

Perceived Barriers of Utilization of Non- Pharmacological Pain Management among Post- Operative Patients (Nurse's Perspectives) at Khartoum Public Hospitals, 2021-2022

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Abstract

Background: Pain in surgical patients considered one of the most serious complaints in the postoperative period, and if not controlled, it can leads to many problems. There are still significant barriers limiting the capacity for effective pain management such as healthcare system-related, medical staff-related and patient-related.

Aim: This study aimed to identify the perceived barriers in utilization of non- pharmacological pain management among post- operative patients (nurse's perspectives).

Methods: This was descriptive cross sectional hospital based study conducted at selected public hospitals in Khartoum State. It's include (106) nurses working at general surgical words. Data was collected by a self-administered questionnaire and analysed by using computer statistical package of social program and presented in form of tables.

Results: study revealed that, half of participants sometimes using non- pharmacological methods to manage post- operative pain. Rregarding nurse's related barriers, participants reflect a high response with lack of experience in using non-pharmacological methods, inadequate time to deliver non-pharmacological pain relief measures, limited nurse-patient interaction and staff shortage.

Conclusion: The top perceived barriers were related to post- operative pain management, nurses' workload, unavailability of pain assessment and management protocols, lack of guideline regarding pain management and lack of resources such as equipments and materials. So, study recommends that, Obstacles encountered by nurses could be alleviated by adequate professional cooperation between physicians and nurses; with this goal in mind, meetings should be organized for the two professional groups to discuss pain management issues and analyze suggested procedures.

Key words: barriers, perceived, nurses, non pharmacological, post-operative pain.

1.1: Background:

Postoperative pain is an acute pain that starts with surgical trauma, gradually reduced and ends with tissue healing. It remains to be a medical and social predicament even with all development of pain in medicine knowledge and use of new and complex drug delivery systems, unfortunately, most of the patients still receive inadequate almost all of the patients suffer from post- operative pain because of lack of informations and interest of both physicians and other health personnel ⁽¹⁾.

Pain in surgical patients considered one of the most serious complaints in the postoperative period, and if not controlled, it can lead to many problems such as, pneumonia, deep vein thrombosis, delayed wound healing, chronic pain and other systemic complications ⁽²⁾. There are still significant barriers limiting the capacity for effective pain management. The Agency for Healthcare Research and Quality in the USA distinguishes the

following types of barriers to pain management: healthcare system-related, medical staff-related and patient-related ⁽³⁾.

There's good evidence that these interventions can be effective in managing pain, particularly in relation to the cognitions surrounding pain; this, however, is predominantly in the short term ⁽⁴⁾. Despite many efforts, non- pharmacological pain management (NPM) utilization remains relatively low. In response, the Institute of Medicine and more recently the Department of Health and Human Services, called for a comprehensive examination of barriers to assist in close the gap between empirical evidence regarding the efficacy of pain treatments and current practice ⁽³⁾.

A study conducted to identify problems and barriers in ensuring effective acute and post-operative pain management. It was revealed a number of factors limiting the possibility of achieving effective pain management, related to healthcare systems, medical staff and patients ⁽³⁾.

In the post-operative surgical wards in Sudan, the utilization of pharmacological methods is that the primary approach of pain management however, postoperative pain remains as a challenge. Thus, assessing the use of non- pharmacological methods and understanding the obstacles to the use of these methods can promote greater awareness within the health services system. Additionally, it can also facilitate the development of strategies that optimize the use of it to manage post- operative pain and improve the quality of nursing care.

Objective: To identify barriers that prevent nurses to using non- pharmacological pain management methods for post- operative patients.

Methods

This is descriptive cross sectional, Hospital based study was conducted at Khartoum public hospitals, surgical words which include (Omdurman Teaching Hospital, Bahry Teaching Hospital and Ibrahim Malik Hospital).The targeted populations was all nurses working in general surgical words both gender during study period and willing to participate (106). A designed structured, self-administered close ended questionnaire was used to collect the data from study subjects. Rational scaling was used (adequate, inadequate, poor knowledge) adequate knowledge for more or equal 75percent inadequate knowledge for more or equal 50percent Poor knowledge for less than 50 percent ⁽⁷⁾. The tool was examined by expertise in the field of the study and his comments about content and context was considered. Piloting was done in 15 nurse and Alpha Cronbach's test was 84%. Data was analyzed by using statistical package of social program (SPSS). P value considered significant at (0.05).The research was respect the rights of participants. Consent was obtained from all participants after explanation.

Results

Table (1): study group according to their using of non-pharmacological methods in post-operative pain management: (n=106)

| Item | F | % |
|--------------|------------|-------------|
| always | 10 | 9.4% |
| often | 13 | 12.3% |
| sometimes | 55 | 51.9% |
| never | 28 | 26.4% |
| Total | 106 | 100% |

Table (2): study group according to their knowledge about types of non-pharmacological methods utilized to manage post-operative pain. (n= 106)

| Item | Adequate | | Inadequate | | Poor | | Mean ± Std |
|-----------------------------------|----------|------|------------|------|------|------|------------|
| | F | % | F | % | F | % | |
| Aims of post-operative management | 68 | 64.2 | 18 | 17.0 | 20 | 18.9 | 1.5± (0.8) |
| Cognitive methods | 54 | 50.9 | 23 | 21.7 | 29 | 27.4 | 1.8± (0.9) |
| Emotional methods | 65 | 61.3 | 24 | 22.6 | 16 | 15.1 | 1.6± (0.8) |
| Other methods | 80 | 75.5 | 13 | 12.3 | 12 | 11.3 | 1.4± (0.7) |
| Relaxation techniques | 42 | 39.6 | 13 | 12.3 | 51 | 48.1 | 2.9± (0.9) |
| Ways of providing information | 79 | 74.5 | 9 | 8.5 | 18 | 17.0 | 1.4± (0.8) |

Table (3): study group according to their perspectives in healthcare system-related barriers: (n= 106)

| Variable | F | % |
|---|----|-------|
| Heavy work load | 92 | 86.6% |
| Lack of time | 89 | 84.7% |
| Lack of administrative support | 85 | 80.9% |
| Lack of resources (e.g. equipment, materials) | 89 | 84.7% |
| Lack of proper pain assessment tool | 89 | 84.7% |

Table (4): study group according to their perspectives in nurses-related barriers: (n= 106)

| Item | F | % |
|---|------------|-------------|
| Personal interest | 80 | 76.1% |
| Lack of knowledge regarding non-pharmacological pain relief methods | 78 | 74.2% |
| Lack of experience in using non-pharmacological methods | 91 | 86.6% |
| Personal, traditional and cultural values on pain and pain relief methods | 70 | 66.6% |
| Belief that other health team members should take main role | 67 | 63.8% |
| Belief nurses primary task is to administer pain medication for pain relief | 65 | 61.9% |
| Belief inefficacy of non-pharmacological methods in pain relief | 78 | 74.2% |
| limited nurse-patient interaction | 94 | 89.5% |
| Inadequate time to deliver non-pharmacological pain relief measures. | 92 | 87.6% |
| Staff shortage. | 96 | 90.4% |
| Total | 106 | 100% |

Table (5): study group according to their perspectives in patient-related barriers: (n= 106)

| Item | F | % |
|---------------------------------|------------|-------------|
| Patients inability to cooperate | 86 | 81.9% |
| Language difference | 88 | 82.8% |
| Total | 106 | 100% |

Table (6): study group according to their perspectives in physician- related barriers: (n= 106)

| Item | F | % |
|---|------------|-------------|
| Physicians' lack of trust in the nursing assessment of pain | 95 | 90.4% |
| Physicians' lack of knowledge and experience to prescribe non-pharmacological methods | 75 | 71.4% |
| Lack of Physician's – nurse cooperation and competence. | 63 | 62.8% |
| Total | 106 | 100% |

Discussion

Every nurse have to be aware by interventions that mitigate the pain from patients and adopted it in order to decrease need of analgesics and as it was known that, nurses play an important role in comforting the patient, one from these interventions non pharmacological strategies of pain management. This descriptive cross sectional hospital based study was conducted aiming to assess nurse's perspectives in utilization of non- pharmacological pain management methods among post- operative patients and preserved barriers. The finding drawn as the following; the baseline demographic data showed that, the majority of the participant's age was ranged between 20-25 years with mean± (std) $2.1 \pm(1.2)$ and most of them were female (75.5%) , while two third (65.1%) of participants had bachelor's degree and the majority of participants had experience level ranged between 1-3 years in surgical department. These findings were congruent with another study conducted in Sudia Arabia which revealed that, the most common age group among subjects of the study sample was 20-30 years, most of whom were female (72.5%) ⁽⁴⁾.

Nurses have a key role in pain management. The promotion of comfort and relief of pain are fundamental to nursing practice, it includes two basic types of nursing interventions which is pharmacologic and non-pharmacologic. They often use non pharmacological measures to facilitate comfort for patients within the hospital setting. However, guidelines for use of these measures are commonly inadequate or absent, based on the above scientific based evidenced the current study findings was revealed that, half of participants sometimes using non- pharmacological methods to manage post- operative pain and their percentage was (51.9%) and quarter of them (26.4%) never using it. Despite of that there is no significant relationship between participant's experience in surgical department, qualification and using of these methods (p 0.041, 0.012) respectively, moreover, it was in agreement with other study conducted in Iran found that, there no significant relationship between the use of non-pharmacological pain management methods and demographic variables such as educational level ($P =.51$), and work experience ($P =.515$) ⁽⁵⁾.

There are still significant barriers to comprehensive pain management, limiting the capacity for effective pain management. A number of barriers on the utilization of the non- pharmacological methods has been perceived by the nurses were related to health care system, nurses, patients and physician.

Health system related barriers identified by study group such as lack of pain management policy, heavy work load, lack of proper pain assessment tool, lack of resources and lack of time. This result was supported by study findings conducted by was revealed that, more than half of respondents set that lack of information, lack of distraction materials and needed equipment are barriers in addition near half replied that lack of time, shortage of nurses and heavy workload ⁽⁶⁾.

Regarding nurse's related barriers, participants reflect a high response with lack of experience in using non-pharmacological methods, inadequate time to deliver non-pharmacological pain relief measures, limited nurse-patient interaction and staff shortage. This study findings in agreement with the results of study conducted in Eritrea which lack of knowledge and experience on non-pharmacological methods were pointed out ⁽²⁾. Furthermore, a study done in Iran identified limited nurse-patient interaction, lack of pain management interventions and inadequate time to deliver non-pharmacological pain relief measures as barriers ⁽³²⁾. Moreover result of current study reflect that, majority of participants had experience years ranged between 1-3 years and they didn't receive any training program regarding pain management which is affect their skills and experience to using different methods in managing pain.

On patient related barriers lack of cooperation and the limitation in language were found out to affect negatively the use of non- pharmacological methods in pain management. This result in congruent with a study conducted in Eritrea stated that, lack of cooperation and the limitation in language can affect the utilization of non- pharmacological methods to manage post- operative pain ⁽²⁾.

In relation to physician related barriers, physician's lack of trust in the nursing assessment of pain and physician's lack of knowledge and experience to prescribe non- pharmacological methods were identified by participants. In agreement with study conducted in Poland was showed that, clinicians very often understate the level of pain in patients and demonstrate a distrust of pain rating by nurses, it also point out that physicians' inadequate knowledge remains a significant barrier to pain management ⁽³⁾.

Conclusion

The study concluded that, the top perceived barriers were related to post- operative pain management, nurses' workload, unavailability of pain assessment and management protocols, lack of guideline regarding pain management and lack of resources such as equipments and materials. All listed top barriers are system-related barriers, and therefore, nurses might not have the competence to modify them. Obstacles encountered by nurses could be alleviated by adequate professional cooperation between physicians and nurses; with this goal in mind, meetings should be organized for the two professional groups to discuss pain management issues and analyze suggested procedures.

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