

KNOWLEDGE, ATTITUDE AND PRACTICES OF NURSES REGARDING PRESSURE ULCERS PREVENTION AT A TERTIARY CARE HOSPITAL OF PESHAWAR, KHYBER PAKHTUNKHWA

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ABSTRACT

Objective: The overarching aim of this study was to determine knowledge, attitude and practices of Nurses regarding pressure ulcer prevention at Khyber Teaching Hospital Peshawar.

Material and Methods: A cross sectional study was carried out using a structured questionnaire. A total of 100 nurses were recruited through non-probability convenient sampling technique. Data were collected between September 2016 and December 2016. Data were analyzed using SPSS version 20..

Results: Overall correct answers from the knowledge section of the questionnaire were 58.2%. The highest and lowest range of correct answer was 68% and 35%. According to the findings most of the respondents knew the main contributing factor and critical determinant factor for pressure ulcers. Likewise, attitude level was 67.1% and the range was from 58% and 16%. Lastly, the practices of nurses regarding the “always” statements was 45.4% while of the “never” statement was 42.4%. The range of highest and lowest responded “always” statement was 57% and 18%.

Conclusions: Study finding revealed that nurses though had adequate knowledge regarding pressure ulcer prevention but the lack of proper policies and guidelines, lack of evidence based practice and lack of in-service trainings led to negative attitude and improper practice among nurses in Khyber Teaching Hospital regarding pressure ulcers prevention.

Key words: Knowledge, attitudes, practices, pressure sore, pressure ulcer, bed sore

INTRODUCTION

Pressure ulcer also called bed sore, pressure sore and decubitus ulcer is a localized injury of the skin and underlying tissue over the bony prominence¹. Pressure ulcer occurs because of prolonged pressure on the skin or when the skin is entrapped between the hard surface and the bone². Regardless of advancement in medicine and nursing; pressure ulcers remain one of the major causes of morbidity and mortality worldwide. About 60,000 people died because of complications of pressure ulcer worldwide³. Each medical setting

has different frequency of pressure ulcer ideally its incidence for all settings should be less than 2%. The incidence rate of bed sores ranges from 0.4% to 38% and the prevalence rate of bed sores ranges from 3.5% to 69% in the inpatient departments^{4,5}. Nurses are the frontline health workers to provide care to bed ridden and critically ill patients; who are the most vulnerable to develop bed sores⁶. Therefore, the knowledge, attitude and practices (KAP) of nurses are very important for pressure ulcer prevention. While some nurses do not have enough knowledge regarding pressure ulcer preventions. Enough knowledge can also modify the attitude and practices of nurses regarding pressure ulcer prevention^{7,8}.

Pressure ulcer is one of the most common health suffering in Pakistan but due to poor statistical data sys-

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tem we are unable to determine the economic burden caused by pressure ulcer patients. Many studies have been conducted on this topic^{4,6} but very few studies have been done in Pakistan especially in the recent time. Therefore, it is important to explore knowledge, attitude and practice of nurses regarding pressure ulcer prevention in tertiary care public sector hospital.

METHODS AND MATERIALS

A descriptive cross sectional design was used in order to assess nurse’s knowledge, attitude and practices regarding pressure ulcer prevention. Quantitative methods were used in this study. The area of this study was Khyber Teaching Hospital university road Peshawar. This study was conducted during September 2016 to December 2016. A total number of 100 nurses were selected from this hospital by a convenient sampling method. The instrument for collecting data was an adopted modified questionnaire. The first section of the questionnaire comprised of demographic information and second section included questions about knowledge, third section included statements regarding attitude and fourth section included statements regarding practices of pressure ulcer prevention. Approval for conducting this study was obtained from institutional review board. A written informed consent was secured from each subject due to ethical considerations and then data was obtained from those 100 subjects by given questionnaire. The data analysis was performed by using SPSS version 20.

RESULTS

Fifty four percent (n= 54) of the respondents were 20 to 30 years old, about 35% (n=35) of the respondents were between 30 to 40 years of age and the remaining 11% (n=11) of the respondents were above 40 years of age. The male respondents were 30% (n=100) and the female respondents were 70 % (n=70) while 56% of these respondents were married while 44% of the respondents were unmarried. Most of the respondents were qualified as a bachelor of nursing i.e. 50% (n=50), and 45% (n=45) did diploma in nursing while only 5% (n=5) were qualified as master in nursing. Furthermore 24% of these respondents had 1-2 years’ experience, about 23% of the respondents had 2-5 years’ experience and about 53% of the respondents had more than 5 years’ experience.

Thirty five % of respondents had received

training for prevention of pressure ulcer while 65% respondent had not received any formal training. Area of practice of 7% of the respondents was gynecology ward, 19% were practicing in surgical ward, 22% of the respondents were practicing in critical care, 23% of the respondents were working in medical ward and 29% of the respondents were working in other wards for example orthopedic, pediatric, emergency, pulmonology and neurosurgery etc.

Section 2 of the questionnaire comprised of ten questions regarding knowledge which inquired of factors regarding pressure ulcer, signs, prevention, care and health education of pressure ulcer. Overall correct answers were 58.2%. The highest and lowest range of correct answer was 68% and 35%. According to the findings most of the respondents knew

Table -1: Socio demographic characteristics of the participants

Variables	n	%
Age categories		
Age less than 30 years	54	54
30-40 years	35	35
More than 40 years	11	11
Gender		
Male	30	30
Female	70	70
Marital status		
Single	44	44
Married	56	56
Professional qualification		
Diploma in Nursing	45	45
Bachelor of Nursing	50	50
Master of Nursing	5	5
Work Experience		
1-2 years	24	24
2-5 years	23	23
More than 5 years	53	53
Formal training received on pressure ulcer prevention		
Yes	35	35
No	65	65
Area of practice		
Medical	23	23
Surgical	19	19
Critical Care	22	22
Gynecology	7	7
Other	29	29
Total	100	100

the main contributing factor and critical determinant factor for pressure ulcer. Furthermore 57% of the respondents knew between signs of stage II pressure ulcer while 56% know the first sign of stage I pressure ulcer. Question 6, 7, 8 were related to knowledge of care and prevention and the correct response rate to

Table -2: Knowledge level of Nurses regarding pressure ulcers

Knowledge Statement	Options	n	%
What is the contributing factor for pressure ulcer formation?	(a) Intracranial pressure (b) Chronic wound (c) High loading pressure	10 22 68	10 22 68
Which factor is the critical determinant for pressure ulcer formation?	(a) Low albumin (b) High hematocrit (c) High sodium level	65 31 4	65 31 4
Which one is the risk assessment scale for pressure ulcer development?	(a) Richter scale (b) Braden scale (c) Glasgow coma scale	34 63 3	34 63 3
Which of the following is correct answer for the sign of stage II pressure ulcer?	(a) Intact skin without break in skin integrity (b) Partial skin loss with blister & abrasion (c) Full thickness skin loss with tissue necrosis	31 59 10	31 59 10
Which one is the first sign for pressure ulcer development?	(a) Open sore (b) Blister and bruise in the skin (c) Non-blanchable redness, or blue-gray discoloration on the skin	12 56 32	12 56 32
Which nursing care is significant activity for protecting skin damage?	(a) Sit up 2 hours (b) Turn position for every 2 hours (c) Elevate head of bed greater than 30 degree	9 68 23	9 68 23
What do you do to prevent heel ulcer?	(a) Raise the foot-end of a bed (b) Use cotton pad (c) Use pillow under the patient's leg	37 24 39	37 24 39
Which nursing care is a correct practice for maintaining skin integrity?	(a) Lift up the patient without dragging (b) Use donut cushion (c) Use sheep skin pad	52 23 25	52 23 25
What educational information is necessary for reducing pressure ulcer formation?	(a) Procedure of sitting up (b) Method to lift the end of a bed (c) Schedule of turning position	30 9 61	30 9 61
Which answer is the best educational activity that enhances competency of staff nurses in preventing pressure ulcer?	(a) In-service training on pressure ulcer prevention (b) Set up pressure ulcer prevention protocol (c) Conducting seminar	51 26 23	51 26 23

Table -3: Attitude level of Nurses regarding pressure ulcers

Statement	Nurses Ratings				
	1	2	3	4	5
Most risk factors of pressure ulcer can be avoided.	52	33	13	2	0
Prevention of risk factors for pressure ulcer is time consuming for me to carry out.	13	35	21	24	7
Patient who is at risk for pressure ulcer development should be assessed at the first day of admission.	45	34	10	8	3
The incidence of pressure ulcer should be 0% in my ward.	21	32	23	12	12
I am less interested in pressure ulcer prevention than other aspects of nursing care.	19	24	18	23	16
Pressure ulcer should be an important indicator for quality of nursing care.	38	34	17	8	3
Patient who is at risk for pressure ulcer development should be cared by using standard nursing care to prevent pressure ulcer.	41	45	11	1	2
I am aware to turn my patient who is at risk for pressure ulcer every 2 hours.	36	50	13	1	0
I am less interested to move patient from one side to another side of the bed by lifting up him/her out of the bed.	7	14	29	28	22
I value that joining educational activities on pressure ulcer prevention is important for my practice.	58	40	2	0	0

these questions were 68%, 39% and 52% respectively. Majority (61%) of the respondents considers schedule of turning position necessary educational information for reducing pressure ulcer formation. About 51% of the respondents believe that in-service training can enhance competency of staff nurses in preventing pressure ulcer.

For the assessment of attitude Likert scale was used. Each statement response was 1= strongly agree, 2= agree, 3= neither agree nor disagree, 4= disagree, 5= strongly disagree. After merging responses of strongly agree and agree statements the attitude level was 67.1% for this section of the tool. The range of highest and lowest responded “strongly agree” statements were 58% and 16% respectively. Majority (95%) of the respondents agreed that most risk factors of pressure ulcer can be avoided; however nearly half of the respondents (48%) believe that its prevention is time consuming for them to carry out. About 86% believe that pressure ulcer development should be cared by use of standard nursing care and 53% were willing that pressure ulcer incidence should be 0% in their wards. On the other hand 43% of the respondents were less interested in pressure ulcer care than other aspects of nursing. Though 86% of the respondents were aware of positioning of the patients every two hourly but 21% of the respondents said that moving a patient from one side to another side is least important for them. About 98% of the respondents consider joining educational activities important for their practice.

The fourth section of the questionnaire

comprised of nurse’s practices of pressure ulcer prevention. Each question response was “always”, “sometime” and “never”. The overall response in this section regarding “always” statements was 45.4% while of the “never” statement was 42.4%. The range of highest and lowest responded “always” statement was 57% and 18%. About 46% of the respondent’s nurses always observe other nurses for the assessment of risk factors of pressure ulcer; furthermore 46% of the respondents always perform skin care in routine work of unit. Only 52% respondents always identify common contributing factors of pressure ulcer development by periodic assessment. About 46% of the respondents never attends seminar on prevention of pressure ulcer. About 55% of the respondents always do positioning of the patient every two hourly. Only 40% of the respondents sometime avoid dragging of patient while positioning. About 45% respondents always avoid massage over bony prominence while only 36% respondents sometimes pay more attention to pressure points. About 13% of the respondents never advice a care giver the use of oil or cream on patient skin, while only 39% of the respondents sometime advice patient about preventive care of pressure ulcer before discharge.

DISCUSSION

The findings of this study show that about 65% of the nurses had not received any formal training regarding bedsore prevention. Similarly a study which was done in Swedish healthcare revealed that those nurses were more knowledgeable who had training than those who had no formal training⁹. Another study

Table -4: Practice level of Nurses regarding pressure ulcers

Nurses’ practice regarding pressure ulcer prevention	Always	Some-time	Never
I observe how other nurses assess risk factors of pressure ulcer development.	44	44	12
I identify common contributing factors for pressure ulcer development by periodical assessment of patient’s skin.	52	43	5
I perform skin care as a routine work of my unit.	46	51	3
I use or advice caregiver to use creams or oils on patients’ skin in order to protect from urine, stool or wound drainage	41	46	13
I pay more attention to pressure points during cleansing the soil or maceration.	57	36	7
I avoid dragging the patients during repositioning	42	49	9
I avoid massage over patient’s bony prominences to prevent pressure ulcer formation.	45	40	15
I always attend seminars for pressure ulcer prevention.	18	36	46
I turn a patient position every two hour.	55	40	5
I give advice to the patient or caregiver regarding pressure ulcer preventive care before discharge the patient from a hospital.	54	39	7

highlighted that those professionals who read articles or attend lectures on relevant theme had significantly higher level of knowledge¹⁰. The study reveal that the nurse's knowledge regarding pressure ulcer prevention has been improved with more work experience. A study conducted in Spain on nurse's knowledge and clinical practice of pressure ulcer care concluded that, higher knowledge is gain through greater working experience¹¹. According to this study more than half of the respondent's nurses answered correctly regarding knowledge of pressure ulcer prevention. The overall percentage of total correct answers regarding knowledge was 58.2 % when asked question about bedsore prevention. Hence this study reveals that 41.8 % of the respondent nurses have inadequate knowledge regarding bedsore prevention. These results are congruent with a study conducted in Ethiopia which illustrated that 38.8% of nurses had inadequate knowledge about pressure ulcer prevention¹².

According to this study about 67% of these nurses have favorable attitude towards prevention of bedsore. Contrary to this a study in Iraq showed that the attitude of nurses towards bed sore prevention practice was 99% positive¹³. The absence of guideline could affect the neutral attitude shown. This study also reveals negative attitude of the some nurses as about 19% of the respondent nurses were strongly agreed while 24%were agreed with the statement that they are less interested in pressure ulcer prevention. It shows their negative attitude.

This study reveals that the level of practices is lower than the level of knowledge of the respondent nurses. And hence it shows the impact of attitude towards practice. According to the study finding only 18% of the nurses always attend seminars for pressure ulcer prevention. Lack of proper knowledge, specific policies and guideline is another reason of less number of practices of pressure ulcer prevention.

Similarly a study done in Jordan in which nurses pointed that lack of proper guidelines and lack of proper policies is the main barrier in terms of giving care to the pressure ulcer patient¹⁴. According to the study findings 42% of the respondent nurses always avoid dragging the patients during repositioning, about 40% of the respondent nurses sometime turn a patient position every two hourly. This shows a similarity with a study conducted in Turkey and Uganda in which nurses outlined their respective practices of pressure

ulcer prevention. These practices were balanced diet (80.1%), patient repositioning (91.8%), protecting the skin during patient transfer (85.7%), removing any tightly fitting clothes from the patient (87.8%), keeping patient skins dry and moist (83.2%), and documenting prevention strategies (83.2%)¹⁵.

CONCLUSION

Although there was an adequate level of knowledge regarding pressure ulcer prevention but the lack of proper policies and guidelines, lack of evidence based practice and lack of in-service training made it difficult for nurses to exercise their knowledge. These discrepancies had led to negative attitude and improper practice of nurses regarding pressure ulcer prevention. Knowledge influences the attitude. Knowledge can change a negative attitude towards positive attitude. The respondent level of knowledge affects practice of pressure ulcer prevention. Proper knowledge improves practices of the nurses regarding pressure ulcer prevention. It enhances compatibility, competency and efficiency of the nurses regarding pressure ulcer prevention.

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