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Research Article

**KNOWLEDGE AND PRACTICE REGARDING PREVENTION OF
BED SORES AMONG STAFF NURSES OF LAHORE**¹Subrena Afzal, ²Almas Baby, ³Tahira Shaheen

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Article Received: June 2021**Accepted:** July 2021**Published:** August 2021**Abstract:**

Most of the decubitus ulcers (bedsores) are preventable. Nurses are enabled to constantly observe their patients skin for breaches and unusual discoloration. Pressure ulcers not only multiply the miseries to the patients but also increases the work burden on nurses. To comprehend the shortcomings in knowledge and practices of preventing bed sores among staff nurses performing their duties in general as well as special units and to prepare a Self Instructional Module (SIM) for uplifting the standard of nursing practices. An exploratory observational approach was adopted. This study was conducted in Service Hospital Lahore among 120 staff nurses working in general wards and special units. Purposive sampling method was used for data collection with self prepared questionnaire. Multiple-choice questions were drafted to evaluate knowledge and level of awareness and an audit form with checklist for assessment of practice. The data was analyzed using in terms of descriptive and inferential statistics. SIM was developed based on the deficit found in the result. Staff nurses working in special units have significantly better knowledge (72.92%) than the nurses in general wards (62.50%). Similarly, the results showed special unit nurses practice significantly better (60.29%) than general ward nurses (46.68%). Overall knowledge of staff nurses was higher (67.71%) as compared to their practice (53.49%) regarding bed sore prevention. Although 40% of overall staff nurses achieved excellent level on knowledge, none of them trespassed the excellent level on practice. It is strongly endorsed to develop SIM for them. Self instructional Module was developed inferring the results that staff nurses working in special units have excellent (deficit only 2.08%) knowledge in different areas of knowledge compared to staff nurses working in general wards (deficit 12.50%) where as 100% of respondents did not achieve excellent level on practice regarding Bed Sore prevention. Hence all of them need improvement in practices of Bed Sore prevention to achieve desired level of excellence.

Key words: Bed sore, Knowledge, Practice, Prevention, Staff Nurses, Self Instructional Module (SIM)**Corresponding author:****Subrena Afzal,**

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INTRODUCTION:

Nursing is a responsible profession because it addresses mental, physical and spiritual aspects of a disease, the response of patients and attendants to active and potential health problems. [1] A pressure ulcer is a localized area of tissue necrosis that tends to develop when soft tissue is compressed for a prolonged period of time between a bony prominence and an external surface. Timely measures to prevent pressure ulcers such as increasing patient mobility can cut down hospital stay and reduce need for nursing care. The frequency of pressure ulcers ranges from 3% -15%. The incidence of pressure ulcer in hospital has been reported to be 24% to 28 % . [2]

Prevention of pressure ulcers is of tantamount significance for nurses. The ability to identify the patient at risk for the formation of the pressure ulcer would help to reduce the costs of treatment. [3] A major aspect of nursing care is the maintenance of skin integrity to ensure standard of care. Pressure ulcers not only cause suffering to the patients but also increases the economical burden. [4]

The prevalence of pressure ulcers has been reported in various studies ranging 4.7 % to 18.6 %. The occurrence among patients admitted to nursing home is between 15%.and 25%.⁵ As highlighted 60% of patients with Pressure sores were above 65 years. Occurrence of pressure ulcers leads to the increased length of the hospital stay resulting in exponential overall cost of health care. Therefore, observation, prevention and management of pressure ulcers is of top nursing priorities. The ability to identify and respond to high risk patients will help to maintain minimum level of health care forestall the pressure ulcers. [6]

Pressure ulcer has been recognized as a fatal complication of any condition linked with immobilization. [7] In certain high risk group e.g. critical patients, patients with spinal cord trauma and elderly patient with hip bone fractures, the incidence is much higher such as 30%. [8]

OBJECTIVES:

- To evaluate the knowledge attitudes and practices of staff nurses for the prevention of bed sores in general and special units.
- To enlist the deficits in knowledge and practice of bed sore prevention in staff nurses according to general wards and special units.
- To establish a relationship between the knowledge and practices of staff nurses regarding the preventive measures.

- To develop a Self-Instructional Module (SIM) on Bed Sore Prevention for staff nurses.

MATERIALS AND METHODS:

It was a hospital based exploratory study conducted among the staff nurses working in general and special wards of Services Hospital Lahore. Purposive sampling method was applied for selecting 120 volunteers; 60 participants working in general wards e.g Male and Female Medical, General Surgery, Orthopedic and Neurology wards) and 60 from special units vis-à-vis Intensive Care Unit, Intensive Coronary Care Unit and Intensive Neurosurgery Unit. Confidentiality of the subject was maintained to ensure their anonymity. Tool used for data collection was a semi structured self administered questionnaire that was drafted on the basis of thorough literature review and in consultation with subject specialist for content validity Reliability of the tool was ensured by performing pre test on 10% of sample size from general and special units each and excluding it from the study sample.

In the data Collection phase, firstly, questionnaire for evaluating the knowledge was handed over to the volunteers after obtaining informed consent. They were allotted an ample time of 30 minutes to fill the questionnaire in respective wards under keen observation of the supervisor. Secondly, researcher filled observation checklist by watching the selected staff nurses from general and special units. Staff nurses were uninformed about being observed by participatory observation. Researcher selected different fixed timings in different wards between 8AM - 2 PM, 2PM - 8 PM and 8 PM - 8AM to cover entire three shifts i.e. morning, evening and night. Moreover, the selected time was appropriate to provide nursing care before signing off their shift in accordance with hospital policy.

The data was analyzed using descriptive and inferential statistic i.e. Mean, Mean Percentage and Standard Deviation, 't' value, F-Ratio, Chi-square and degree of freedom, Karl Pearson's correlation coefficient test as required.

Based on the findings, a Self Instructional Module was designed to respond to the deficiencies observed.

RESULTS:

Scores of knowledge regarding Bed Sore prevention revealed that 50 % of the staff nurses working in general wards had good knowledge followed by 20% each with excellent and average knowledge respectively and 10% had knowledge below average

where as 53.33% of the staff nurses in the special units had excellent knowledge followed by 26.67% with

average and 20% had good knowledge and none of them were having below average score. (Fig-1).

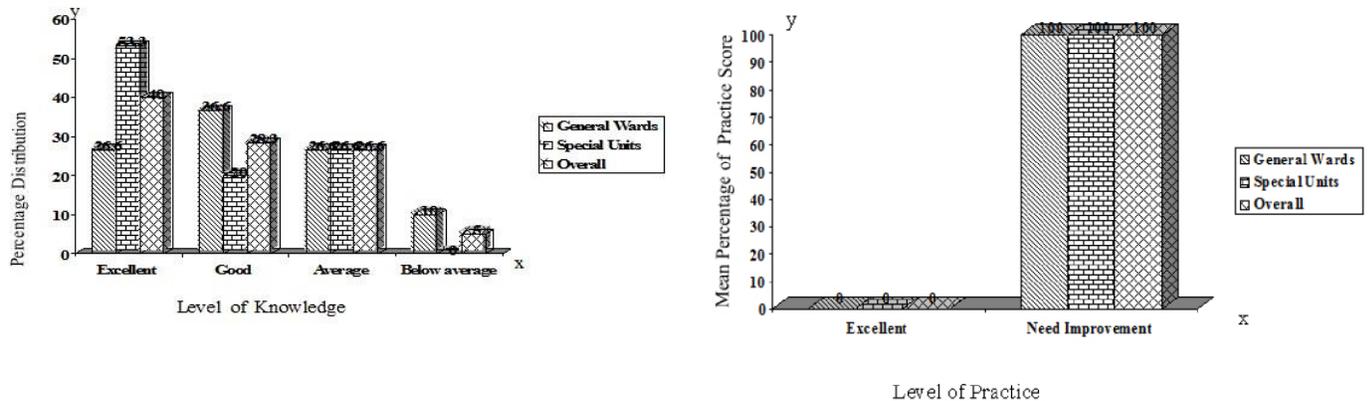


Fig 1. Degree of knowledge among staff nurses regarding bed sore prevention

Staff nurses' working in special units had practice mean percentage score (61.29%) and those working in general wards (47.67%). This means that all the staff nurses needed further improvement in practice for attaining excellence i.e. >85%. The overall practice mean percentage score of staff nurses was 54.48% which was much lower than the excellent level.

Hence overall mean score of knowledge was 68.71% regarding bed sore prevention and statistically significant association between knowledge of staff nurses in general (64.5%) and special units (72.91%) was found ($\chi^2 = 4.61$). Regarding practice, staff nurses working in special units had practice mean percentage score 61.29% and those working in general wards had 47.67%. The overall practice mean percentage score of staff nurses was 54.48% which is much lower the excellent level (>85%).

From the above findings, although staff nurses working in special units had better practice percentage

score than those working in general ward, yet all of them needed improvement to come up to excellence level (Fig-2). A Self Instructional Module was designed for nurses to respond to the deficiencies and maintain the optimum standard of nursing care.

Knowledge of the staff nurses was higher as compared to their practices with a low positive correlation ($r = 0.087$). The data (Table no 1) showed that the correlation between staff nurses' overall knowledge and practice of bed sore prevention had low correlation ($r = 0.089$) between knowledge and practice. Staff nurses in general wards had ($r = 0.127$) and nurses in special units had ($r = 0.006$) relation between knowledge and practice. So, it inferred that there was low positive relation between knowledge and practice according to clinical area.

There is no significant difference in knowledge and practice score of the staff nurses with selected variables.

Table no 1: Correlation between Staff Nurses' Score of Knowledge and Practices Regarding Prevention of Bed Sore N=120

Variables	Knowledge & Practice Score of Staff Nurses					
		General Ward	Special Unit	Overall		
D	Max.	Mean	Mean	Mean	Mean	S
	Score	%	%	%	%	
Knowledge	30	64.5	72.91	20.25	68.70	3.29
Practice	40	47.67	61.29	24.19	54.48	4.42
R		0.127	0.006		0.089	
p – Value		>0.10NS	>0.10NS		>0.10NS	
Df		30	30			

NS = Non significant

DISCUSSION:

According to the clinical areas of staff nurses, knowledge level regarding preventing bed sore was found to be the highest (98.50%) in definition and lowest (52.50%) in clinical manifestation (Table no 2).

Staff nurses working in special units had statistically significant high mean score in areas/sites of bed sore

($p < 0.01$), clinical manifestation ($p < 0.01$) and found to be significant difference in causes ($p < 0.10$). A similar study conducted by Anju Bala et al, (2003) found that staff nurses of special unit have higher percentage related to knowledge as well as in practice than those working in general unit. [9]

Table no. 2: Percentage Deficit Scores of Staff Nurses Regarding Bed Sore Prevention According to Areas of Knowledge N = 120

Knowledge Score of Staff Nurses'						
Areas of Knowledge	General n =60		Special n =60		Overall	
	Obtained	Deficit	Obtained	Deficit	Obtained	Deficit
	%	%	%	%	%	%
Definition	100.00	-25.00	97.00	-22.00	98.50	-23.50
Causes	75.75	-0.75	86.75	-11.75	81.25	-6.25
Risk Factor	69.00	6.00	74.33	0.67	71.67	3.33
Clinical Manifestation	35.00	40.00	70.00	5.00	52.50	22.50
Area/site	54.25	20.75	77.50	-2.50	65.88	9.13
Intervention	60.30	14.70	63.30	11.70	61.80	13.20
Total Knowledge Score	62.50	12.50	72.92	2.08	67.71	7.29

Finding showed that mean score of knowledge of staff nurses is 67.71% and in practice 53.49% and overall knowledge found to be higher (80.58%) and practice was found to be lower (51%). Similar research conducted by Stotts A Nancy (1987) showed that the mean knowledge score of high risk patient regarding developing pressure ulcer according to age specific characteristic was not statistically significant. [10]

According to state of domicile, Punjab nurses' mean knowledge score was found to be 76.33% where as practice mean score was higher in staff nurse from outside Punjab. In contrast, Anju Bala et al, (2003) stated that staff nurses belonging Punjab had more practice (79.5%) than the group of staff nurses belonging outside Punjab.

According to training institute, mean score of knowledge and practice were found to be 76.62% and 48% respectively. Practice score was found to be higher among nurses trained from Private institutes than those trained from government institutes. This finding was rejected by the research conducted by Steven J. (2005), that was the respondents had maximum mean knowledge and practice score among govt. trained health professionals followed by those trained from non govt. [11]

Regarding professional qualification, mean score of knowledge was found to be 77.29% in GNM and 61.79% in B.Sc. (nursing) degree but in a study conducted by Anju Bala (2003) revealed that staff nurses with B.Sc. degree were having more skill (80%) than the GNM.

Regarding to professional experience, mean score of knowledge was higher (79.75%) and practice (48.79%) in those staff nurses having experience of 2-5 years. But a study conducted by Zernike (1994) found that the mean practice score was higher (46.25%) in staff nurses with 4 - 6 years of experience.

CONCLUSION:

Our study concluded that SIM on bed sore prevention would help to optimize clinical orientation of nursing staff which paves the way to identify, respond and manage high risk patients to prevent pressure sore preventing crippling effects on the prognosis of the

patient. Only knowledge would not be enough for preventing bed sore but also the utilization developed protocols will reduce the morbidity and mortality associated with chronic ulcers. Routine assessment of skin integrity and documentation, reporting any alteration, beach and usual discoloration of skin and soft tissues for timely intervention would improve the standard of care to the patient resulting in reduced psych socioeconomic burden.

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