for the nursing staff. The findings of the study should be used as a basis of in-service education programs for nurses so as to make them aware of the present problems in the society.

Nursing research

Nursing research is an essential aspect of nursing as it uplifts the profession and develops new nursing norms and a body of knowledge. Another research has been added to the Nursing literature. Very few studies have been done on a similar basis. The research design, findings and the tool can be used as avenues for further research.

There is a need for extended and intensive nursing research in the area of health education for prevention of bed sore to improve their knowledge for better health and prevent them from possible complications and make them healthy and productive citizens.

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