

A Pre-Experimental Study to Assess the Effectiveness of Structured Teaching Programme Regarding Knowledge on Prevention of Bed Sores among Bsc Nursing 1st Year Students of Army College of Nursing, Jalandhar Cant

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Abstract

Decubitus ulcer commonly known as Bed sore or Pressure ulcer is one of the commonest cause of skin and tissue disruptions¹. So here arises a need to create awareness regarding prevention of bed sores through education of student nurses to reduce the burden of bed sores. The study was undertaken to assess the knowledge regarding prevention of bed sores among B.Sc Nursing 1st year students and develop and implement a structured teaching programme in Army College of Nursing, Jalandhar cantt.

The objectives of the study were to assess the pre – test knowledge scores, develop and implement structured teaching programme, to assess the post-test knowledge scores and to compare the pre – test and post- test knowledge scores. The pre experimental study was conducted on 40 selected subjects of B.Sc Nursing 1st year students, Army College of Nursing, Jalandhar cantt, Punjab.

Data was collected by self structured questionnaire. The results indicated that the overall pre – test mean was 18.32 with the Standard deviation of 2.09 whereas the overall post –test mean knowledge score was 21.42 with the Standard deviation of 1.62 with the significant mean difference of 3.1. Effectiveness of structured teaching programme was determined by Paired- t test. Value of t was found to be 5.58 which was greater than value of $t_{0.05}$ at 39 degree of freedom that is 2.023.

Key Words: *Bed Sore , Prevention, Knowledge, Structured Teaching Programme.*

Introduction

Decubitus ulcer commonly known as Bed sore or Pressure ulcer is one of the commonest cause of skin and tissue disruptions .These are localized injuries to the skin or underlying tissue that usually occur over a bony prominence as a result of pressure, or pressure in combination with shear or friction. The most common sites are the skin, overlying the sacrum, coccyx, heels or the hips, but other sites such as the elbows, knees, ankles or the back of the cranium can be affected².

Bed sores occur due to pressure applied to soft tissue resulting in completely or partially obstructed blood flow to the soft tissue. Shear is also a cause, as it can pull on blood vessel that feed the skin. Bed sores most commonly occur in individuals who are not moving

about, such as those being bed ridden or confined to a wheel chair³.

It is widely believed that other factors can influence the tolerance of skin for pressure and shear, thereby increasing the risk of bedsore development. These factors are protein calorie malnutrition, microclimate (skin wetness caused by sweating or incontinence), diseases that reduce blood flow to the skin, such as arteriosclerosis or diseases that reduce the sensation in the skin, such as paralysis or neuropathy.

The healing of bed sore may be slowed by the age of person, medical conditions (such as arteriosclerosis, diabetes or infection), smoking or medications such as anti-inflammatory drugs⁴.

Although often prevented and treatable if detected early, bed sore can be very difficult to prevent in critically ill people, frail elders, wheel chair users (especially where spinal injury is involved) and terminally ill individuals.

Need of the study- Bed sore are common conditions among hospitalized patients in acute and chronic care facilities. Bed sore occur almost exclusively in people with limited mobility. So it is a challenge to prevent the occurrence of bed sore⁵. But if nursing students have sufficient knowledge in preventing bed sore they would certainly become competent nurses in future contributing to decrease the incidence of bed sores.

Aim-To assess the knowledge regarding prevention of bedsores among B.sc nursing 1st year students, to plan and implement a structured teaching programme in order to improve their knowledge

Objectives

1. To conduct pre-test to assess the level of knowledge regarding prevention of bedsores.

To prepare and implement structured teaching programme on various measures and steps for prevention of bed sores.

2. To determine effectiveness of structured teaching programme regarding measures for preventing bed sores by post-test.

3. To compare pre-test and post-test knowledge scores of B.Sc. nursing 1st year students regarding prevention of bed sores.

Hypotheses-

H –There was not be significant difference between the pre-test and post-test knowledge scores of subjects (nursing students) regarding prevention of bed sores.

H There was be significant difference between the pre-test and post-test knowledge scores of subjects (nursing students) regarding prevention of bed sores.

Delimitations-

The study was be delimited only to 40 B.Sc. nursing 1st year students of Army College of Nursing, Jalandhar Cantt, Punjab.

Research approach-

Quantitative and evaluative research approach.

Research design-

The research design selected for the study was be pre-experimental research design. this was be adopted to assess the knowledge regarding prevention of bed sores among bsc nursing 1st year students.

Research setting-

the study was be conducted in army college of nursing, jalandhar cantt.

Target population-the target population selected is 40 students of bsc nursing 1st year.

Sample and sampling technique a total of 50 students was be taken as the sample of the study and convenient sampling technique was be employed to collect the data.

Inclusion and Exclusion criteria

Inclusion criteria:

- Students of BSc Nursing 1st year
- Wasing to participate
- Available at the time of data collection and selected as a part of convenience sampling technique.

Exclusion criteria:

- Students of BSc Nursing 2nd, 3rd, and 4th year are not included in the study.
- Those who are not wasing to participate.
- Those who was not be present at the time of pre-test.

Description of the tool-

Self -structured questionnaire is designed to assess the knowledge regarding prevention of bed sores. Tool consists of 30 questions to assess the knowledge regarding prevention of bed sores, causes, sign and symptoms, preventive measures and dietary factors in preventing bed sores. The tool is divided in two sections:

Section A:

Socio- demographic data includes the personal characteristics of the variables of study e.g. – age, education, smyce of information and previous knowledge of the students.

Section B:

This section comprises self- structured knowledge questionnaire:

Introduction and definition of bed sores.

Causes of bed sores.

Sign and symptoms of bed sores.

Preventive measures and dietary factors in bed sores.

Data collection procedure-

In this study, questioning method was be selected for data collection. Permission was taken from Principal, Army College of Nursing, Jalandhar Cantt. Prior consent was taken from the subjects under study. Self-introduction was given to the subjects. Group was informed about the purpose of study.

Plan of data analysis-

Data was be analyzed by descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (paired t- test).

Section 1- findings related to frequency and percentage distribution of socio demographic variables.

S.No	Demographic variable	Frequency	Percentage
1	Age of the subjects (in years)- a) 17-18 b) 18-19 c) 19-20 d) >20	36 03 01 0	90.00% 07.50% 02.50% 00.00%
2	Exposure to knowledge regarding pressure sore prevention- a)Educational workshop and seminars b) Electronic media c) Academic knowledge d) No experience	02 03 35 0	05.00% 07.50% 87.50% 00.00%
3	Previous experience as a clinical care giver to the patients with pressure sores in SDICU through- a) 1-2 week b) 2-3 weeks c) 3-4weeks d) > 4 weeks	08 09 21 02	20.00% 22.50% 52.50% 05.00%

SECTION 2- FINDINGS RELATED TO LEVEL OF KNOWLEDGE OF SUBJECTS RELATED TO THEIR PRE-TEST

LEVEL OF KNOWLEDGE	KNOWLEDGE SCORE	FREQUENCY	PERCENTAGE
EXCELLENT	26-30	0	0%
GOOD	21-25	5	12.5%
AVERAGE	16-20	27	67.5%
BELOW AVERAGE	</=15	8	20.0%

SECTION 3-FINDINGS RELATED TO LEVEL OF KNOWLEDGE OF SUBJECTS RELATED TO THEIR POST-TEST

LEVEL OF KNOWLEDGE	KNOWLEDGE SCORE	FREQUENCY	PERCENTAGE
EXCELLENT	26-30	02	5.00%
GOOD	21-25	17	42.5%
AVERAGE	16-20	16	40.0%
BELOW AVERAGE	</=15	05	12.5%

SECTION 4- FINDINGS RELATED TO COMPARISON OF MEAN AND STANDARD DEVIATION OF PRETEST AND POST-TEST SCORES

	PRE-TEST	POST-TEST
MEAN (x)	18.32	21.42
STANDARD DEVIATION (S.D)	2.09	1.62
Paired t-Test	5.58	

PAIRED t – TEST-

In the present study PAIRED t- TEST was used to compare two set of values of same sample taken in two different time periods (pre-test and post-test).

In present study the value of t is 5.58 which are more

than that of $t_{0.05}$ at 39 degree of freedom that indicates the rejection of null hypothesis (H_0) and acceptance of research hypothesis (H_1) and thus it can be concluded that there was significant difference in the level of knowledge after the implementation of structured teaching programme.

MAJOR FINDINGS OF THE STUDY-

- Maximum number of subjects (90%) belonged to 17-18 years.
- Maximum number of subjects (87.5%) was having previous knowledge regarding pressure sores and prevention through Academic experience.
- Maximum number of subjects (52.5%) was having previous experience as a clinical care giver to the patients with pressure sores in SDICU for 3-4 weeks.
- Mean pre-test knowledge score 18.32 was increased to 21.42 in mean post-test knowledge scores with a mean difference of 3.10.
- Percentage increased in the subjects who scored excellent was increased from 0% to 5 % after the implementation of structured teaching programme.
- Percentage of the subjects who scored below average (≤ 15) was reduced to 12.5% (in post-test) from 20% (in pre-test) after the implementation of structured teaching programme.
- Value of t was found to be 5.58 which was greater than value of $t_{0.05}$ at 39 degree of freedom that is 2.023, which implies that the structured teaching programme was effective in improving the knowledge of subjects regarding prevention of pressure sores

Discussion

The finding of my study is supported by Ivan Mwebaza, et. (2012), the aim of the study was to assess the nurses knowledge toward bed sore prevention in St. Joseph Lewis hospital, California using pre-piloted questionnaire. The study revealed that 70.4 % had average level of knowledge and 29.6% had good knowledge regarding bed sores⁶.

A study conducted by Gunniberg. et al (2011), the aim of the study was to assess the knowledge regarding prevention of bed sores in different nursing homes using questionnaire was 19.87 and after intervention the score was raised to 30.23.⁷

The study is supported by Meesterberends et al.(2013), the study was aimed to assess the effectiveness of structured teaching programme on knowledge, attitude

and practice in Dutch nursing homes , Netherland results revealed that mean post-test knowledge score was 76.0 which were significantly higher than the mean pre-test score 45.23 with enhancement of 30.77. ⁸

The statistical paired t-test for overall knowledge was found to be 0.0076 which were found statistically significant at 0.05 levels.

Limitations- Study was limited to Army College of Nursing, Jlandhar cantt

Nursing implications –

Nursing practice-

- Nurses working in wards should have enough knowledge about prevention of bed sores to promote positive living with bed sores.
- Healthy lifestyle for positive living with bed sores should be taught on regular basis to decrease the prevalence of bed sores⁹.

Nursing Education-

- Emphasis can be given on modification of lifestyle practices in curriculum of nursing.
- Students can be provided with the opportunity to work in ICU, SDICU, ORTHO and FAMILY WARDS under supervision and guidance.

Nursing research-

The research findings of the study showed that majority of the subjects had below average knowledge regarding prevention of bed sores. The study was give motivation to the researcher to conduct the same study with different variables on a large scale.

Recommendations-

Based on the findings the following recommendations are offererd for future research—

- A similar study acn be conducted at State and National level for better generlization.
- The study can be replicated on a large sample to validate and generliazed the findings.
- The study can be conducted on different subjects

and in different settings.

A study can be conducted to assess the knowledge, attitude and practice.

Ethical Clearance- Taken from ethical committee of Army College of Nursing , Jalandhar Cantt.

Source of Funding- Self

Conflict of Interest - nil

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