

Practice And Perceived Effectiveness Of Non-Pharmacological Strategies Used For Pain Management Among Nurses In University Of Maiduguri Teaching Hospital

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Abstract

Pain is one of the major leading symptoms of diseases and the most common cause of hospital visitation and hospitalization. Studies have shown that ineffective pain management has a deleterious effect on both patient and the care giver especially the nurse. This study determines the practice and perceived effect of non-pharmacological strategies used for pain management among nurses in University of Maiduguri Teaching Hospital (UMTH). A multistage sampling technique was used to select 150 out of 360 nurses working in various wards and units of UMTH. A semi-structured questionnaire was used to obtain data from the respondents. The result of this study revealed that respondent's years of working experience played a greater role in the practice of non-pharmacological strategies. While, almost all (94%) of the respondents have knowledge about non-pharmacological strategies to pain management and almost two third (68%) of respondents claimed to have been applying both pharmacological and non-pharmacological strategies to pain management at one time and the other. Base on the findings of this study, it was concluded that, non-pharmacological strategies to pain management has not received an appreciable attention among nurses in UMTH. It was recommended that non pharmacological strategies should be adopted alongside the conventional pharmacological approach to pain management, and nurses should be encouraged to use non-pharmacological strategies to reduce over dependence on drugs and avoid addiction among patients on pain management.

Keywords: Pain Management, Non pharmacological strategy, Nurses, University of Maiduguri teaching hospital.

Introduction

Pain is an unpleasant sensation of hurt referred to the body that serves as an alert to potential or actual damage to the body. This damage can arise from injury

as well as disease, after the pain message is received and interpreted; the expression varies from individual to individual and culture to culture¹. Studies have viewed Pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage³.

In whatever ways and manners pain is perceived, pain has been the main reason why client visit health institutions and seek for health attention. Whatever definition given as to what pain is, pain is viewed in five dimensional angles, that is, affective, behavioral cognitive, sensory and physiologic dimensions.⁴ This implies that affective pain management is a sum of multidimensional strategy of which pharmacotherapy is just a part and many others are non-pharmacologic strategies. This therefore, shows that pain managers especially nurses are duty bound to have adequate knowledge of most non-pharmacologic strategies for relieving pain as well as methods of application. Pain do present itself in varying degree and intensity. Acute pain is intense and generally of relatively short duration, Chronic Pain develops merely slowly and last much longer than acute pain. Phantom Pain is pain felt in a body part that is no longer present, such as an amputated foot, while, Radiating Pain is perceived at the source and extends to surrounding or nearby tissues^{4,5}.

The American Society Panel on the study of persistent pain identified pain as two main types thus; Acute or Rapidly conducted pain: That is, sharp, well-localize pricking or knife-life pain and chronically or Slowly propagated pain described as diffuse, burning or aching pain.⁶ Studies on persistent pain describe various factors like depression, anxiety, decrease socialization, and sleep disturbances and impaired mobility as often associated with pain syndrome.⁷ The Joint Commission on Acceleration of Healthcare Organization (JCAHO) standards of pain looked into the impact of pain on the victim as a serious problem that inhibits daily functioning and most times under-treated for a variety of reasons.⁸

Nurse's knowledge and attitudes towards pain management greatly affects patient's care for pain. Studies on the nurses' knowledge and attitudes of pain management revealed that lack of pain management knowledge lead to inadequate management and treatment of pain⁹. Some of these deficits included problems in assessment, pharmacological management with opioids, and knowledge of how to use non

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pharmacological pain interventions. Non-pharmacological pain therapies and techniques have great potential to relieve client's pain and can be used with or without pharmacological methods.¹⁰ Studies have shown that for effective pain management, it requires adequate and effective utilization of non-pharmacologic strategies to pain management by the care giver.^{11,12} Although, non-pharmacological strategies to pain management do not replace pharmacological methods of pain management but they can be used in combination with pharmacological pain practices to enhance the patient's relief of pain. Studies revealed that most of the nurses have over relied on pharmacological aspect of pain management which is though, effective but somehow costly and most times prolong usage led to patient over dependency.¹³ A survey on complementary or alternative therapies to pain management, among nurses showed that seventy-nine percent of nurses perceived their professional education in the area of complementary or alternative therapies to be fair or poor. The study however, recommended that complementary and alternative therapies be included in basic baccalaureate nursing education curriculum.¹⁴ This implies that nurse's knowledge about various strategies of non-pharmacological strategy to pain management become very crucial to the care of their clients.

Non-pharmacological pain management strategy are often neglected especially in tertiary health institution like University of Maiduguri Teaching Hospitals, enough attention are not given to use of non-pharmacological strategies on patient with pain despite its cost-effectiveness to patient physiological and economic status. There are many benefits derived from using non-pharmacological methods in relieving pain, hence, the barriers keeping patients, nurses, and physicians from using them need to be explored especially Nurse's attitudes on non-pharmacological pain management therapies. For this reason, this study was aimed to determine practice and perceived effect of non-pharmacological strategies used for pain management among nurses in University of Maiduguri Teaching Hospital (UMTH).

Materials and Methods

This study is a descriptive research using exploratory design to determine the practice and perceived effect of non-pharmacological strategies used for pain management among nurses in University of Maiduguri Teaching Hospital (UMTH). The target population comprises of 360 nurses in the various wards/units of the University of Maiduguri Teaching Hospital from which 150 nurses were drawn for the study.

The instrument used was a 15 items researcher's self-designed questionnaire administered on 150

respondents. The questionnaire comprises of information on demographic characteristics, information on the knowledge, practice and effect of non-pharmacological strategies to pain management of the patient as well as information on challenges in the utilization of non-pharmacological strategy to pain management. The instrument was pretested at Umaru Shehu Ultra-Modern Hospital Maiduguri for its validity and reliability.

A stratified random sampling technique was used to select wards and unit in UMTH and purposive sampling method was used to select nurses from various wards and units of the UMTH based stratum. Data Analysis was based on 145 fully completed questionnaires using descriptive statistic of frequency count and percentages presented on tables.

Ethical approval was obtained for the conduct of the study from the Ethical Research Committee of the University of Maiduguri Teaching Hospital. Consent to participate in the study was also sought from the respondents in various wards/units of Maiduguri Teaching Hospital.

Result

Out of 150 nurses enrolled for this study, 145 nurses fully completed the questionnaire given a response rate of 96%. Table 1, revealed demographic characteristics and working experience of the nurses, their mean age was 35year with majority of them falling within the age range of 30-39 years, indicating that the bulk of nursing staff in University of Maiduguri Teaching Hospital were young adults. The gender distribution of respondents is closely related in percentage with Female been 80(55.2%) and Males (44.8%) respectively. The larger proportion of the respondents (42.1%) had put in 5-10 years of working experience as against (9.7%) that had longer years of working experience. Table 2, presents the majority, 114(78.6%) of respondents that were aware of non-pharmacologic strategies (NPS) for pain management, while 51(44%) of the have knowledge of various forms of NPS, and were able to identify various forms of non-pharmacological strategies to pain management. Table 2 further shows majority (86.2%) of respondents knew about regular management of patient with pain in their respective wards/units, but very few (24.2%) of them recommended non pharmacology strategy for pain management. A little above half (55.8%) of respondents got their information about Non pharmacological strategies through formal education in Schools of Nursing and others through workshop/seminars and literatures respectively.

Table 3 revealed higher number (34.4%) of respondents administered pharmacological strategy compare to 27.6% who used non pharmacological strategy for pain management. Out of 27.6% who used non pharmacological strategy, 32.5% of them use all

Table 1: Respondents Demographic variables (N=145)

Demographic characteristics	Frequency	Percentage (%)
Age		
20-29	45	16.7
30-39	50	33.3
40-49	35	20
50 and above	15	15
Sex		
Male	65	44.8
Female	80	55.2
Years in service		
5-10	61	42.1
11-16	40	27.6
17-22	30	20.7
23 and above	14	9.7

Table 3: Type and Practice of pain management strategies in various wards/units of UITH

Types of strategy used in pain management in UITH	Freq.	%
Pharmacologic	50	34.4
Non-pharmacologic	40	27.6
Both pharm & Non-Pharm	55	38.0
Total	145	100
Methods of non-pharmacological strategy used in the management of pain UITH. (n = 40)		
Distraction	08	20
Relaxation	10	25
Hypnosis	09	22.5
Hot and cold application/ nursing procedures	13	32.5
Total	40	100

forms of routine nursing procedure as non-pharmacological strategies to pain, while others use distraction, relaxation and hypnosis as various methods for pain management.

Table 4 revealed the perceived effectiveness of non-pharmacological strategy used for pain management, majority (66.9%) of nurses observed that patients responded positively by demonstrating satisfactory responses to non-pharmacological strategy used. Out of these 66.9 percent of nurses, 46.4% constituting majority agreed that non pharmacological strategies are effective, against 27% of nurses who claimed on the contrary. On the challenges faced while using NPS on patient pain management, almost all (92.5%) of the nurses agreed that there are challenges

Table 2: Respondent Knowledge about Non Pharmacological Strategies

	Yes (%)	No (%)
Do you know about non pharmacological strategies n= 145	114(78.6%)	31(21.4%)
Do you know about any form of non-pharmacological Pain management? n=114	51(44.8)	63(55.2%)
Do you know about regular pain management of patient in your ward?	98(86.2%)	16(13.8%)
Are non-pharmacological strategy to pain management recommended in your ward?	28(24.2%)	86(75.8%)

Sources of information about non- pharmacological use for pain management

	Freq.	percentage
Literatures, journals/magazine	24	16.5
In School of nursing	81	55.8
Through workshop/seminars	40	27.7

Table 4 : Perceived satisfaction and Effectiveness of Non -Pharmacological strategies to Pain Management

Response	Frequency	Percentage
Satisfactory	97	66.9
Not Satisfactory	48	33.1
Total	145	100
The effectiveness of non-pharmacological strategies use on pain management (n=97)		
Effective	45	46.4
Very effective	25	25.8
Not-effective	15	15.5
Poorly effective	12	12.4
Total	97	100
Challenges faced while using non-pharmacological strategy on patient. (n= 40)		
Lack of encouragement from the institution	53	54.6
Lack of facilities to use	30	30.9
Lack of interest for its use	14	14.5
Total	97	100

such as lack of institutional or nurses interest (54.6%) and non-availabilities of facilities to use (30.9%) respectively in UMTH.

Discussion

This study determines the practice and perceived effect of non-pharmacological strategies used for pain management among Nurses in University of Maiduguri Teaching Hospital (UMTH). The Nurses in this study with mean age of 35 years constituted more than half of the respondents which showed that this category of nurses were the major work force of the University of Maiduguri Teaching Hospital (UMTH), dominated by females in various wards and units of the hospital. The bulk of nurses who had put in 5-10 years

of service constituted the larger proportion of work force compared with others with longer years of working experience. The shorter length of service of nurses may have probably influenced negatively the use of non-pharmacological strategy in various wards, this opposed the study on knowledge of specialist nurses and general nurse about non pharmacological strategies in Afghanistan, where it was observed that nurses working experience might not affect their knowledge about the use of non-pharmacological strategies but additional educational qualification also played a significant role.⁵

The knowledge of non-pharmacological strategies to pain management among nurses was averagely high evidence by their position on the significance of non-pharmacological strategies (NPS) used in pain management. This finding is similar to the study on the Nurses' knowledge and attitudes, and pain management practice of post-operative children in Bangladesh.¹⁸ Although, nurses' level of awareness about NPS was not in conformity with standard recommended by Joint Commission on Acceleration of healthcare Organization (JCAHO) for pain management.⁸ This finding implied that much is still needed in practice of NPS in health institutions particularly UMTH to comply with the standard recommended by JCAHO for pain management.

The nurses' main sources of information about non pharmacological management of pain were through formal nursing training programme and print media which by implication indicated that most nurses do not read literatures or journals to improve their knowledge about non-pharmacological management of pain since after graduation from school. This may probably account for the nurses' low level of knowledge and use of non-pharmacological strategies on their patient. These lukewarm attitudes toward reading for information about NPS agreed with the study that associated lack of knowledge of pain management and assessment by nurses and physicians to limited educational preparation in pain and symptom management during training.¹⁰ Other factors responsible for non-utilization of NPS was reported by studies as lack of staff interest on the use of non-pharmacological strategies (NPS), the fear of been reprimand by the management of the hospital as well as non-institutionalized use of non-pharmacological strategy to pain management in the hospital contributed to low level use of non-pharmacological strategy in most hospitals.^{10,16,17}

The non-pharmacological methods mainly used in the management of pain among nurses in UMTH was routine nursing procedures such as changing patient position, losing tight appliances and application of heat or cold compresses, other measure such as distraction, relaxation and hypnosis were also in use for the management of pain with proven

effectiveness on patients. These methods identified were in agreement with methods reported by other studies.^{4, 13,14,15,16} On the effectiveness of non-pharmacological strategies to pain management, almost half of the respondents agreed that NPS are effective, in varying degrees. Relaxation and music was also found to be one of the most effective means of relieving pain in a patient.²⁴ A large number of nurses in UMTH opined that their clients responded positively to non-pharmacological strategy to pain management as reported by other studies on various strategies to pain management.^{6,14,16}

Majority of nurses in UMTH recommended the use of both drugs and non-pharmacological strategies combined in the management of pain on admission which in their views provided effective means of pain management than when used separately. This finding corroborated with the recommendation of other studies and reports.²⁶ There are obstacles Nurses faced in the implementation of NPS in UMTH, these challenges were identified to be lack of institutional interest and non-availabilities of facilities to use in UMTH and this invariably discourage them from using NPS to meet the demand of the patient in pain.

As health practitioners, nurses spend most of their working hours with the patients than other health workers and provide immediate care to patients, they have the opportunity of interacting with patient and identify patient in distress resulting from pain. Nurses have a tremendous role to play in the care of patient in pain. Exploring non pharmacological strategies to pain management provide opportunities for nurses to know various NPS available to alleviate patient suffering resulting from pain and to reduce unnecessary expenses incurred by patient during the course of treatment. While the nurse needs to wait for the doctor to prescribe analgesic, the nurse should employ non-pharmacological management of pain to compliment the prescribed analgesic in relieving patients' pain before further intervention.

Nurses understanding of various forms and significance of non-pharmacological strategies will help to make the patient relaxed, fill comfortable and further provide opportunities to nurses to alternate and complement the use of prescribed medications with non-pharmacological strategies. Many nursing skills are aimed at relieving patient pain and improve patient comfort, all these will be put into practice to relieve patient of discomfort resulting from pain and improve quality of nursing care.

Conclusion

In conclusion base on the findings of this study, it is clear that awareness of nurses about non pharmacological strategies does not reflect its use probably due to their low knowledge level about the significance and effectiveness of these strategies.

Although, this study provides a broad base knowledge necessary for advancement in the diagnosis, treatment and prevention of pain resulting from many diseases, there are still challenges of acceptance of non-pharmacological use in many of the health institutions in Nigeria particularly in UMTH. Nurses' inability to adopt non pharmacological strategies because it is assumed to be time and energy consuming as well as negligence of its application are some of the difficulties to non-pharmacological strategies use. The patients stand to gain more, cut-cost and be free from addiction resulting from the use of pharmacological strategies. Hence, both nurses and the management of hospitals need to encourage the use of non-pharmacological strategies in our various health institutions.

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