

## EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING DECUBITUS ULCER AND ITS PREVENTION AMONG STAFF NURSES IN A SELECTED HOSPITALS OF ROHTAK

### Nursing

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### ABSTRACT

Decubitus ulcers, also known as Pressure ulcers (bed sores), are localized skin trauma caused by more pressure on the pressure points that affecting approximately 3 million adults<sup>1</sup>. Skin hygiene is important aspect of pressure area care. The skin should be free from any soiling or moisture. The use of alkaline product should be avoided to maintain balance PH of the skin (Prakash et al, 2008)<sup>10</sup>. Decubitus ulcer are the serious health problem for the patient in all types of settings. Incident of decubitus ulcer differ from 0.4 to 38 % in big hospitals, 2.2 to 23.9% in long term care and 0 to 17% in home care settings<sup>1</sup>. The objective of the present study is to assess the effectiveness of self-instructional module regarding prevention of decubitus ulcer among staff nurses. The researcher accommodate a pre-experimental design. Administrative permission taken from selected hospital and the sample were selected after obtaining their consent. Convenient sampling technique were used and 50 samples covered in this study. Self-instruction module was used as intervention for pre-experimental group. After 7 days post-test was held in selected hospitals in Rohtak. The result were calculated and finding shows that there was statistical significant ( $P < 0.05$ ) reduction in mean score of knowledge regarding decubitus ulcer and its prevention among the sample from pre-intervention to post test. The conclusion that addition of self-instructional module can be useful in prevention of decubitus ulcer.

### KEYWORDS

Decubitus Ulcer, Self-instructional Module, Staff Nurse, Prevention.

### INTRODUCTION:

Prevention is better than cure, Decubitus ulcer is outcome of adverse care that should never be occur in clinical practise and it is also indicate that quality of nursing care is poor so prevention of decubitus ulcer should be in priority for nurses, health care professional and all care giver<sup>7</sup>. Decubitus ulcer patients have high mortality rate reported 22% (Ueda et. al. 1990). Mortality amongst elderly population was reported 68.8% with NPUAP stage 3 and stage 4 (kuwahara et. al. 2005).

Blood flow is essential for transportation of oxygen and nutrients to tissue if there is no proper supply of these nutrients, skin and nearby muscular are destroyed and might be die and formation of decubitus ulcer<sup>3</sup>. Different points in the body have different prevalence of decubitus ulcer. This variation is due to different degree of pressure on different points in common posture. Another reason is that soft tissue amount between skin and bony prominences sacrum trochanters are less in soft tissues covering. The skin directly cushions these pressure points with little weight of soft tissue so risk of ulceration is high in this region compared to other body parts<sup>6</sup>.

Decubitus ulcer expected over bony prominences where more likely to compress tissue when the patient is in contact with hard surface for a long time<sup>7</sup>. Massively (80%) decubitus ulcer occur over the heel, lateral malleoli, sacrum, ischia and greater trochanters<sup>3</sup>. Formation of pressure ulcer duration depends upon many factors like patient physiology, intensity of pressure and shear force placed on muscles<sup>1</sup>. The patient who are at most risk of decubitus ulcer that limit their ability to change position and spend their most of time on bed and chair. Decubitus ulcer prevention is a core part of nursing care and knowledge of proper way of prevention is important<sup>4</sup>. Care giver always remember some suggestion to prevent decubitus ulcer formation like keep skin clean and dry, protect the skin (by using moisture barrier cream) and inspect the skin daily to assess the warning sign of decubitus ulcer<sup>3</sup>.

### OBJECTIVE OF THE STUDY:

- To Assess the Knowledge of staff Nurses regarding decubitus ulcer and its prevention before and after administering the SIM.
- To determine the effectiveness of self-instructional module regarding decubitus ulcer and its prevention in terms of gain in knowledge among staff nurses.
- To associate the findings with selected socio demographic variables.

### MATERIAL AND METHODS:

A pre-experimental study was conducted in Govt. hospitals, of Rohtak. Purposively sample were recruited and fifty subject were included in this study. The knowledge of the sample was assessed by using

knowledge questionnaires. The data was collected in selected hospitals based on the inclusive criteria subject were recruited in the study. After obtaining written consent from the subject, pre-test was conducted. The self-instructional module was given to the subject. It is instructed to subject to read the self-instructional module and after one week post-test was taken. Descriptive and inferential statistics have been used for facts evaluation. The hypothesis were set at 0.05 level of significance.

**Validity-** "The extent to which measure adequately represents the underlying construct that is supposed to measure" called validity<sup>11</sup> (Drost 2011). The content validity of tool was established from nine experts in the field of medical surgical nursing and doctors. Few suggestion were given by the experts and tool modified according to their suggestions and recommendations.

**Reliability-** "the extent to which measurement are repeatable when different people perform the measurement on different occasion, under different condition supposedly with alternative instruments which measure the construct or skill" called reliability<sup>11</sup> (Drost 2011). Correlation of test was found by using Karl 9

### Finding Section I:

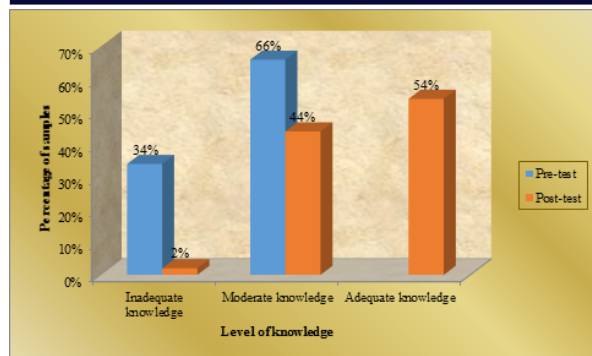
Socio-demographic profile of the participants

Age wise distribution of samples reveal that majority of sample belong to the age group of 20-30 year (54%) than the other age groups like 31-40 year (24%), 41-50yrs (18%) and 51 and above age group 4% respectively. Gender wise distribution of samples reveal that the majority of staff nurses were female 68% than male were 32%. Distribution of samples on the professional qualification show the majority were GNM 46%, 38% of them B.sc Nursing, 16% were Post basic.B.sc nursing. Distribution of samples on the basis of experience 0-10yr (54%), 11-20yr (38%) 21-30 (8%). Area of working wise distribution of sample reveals that 32% belong to surgery 28% belongs to Medicine 34% belongs to orthopaedic ward, rest of the 6% were from any other ward.

### Section II

Knowledge Questionnaires regarding Decubitus ulcer and its preventions. It contains 30 questions which were divided as

- Terminology- 03 Items
- Introduction- 02 Items
- Definition- 03 Items
- Classification- 03 Items
- Etiology- 02 Items
- Assessment - 03 Items
- Treatment - 06 Items
- Prevention- 08 Items



**Figure 1:** Bar diagram showing percentage distribution of the sample according to the pre-test and post-test level of knowledge.

**Table 1:** Range, mean, median, standard deviation and mean percentage of pre-test and post-test knowledge of staff nurses.

N=50

|           | Obtained range | Mean  | Median | Standard deviation | Mean % |
|-----------|----------------|-------|--------|--------------------|--------|
| Pre-test  | 11-21          | 16.64 | 16     | 2.75               | 55.47  |
| Post-test | 15-26          | 22.24 | 23     | 2.61               | 74.13  |

Table 1 shows the Range, Mean, Median, Standard deviation regarding pre-test and post-test for staff nurses.

**Table 2:** Mean, mean difference, SD and 't' value of pre-test and post-test knowledge scores.

N=50

| Area           | Pre-test |                    | Post-test |                    | Mean difference | 't' value |
|----------------|----------|--------------------|-----------|--------------------|-----------------|-----------|
|                | Mean     | Standard deviation | Mean      | Standard deviation |                 |           |
| Terminology    | 1.22     | 0.84               | 1.82      | 0.85               | 0.6             | 5.25*     |
| Introduction   | 1.22     | 0.71               | 1.64      | 0.60               | 0.42            | 5.168*    |
| Definition     | 1.96     | 0.88               | 2.28      | 0.76               | 0.32            | 3.466*    |
| Classification | 1.46     | 0.95               | 2.20      | 0.88               | 0.84            | 8.269*    |
| Etiology       | 1.44     | 0.61               | 1.80      | 0.4                | 0.36            | 4.846*    |
| Assessment     | 1.12     | 0.69               | 1.56      | 0.61               | 0.49            | 5.088*    |
| Treatment      | 2.98     | 1.45               | 4.26      | 1.2                | 1.28            | 5.830*    |
| Prevention     | 4.72     | 1.23               | 5.92      | 1.24               | 1.2             | 7.31*     |

t49 = 1.677, p<0.05

\* = Significant

Table 2 the above data depicts that there is a high gain knowledge score in all content areas of Terminology, introduction, definition, classification, etiology, assessment, treatment, and prevention at post-test knowledge score than pre-test score.

## DISCUSSION AND RESULT:

In this study the mean value 40.67% in pre-test was increased the mean value 60.67% in post-test. The paired t-test was calculated to find out the significance of difference between two means. It indicates that self-instructional module became a powerful tool in increased knowledge of staff nurses regarding decubitus ulcer and its prevention. A significant difference was observed between the mean pre-test and post-test knowledge scores of staff nurses regarding Decubitus ulcer (t49 = 1.677, P < 0.05). So hypothesis was accepted.

I. Mesiya Femina, 2015 carried out to observe the effectiveness of intervention (video assisted teaching) for increased knowledge among care givers. The post-test mean score was high (25.5) when compared with pre-test mean score (11.8) of knowledge. Computed 't' value is more than tabulated value at 0.05 level of significance. It shows that research hypothesis was accepted and significant improvement in knowledge regarding decubitus ulcer and its prevention after administering intervention and show no association between socio demographic.

Pakhide, Vandana (2013) carried out to observe the effectiveness of self-instructional module regarding prevention of pressure ulcer. There was significant relation found between structured teaching programme and knowledge level on prevention of pressure ulcer by using Braden scale.<sup>12</sup>

Ms. Lissa, Ms. Saraswathi K.N., Mrs. Munirathanama K. according to their study in post-test most of them 54 (90%) had adequate knowledge, and 6 (10%) moderate knowledge regarding management of pressure sore. Obtained 't' test value 29.94, was highly significant at 5% level (P < 0.05). It shows that the structured teaching programme was effective.<sup>8</sup>

Shareful Islam, 2009. A study was done at Rajshahi Medical College Hospital in Bangladesh to examine the nurse's knowledge, attitude and practice regarding prevention of decubitus ulcer in Bangladesh. Relationship between nurse's knowledge, attitude and practice also examined regarding decubitus ulcer prevention. The findings of research develop positive attitudes and to increase their knowledge of decubitus ulcer prevention in order to improve nursing practice.

S. Venkata Lakshmi, 2005, executed to see effectiveness of structured teaching programme in terms of knowledge among staff nurses. Paired 't' test was computed in order to find the significance of difference between pre-test and post-test knowledge scores.

## CONCLUSION:

The findings of the study revealed that majority of the staff nurses have moderate knowledge in pre-test (66%) and adequate knowledge (54%) in post-test on prevention of decubitus ulcer. To create awareness regarding preventive measures of bed sores among staff nurses the self-instructional module was found to be an effective method to improve their knowledge and skills. It is found that SIM was effective in providing information and refining their knowledge and practice.

## IMPLICATION:

### Nursing service:

The findings of the study will help the nursing professional to improve their practice, nursing education, nursing research and administration.

### Nursing education:

Nursing is service to mankind. Service needs an excellent knowledge and comprehensive skill which helps to impart knowledge to others in prevention of decubitus ulcer is a negligence part health professionals. Nurse's responsibility and one of the most important roles is nurse as an Educator. So as a staff nurse has to recognize the clients, better assessment and adequate knowledge to them in a better way as much as possible.

### Nursing research:-

The study has great implications on the need of nursing research in the area of health teaching of SIM for prevention aspects.

## RECOMMENDATIONS:

The study can be taken on a large sample, thereby findings can be generalized for a larger population.

The study can be conducted on the basis of assessing knowledge, attitude and practice.

The same study can be conducted to assess the effectiveness of SIM using different teaching methods, video cassette methods etc.

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