

Effect of Education Intervention on Knowledge and Practice on Sskin Care Bundle Pressure Ulcer Prevention

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Abstract

The present study assessed the effect of educational intervention on knowledge and practice of caregivers regarding prevention of pressure ulcer among elderly patients admitted in the selected Hospital Thiruvalla. The objectives were to determine the effect of STP regarding prevention of pressure ulcer among care givers of elderly patients by comparing the pre test and post test knowledge and practice scores with selected socio demographic variables. The study was conducted using the pre experimental one group pre test and post test design . The conceptual frame work was based on Roy's adaptation model . The investigator selected 40 samples by convenient sampling . During the pre test investigator assessed the knowledge and practice on prevention of pressure ulcer . The same day itself , the investigator administered STP , After seven days ,post test was conducted using same tool . During the pre test 5% had poor knowledge , 60% of the samples had average knowledge and 35 % had good knowledge . After the STP 90 % of the samples attained good knowledge and 10 % achieved average knowledge . Paired 't' test was done and it was found that there is significant improvement in knowledge and practice ($t=20.641, t=17.588$) . The study concluded that STP is one of the effective teaching method to educate caregivers regarding SSKIN care bundle pressure ulcer prevention.

Keywords: *structured teaching programme, knowledge , practice , elderly patients , care givers , SSKIN Care bundle pressure ulcer prevention*

Background of the Study

Pressure ulcer also known as pressure sore, bedsore and decubitus ulcer are localized damage to the skin or underlying tissues that usually occur over a bony prominence as a result of pressure or 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, back of the shoulders or the back of the cranium can be affected¹. Pressure sore is a significant problem because it occurs in every health care setting such as hospitals and home. According to the CDC (Centers for Disease control) pressure sores affect the health of nearly 1 million populations every year in the United States. Elderly people are at risk of pressure ulcer due to the reduced skin elasticity. The increasing populations of elderly adults managing chronic health conditions are at risk of pressure sore development. According to the U.S National Institute of Aging report 2008, the number of

people older than 65 will be 1.4 billion in 2040². Elderly people are commonly affected with conditions like stroke, fracture and complications of diabetes.

A descriptive study conducted among 104 elderly bedridden patients of Mavoor Panchayat Kozhikode district of Kerala in 2012 reported that 27% patients suffered from cerebro vascular accident, 8.7% with coronary artery disease, 8% with fracture and 6% with complication of diabetes³. In a cross sectional study with the objective to assess the patterns of care provision in the year 2011 conducted among 100 bedridden patients and care givers majority (82 %) of care givers was untrained. Only 57% of patients had reported satisfaction with care provided and complications like urinary tract infection and pressure ulcer were reported. Thus the study concluded that bed ridden patients have high risk and rate for developing medical complication for which formal training is needed for care givers⁴. An interventional study was conducted in various wards of

Kasthurbha hospital, Manipal to assess the effectiveness of planned teaching program on knowledge and skills in providing back care among care givers of bedridden patients. The study design was one group pre - test and posttest and 30 samples were collected by purposive sampling technique. The result of the study showed that there was a significant difference (that is $t=16.49$) in the pre and post - test knowledge scores of care givers of bedridden patients who had under gone planned teaching program .The study has concluded that the planned teaching program benefited for care givers with regard to gain in knowledge and skills in back care of immobilized patients.⁵

Pressure ulcers leads to the decreased quality of life for patients and high cost for health care. . The SSKIN care bundle was first implemented in Scotland in 2013⁶. According to Institute for health care improvement 2011, a bundle of care is defined as a structured way of improving processes of care and significantly improving patient's outcome. SSKIN care bundle is essential in the prevention of pressure ulcers and should be implemented for every patient at risk to achieve the elimination of avoidable pressure ulcers. The SSKIN care bundle acronym represents the five essential elements of pressure ulcer prevention.

S -Support Surface: A specialized device for pressure redistribution designed for management of tissue loads, micro- climate or other therapeutic functions (integrated bed system, mattress replacement overlay or seat cushion).

S -Skin: Early visual inspection of skin with a focus on early detection and prevention of breakdown by early intervention of pressure relieving regimes, cleansing, moisturizing and skin barrier protection.

K- Keep turning position :The positioning of the body once every 2 hour on standard foam mattresses and once every 4 hour on pressure redistribution mattress to minimize pressure and to prevent pressure ulcer.

I – Incontinence associated dermatitis : To reduce the frequency of fecal skin contamination, proper incontinence management is very essential which includes toilet training ,application of moisture barrier ointment, maintain linen clean and dry, maintain skin folds clean and dry.

N – Nutrition: Maintaining the nutritional status of the patients by proper dietary intake rich in high protein, calories and by maintaining hydration status of patients every 2 hour. Care givers play an important role in providing care to the elderly people .They are the one who will be with patient every time than physicians and nurses care giving is a difficult job and many care givers shows psychological stress and declain in physical and mental health .⁷Educational program are essential for improving the knowledge of care givers A pre experimental study was conducted on effect of educational program on prevention and management for pressure ulcer among 80 care givers of the bed ridden patient's admitted in E.L- Walfa Medical Rehabilitation Hospital, Palastine in 2015 reported that the performance of the care givers has significantly improved after the program .⁸

Statement of the problem - Effect of education intervention on knowledge and practice on SSKIN care bundle pressure ulcer prevention among care givers of elderly patients admitted in selected hospital Tiruvalla.

Objectives

- 1) Determine the effect of structured teaching program among care givers of elderly patients regarding SSKIN care bundle pressure ulcer prevention by comparing the pre-test and post-test knowledge and practice scores
- 2) Find the association between pre-test knowledge and practice scores with selected socio demographic variables.

Research Hypothesis

H_1 : There will be significant difference between pre test and post test knowledge and practice scores among caregivers of elderly patients regarding SSKIN care bundle.

Null Hypothesis

H_0 : There will not be significant difference between pre test and post test knowledge and practice scores among caregivers of elderly patients regarding SSKIN care bundle.

Materials and Methods

The conceptual framework used for the present study is based on Sr. Calista Roy's theory of adaptation. The research approach adopted is Quantitative. Pre-experimental one group pre-test post test design was used to assess the effect of education intervention on knowledge and practice on SSKIN care bundle pressure ulcer prevention among care givers of elderly patients admitted in selected hospital, Thiruvalla.

A pre experimental one group pre test post test design was chosen for this study

O1----- X -----O2

O1: Pre-test

X: Structured teaching programme

O2: Post test

The independent variables included in study are structured teaching programme and dependent variable is knowledge of SSKIN care bundle pressure ulcer prevention among care givers. After extensive review of literature a self-structured questionnaire and practice check list was prepared to assess the knowledge and practice of SSKIN care bundle pressure ulcer prevention among care givers. The tool was given for validity to experts. As per their guidance amendments were made. Structured teaching programme was prepared for giving teaching on SSKIN bundle pressure ulcer prevention.

The tool was framed into two parts.

Section A

Socio demographic variable which includes age, gender, religion, education, occupation, dietary pattern of both elderly patients and care givers.

Section B

Structured knowledge questionnaire of 25 questions to assess the knowledge of care givers on definition , risk factors , common sites ,stages of pressure ulcer and SSKIN care bundle pressure ulcer prevention . Each correct answer will given one mark, wrong and unanswered questions scored zero. The maximum scores of the items were 25 and minimum score. The scores are categorized as follows:

Sample's level of knowledge

Level of Knowledge	Score Range
0 – 8	Poor
9 – 17	Average
18 – 25	Good

Structured teaching programme

A Structured teaching programme regarding prevention of pressure ulcer among care givers of elderly patients was prepared by the investigator. Suitable pictorial and video graphic representations were included. Total duration was 45 minutes which includes definition, risk factors, stages and prevention (support surface, skin care, keep the turning position, incontinence management, and nutrition)

Practical scores

A two point practice sheet consists of 20 items to assess the practice of care givers about prevention of pressure ulcer. This section includes 10 negatives and 10 positives statements. The total scores of each questions was one. The total score was 20.

The study was conducted in the selected hospital of Thiruvalla. The total of 40 caregivers was comprised of the sample of the study. The convenient sampling technique was used for the selection of the sample. Study approval was taken from ethical committee of selected Hospital. Informed written consent had been taken from the study subjects. Pretest knowledge was assessed by giving structured knowledge questionnaire and practice check list. After 7 days of teaching post test was taken to assess the effectiveness of tool.

Findings of Study

The analysis of data was done in accordance with objectives of the study. Analysis was done in the following sections

Section 1: Sample characteristics

Section 2: Effect of structured teaching among care givers

Section 3: Association between pre-test knowledge, practice score with selected demographic variables

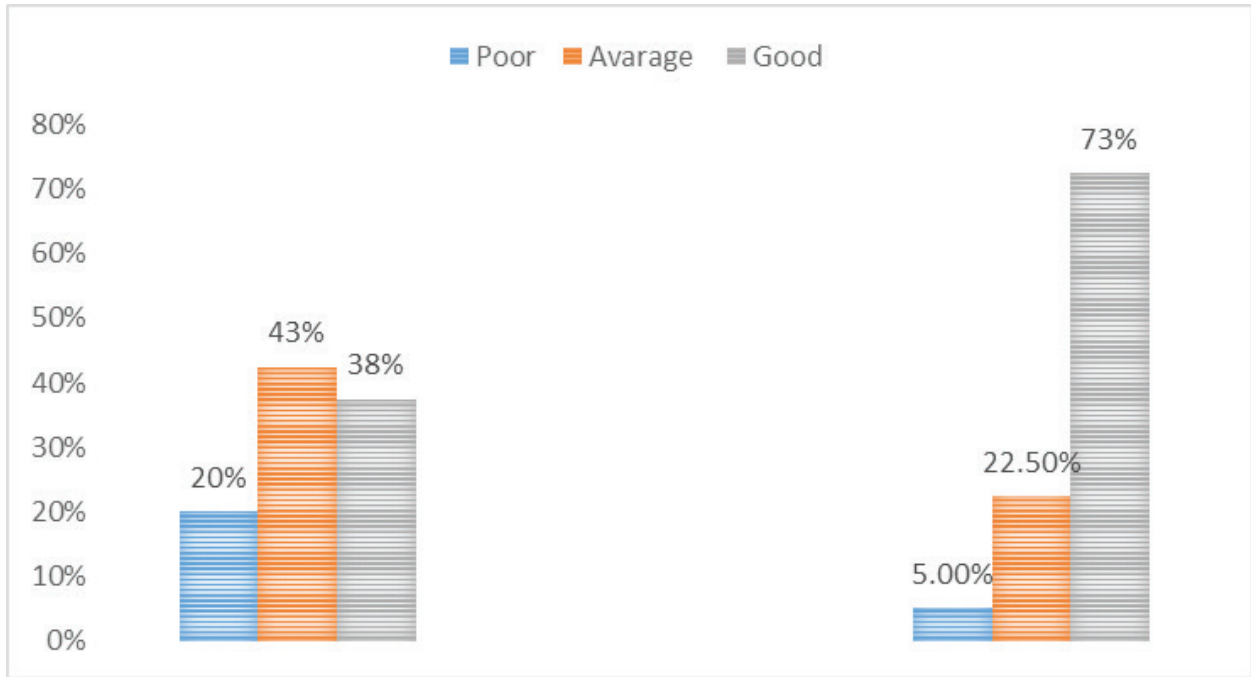


Figure 1: Comparison between pre-test and post –test knowledge score of care giver

Above data shows that in pre –test, 20% had poor knowledge , 43% had average knowledge and 38% had good knowledge regarding pressure ulcer prevention . Where as , after the structured teaching programme 73 % had good knowledge.

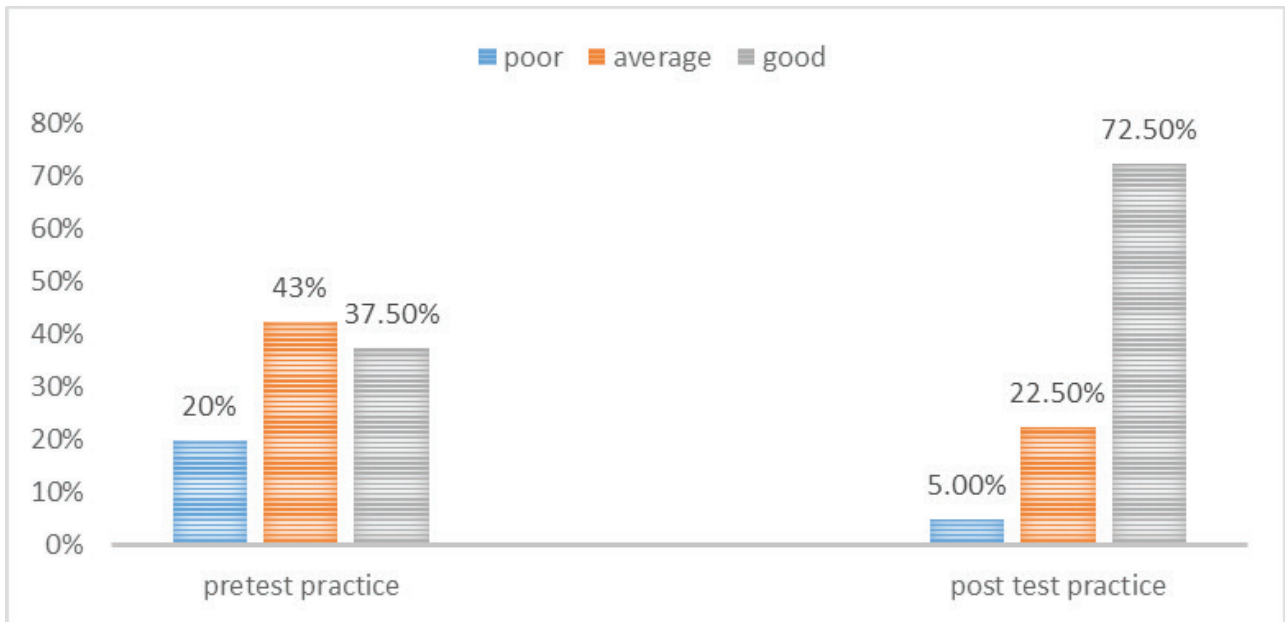


Figure 2: Comparison between Pre –test and post – test practice score of care givers

Above figure shows that in the pre-test 20% of care givers had poor practice , 43% had average practice and 37.5% had good practice , in the post – test 72.5% had good practice, 22.5 % had average practice and 5% had poor practice regarding pressure ulcer prevention.

Table 1: Effectiveness of STP on Knowledge regarding prevention of pressure sore

Knowledge score	Mean	Mean Difference	SD	t
Pre test	11.5		2.541	
		9.050		20.641
Post-test	20.63		2.121	

Above table shows that after the structured teaching programme, there was significant improvement in knowledge score of care givers regarding pressure sore prevention. The calculated t value 20.641 which significant at 0.05 level with df (59) is greater than tabulated value . Hence research hypothesis H1 regarding knowledge is accepted.

Table 2: Effectiveness of STP on practice regarding prevention of pressure ulcer among elderly patients.

Practice score	Mean	Mean Difference	SD	t
Pre test	16.33		2.433	
		9.925		17.588
Post-test	6.40		2.32	

Above table shows that the structured teaching programmes, there was significant improvement in the practice score of care givers regarding pressure sore prevention. The calculated 't' value 17.588 which is significant at 0.05 level with df (59) is greater than the tabulated value.Hence research hypothesis H1 regarding practice is accepted

Conclusion

The structured teaching programme helped the subjects to learn more about prevention of SSKIN care bundle pressure ulcer prevention , which was evident in the mean post test knowledge score and practice and the structured teaching programme proved to be one of the effective teaching methods of the information transmission . It was well accepted and appreciated by subjects .

Ethical Clearance – Taken from Ethical committee of selected hospital

Source of Funding –Self

Conflict of Interest - Nil

References

1. International journal of nursing science, Volume 2, issue 4 , December 2015, Page no : 340 – 347. <http://dx.doi.org/10.1016/j.ijnss.2015.10.008>
2. Vithal P. Home nursing . Vora medical publications 1sted. 2003.
3. Thayyil J, Cherumanalil JM. Assessment of status of patient's receiving palliative home care and services provided in a rural area ,Kerala , Indian J palliate care 2012;18:213;Available from <http://www.jpalliativecare.com/text.asp>
4. Bains P , Minhas AS . Care giving to bedridden patients in India . Indian journal J community med .2011;36(4):312 available from www.HomeBasedCaregivers
5. Joseph J , Ohny R , Joshy N , Gandhi S , Mathew S , Serrao J, Sanju J , Simon RM , Effectiveness

- of planned teaching program on knowledge and skills in back care among Care givers of bed ridden patients . Kerala Nursing Forum .2008sep;3(3):34 – 38.
6. Jackie Stephen Hayanes , The role of barrier protection in pressure ulcer prevention, British journal of Nursing
 7. An Aging World :2008,commissioned by the U.S National Institute on aging
 8. International journal of medical science and public health \2015\vol4\issue5. <http://www.ijmsph.com>