An Evaluation of Pain Assessment Knowledge and Management among Nurses in Selected Hospitals in Benin-City Edo State, Nigeria.

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ABSTRACT

Pain a significant global health concern that affect all races, genders, ages, geographical locations, and socioeconomic classes. Previous studies have reported poor knowledge of pain assessment among nurses. Assessment of pain is the first and most important step in pain management. Inadequately managed pain has many consequences for the patient, family, health professionals, and society. This study aims to assess the knowledge of pain assessment and management among nurses in selected hospitals in Benin-city Edo State, Nigeria. This study was carried out among 140 nurses in two selected mission hospitals in Benin City. A descriptive cross-sectional study design was used and convenience sampling technique was used to select study participants until the sample size was gotten. A self-administered questionnaire was used to collect information from the participants after undergoing pretesting for clarity in another secondary health facility. Data was analyzed using SPSS version 20.0 and statistical significance was set at $p < 0.05$ at 95% confidence interval. Ethical clearance was obtained from the Research Ethics Committee of Benson Idahosa University. Result shows that, Majority of the respondents in both hospitals had good knowledge of pain assessment with training and journals as the major source of information. While some got theirs from friends. The most common non pharmacologic intervention for pain used in both hospital is relaxation techniques while other techniques are not commonly used. Prescription pain medication is the common pharmacologic intervention in both hospitals. In conclusion proper pain management can lead to quick recovery and reduced complications and shorter hospital stay, foster nurse-patient communication effectively.

Keyword: Pain, Assessment, Nurses

INTRODUCTION

Pain a significant global health concern and it affects all races, genders, ages, geographical locations, and socioeconomic classes (Umuhoza *et al*., 2020). It is estimated that 50–80% of hospitalized patients suffer pain (Liyew *et al*., 2020). This is common among older adults, with a global prevalence ranging from 45% to 80% (Nguyen *et al*., 2021). Chronic pain affects approximately 20% of the adult population in developed countries, with higher rates observed in women, the elderly, and even children (Nguyen *et al*., 2021). In developing countries, the prevalence of chronic pain ranges from 13% to 51% (Sá *et al*., 2019). The International Association for the Study of Pain, described pain as an unpleasant sensory and emotional experience that may be linked to actual or potential tissue damage (Raja, 2020). Pain is regarded as the fifth vital sign and as

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important as the other vital signs (Imoro *et al.*, 2019). Pain which presents as localized or generalized pain, if left untreated, can significantly impact a patient's quality of life, affecting their physical, emotional, and spiritual well-being (Liyew *et al*., 2020). Assessment of pain is the first and most important step in pain management (Cox *et al*., 2018). Pain assessment practices must be considered during admission, after a change in medical status, prior to, during, and after procedures. In recent decades, pain has become an important area of research and pain management a top priority in healthcare (Alkhatib *et al*., 2020). Assessment results must be documented and disseminated to all those involved in a patient's care. Nociceptive and neuropathic are two types of pain patient tolerate during hospitalization (Kahsay *et al*., 2019).

Lack of training in skilled pain care for healthcare workers, has limited pain treatment in developing countries (IASP, 2018). Inadequately managed pain has many consequences for the patient, family, health professionals, and society. Patients may have emotional reactions related to pain such as anxiety, sleeplessness and hopelessness. These reactions can be followed by unusual behaviors expressed by the patient in response to the unpleasant life experience. Untreated pain has additional risks such as prolonged hospital stay, delayed recovery, and the development of chronic and persistent pain (Alabi *et al*., 2020). It is also known that poor analgesia leads to immobility and increase cardiovascular, respiratory, and gastrointestinal complications (Paladini *et al*., 2022).

Report suggests poor compliance among nurses in recording and reporting pain assessment findings in low-income countries (Grunauer *et al*., 2021). Nurses play a crucial role in pain management decisions, as they spend considerable time with patients. Nurses should use a consistent and methodical approach to pain exploration. Furthermore, nurses should consider pain assessment principles while using assessment techniques and instruments. Studies conducted in various countries, including Turkey, Saudi Arabia, and Ethiopia, have shown that nurses often lack adequate knowledge and possess unfavorable attitudes toward pain management (Andualem *et al*., 2018). Research suggests that inadequate knowledge and inappropriate attitudes of nurses regarding pain management have substantial effects on patient care and treatment (Menlah *et al*., 2018).

Findings from this study will be valuable to improve patient's outcome via proper pain management which can lead to quick recovery and reduced complications and shorter hospital stay, foster nurse-patient communication effectively. This study will also provide adequate information to improve nurses' knowledge towards pain assessment practices and management. Through this study nurses would be able to improve patient with quality care and comfort with overall satisfaction with their health care experience. The aim of this study is to determine pain assessment knowledge and management among nurses in selected hospitals, Benin-City.

METHODOLOGY

This study was carried out among 140 nurses in two selected mission hospitals in Benin City for year. The hospitals a mission hospital offers secondary health care services. A descriptive cross-sectional study design was used and convenience sampling technique was used to select study participants based on their availability for the study from the study locations until the sample size was gotten. A structured self-administered questionnaire was used to collect information from the participants after undergoing pretesting for clarity in another secondary health facility. The questionnaire was developed based on relevant literature and guidelines, and its content validity was ensured through expert review. Participants would be given enough time to complete the questionnaire, and their anonymity and confidentiality would be maintained throughout the study. Data was analyzed using SPSS version 20.0 and statistical significance was set at $p < 0.05$ at 95% confidence interval. Univariate analysis was used to summarise data. Bivariate analysis of variables was done. P was set $P<0.05$ at 95% confidence interval. Ethical clearance for this study was obtained from the Benson Idahosa University Ethics and Research committee. Approval was sought from the management of St Philomena hospital and Faith mediplex. Verbal informed consent was obtained from the participants before inclusion in the study.

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RESULTS

The data from the table indicates that out of 140 participants, 42 (30%) were male and 98 (70%) were female. In terms of age distribution, 20 (14.3%) were in the 20-25 age group, 36 (25.7%) were in the 26-35 age group, 62 (44.3%) were in the 36-45 age group, and 22 (15.7%) were 46 and above. Moreover, 86 (61.4%) had an educational qualification of RN/RM, 42 (30%) had a B.SC, and 12 (8.6%) fell into the 'Others' category. Regarding years of nursing experience, 24 (17.1%) had less than 1 year, 72 (51.4%) had 1-5 years, 28 (20%) had 6-10 years, and 16 (11.4%) had 10 years or more. Additionally, for years of working with the health institution, 22 (15.7%) had less than 1 year, 32 (22.9%) had 1-3 years, 48 (34.3%) had 3-5 years, and 38 (27.1%) had 5 years or more. In terms of grade level, 38 (27.1%) were in the 7-9 range, 58 (41.4%) were in the 10-12 range, 30 (21.4%) were in the 13-15 range, and 14 (10%) were 15 and above. Lastly, across various units/departments, 22 (15.7%) were in A & E, 38 (27.1%) were in O & G, 30 (21.4%) were in the surgical ward, 32 (22.9%) were in the medical ward, and 18 (12.9%) were in other departments.

Majority of the respondents in faith mediplex [89 (63.6%)] and St philomena [23(16.4%)] had good knowledge of pain assessment while about 19(13.6%) and 7 (5%) respondents had poor knowledge of pain assessment. Training (19.3%), journals (24.3%) were the major source of information for commonly used tool for pain assessment for nurses in faith mediplex while training (7.9%), journals (10%) were also very common source of information for commonly used tool for pain assessment in St Philomena. Majority of the respondents in Faithmediplex [84(60%)] and St philomena [28(20%)] have been trained on pain assessment while about 15% and 5% of the respondents in Faithmediplex and St philomena has not been trained.

The most common non pharmacologic intervention for pain used in faith mediplex (20%) and St Philomena (19.3%) is relaxation techniques while other techniques are not commonly used. Prescription pain medication is the common pharmacologic intervention in faith mediplex (24.%) and St philomena (24.%).

DISCUSSION OF FINDINGS

The findings suggest that 60% of nurses in Faith Mediplex Hospital and 20% in St. Philomena Hospital use pain assessment tools. This finding aligns with previous research by Zhang *et al*. (2020) and a study conducted in Uganda which found adequate knowledge of pain assessment among nurses in 2018 (Iwanuka *et al*., 2018). This is different from a study that reported low knowledge among nurses in Ethiopia (Rathnayake *et al*.,2012). However, the disparity between the two hospitals could indicate differences in institutional protocols or training practices, highlighting the need for further investigation. Assessment of pain is the first and most important step in pain management (Cox *et al*., 2018). It is notable that assessing pain decreases overtreatment and treatment-related adverse effects. This study found that a significant proportion of nurses in both hospitals rely on journals and trainings as a source of information. This aligns with previous research by Chambers (2018), emphasizing the importance of evidence-based practices in pain management. However, the reliance on informal sources such as friends raises concerns about the potential impact on the quality of pain assessment.

This study found that 60% of nurses in Faith Mediplex Hospital and 20% in St. Philomena Hospital have received training on pain assessment and management. This echoes the findings of Mirlashari *et al*. (2020), emphasizing the significance of continuous education for enhancing nursing practices. However, the lower training percentage in St. Philomena Hospital suggests potential disparities in resource allocation or institutional priorities, indicating the need for standardization of training programs to ensure uniform quality of care. Lack of training in skilled pain care for healthcare workers, has limited pain treatment in developing countries (IASP, 2018). If left untreated, pain can significantly impact a patient's quality of life, affecting their physical, emotional, and spiritual well-being (Liyew *et al*., 2020).

This study found that relaxation technique was the most common non pharmacologic intervention for pain management used in both hospitals. These findings align with the research by Chou *et al*. (2017). The study indicate that prescription pain medication is the primary pharmacological interventions used. These findings resonate with the study by Ballantyne and Sullivan (2022).

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Inadequately managed pain has many consequences for the patient, family, health professionals, and society. Patients may have emotional reactions related to pain such as anxiety, sleeplessness and hopelessness. These reactions can be followed by unusual behaviours expressed by the patient in response to the unpleasant life experience. Untreated pain has additional risks such as prolonged hospital stay, delayed recovery, and the development of chronic and persistent pain (Alabi *et al*., 2020). This study did not delve into how nursing management of pain

CONCLUSION

Nurse's knowledge of pain assessment and management will lead to quick recovery and reduced complications and shorter hospital stay, foster nurse-patient communication effectively.

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Table 1: Socio demographic information of respondent from both hospitals

Variable	**Categories**	**Frequency N=140**	**Percentage (%)**
Gender	Male	42	30
	Female	98	70
Age group	20 – 25 years	20	14.3
	26 – 35 years	36	25.7
	36 – 45 years	62	44.3
	46 and above	22	15.7
Educational qualification	RN/RM	86	61.4
	B.SC	42	30
	Others	12	8.6
Years of nursing experience	Less than 1 year	24	17.1
	1 – 5 years	72	51.4
	6 – 10 years	28	20.0
	10 years and above	16	11.4
Years of working with that health institution	Less than 1 year	22	15.7
	1 – 3 years	32	22.9
	3 – 5 years	48	34.3
	5 years and above	38	27.1
Grade level	7 – 9	38	27.1
	10 – 12	58	41.4
	13 – 15	30	21.4
	15 and above	14	10.0
Unit/ department	A & E	22	15.7
	O & G	38	27.1
	Surgical ward	30	21.4

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	Medical ward Others	32 18	22.9 12.9

Table 2. Nurse's knowledge of pain assessment

Knowledge of pain assessment	Frequency	Percentage (%)
Faith Mediplex		
Good	89	63.6
Poor	19	13.6
St Philomena		
Good	23	16.4
Poor	7	5

Table 3: Source of information for commonly used tool for pain assessment in Faith Mediplex Hospital

Source of Information	**Frequency**	**Percent**
Friends	22	15.7
Training	27	19.3
Journals	34	24.3
Others	17	12.1

Table 4: Source of information for commonly used tool for pain assessment In St. Philomena Hospital

Source of Information	**Frequency**	**Percent**
Friends	9	6.4
Training	11	7.9
Journals	14	10.0
Others	6	4.3

Table 5: Training on pain assessment and management in the last 1year

Trained on Pain Assessment	**Frequency**	**Percent**
Faith Mediplex		
Yes	84	60.0
No	21	15.0
St Philomena		

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Yes	28	20
No	7	5

Non-Pharmacological Intervention for Pain

Table 6: Faith Mediplex hospital

Non-Pharmacological Intervention	Frequency	Percent
Positioning and comfort measures	15	10.7
Relaxation techniques	28	20.0
Distraction therapy	5	3.6
Physical therapy	13	9.3
Other	9	6.4

Table 7: Non-Pharmacological Intervention in St. Philomena hospital

Non-Pharmacological Intervention	Frequency	Percent
Positioning and comfort measures	16	11.4
Relaxation techniques	27	19.3
Distraction therapy	4	2.9
Physical therapy	8	5.7
Other	9	6.4

Table 8: Pharmacological intervention for pain Faith mediplex hospital

Pharmacological Intervention	Frequency	Percent
Prescription pain medication	34	24.3
Intravenous (IV) analgesics	16	11.4
Epidural analgesia	8	5.7
Others	14	10.0

Table 9: Pharmacological intervention for pain in St. Philomena hospital

Pharmacological Intervention	Frequency	Percent
Prescription pain medication	34	24.3
Intravenous (IV) analgesics	16	11.4
Epidural analgesia	7	5.0
Others	11	7.9

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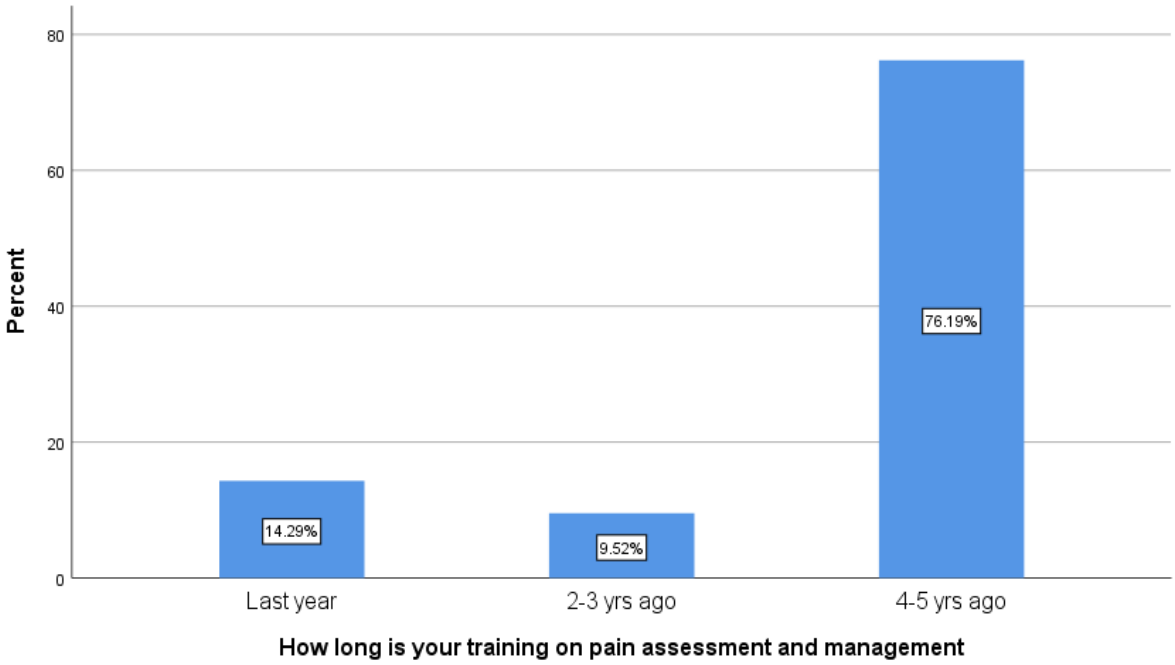

Table 4.1.5: Appropriate assessment of pain

Faith mediplex hospital

Appropriate Assessment of Pain	Frequency	Percent	Valid Percent
Yes	106	75.7	78.2
No	11	7.9	8.1
Missing	2	1.4	0
Total	**119**	**85.0**	**86.3**

St. Philomena hospital

Appropriate Assessment of Pain	Frequency	Percent	Valid Percent
Yes	17	12.1	12.5
No	2	1.4	1.5
Missing	2	1.4	0
Total	**21**	**15.0**	**14.0**

Mean = 1.10

S.D = .295