"A study to assess the effectiveness of structured teaching program on knowledge of nursing students regarding negative pressure wound therapy in selected nursing institutions at mysuru."

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ABSTRACT:
This study has been undertaken to to assess the effectiveness of structured teaching program on knowledge of nursing students regarding negative pressure wound therapy in selected nursing institutions at Mysuru. One group pre-test post test design was used and nursing students were selected using purposive sampling technique. Structured knowledge questionnaire was used to assess the knowledge regarding negative pressure wound therapy. Structured teaching program was conducted for the samples. The data were collected and analysed using descriptive and inferential statistics.
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Keywords: effectiveness,structured teaching program,knowledge,nursing students,negative pressure wound therapy

I. INTRODUCTION

A wound is a type of injury which happens relatively quickly in which skin is torn,cut,or punctured (an open wound),or where blunt force trauma causes a contusion (a closed wound).In pathology ,which specifically refers to a sharp injury which damages the dermis of the skin. An injury to living tissue caused by a cut, blow, or other impact ,typically one in which the skin is cut or broken .

The various methods and ways of dealing with wound will of course depend on the type of the wound and the stage of healing. However, the nurse must be able to identify the stage and type of wound inorder to provide the most appropriate and effective treatment procedures. The following discussion will deal not only with the core aspects of wound healing but also explore some of the treatment processes in dealing with wounds.

Negative Pressure Wound Therapy (NPWT) is a therapeutic technique using a vacuum dressing to promote healing in acute or chronic wounds and enhance healing of second and third degree burns. The therapy includes controlled application of sub atmospheric pressure to the local wound environments, using a sealed wound dressing connected to a vacuum pump. The use of this technique in wound management increased dramatically over the 1990s and 2000s and a large number of studies have been published examining NPWT. NPWT appears to be useful for diabetic ulcers and management of the open abdomen (laparotomy) but further research is required for other wound types.

Negative pressure wound therapy has become an increasingly important part of wound management. Over the last decades , numerous uses for this method of wound management have been reported, ranging from acute and chronic wounds ,to closure of open sterna and abdominal wounds, to assistance with skin graft, the biophysics behind the success of this treatment largely have focused on increased wound blood flow, increased granulation tissue formation, decreased bacterial counts and stimulation of wound healing pathways through shear stress mechanisms. The overall success of negative pressure wound therapy has led to a multitude of clinical applications.

There can be serious consequences for patients if negative pressure wound therapy is performed incorrectly and patient safety must be paramount. The existing literature was found to mainly concentrated on the use of the technology from the patient perspective. . Nurses are expected to learn difficult and highly specialized skills quickly within a busy ward environment, often with no prior training or preparation. As things can go wrong, with the potential for patient harm, it is vital that nurses get these skills right first time, but it is difficult to do this in a practical fast and cost effective way. There is scope for future research in the area and perhaps the development of an online training tool to assist nurses in understanding and undertaking a new procedure.

Many wounds are difficult to heal, despite medical and nursing care. They may result from complications of an underlying disease, like diabetes or surgery, constant pressure , trauma ,or burns chronic wounds are more often found in elderly people and in those with immunologic of chronic diseases. Chronic wounds may lead to impaired quality of More than 2.5 More than 2.5 million people in the USA develops pressure ulcers each year within acute care in the United states, The incidence of bedsores is 0.4 to 38% within long term care, 2.2% to 23.9% , and in home care ,0% to 17%. There is same wide variation in prevalence .10% to 18% in acute care, 2.3% to 28% in long term care, and 0% to 29% in home care.

OBJECTIVES :

1. To assess the level of knowledge of nursing students regarding negative pressure wound therapy at selected nursing institutions in Mysuru.
2. To evaluate the effectiveness of structured teaching program on knowledge of nursing students regarding negative pressure wound therapy at selected nursing institutions at Mysuru.
3. To find out the association between the level of knowledge of nursing students regarding negative pressure wound therapy and their selected variables.

HYPOTHESIS:-

- **H_1**-There will be significant difference between mean post test knowledge score of nursing students regarding negative pressure wound therapy than their mean pre test score.
- **H_2**-There will be significant association between level of knowledge of nursing students regarding negative pressure wound therapy and their selected personal variables.

II. METHODOLOGY:

2.1 RESEARCH APPROACH/DESIGN: Research design of this study was pre-experimental, one group pre test –post test design.

The symbolic representation of the present study as follows:

01×02

KEYS:-

X=Stuctured teaching program

01=Pre-test

02=Post –test

2.2 Variables of the study:

- Dependent variable: Knowledge regarding negative pressure wound therapy.
- Independent variable: Effectiveness of structured teaching program.

2.3 SETTING OF THE STUDY:-

The present study was conducted in JSS College of Nursing, Mysuru.

2.4 POPULATION:-

. In the present study population comprises of nursing students studying in JSS college of nursing.

2.5 Sample and sampling:

The sample for the present study consists of 30 nursing students studying in JSS College of Nursing, Mysuru.

2.6 Sampling technique

Purposive sampling technique was used to select 30 nursing students studying in JSS College of Nursing, Mysuru.

2.7 Sampling criteria

Inclusion Criteria for Sampling:

BSc nursing students who are available at the time of data collection.

Inclusion Criteria for Sampling:

BSc nursing students who are

- studying 1st year BSc (N)
- not willing to participate in the study.

III. RESULTS:

Table 1

Frequency and Percentage distribution of nursing students according to their selected personal variables

N=30

Sl No	Personal Variables	Frequency (F)	Percentage (%)
1	**Age in yeats**		
1.1	17-19years	7	23.3
1.2	20-21 years	17	56.6
1.3	>21 years	6	20
2	**Gender**		
2.1	Male	3	10
2.2	Female	27	90
3	**Year of study**		
3.1	BSc II Year	15	50
3.2	BSc III Year	15	50
4	**Assisted in wound dressing**		
4.1	Yes	30	100
4.2	No	0	0

The data presented in the Table 1 shows that 17(56.6%)nursing students were in the age group of 20-21 years,and remaining 7(23.3%)were in the age group of 17-19 years and 6(20%) were in the age group of 21-22.the data all shows that27(90%)wre females,15(50%) nursing students each were studying in 2nd year and 3rd year BSc nursing.

Table 2

Frequency and Percentage distribution of nursing students according to their level of knowledge regarding negative pressure wound therapy

N=30

Sl No	Pre test	Post test	Percentage (%)
Group	Mean	0	0
Experimental group	Average	17	56.6
	good	13	43.3
	Poor	0	0
	Average	2	6.6
	good	28	93.3

The data presented in table 2 shows that in the pre test maximum17 (56.6) had average knowledge and 13(43.3%) had good knowledge where as in the post test maximum students 28(93.3%) attained good knowledge and 2(6.6%) attained average knowledge.

Table 3

Mean ,mean difference ,SD differenceand paired t test of pre and post test knowledge scores of nursing students regarding negative pressure wound therapy

N=30

Knowledge score	Mean	Mean difference	SD Difference	Paired 't'
Pre test	16.6			
Post test	22.56	6.4	0.2	10.24*

't'(29)=2,p<(0.05)*significant

The data presented in table 3 shows that the mean difference is 6.4to find the significance difference in mean knowledge score ,paired 't' test was computed and obtained 't' value is 10.24 was fond to be significant. Hence it was inferred that STP was effective in enhancing the knowledge of students regarding negative pressure wound therapy.

Association between the knowledge of nursing students regarding negative pressure wound therapy and their selected personal variables

Sl No	Personal Variables	Knowledge score Average	Good	Chi square
1	**Age in yeats**			
	17-19years	5	02	0.601
	20-21 years	12	10	
2	**Gender**			
2.1	Male	02	01	21.19*
2.2	Female	17	11	
3	**Year of study**			
3.1	BSc II Year	11	04	
3.2	BSc III Year	09	06	0.6

$\chi 2$= 3.84, $\chi 2$*p<0.05, p>0.05 *Significant

The chi square value computed to determine the association between the knowledge of nursing students regarding negative pressure wound therapy and their selected personal variables were not found to be significant at 0.05 level of significance except for gender.

CONCLUSION:

The present study focused to determine the effectiveness of structured teaching program regading negative pressure wound therapy among nursing students in selected nursing colleges Mysuru. The findings of the study revealed that in pre test most of the nursing students had average knowledge and in the post test majority of nursing students had good knowledge regarding negative pressure wound therapy.ther was no association found between the level of knowledge and their selected personal variables except for age.

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