

# Effectiveness of Individual Planned Teaching Programme (PTP) to the Caregivers on Prevention of Pressure Sores among Caregivers of Immobilised Patients

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**Abstract:** Pressure sores are preventable. The adage “prevention is better than cure” holds good if proper care is given to the patients who are at a risk of developing pressure sores. Family members play a major role in preventing pressure sores. Education is a vital component in the care of immobilised patients. Education will make the patient as independent as possible so as to make intelligent decision about his/her care, to prevent complications, and to decrease anxiety. An evaluative research approach with one group pre-test post-test design was used and the study was conducted at Government Wenlock Hospital, Mangalore. The sampling technique used was purposive sampling. Sample consisted of 30 care givers of immobilized patients. Data was collected using the structured interview schedule, structured observation checklist, and Modified Skin assessment checklist to observe the skin of immobilised patients for the development of pressure. The main findings showed that there was difference in the mean pre-test and post-test knowledge scores (24.4% and 15.1%) and mean pre-test and post-test ability scores (27.7% and 11.4%). The mean difference between the post-test and pre-test knowledge scores of caregivers regarding prevention of pressure sores was found to be highly significant ( $t_{29}=3.94, p<0.05$ ). The mean difference between the post-test and pre-test ability scores of caregivers regarding prevention of pressure sores was found to be highly significant ( $t_{29}=24.4, p<0.05$ ). Findings of the study indicated that Individual planned teaching was effective in prevention of pressure sores among caregivers of immobilised patients.

**Keywords:** Immobilised patients; pressure sores; back massage; individual planned teaching programme; caregivers

## 1. Introduction

To be healthy means the individual should lead a socially and economically productive life. Health is adversely affected by certain disorders. Some disorders make persons confined to bed. The persons who are confined to bed are at risk for development of pressure sores, which can be life threatening. Pressure ulcers are a common health problem in hospitals, nursing homes as well as in home care settings. The incidence of pressure ulcer is estimated to be 11% in skilled care and nursing homes, 10% in acute care, and 4.4% in home care. The National Pressure Ulcer Advisory Panel (NPUAP) estimates that prevalence of pressure ulcers in acute care is 15% and incidence is 7%.

Pressure sores are preventable. The adage “prevention is better than cure” holds good if proper care is given to the patients who are at a risk of developing pressure sores. Family members play a major role in preventing pressure sores. Education is a vital component in the care of immobilised patients. Education will make the patient as independent as possible so as to make intelligent decision about his/her care, to prevent complications, and to decrease anxiety.

A study was conducted in Poland to assess the knowledge regarding prevention of bed sores among 50 female student nurses in various health service units using a questionnaire. The findings revealed that majority of students (68%) did not take part in bed sores prevention courses. Their knowledge (50%) was based on the classes they had, and self-education. Many hospitals (50%) which employed the

students did not implement bed sores prevention standards and (50%) did not create bed sores prevention team

A comparative study was conducted to assess the impact of specialised nursing care protocol on the reduction of pressure sores in 50 bedridden orthopaedic patients in Punjab. The investigator carried out continuous observation and intervention in experimental group using specialised nursing care protocol for two months in three shifts, whereas control group was given routine nursing care. The findings showed that in experimental group, pressure sores reduction from 76% to 64%, whereas in control group, it was 56% which further enhanced to 92%.<sup>8</sup>

The investigator during her clinical posting came across the caregivers who had very limited knowledge regarding the care of immobilised patients and on prevention of pressure sores. The investigator also found that there were patients prone to get pressure sores which could be prevented if proper information and care were given to patients and their caregivers. Therefore, the investigator felt the need to conduct individual planned teaching programme to the caregivers on prevention of pressure sores among immobilised patients.

## 2. Literature Survey

Review of literature is an important step in the development of a research project. It involves systematic identification, location, scrutiny, and summary of written material that contains information on research problems.

**Literature related to prevalence of pressure sores:**

A cross-sectional study was conducted in Sweden to assess the risk, prevalence, and prevention of pressure sores in three Swedish healthcare settings. A total of 695 patients were included; 612 from university hospital, 38 from general hospital and 45 from nursing homes. The results showed that the prevalence of pressure sore was 29.3 % in the university hospital, 13.2% in the general hospital, and 20.0% in the nursing home. Most (60-66%) of the pressure ulcers in the hospital were assessed as Grade 1.

**Literature related to participation of family members in patient care**

A descriptive study was conducted to analyse the level of participation of family members in the care of immobilised patients from orthopaedic wards of St. John's Medical College Hospital, Bangalore. The data was obtained from 30 caregivers of 30 immobilised patients who were selected by purposive sampling technique. Data was collected using structured interview schedule and observation rating scale. The findings showed that the overall participation of family members was (22.8%) and that there was need for organising an educational programme which aimed at teaching family members the basic procedure and nurses could make use of them in providing comprehensive care to the patients.

**Literature related to effectiveness of planned teaching programme**

An evaluatory study was conducted in Mangalore on the effectiveness of an individual planned teaching programme among 30 caregivers on the prevention of pressure sore in bedridden patients. A pre-experimental approach with one group pre-test post-test design was used; and data was collected by using structured knowledge questionnaire and an observation checklist. The findings revealed that the mean difference between post test knowledge scores and pre test knowledge scores of care givers was significant 't' = 27.67;  $p \leq 0.05$  and the mean difference between post test and pre test ability scores was found to be significant 't' = 25.54;  $p \leq 0.05$ .

**3. Methods / Approach**

A study was done to evaluate the effectiveness of IPT to the caregivers of immobilised patients on prevention of pressure sores. Quasi experimental one group pre-test post-test design was used for the study. A written permission was obtained from the District Surgeon and Superintendent of Government Wenlock Hospital prior to the study.

The data was collected from 11.08.10- 8.09.10. Prior to data collection, the investigator familiarised herself with the subjects and the purpose of the study was explained to caregivers. She requested the participants' full cooperation and assured them confidentiality of their responses. Informed consent was obtained from the subjects. Each subject was then made to sit on the bedside chair comfortably. The investigator sat opposite facing the subject. Once the subject was at ease and comfortable, the structured interview schedule was administered after giving the necessary instructions.

The average time taken to complete the interview schedule was 20 minutes, 45 minutes for IPT, 15 minutes for demonstration, and 20 minutes for return demonstration. On the first day, the pre-test was conducted using a structured interview schedule, a structured observation checklist, and modified skin assessment checklist to observe the skin of immobilised patients for the signs of pressure sores before IPT. The individual teaching programme was given with the help of flash cards, PowerPoint presentation, and demonstration of back massage, changing of draw sheet and position for 15 minutes. The post-test was conducted after two hours for assessing the ability by return demonstration of back massage, changing of draw sheet and position. Then a checklist was given to place a tick mark after doing the procedure every two hours up to the fifth day. On the third day, modified skin assessment checklist was used to observe the skin of immobilised patients for sign of development of pressure sore. Post-test was conducted on the fifth day for assessing the knowledge by administration of structured interview schedule. Modified skin assessment checklist was also used to observe the skin of immobilised patients on the fifth day for the development of pressure sore. The data collected was compiled for data analysis.

**4. Description of the Tool**

The final tools used in this study were:

Section I: Baseline proforma – It consisted of 14 items

Section II: Structured interview schedule on assessment of the knowledge regarding prevention of pressure sores among caregivers of immobilised patients.

The structured interview schedule on knowledge items was 28. The items were multiple choice type with one correct answer. Each correct answer had a weight age of one score and the maximum score was 28. The investigator will place a tick mark (✓) for the response given by the caregivers against the column provided.

Section III: Structured observation checklist to assess the ability of the caregivers of immobilised patients in performing activities to prevent the development of pressure sores. The tool consisted of 3 areas with 30 items.

- 1) Changing of position
- 2) Providing back massage
- 3) Changing of draw sheet

The observation was marked under two headings, "done" and "not done". Each item was given one score if it was under the heading done. The total items were 30.

Section IV: Modified skin assessment checklist to observe the skin for signs of pressure sores in immobilised patients.

**5. Results**

Descriptive and inferential statistics was used for analysis. The analysis was carried out on the basis of objectives and hypothesis of the study. The pre-test and post-test knowledge scores ranged from 10-24 and 20-28, respectively). Figure 1 shows that the pre-test knowledge scores of most of the subjects was (57%) average whereas

the post-test knowledge of majority of the subjects was excellent (80%).

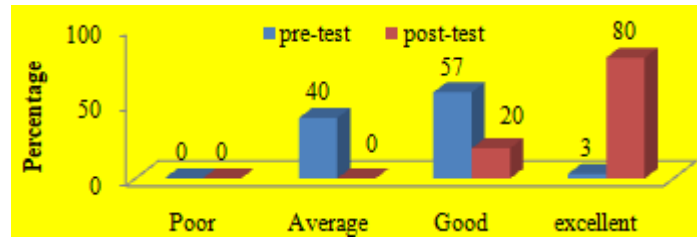


Figure 1: Distribution of caregivers according to grading of knowledge score

The mean post-test ability scores (24.3) was higher than the mean pre-test knowledge scores (15.1) and the mean post-

test ability scores (11.4).

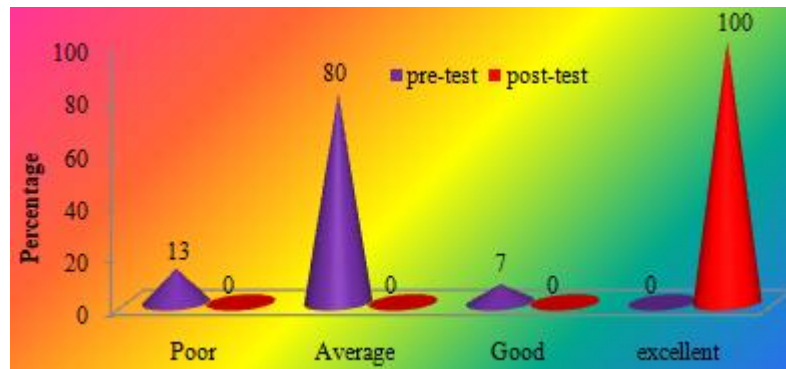


Figure 2: Distribution of caregivers according to the grading of ability scores

Figure 2 shows that all caregivers attained excellent skill in the post-test, whereas in the pre-test more than half (80%) of the caregivers had average skill; 13% had poor skill; and 7% had good skill. The 't' value computed ( $t_{29}=3.94$ ;  $P<0.05$ ) showed a significant difference suggesting that the planned teaching programme was effective in increasing the knowledge of caregiver. For ability the calculated 't' value ( $t_{29}=24.4$ ,  $P<0.05$ ) was greater than the table value ( $t_{29}=2.045$ ) at 5% level showing a significant difference suggesting the IPT was effective in improving the ability of caregivers regarding prevention of pressure sores. Chi square were computed to find out the association between pre-test knowledge score and selected demographic variables and pre-test ability scores and selected demographic variables. No association was found between pre-test knowledge and ability scores and selected demographic variables.

## 6. Discussion

In this study majority of the subjects (80%) had excellent knowledge score (75-100%) in the post-test as compared to pre-test (57%) scores where they had good knowledge (50-75%). The mean post-test knowledge score (24.4%) was higher than mean pre-test knowledge score (15.1%). The study findings are consistent with the other study where the post-test knowledge score was (22.93) was higher than the mean pre-test score (13.78). The study findings conclude that caregivers had inadequate knowledge regarding prevention of pressure sores.

In this study all the subjects (100%) had excellent skill in the post-test as compared to pre-test (80%) had average skill. The mean post-test ability score (27.7%) was higher than

mean pre-test ability score (11.4%). The study findings were consistent with another study where the mean percentage pre-test ability scores of the subjects was maximum (52%) in the area of providing back care and back massage and minimum (19%) in the area of changing the draw sheet.

## 7. Conclusion

This chapter has shown that planned teaching programme prepared by the investigator was effective in improving the knowledge of caregivers. Research like this should be encouraged and continued so that public is made aware of their role in the care of patients. Many problems can be minimised or prevented if people are educated.

## 8. Future Scope

### Suggestions

- A health education department could be organised in the hospital so that health teaching and in-service education programmes can be conducted on regular basis.
- Caregivers of the patients could be involved in patient care.
- Periodic follow-up of caregivers should be conducted to assess whether they are making use of the knowledge and ability regarding prevention of pressure sores.

### Limitations

- 1) Small number of subjects (30) and the sampling technique (purposive sampling technique) used to conduct the study restricts the generalisation of the results.

- 2) The study lacked control group that did not receive any specific teaching to allow testing for an increase in caregivers' knowledge without the use of IPT.
- 3) Only those caregivers who were able to communicate in Kannada were included in the study.
- 4) Generalisations can be done only for the caregivers of a particular hospital, since only one hospital was selected for the study

preventive interventions. *Journal Wound Care* 2002 Aug;113(2):201-8

- [15] Bergstorm N, Braden BJ, Kemp M, Champagn M, Ruby E. Predicting pressure ulcer risk: a multisite study of the predictive validity of Braden scale. *Nursing Research* 1998 Jan;47(5):267-82.
- [16] John M. Knowledge about prevention of Pressure ulcer among nurses. *Nightingale Nursing Times* 2010 Jan;5(10):51-3.

## References

- [1] Catania K, James P, Moran M. PUPPI The Pressure Ulcer Prevention Protocol Interventions. *American Journal of Nursing* 2007 Apr; 107(4):44-49.
- [2] Pressure Ulcers: Treatment [Online]. 2008 Nov6 [cited 2010 Aug 21]; Available from: URL:<http://www.nursing reference center.org/>
- [3] Souza. Jane Lathe D. Prevention of pressure sore. *Nursing Journal of India* 2009Aug; 10(8):8-11.
- [4] Baumgarten et al. Pressure ulcer among elderly patients in the hospital stay. *JnGerontol A Biol Sci [serial online]* 2006 Jul; 61(7) [cited 2010 Aug 25]; 158(17):[749-54]. Available from:pubmed: <http://www/pubmed/EID/eid.htm>
- [5] Smith CE. Overview of patients' education opportunities and challenges for the 21<sup>st</sup> century. *Nursing Clinics of North America* 1989 Aug;24(9):584-5.
- [6] Dawn A, Bailery, Dealy G. How are you supporting your patients? *Professional Nurse* 1990;206-16.
- [7] N Bergstrom, B Braden, M Kemp, M Champagne, E Ruby. Prevalence of pressure sore in acute care hospitals and community hospitals. *J Am Geriatric Soc [serial online]* 1996 Jan; 44(1) [cited 2010 Aug 25]: [22-30]. Available from: pubmed: <http://www/pubmed/EID/eid.htm>
- [8] Thesis D. A comparative study to assess the impact of specialised nursing care protocol on reduction of pressure sore. *Nightingale Nursing Times* 2002 Feb; 123(8):22-25.
- [9] Polit DF, Hungler BP. *Nursing research principles and methods*. Philadelphia: J. B. Lippincott Company; 2000.
- [10] Marriner A. *Nursing Theorists and their work*. Toronto: The C. V. Mosby Company; 1998.
- [11] Bergstrom N, Braden B, Kemp M, Champagne M, Ruby E. Multisite incidence of pressure ulcers and relationship between Risk level and demographic characteristics, diagnosis and prescription of preventive intervention. *Journal of American Geriatric Society* 1996 Jan;44(1):22-30.
- [12] Gunningburg R, Lendholm, Carlson M, Sjoden PU. Implementation of risk assessment and classification of pressure sores ulcers as quality indicators for patient with hip fractures. *Journal of Clinical Nursing* 1999 May;8(4):396-406.
- [13] Gunningberg L. Risk, prevalence and prevention of pressure sores in three care settings. *Journal Wound Care* 2004 Jul;13(7):286-90
- [14] Sangunaria. Incidence of pressure ulcers and the relationship between risk level and demographic characteristics, diagnosis and prescription of

## Author Profile



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