



KNOWLEDGE, ATTITUDE AND PRACTICE OF PRESSURE ULCERS PREVENTION AMONG NURSES IN A TEACHING HOSPITAL.

Plastic Surgery

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ABSTRACT

Pressure ulcers have remained a persistent problem in our society in spite of advancement in technology of management. Relieving pressure over bony prominences plays major role in its prevention and subsequent healing of the ulcers. The role of nurses in prevention and management of the pressure ulcers cannot be over emphasized. Hence, their assessment of level of knowledge and attitude towards prevention of pressure ulcers.

Method: A cross sectional study with 260 questionnaires to assess level of knowledge and method of prevention of pressure ulcers.

Results: About 79% of the nurses had adequate knowledge and good attitude toward prevention and management of pressure ulcers.

Conclusion: Inadequate nursing staff and lack of continuous medical education account for high prevalence of pressure sore in this study.

KEYWORDS

pressure ulcers, decubitus ulcer, attitude, bony prominences

Introduction

Pressure ulcer is a common condition which has been in existence since ancient Egyptian times and scientific writings have addressed them since early 1800¹, it continues to remain an ever-present problem in our society. Decubitus ulcer and bedsores are often used synonymously with pressure ulcer. However, only the former indicate ulcer developed in supine position.

Pressure ulcer is defined as soft tissue injury resulting from prolonged unyielding pressure over bony prominence. The key to prevention and even healing of pressure ulcer is relieving the pressure. Approximately 9% of all hospitalized patients develop pressure sores. Fisher et al identified age (elderly), male gender, impaired sensory perception, moisture, immobility and poor nutrition as risk factors for developing pressure ulcer². In another study, female gender was rather identified as a risk factor³. According to the findings of Stal et al, incidence in spinal cord injuries patient is high, 20% in paraplegics, 26% in quadriplegics⁴.

About 96% of pressure ulcers occur below the level of umbilicus. In supine position, sacrum is the commonest site while in sitting position (on wheelchair), ischial tuberosity is the commonest site.

Pathologic changes occur when the external occlusive pressure exceeds the capillary perfusion pressure (32mmhg) for a prolonged period of time. Sustained unyielding pressure leads to hypoxia followed by ischaemia and then necrosis. These changes are evident first in the muscles which are least resistant to hypoxia, followed by superficial soft tissue and then the skin, which is most resistant to hypoxia. In experimental study done by Dinsdale et al, relieving pressure for at least 5 minutes result in absence of injury even with pressure as high as 450mmHg⁵. It is staged from 1 to 4 according to the American National Pressure Ulcer Advisory Panel.

Prevention is obviously the best treatment with good skin care, clean dry surface, regular (2hourly) turning of patients, urinary and faecal diversion as necessary, good nutrition, special pressure dispersion foams, air-fluidized beds, early ambulation as well as practicing the current preventive measures highlighted in this study.

Although, nurses do not have the sole responsibility for its prevention, they have a unique opportunity to have a significant impact on the problem since they are primarily involved with its prevention. Against this background, we therefore conducted this survey to assess the knowledge and prevention of this pathology among nurses in a teaching hospital.

Methods

A cross sectional study was done with a total of 260 questionnaires administered. Demographic information which includes; age, qualification, years of practice post qualification, status and ward of practice were obtained and participation in the study was entirely voluntary

Leading unambiguous questions were asked to obtain information on their knowledge, attitude and practice of preventive measures for pressure ulcers including barrier(s) against carrying out these preventive measures

Specific questions were asked such as "Are you aware of the current practices in prevention of pressure ulcer", "All nurses are well trained and equipped in preventing pressure ulcers", "What would you say is the cause of pressure ulcer?".

Frequency of contact with patients with pressure sores, prevention methods known, knowledge of preventive methods, were inquired about among other questions.

Data analyses was done using statistical package for social sciences (SPSS) version 16 with mean, frequencies calculated.

Results

Demographics

The demographic characteristics of the respondents are set out in table 1. Most of the respondents 221, (85.66%) were young nurses <40years. Table 1.

One hundred (46.95%) were registered nurses (RN), 41 (19.25%) were bachelor of nursing sciences (B. NSc) holders, while 72 (33.80%) had both. Seventy-one (28.40%) were student nurses, 61 (24.40%) were nursing officers, 44 (17.6%) were principal nursing officers, 30 (12.0%) were staff nurses, 26 (10.40%) were senior nursing officers while 17 (6.8%) were chief nursing officers and 1(0.4%) was assistant director of nursing services. One hundred and fourteen (66.82%) have practiced for <10years. Table 1.

Knowledge of prevention of pressure ulcers

About 200 (79.05%) of the respondents had adequate Knowledge of prevention of pressure ulcer and are aware of the current practices. Majority of respondents are knowledgeable about the various risk / predisposing factors to pressure ulcer which include poor nutritional status of the patient 16 (6.25%), medical condition of the patient like quadriplegia 19 (7.42%), insufficient nursing care 59 (23.05%), poor family support 2 (0.78%) and all the above factors 160 (62.5%). 217

(84.77%) are very confident at identifying and grading of pressure ulcer. Table 1.

Table 1: Biodata and experience of the respondents

Parameter	Number of respondents	Percentage
AGE IN YEARS		
<30years	117	45.35
30-40years	104	40.31
>40years	37	14.34
Qualification of respondents		
RN	100	46.95
B.NSc	41	19.25
Both	72	33.80
Status of respondents		
Student Nurse	71	28.40
Staff Nurse	30	12.0
Nursing officer	61	24.4
Senior Nursing officer	26	10.40
Principal Nursing officer	44	17.6
Chief Nursing officer	17	6.8
Assistant Director of Nursing services	1	0.4
Number of years in the profession		
5 years	72	34.12
5-10 years	69	33.70
>10 years	70	33.18

Majority of respondents agreed that good nutrition and adequate nursing care will go a long way in preventing pressure ulcer. 194 (77.91%) disagree that treatment of pressure ulcer is of greater priority than its prevention. Table 2

Table 2: Knowledge and practice of prevention of pressure ulcers

Parameter	Number of respondents	Percentage
Awareness of current practice in pressure ulcers prevention		
Yes	200	79.05
No	33	13.04
Not sure	20	7.91
How confident are you		
Very confident	217	84.77
Fairly confident	36	14.06
Not sure	3	1.17
Suggested Causes of Pressure Ulcers		
Poor nutritional status of the patient	16	6.25
Medical condition of the patient	19	7.42
Insufficient nursing care	59	23.05
Poor family support	2	78
All the above	160	62.50
Good Nutrition will prevent Ulcer		
Strongly agree	114	45.06
Agree	113	45.14
Strongly disagree	8	3.16
Disagree	16	6.32
Not sure	2	0.72
Preventive measures being practiced		
Risk assessment,	32	12.8
Regular review	20	0.8
Nutritional risk assessment	8	3.2
Regular turning	177	70.5
Equipment use	3	1.2

Attitude towards prevention of pressure ulcer

Most of the respondents have good attitude towards prevention of pressure ulcer. 237 (95.18%) see pressure ulcer prevention as largely the responsibility of nurses, 120 (47.81%) agree, while 34.66% strongly agree that pressure ulcer prevention is of high priority compared to other areas of nursing care. 97 (38.65%) disagree while 59 (23.51%) strongly disagree that pressure ulcer prevention is time consuming to carry out. Table 2

Practice

About 32 (12.75%) practice risk assessment, 20 (8.0%) regular review, 8 (3.2%) nutritional risk assessment, 177 (70.52%) regular turning, 3 (1.2%) use equipment, 11 (4.38%) all of the above. Table 2

Discussion

An acceptable level of knowledge among nurses of pressure ulcers and prevention of pressure ulcers has been demonstrated in the current study. However, the practice of all the current preventive measures are abysmally poor. These findings paralleled earlier reports⁶⁻¹⁰. Some reports have however, revealed contrary opinion¹¹⁻¹³

Another observation in the current study is that the status (cadre) of the nurses have an influence on their awareness of the current preventive measures, with staff nurses and nursing officers being the most knowledgeable and chief nursing officers least knowledgeable, this is statistically significant (p= 0.001). This could be because the high ranking officers are likely to do more administrative than clinical work and may not have received any formal training on pressure ulcer prevention in recent times. Nurses with B. NSc also have a slight edge over the RN with regards to their awareness of the current pressure ulcers' preventive measures (p=0.728)

Nurses working in surgical wards are likely to come in contact with at risk patients like multiply injured patients, spinal injured patients and therefore, come in contact with patients with pressure ulcers more often than others, 23.14% (56) in male surgical ward (MSW), 16.94% (41) in Female Surgical Ward (FSW). This may be because patients who are at risk of developing pressure ulcers are often the ones admitted in these wards.

There is, however, poor correlation between knowledge and practice of pressure ulcer prevention as 62.5% are knowledgeable about various causes of pressure ulcers while only 4.38% practice the various current preventive measures. This is similar to findings earlier reported^{7,8&14}

Evidence-based methods for risk assessment are available but are not adopted and used in practice, with short staffing considered by most of the respondents, as the barrier to carrying out these preventive measures. Figure 1

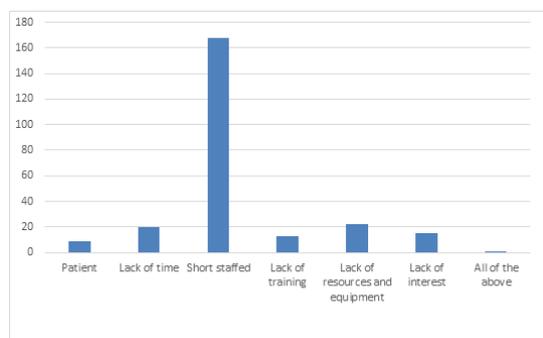


Fig 1: Suggested Barriers to pressure ulcer prevention

Conclusion

There is an acceptable level of knowledge among nurses on pressure ulcer prevention, with good attitude towards its prevention. However, there is poor correlation between knowledge and practice. Inadequate staff is considered as the major barrier against effective practice of pressure ulcer prevention

We advocate more awareness, continuous educational programmes, and adequate nursing staff to reduce to the barest minimum this pathology.

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