

Knowledge and Attitude of Nurses Towards Post-Operative Pain Management in Muhammadu Abdullahi Wase Teaching Hospital Kano - Nigeria

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Abstract

Knowledge and attitude of Nurses towards post-operative pain management in Muhammadu Abdullahi Wase Teaching hospital Kano. Knowledge and skills of Nurses towards post-operative pain managements haven being an issue in Muhammad Abdullahi Wase Teaching hospital due to workload, inadequate staffs, lack of adequate equipment's to access patient level of pain .Aim to assessed the knowledge level of Nurses towards post-operative pain management, to determine the level of Nurses attitude towards post-operative pain management and identified the complication of inadequate post-operative pain management in Muhammad Abdullahi Wase Teaching Hospital Kano. Post-operative pain management has been an integral issue in patient who has undergone surgery leading to poor wound healing and prolong hospital stay. The descriptive research design was used to uncover knowledge and attitude of nurses towards postoperative pain management, a self-structured questionnaire was administered to population of fifty-eight (58) respondents and sample size of fifty (50) was determined using Taro Yamane formula for determining sample size $n = N / (1 + N(e)^2)$. Method of data analysis was done using SPSS version 22. The result of the study shows that Nurses have a good knowledge and attitude towards post-operative pain managements. It was concluded that Nurses in surgical wards should indulge into continuing education programmed, in-house training and seminars in pain managements to boost their knowledge and skills.

Keywords: *Knowledge, Staff Attitude, Adequate equipment and Management*

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Background to the Study

Knowledge and skills of nurses towards post-operative pain management have being an issue in Abdullahi Wase specialist Hospital. Due to workload, inadequate staffs, lack of adequate equipment's to access patient level of pain. Post-operative pain management has been an integral issue in patient who has undergone surgery leading to poor wound healing and prolong hospital stay. Nurse's involvement in pain management conclude that nurses play an important role in both acute and chronic pain management, especially regarding pain assessment and monitoring, but also educating patients and co-workers (Courtenay et al, 2013). Shockingly, ineffective pain management is quite common event across the globe that leads to numerous problems. One of the most important aspects of patient's pain management is the role of nurses. Having such important and impossible, nurses must be sound knowledge based on effective training of pain management (Al Qadire et al, 2014). Bernardi et al (2007) in their literature asserts that 50% of healthcare professional lack enough knowledge on pain assessment and pain management. Pain assessment is one of the most important components of pain management. Therefore, in many healthcare organizations, pain is assessed on frequent basis. Also, many experts believe that pain shall be considered the 5th vital sign (Ekim et al, 2013).

According to a research conducted in Ethiopia Africa, a study conducted by the Ethiopian Public Health Association in 2005 showed that health care providers believes that pain was under treated due to unstandardized practice, of medication and poor knowledge and attitude among professionals. The study accesses the quality of postoperative pain management in surgical wards of Jimma University specialized Hospital (JUSH) by examining the incidence, intensity and interference of pain. Satisfaction and attitude of patient plus the pattern of pharmacological and non-pharmacological intervention with regard to pain management were also examined. The aim of the international Association for the study of pain (2018) is to translate the study of pain into improved pain relief Worldwide. Nurses constitute the biggest population of the health work force and have 24- hour direct contact with patients. (World Health Organization, 2016). Some previous studies in post-operative pain management identified suboptimal pain management practices among nurses which attribute to nurses 'professional culture, ward culture, inadequate requisite theoretical knowledge, lack of priority towards pain management, and lack of clarity on the evidence base for different pain management intervention (Eccleston et al,2011).

Materials and Method

This research discussed the necessary step employed in carrying out this study. It described the research design, setting of the study, target population, sample size and technique, research instruments, measures of establishing the validity and reliability of the instruments, ethical consideration, and the procedure that were adopted for data collection and analysis.

Design

The descriptive research design was used to uncover knowledge and attitude of nurses towards postoperative pain management. A self-structured questionnaire was administered to the participants.

Setting

The research study was conducted in Muhammadu Abdullahi Wase Teaching Hospital Nassarawa Kano (Specifically the surgical wards). It is situated at Nassarawa local government area of Kano state, Nigeria. The Hospital is opposite to Nassarawa orphanage Home at Nassarawa Local Government in the Eastern region, at the southern region it was bound to the Kano State government house, while at the western region, it was bound to Kano Main Railway Station and lastly northern region were it bound to World Health Organization head quarter, Kano. There are various wards, units or sections where nurses work such as Male surgical ward, Male Medical ward, Accidents and emergency Unit, Lying Ward I, Lying Ward II. Pediatric ward, Female Medical Ward, Labor Ward, Nursery Unit, Eye Clinic, Ear Nose and Throat Clinic, Hemodialysis Unit, Antenatal Clinic, Family Planning Unit, Male Theatre, Female Theatre and Causality Theatre e.t.c There are fifty eight (58) both male and female nurses in the hospital. The Hospital offers primary, secondary, and tertiary care. It serves not only Kano state but other town and neighboring states like Jigawa, Bauchi, and Katsina e.t.c.

Target Population

The target population of study consists of 58 nurses working in Muhammadu Abdullahi Wase Teaching Hospital. Professional Registered Nurses from all the surgical wards in the study setting were eligible to participate in the study regardless of age or years of experience.

Sample size

The sample size of 51 was used for the study. It was determined using Taro Yamane formula: $n = N / (1 + N (e)^2)$: where n signifies the sample size; N signifies the target population under study; e signifies the margin error (0.05) which is at 95% confident interval.

$$\begin{aligned} \text{Therefore } n &= 58 / (1 + 58 (0.05)^2) \\ n &= 58 / (1 + 58 (0.0025)) \\ n &= 58 / 1 + 0.145 \\ n &= 58 / 1.145 \text{ finally, } n = 50.655 \text{ Approx. } 51 \end{aligned}$$

The sample size of the study was 50 respondents both male and female nurses will be used as accessible population of wards/units that will represent the target population of the study in generalization of findings of the study. A total of 50 well developed questionnaires were distributed to the target population.

Sampling Technique

Stratified sampling technique was used to group respondents into wards namely Male Surgical Ward, Laying in Ward I, pediatric ward and Lying in Ward II. Disproportionate stratified allocation was done, respondents for the study within strata as follows; Male Surgical Ward (15) nurses, Lying in Ward I (15) nurse, pediatric ward (15) , lying in Ward II (13) nurses. Convenience sampling technique was used in selecting respondents to participate in the study. 50 Registered Nurses were selected using sampling size of target population and based on inclusion eligibility and exclusive criteria.

Instrument for Data Collection

The instrument for data collection was self-developed structured questionnaire for the respondents. After thorough literature review containing lists of statement for collection of information on research questions which include: section A: The socio-demographic characteristics of nurses which addresses participant age, gender, years of experience, level of education and professional rank; Section B are the knowledge level of Nurses towards post-operative pain management? Section C: the levels of attitude of nurses on post-operative pain management in Muhammadu Abdullahi Wase Teaching Hospital? while Section D: was the factors that led to complication of post-operative pain management in Muhammadu Abdullahi Wase Teaching Hospital?. Likert scale was used to measure knowledge, attitude and complication of inadequate postoperative pain as S A= strongly agreed, A=Agreed, S D=strongly disagreed, D= Disagreed

Validity of Instruments

The validity of the instrument was ensured by face and content which the experienced professional ensured the measurability of the research instruments was made to improve the efficiency.

Reliability of Instruments

Reliability of the instruments was obtained through test-retest method. This was established by conducting pilot study. The data from the pilot study was processed and the reliability coefficient was calculated. The internal consistency of the items in the questionnaire was calculated using Cronbach's alpha method. The result was then used to reframe the questionnaire for final data collection.

Method of Data Collection

A self-structured questionnaire was administered to the respondents and collected on daily basis which took two weeks for the researcher to distribute and collect questionnaires. The respondents filled the questionnaires in ten to fifteen minutes on the spot. Ten questionnaires were distributed on morning and evening shift for 10days.

Results

Method of Data Analysis

The data for the research was collected and analyzed using Statistical Package for Social Science (SPSS Version 22). Data will be then presented in tables, bar charts and pie charts that will be represented in percentages while grading was used to show relationship between the knowledge and attitude of nurses towards post-operative pain management.

Data analysis and presentation

The study investigated Knowledge and attitude of nurses towards post-operative pain management. In order to realize this, data was gathered from surgical ward nurses in Muhammadu Abdullahi Wase Teaching Hospital, Nassarawa, Kano State. The analyses of the field data were done both quantitatively and qualitatively.

Section B - To assess the levels of knowledge of Nurses towards post-operative pain management.

Table 1: Pain is the most important aspect of operative management

	Frequency	Percent	Cumulative Percent
Strongly Agreed	24	48.0	48.0
Agreed	24	48.0	96.0
Strongly Disagreed	1	2.0	98.0
Disagreed	1	2.0	100.0
Total	50	100.0	

From the above table it was observed that 24 and 48% of the total respondents strongly agreed that pain is the most important aspect of operative management, 24 and 48% of the respondent agreed the fact while 1 and 2% of the respondent disagreed, and this shows that pain is the most important aspect of operative management.

Table 2: Inadequate Intra Operative Pain Management Usually Aggravates Post-Operative Pain

	Frequency	Percent	Cumulative Percent
Strongly Agreed	20	40.0	40.0
Agreed	25	50.0	90.0
Strongly Disagreed	3	6.0	96.0
Disagreed	2	4.0	100.0
Total	50	100.0	

From the above table it was clearly seen that 25 and 50% of the respondent agreed that inadequate intra operative pain management usually aggravates post-operative pain, 20 and 40% of the respondent agreed with the above assertion, 3 and 6% of the respondents strongly disagreed while 2 and 4% of the respondent disagreed to the fact that inadequate intra-operative pain management usually aggravated post-operative pain. It was clearly seen base on the response of the respondents that inadequate intra operative pain management usually aggravates post-operative pain.

Table 3: Nurses must have knowledge on post-operative pain management

	Frequency	Percent	Cumulative Percent
Strongly Agreed	35	70.0	70.0
Agreed	13	26.0	96.0
Strongly Disagreed	1	2.0	98.0
Disagreed	1	2.0	100.0
Total	50	100.0	

From the table above 35 and 70% of the respondents strongly agreed that all nurses must have knowledge on post-operative pain management 13 and 26% of the respondent agreed, 1 and 2% strongly agreed, while, also 1 and 2% strongly disagreed that all nurses must have knowledge on the post-operative pain management. This signifies that, majority of the respondents agreed that all nurses must have knowledge on post-operative pain managements.

Table 4: Vital sign is always reliable indicators of patient' pain

	Frequency	Percent	Cumulative Percent
Strongly Agreed	19	38.0	38.0
Agreed	19	38.0	76.0
Strongly Disagreed	3	6.0	82.0
Disagreed	9	18.0	100.0
Total	50	100.0	

From the above table, it was seen that 19 and 38% of the respondent strongly agreed that vital sign are always reliable indicators of patient's pain, another 19 and 38% of the respondent agreed, 9 and 18% of the respondent disagreed while 3 and 6% of the respondent disagreed that vital sign are always reliable indicators of patient pain. This signifies that vital sign are always reliable indicators of patient's pain because majority agreed to the fact.

Table 5: The most accurate judged of the intensity of the patient's pain is the nurse

	Frequency	Percent	Cumulative Percent
Strongly Agreed	16	32.0	32.0
Agreed	20	40.0	72.0
Strongly Disagreed	6	12.0	84.0
Disagreed	8	16.0	100.0
Total	50	100.0	

The above table clearly shows that 20 and 40% of the respondent agreed that the most accurate judge of the intensity of the patient's pain is the nurse, 16 and 32% of the respondent strongly agreed 8 and 16 of the respondent disagreed while 6 and 12% of the respondent strongly disagreed that the most accurate judge of the intensity of the patient's pain is the nurse. In this it was observed that the most accurate judged of the intensity of the patient's pain is the nurse because, there is positive response as the majority of the respondent agreed to the fact.

Table 6: Effective analgesia is an essential part of post-operative pain management

	Frequency	Percent	Cumulative Percent
Strongly Agreed	19	38.0	38.0
Agreed	27	54.0	92.0
Strongly Disagreed	2	4.0	96.0
Disagreed	2	4.0	100.0
Total	50	100.0	

The above table shows that 27 and 54% of the respondent agreed that effective analgesia is an essential part of operative pain management, 19 and 38% of the respondent strongly agreed, 2 and 4% of the respondent strongly disagreed while 2 and 4% of the respondent disagreed that effective analgesia is an essential part of post-operative pain management. It is observed that effective analgesia is an essential part of post-operative pain management because majority of the respondent agreed to the fact.

Table 7: When using WHO ladder to treat acute pain, treatment should go from bottom to top

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agreed	18	36.0	36.0	36.0
Agreed	18	36.0	36.0	72.0
Strongly Disagreed	5	10.0	10.0	82.0
Disagreed	9	18.0	18.0	100.0
Total	50	100.0	100.0	

From the above table it was observed that 18 and 36 % of the respondent strongly agreed that 'when using WHO ladder to treat acute pain, treatment should go from top to bottom', another 18 and 36% of the respondent agreed, 9 and 18% of the respondent disagreed while 5 and 10% of the respondent disagreed that 'when using Who ladder to treat acute pain, treatment should go from bottom to top. Base on the response of the despondent, it was clearly seen that treatment should go from top to bottom when using WHO ladder.

Section C; to assess the level of attitude of Nurses towards post-operative pain management in Muhammadu Abdullahi Wase Teaching Hospital Kano

Table 8: Does your attitudes play an important role to post-operative pain?

	Frequency	Percent	Cumulative Percent
Strongly Agreed	26	52.0	52.0
Agreed	17	34.0	86.0
Strongly Disagreed	6	12.0	98.0
Disagreed	1	2.0	100.0
Total	50	100.0	

From the above table it was indicated that 26 and 52% of the respondent strongly agreed that 'attitudes of nurses play an important role to post-operative pain', 17 and 34% of the respondent agreed while on the other hand 6 and 12% of the respondent strongly disagreed, 1 and 2% of the respondent disagreed that "one's attitude play an important role to post-operative pain management". Base on the response of the respondent, it was seen that majority of the respondent agreed that attitude play an important role to post-operative pain management.

Table 9: Does your cultural background affect your attention to patient's report of pain?

	Frequency	Percent	Cumulative Percent
Strongly Agreed	15	30.0	30.0
Agreed	17	34.0	64.0
Strongly Disagreed	5	10.0	74.0
Disagreed	13	26.0	100.0
Total	50	100.0	

From the above table, it was seen that 17 and 34% of the respondents agreed that respondent's cultural background affect their attention to patient's report of pain and 15 which is 30% of the respondents strongly agreed on the other hand 13 which is 26% of the respondent disagreed and 5 which is 10% of the respondents strongly disagreed that respondent cultural background affect their attention to patient report of pains. Base on the response obtained it shows that respondent cultural backgrounds affect their attention to patient's report of pain.

Table 10: Your visual assessment of the patient's report of pain influences your responses and treatment of post-operative pain?

	Frequency	Percent	Cumulative Percent
Strongly Agreed	15	30.0	30.0
Agreed	27	54.0	84.0
Strongly Disagreed	3	6.0	90.0
Disagreed	5	10.0	100.0
Total	50	100.0	

From the above table, it was observed that 27 which is 54% of the respondents agreed that respondent's visual assessment of the patient's report of pain influences your responses and treatment and 15 which is 30% of the respondent agreed while on the other hands, 5 and 10% of the respondent disagreed and lastly 3 or 6% of the respondent strongly disagreed that respondents' visual assessment of the patients report of pain influences respondent's responses and treatment. Base on this, it was agreed that nurse's assessment of patient's reports of pain influences respondent's responses and treatment of post-operative pain.

Table 11: Does lack of patient compliance leads to post-operative pain?

	Frequency	Percent	Cumulative Percent
Strongly Agreed	22	44.0	44.0
Agreed	20	40.0	84.0
Strongly Disagreed	1	2.0	86.0
Disagreed	7	14.0	100.0
Total	50	100.0	

From the above table it was observed that 22 and 44% of the respondent strongly agreed that lack of patient compliance leads to post-operative pain and 30 which is 40% of the respondent agreed on the other hand, 7 which is 14% of the respondent disagreed while only 1 which is 2% of the respondent strongly disagreed that lack of patient compliance leads to post-operative pain. In this, it was clearly observed that lack of patient compliance lead to post-operative pain base on the percentages.

Table 12: The patient who frequently requests pain medication influences your response time to analgesic

	Frequency	Percent	Cumulative Percent
Strongly Agreed	3	6.0	6.0
Agreed	27	54.0	60.0
Strongly Disagreed	8	16.0	76.0
Disagreed	12	24.0	100.0
Total	50	100.0	

From the above table it was observed that 27 which are 54% of the respondent agreed that patient who frequently requested for pain medication influences the response of the time to analgesic while only 3 which are 6% of the respondent strongly agreed on the other hand 12 which is 24% of the respondent disagreed and lastly 8 which represent 16% of the respondent strongly disagreed that the patient who frequently requested for pain medication influences your response time to analgesic. Base on the response of the respondents it was clearly shows that “Patient who frequently requests for pain medication influences your response time to analgesic.

Table 13: It is a patient's right to expect total post-operative pain relief as a consequence of treatment

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agreed	23	46.0	46.0	46.0
Agreed	20	40.0	40.0	86.0
Strongly disagreed	1	2.0	2.0	88.0
Disagreed	6	12.0	12.0	100.0
Total	50	100.0	100.0	

From the above table, it was indicated that 23 representing 46% of the respondent strongly agreed that patient's right to expected total post-operative pain relief as a consequence of treatment, while 20 which represented 40% of the respondent agreed, on the other hand 6 which is 12% of the respondent disagreed and 1 which is 2% of the respondent strongly disagreed that it was a patient's right to expect total post-operative pain relief as a consequence of treatment. Base on the response of the respondent it was agreed that it is patient's right to expect total post-operative pain relief as a consequence of treatment.

Table 14: Effective analgesia is an essential part of post-operative pain management.

	Frequency	Percent	Cumulative Percent
Strongly Agreed	30	60.0	60.0
Agreed	20	40.0	100.0
Total	50	100.0	

From the above table, it was agreed that effective analgesia is an essential part of post-operative pain management because the entire respondent agreed to the fact.

Section D; to assess the factors that lead to post-operative pain management in Muhammadu Abdullahi Wase Teaching Hospital

Table 15: Poorly treated post-operative pain leads to prolonged hospital stay

	Frequency	Percent	Cumulative Percent
Strongly Agreed	20	40.0	40.0
Agreed	25	50.0	90.0
Strongly Disagreed	2	4.0	94.0
Disagreed	3	6.0	100.0
Total	50	100.0	

From the above table it was showed that 25 which is 50% of the respondent agreed that poorly treated post-operative pain lead to prolong hospitalization and 20 which is 40% of the respondent strongly agreed, while, on the other hand 10% disagreed. Base on the response recorded that poorly pain management lead to prolong hospital stayed.

Table 16: Poor communication between nurses and patients can cause inadequate pain management

	Frequency	Percent	Cumulative Percent
Strongly agreed	19	38.0	38.0
Agreed	27	54.0	92.0
Strongly disagreed	2	4.0	96.0
Disagreed	2	4.0	100.0
Total	50	100.0	

From the above table it was seen that 27 which is 54% of the respondent agreed that “Poor communication between nurses and patients can cause inadequate pain management” and 19 which is 38% of the respondent strongly agreed while on the other hand, the remaining 4% disagreed that “Poor communication between nurses and patients can cause inadequate pain management”. Base on the response of the respondent, it is agreed that “Poor communication between nurses and patients can cause inadequate pain management.

Table 17: Encouraging early ambulation/exercise reduces post-operative complication

	Frequency	Percent	Cumulative Percent
Strongly Agreed	33	66.0	66.0
Agreed	15	30.0	96.0
Strongly Disagreed	1	2.0	98.0
Disagreed	1	2.0	100.0
Total	50	100.0	

From the above table it was seen that 33 which is 66% of the respondent strongly agreed that “Encouraging early ambulation/exercise reduces post-operative complication” and 15 which is 30% of the respondent agreed while on the other hand, only 4% of the respondent disagreed that “Encouraging early ambulation/exercise reduces post-operative complication”. Base on the response of the respondents, it was agreed that “Encouraging early ambulation/exercise reduces post-operative complication”.

Table 18: Infection is one of the main causes of post-operative pain

	Frequency	Percent	Cumulative Percent
Strongly Agreed	16	32.0	32.0
Agreed	20	40.0	72.0
Strongly Disagreed	2	4.0	76.0
Disagreed	12	24.0	100.0
Total	50	100.0	

From the above table, it was seen that 20 which is 40% of the respondent agreed that “Infection is one of the main causes of post-operative pain” and 16 which is 32% of the respondent strongly agreed on the other hand 12 which is 24% of the respondent disagreed while 2 and 4% of the respondent strongly disagreed that “Infection is one of the main causes of post operative pain”. Base on the response of the obtained, it is agreed that “Infection is one of the main causes of post- operative pain”.

Table 19: Improper pain management leads to post-operative complications

	Frequency	Percent	Cumulative Percent
Strongly Agreed	20	40.0	40.0
Agreed	23	46.0	86.0
Strongly Disagreed	1	2.0	88.0
Disagreed	6	12.0	100.0
Total	50	100.0	

From the above it was seen that 23 which was 46% of the respondent agreed that “Improper pain management leads to post-operative complications” and 20 which is 40% of the

respondent strongly agreed while the remaining 14% of the respondent disagreed that “Improper pain management leads to post-operative complications”. Base on the response obtained it was agreed that “Improper pain management leads to post-operative complications”.

Conclusion

The research study was clearly indicated that Nurses of Muhammadu Abdullahi Wase Teaching Hospital have good knowledge and attitude toward post-operative pain management which is one of the strategies for economic recovery and sustainability as it reduces prolong hospitalization and possible complication.

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