

PREVENTION FROM MEDICAL DEVICES RELATED PRESSURE ULCER IN CHILDREN HOSPITAL FAISALABAD

Sadia Musarrat Fazal Hussain, Student of BSN(Post RN) Independent College of Nursing, Faisalabad.

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ABSTRACT

Background: Pressure ulcers (PU)s are related to reduced quality of existence for patients. A literature review, which includes 31 studies, describes how PUs can have an effect on a person's lifestyles. Examples are constant ache, anxiety, despair, and reduced social lifestyles. **Objective:** The main objectives of this study to identify the awareness of nurses about Medical Device Related pressure ulcer. **Study Design:** Observational Study. **Setting:** Children hospital. **Period:** Jan 2017 to Jan 2018. **Material & Method:** This research was conducted in Children hospital Faisalabad. A questionnaire was designed to be filled by 124 nurses working in the hospital. The gathered data was processed and analyzed by SPSS to examine their results and to view. **Result:** The sample size of this research was 124 nurses working in hospital to check the level of awareness about device related pressure ulcer. Overall, there is more need to educated and train the nurses about medical devices related pressure ulcer. **Conclusion:** There is more need to educated and train the nurses about medical devices related pressure ulcer.

Correspondence Address

Sadia Musarrat Fazal Hussain
Student of BSN(Post RN)
Independent College of
Nursing, Faisalabad.
ahmed.jamil237@gmail.com

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INTRODUCTION

Pressure ulcers is also created by use of medical devices or equipment. It is also called pressure injuries, and pressure sores. These are localized damage to the skin and/or underlying tissue that usually occur over a bony prominence as a result of usually long-term pressure, or pressure in combination with shear or friction.

Pressure ulcers, also known as bedsores, decubiti (singular decubitus), decubitus ulcers, pressure injuries, and pressure sores, are localized damage to the skin and/or underlying tissue that usually occur over a bony prominence as a result of usually long-term pressure, or pressure in combination with shear or friction. The most common sites are the skin overlying the sacrum, coccyx, heels, and hips, though other sites can be affected, such as the elbows, knees, ankles, back of shoulders, or the back of the cranium. Pressure ulcers occur due to pressure applied to soft tissue

resulting in completely or partially obstructed blood flow to the soft tissue. Shear is also a cause, as it can pull on blood vessels that feed the skin. Pressure ulcers are often, but not always, preventable. The occurrence of such an ulcer signals the possible presence of chronic comorbid disease and should prompt a search for underlying risk factors in patients for whom ulcer treatment is considered appropriate.

Objectives of the research study

- To check the awareness of nurses about medical devices related pressure ulcer

MATERIAL AND METHOD

Present research study was descriptive and quantitative in nature, so descriptive. This research was conducted in the children hospital Faisalabad. For this purpose, a questionnaire was developed by using the five likert scale. Data was collected randomly from 124 nurses working in

the hospital. Briefly interview survey method was used for the collection of data. Each item has five response options like strongly disagree, disagree, agree, neutral and strongly agree against their perceptions and experiences.

RESULTS

The survey results indicated that Upto 20 years age respondents were 73, 21 to 40 years are 45 and the 41 to 60 years age were 6 respondents. Table 4.2 showed status of respondent's according to their experience base, the results showed that nurses who working in children hospital and having the experience is 1 to 5 years are 66, 42 nurses experience is 6 to 10 years and the 16 nurses experience is Above 10 years.

Table 1. Demographic Information

Demographic Information		Results	
		Frequency	%
Age	Upto 20 years	73	58.9
	21-40 Years	45	36.3
	41-60 years	6	4.8
Experience	1-5 Years	66	53.2
	6-10 Years	42	33.9
	Above10 Years	16	12.9

The results about nurse's awareness about the pressure ulcer. 11 nurses strongly disagreed the statement that nurse's knowledge about the stages of the pressure ulcer 57 nurses disagreed, 14 remained neutral, 34 agreed and the 8 strongly agreed with the given statement. 4 nurses strongly disagreed the statement that nurses follow the instructions for indication for monitoring 31 nurses disagreed, 29 remained neutral, 50 agreed and the 10 strongly agreed with the given statement. 27 nurses strongly disagreed the statement that nurses' strong adhesives damaged the skin in hospitals 50 nurses disagreed, 16 remained neutral, 25 agreed and the 6 strongly agreed with the given statement. 4 nurses strongly disagreed the statement that nurses' straps too tight which damaged the skin 34 nurses disagreed, 18 remained neutral, 50 agreed and the 18 strongly agreed with the given statement. 4 nurses strongly disagreed the statement that nurses Choosing the correct

device in the correct size is essential in applying the device and in preventing related skin injury 23 nurses disagreed, 25 remained neutral, 49 agreed and the 23 strongly agreed with the given statement.

1 nurse strongly disagreed the statement that nurses Avoid positioning a patient directly on top of a medical device, such as a drainage system 36 nurses disagreed, 28 remained neutral, 46 agreed and the 13 strongly agreed with the given statement. 1 nurse strongly disagreed the statement that nurses removed the devices daily to prevent ulcer 35 nurses disagreed, 37 remained neutral, 45 agreed and the 6 strongly agreed with the given statement. 5 nurses strongly disagreed the statement that nurses A nursing assistant may be the first care provider to notice pressure damage 42 nurses disagreed, 26 remained neutral, 36 agreed and the 15 strongly agreed with the given statement. 3 nurses strongly disagreed the statement that nurses Nasal bridge, ear pad, masks, foams, straps, neck ties, tracheostomy faceplates, cervical collar are the main medical devices / equipment causing pressure ulcer 35 nurses disagreed, 28 remained neutral, 35 agreed and the 23 strongly agreed with the given statement. 7 nurses strongly disagreed the statement that nurses Devices indicated for multiple catheter use may require multiple sets of instructions 35 nurses disagreed, 28 remained neutral, 44 agreed and the 10 strongly agreed with the given statement. 4 nurses strongly disagreed the statement that nurses used the medical adhesive remover if needed 32 nurses disagreed, 34 remained neutral, 42 agreed and the 12 strongly agreed with the given statement. 6 nurses strongly disagreed the statement that nurses Patient, family and nursing education is necessary to reduce the risk of device generated pressure ulcer 44 nurses disagreed, 27 remained neutral, 40 agreed and the 7 strongly agreed with the given statement.

7 nurses strongly disagreed the statement that nurses Splints and casts can cause friction and



Table 2. Awareness about Medical Devices related pressure ulcer

Statements	Strongly disagree	disagree	Neutral	Agree	Strongly agree
	Freq %	Freq %	Freq %	Freq %	Freq %
Pressure ulcer classifications includes Stage 1, Stage 2, Stage 3 and Stage 4	11 8.9	57 46	14 11.3	34 27.4	8 6.5
Follow manufacturers instruction for indications,	4 3.2	31 25	29 23.4	50 40.3	10 8.1
Strong adhesives may cause skin damage with inappropriate application or removal techniques	27 21.8	50 40.3	16 12.9	25 20.2	6 4.8
Straps too tight can damage skin and impair circulation through venous compression	4 3.2	34 27.4	18 14.5	50 40.3	18 14.5
Choosing the correct device in the correct size is essential in applying the device and in preventing related skin injury	4 3.2	23 18.5	25 20.2	49 39.5	23 18.5
Avoid positioning a patient directly on top of a medical device, such as a drainage system	1 .8	36 29	28 22.6	46 37.1	13 10.5
Remove devices daily or more often to inspect the skin	1 .8	35 28.2	37 29.8	45 36.3	6 4.8
Inspect and reposition any device regularly, especially those placed under a bedridden or immobile patient	3 2.4	41 33.1	26 21	41 33.1	13 10.5
A nursing assistant may be the first care provider to notice pressure damage	5 4	42 33.9	26 21	36 29	15 12.1
Nasal bridge, ear pad, masks, foams, straps, neck ties, tracheostomy faceplates, cervical collar are the main medical devices / equipment causing pressure ulcer.	3 2.4	35 28.2	28 22.6	35 28.2	23 18.5
Inspect skin under and around the device at least	7 5.6	51 41.1	33 26.6	26 21	7 5.6
Educate staff on correct use of devices and prevention of skin breakdown	3 2.4	32 25.8	47 37.9	39 31.5	3 2.4
Devices indicated for multiple catheter use may require multiple sets of instructions	7 5.6	35 28.2	28 22.6	44 35.5	10 8.1
Use medical adhesive remover if needed to loosen the adhesive bond	1 .8	31 25	31 25	44 35.5	17 13.7
Consider using lotion, petrolatum, or mineral oil if not reapplying an adhesive product to the same area	4 3.2	32 25.8	34 27.4	42 33.9	12 9.7
Patient, family and nursing education is necessary to reduce the risk of device generated pressure ulcer	6 4.8	44 35.5	27 21.8	40 32.3	7 5.6
Splints and casts can cause friction and pressure injury to skin	7 5.6	36 29	31 25	33 26.6	17 13.7
Device related pressure ulcers can be caused by Blood pressure cuff, Trach ties and Oxygen mask	11 8.9	44 35.5	23 18.5	37 29.8	9 7.3
Ears, Cheeks, Forehead, Neck, Nose, Legs, Hells, Toes, Back, Buttocks and hands are susceptible parts of device related medical ulcer	11 8.9	37 29.8	38 21	26 30.6	12 9.7

pressure injury to skin 36 nurses disagreed, 31 remained neutral, 33 agreed and the 17 strongly agreed with the given statement.11 nurses strongly disagreed the statement that nurses Device related pressure ulcers can be caused by Blood pressure cuff, Trach ties and Oxygen mask 44 nurses disagreed, 23 remained neutral, 37 agreed and the 9 strongly agreed with the given

statement.11 nurses strongly disagreed the statement that nurses Ears, Cheeks, Forehead, Neck, Nose, Legs, Hells, Toes, Back, Buttocks and hands are susceptible parts of device related medical ulcer 37 nurses disagreed, 26 remained neutral, 38 agreed and the 12 strongly agreed with the given statement.10 nurses strongly disagreed the statement that nurses has sufficient training

for Medical Devices Related Pressure Ulcer 31 nurses disagreed, 38 remained neutral, 31 agreed and the 14 strongly agreed with the given statement.

DISCUSSION

Menche 2004.¹ concentrated the weight ulcer danger duty must be performed for a piece influenced character on charge to the intense medical clinic situation. A reexamination wants to be embraced if there are any progressions inside patient's situation. There is an implication of hazard appraisal scales (RAS) accessible. The reason for a RAS is to choose a people' peril of building up a pressure ulcer dependent on some of risk components (for example portability, subjective notoriety, healthful notoriety, and loads of others.).

A mixed methodologies explorative register changed with accomplished through Balzer et al. to have a see how nurture avoid weight ulcer hazard without the utilization of a reliant RAS. The quantitative component (N=106) of this view investigated what factors help nurture in surveying weight ulcer peril dependent on clinical judgment all alone. This transforms into the control watch for a semi exploratory preliminary wherein a built-up RAS come to be utilized. Balzer et al.² did not record the results of the semi trial preliminary in their watch. The subjective inconvenience (N=16) concerned semi-essentially based meetings with medical attendants to talk about weight ulcer possibility. Eight case vignettes, each speaking to an invented influenced individual case investigate, had been provided for discourse. The quantitative results demonstrate a vigorous connection between's awful versatility, orthopedic issues and incontinence with the association of an over the top hazard notoriety. In any case, circumstances related with tissue resistance/weakness (co-morbidities or lack of healthy sustenance) are overlooked.

Two research looked at weight ulcer event in

patients who experienced a built-up peril appraisal in evaluation to those patients who have been surveyed dependent on logical judgment without anyone else's input. The first of the 2 changed directly into a pretest-posttest assessment.³ The example changed into 265 sufferers. All medical caretakers taking an interest inside the have an investigation have been furnished with similar training independent of being inside the based RAS gathering, or the clinical judgment organization.

In the appraisal, the second examination, a cross-sectional survey by the strategy.⁴ A colossal capability for stress ulcer rate was found in two organizations. The test occurred in two in number well being center settings - one in Ireland and one in Norway. At the Irish site (N = 121), a set up RAS was utilized. As indicated by clinical judgment, the risk turns into an evaluation and is done independently on the Norwegian site (N = 50-9). For 85% of patients on the Irish site, a hazard appraisal has been started to survey the least perplexing 8% of patients entering the Norwegian website page. The consequences of this investigation propose the utilization of RAS in need to animate the centrality of the hazard evaluation for degenerative ulcers and to practice the following preventive measures.

The distinction in impacts among the last two research can be reality that in the inspector through Saleh et al. (2009) all medical caretakers got indistinguishable tutoring anyway examines establishment. In the investigation through Balzer et al (2014).² it will move toward becoming proposed that some danger components are forgotten while risk is evaluated put together absolutely with respect to therapeutic judgment all alone. These outcomes mirror the results of the look at by methods for Moore et al. (2015), wherein stress ulcer event ended up resolved to be lower even as a built-up RAS come to be used. Subsequently, it can be inferred that situated in this examination, utilizing a based RAS is valuable in weight ulcer counteractive action.

Joined methods have a watch through O'Brien and Cowman (2011).⁵ investigated the documentation of weight ulcer chance assessment and consequent consideration arranging. The nursing data (N=eighty-five) from intense consideration wards in an Irish sanatorium were assessed for the quantitative inspect. The subjective thing has turned into a point of convergence foundation of 13 medical caretakers. The outcomes said that sixty-one % of patients had a week by week peril evaluation recorded. One agrees to up risk evaluation changed into recorded in 25% of occasions. In spite of strong connections among strain ulcer improvement and supplements, best forty-8 % of at-danger patients have been healthfully evaluated. Reported consideration making arrangements wound up evident in 45% of influenced character records; with least complex forty-seven% of these appearing of consideration plans being executed.

A - cycle review performed by methods for utilizing Mahalingam et al (2014).⁶ in intense consideration putting in London furthermore evaluated the consistency of archived chance appraisals. Be that as it may, in assessment to O'Brien and Cowman (2011).⁵ this review moreover investigated the exactness of the peril assessment. The Water low scale was the RAS used in each examination. Amid cycle one, medical caretakers were approached to round out surveys after handover with respect to the utilization of the Water low scale and precaution rehearses. Following this, a short instructional meeting changed into held. The cycle began following quite a while of mediation, and the nursing assemblage of laborers changed into now not mindful the review moved toward becoming being done until definite contact. In standard, one hundred patients were enlisted all through each cycle.

CONCLUSION

34% nurses are aware off the types of pressure ulcer. 24% nurses know the damages due to

adhesive material. 55% nurses know that straps are cause of pressure ulcer. 42% nurses agreed that devices should be removed if not required. 47% nurses responded that Nasal bridge, ear pad, masks, foams, straps, neck ties, tracheostomy faceplates, cervical collar are the main medical devices / equipment causing pressure ulcer. Overall, there is more need to educated and train the nurses about medical devices related pressure ulcer.

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AUTHORSHIP AND CONTRIBUTION DECLARATION			
Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Sadia Musarrat Fazal Hussain		