

RESEARCH ARTICLE

AWARENESS AND BARRIERS OF USING OF NON-PHARMACOLOGICAL STRATEGIES OF PAIN MANAGEMENT ON MASTER DEGREE OF NURSING SCIENCES STUDENTS IN UNIVERSITY OF KHARTOUM - FACULTY OF NURSING SCIENCES-2020.

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Abstract

Background: Nurses have essential role in assessing patients' pain and providing pain treatment using different approach. This study was intended to assess level of awareness toward non pharmacologic strategies of pain management and barriers that prevent adopting non pharmacologic strategies of pain management.

Methodology: This is a descriptive cross-sectional institutional based study conducted in faculty of nursing sciences university of Khartoum, full coverage sampling method was used included 40 master degree nursing students working in different hospitals, data collected by researchers using structured self-administered questionnaire then the collected data analyzed using SPSS version 24.

Results: With 40 master degree nursing students included, the response rate was 100%. The majority of the respondents mean age was 25years, majority were female and 39(97.5%) had mean duration of work more than 1year. Regarding main categories of non-pharmacological strategies More than half 26(65%) of respondents know main categories of non-pharmacological strategies of pain management. Concerning physical strategies sub types of non-pharmacological strategies almost 38(95%) of respondents answer that heat and cold is only physical therapy while all options is physical therapy. Regarding cognitive behavioral strategies half 20(50%) answer Imagery and breathing techniques although all types are a cognitive behavioral strategies and concerning environmental or emotional strategies also More than half 26(65%) of respondents answer correctly. barriers that prevent adopting non pharmacological strategies of pain management as mentioned by respondents, 22(55%) of respondents set that lack of information, lack of distraction materials and needed equipments are barriers in addition to lack of time, shortage of nurses and heavy workload by 37.5%, while 3(7.5%) think that even with known situation it can be adopted and no barriers prevent adopting non pharmacological strategies of pain management.

Conclusion: The study concluded that master degree nursing students had a considerable awareness toward non pharmacological strategies of pain management and barriers of adopting were exists.

Key Words: Awareness, barriers, non-pharmacological strategies, pain management.

1-INTRODUCTION

Pain has physical harmful effects that may lead to physiologically unsafe conditions. Pain is a difficult feeling and unpleasant response to actual or potential tissue damage. Pain also has physical dangerous effects that may lead to physiologically precarious conditions and is categorized as mild, moderate and severe. Mild pain is characterized as annoying and nagging; it does not typically impact activities of daily living. Moderate pain is irritating and can impair the person's ability to perform activities of daily living. Severe pain dominates one's senses, preventing performance of activities of daily living. There is enormous difference in pain thresholds among different people and within the same person at different times (Kumar,etal,2016).

In addition to There are three types of pain, based on where in the body the pain is felt, somatic, visceral, and neuropathic(Mwanza,etal.2019).Some studies state that pain is known as the fifth vital sign, and health professionals should monitor and manage it when caring for patients. (Yaban, 2019).

Pain is greatly common in patients with cancer. Up to two-thirds of patients report pain when the disease is at an advanced stage.60% of patients on anticancer treatment are affected with pain, and 33% of those on curative therapy complain of this condition too (Kress,etal,2019).

In healthcare settings, pain intensity is frequently rated on a scale of 0 (no pain) to 10; the greater the pain, the higher the score. Beyond numeric pain ratings, pain can also be classified by source or location or by duration. In treatment of pain usually using analgesics in some cases opioid analgesics is widely accepted for patients experiencing acute pain, cancer related pain, or terminal illness. But all types of analgesics have side effects. For this non pharmacological methods of pain management are encouraged to be used. A complementary and alternative therapies is another name for non-pharmacological therapies, many nurses not familiar with this alternative therapy. Non pharmacological methods of pain management do not replace pharmacological methods of pain management and can be used in conjunction with pharmacological pain practices to enhance the patient's relief of pain (Karaman,etal,2019).

Non pharmacological pain management therapies can be classified into three categories cognitive or behavioral strategies, which include distraction, relaxation, imagery, and breathing techniques. The second category is physical or cutaneous strategies, which include heat/cold, vibration, massage, position changes, and trans-electrical nerve stimulation (TENS). Finally, there are environmental or emotional strategies such as touch, reassurance, or interior decorating of the room. Sometimes these therapies or treatment options will overlap with one category or another(Mwanza,etal.2019).

The nurse must consider many things when selecting one of these treatment options. For instance, the nurse must think about the relationship between the non-drug and drug treatments, the patient's previous experiences, and current attitude and the patient's coping style(Mwanza,etal.2019).

Many randomized controlled studies adopting music therapy for subjects undergoing colonoscopy or sigmoidoscopy have found in comparison with the control group, those who listened to music reported a significant lower pain scores, less sedation and shorter examination times (Mwanza,etal.2019).

Pain management techniques was one of the areas that they received the least amount of information on, a factor that may have prevented them from using those therapies. Hence this study conducted to assess level of awareness toward non pharmacologic strategies of pain management and barriers that facing nurses and prevent adopting non pharmacologic strategies of pain management.

SUBJECT AND METHODS

Descriptive cross-sectional institutional based study conducted in faculty of nursing sciences university of Khartoum. The target population of the study was all master degree of nursing students' specialties (medical-surgical, community, maternal and child health and psychiatric) working in different hospitals. All master degree nursing students were included. The data was collected by the researchers using self-administer structured questionnaire after testing validity and reliability. Demographic, awareness and barriers data regarding non pharmacological strategies of pain management were collected. Basic scoring was done by giving 1 for correct items and 0 for negative one. The collected data coded, entered and analyzed using statistical package for social sciences SPSS version 24 descriptive statistics frequency and percentage were used.

Ethical considerations

- Written approval was taken from both dean and coordinator of the master degree at the faculty of nursing sciences university of Khartoum for agreement to conduct this study.
- Written approval was taken from the participants for participation.

Result

In this descriptive study 40 nurses were included, the response rate was 100%. the majority of the participants mean age was 25 years and majority of respondents were female.

Table.1 Distribution of study subjects regarding their demographic background (n=40):

Items	F	%
Age		
20-30	37	92.5
31-40	3	7.5
Sex		
Male	4	10%
Female	36	90%
Years of Experience		
less than 1 years	1	2.5%
more than 1 years	39	97.5%

This table shows that mean age of participant was 25 years, almost of participants were female 90% and mean duration of work more than 1 years (39) 97.5%.

Table .2: Respondents Knowledge toward non pharmacological strategies of pain management. (n=40):

Items	F	%
1. <u>Main categories of non-pharmacological strategies of pain management.</u>		
a. Cognitive behavioral strategies.	10	25%
b. Physical strategies.	3	7.5%
c. Environmental or emotional strategies.	1	2.5%
d.All of above.	26	65%
<u>1.Types of physical strategies.</u>		
a. Heat/cold.	38	95%
b. Vibration and massage.		
c. Position changes& Trans-electrical nerve stimulation (TENS).	1	2.5%
d. All of above.	1	2.5%
<u>2.Type of cognitive behavioral strategies.</u>		
a. Distraction.	3	7.5%
b. Relaxation.	17	42.5%
c. Imagery and breathing techniques.	20	50%
d. All of above.	0	0%
<u>3.Types of environmental or emotional strategies.</u>		
a. Touch.	2	5%
b. Reassurance.	11	27.5%
c. Interior decorating of the room.	1	2.5%
d.All of above.	26	65%

This table shows that More than half of respondents know main categories of non pharmacological strategies of pain management. Concerning physical strategies as sub types of non pharmacological strategies almost all of respondents answer that heat and cold is only physical therapy while all options is physical therapy. Regarding cognitive behavioral strategies half answer Imagery and breathing techniques although all types are a cognitive behavioral strategies and concerning environmental or emotional strategies also most of respondents answer correctly.

Table 3: Barriers prevent adopting non pharmacological strategies of pain management (n=40):

Items	F	%
lack of time, shortage of nurses and heavy workload.	15	37.5%
lack of information, lack of distraction materials and needed equipments.	22	55%
No barriers, it can be adopted.	3	7.5%
Total	40	100%

This table represent that more than half of respondents set that lack of information, lack of distraction materials and needed equipments are barriers in addition to lack of time, shortage of nurses and heavy workload and 3(7.5%) think that even with known situation it can be adopted and no barriers prevent adopting non pharmacological strategies of pain management.

DISCUSSION

Every Nurse must be aware by interventions that mitigate the pain from patients and adopted it in order to decrease need of analgesics and as we know nurse play an important role in comforting the patient, one from these interventions non pharmacological strategies of pain management. on behalf of this study was done to assess level of awareness toward non pharmacologic strategies of pain management and barriers that prevent adopting non pharmacologic strategies of pain management.

The finding drawn as the following; the baseline demographic data showed that the majority of the participants were female, all participants had bachelor's degree and the majority of participants had experience level more than one years.

The present study confirmed that, knowledge regarding main categories of non pharmacological strategies most of respondents know main categories of non pharmacological strategies of pain management. Concerning physical strategies as sub types of non pharmacological strategies Almost of respondents answer that heat and cold is only physical therapy while all options is physical therapy. In comparison with study done in china which revealed that acupuncture an ancient practice in chine's medicine, has gained increasing popularity for symptoms control among adult and older children(Golianu,,etal,2019).

In a randomized clinical trial, it looked into the difference between hypnosis for chronic low back pain and hypnosis with biofeedback techniques, it showed that biofeedback with hypnosis is significantly more effective than hypnosis alone(Ahmed,etal,2018).

Regarding cognitive behavioral strategies half of respondents replied that Imagery and breathing techniques although all types are a cognitive behavioral strategies. Many randomized controlled

studies adopting music therapy for subjects undergoing colonoscopy or sigmoidoscopy and have found in comparison with the control group, those who listened to music reported a significant lower pain scores, less sedation and shorter examination times (Ahmed,etal,2018)

Concerning environmental or emotional strategies also most respondents answer correctly. In reviewed literature expert's hypothesis suggest that the process of massage can lead to an increase in dopamine levels which decrease pain. In addition to that, massage can lead to relaxation of the muscles tension that often arise when pain present. Massage can be beneficial in cancer patient as it can improve mood and quality of life among patients suffering from cancer. Both the massage and simple-touch groups had statistically, although not clinically, significant improvements in pain and quality of life over time despite no increases in total analgesic medication use (Ramova,2018)

In addition to that, there are some short-term benefits of massage which include improve psychological well-being and, in some cases, reduced severity of physical symptoms. Depression and anxiety have shown significantly improve with massage.

In another qualitative study done in Ghana about experience of using non-pharmacological interventions for labor pain management showed that sequence of non-pharmacological interventions significantly reduced labor pain from 4cm to beyond 7cm of cervical dilation reflected in decreased and delayed use of analgesics medication(Boateng,etal2019).

Regarding barriers that prevent adopting non pharmacological strategies of pain management as mentioned by respondents more than half of respondents set that lack of information, lack of distraction materials and needed equipments are barriers in addition near o half replied that lack of time, shortage of nurses and heavy workload and only 7.5% think that even with known situation it can be adopted and no barriers prevent adopting non pharmacological strategies of pain management. Which agreed with study revealed that respondents identified that non phannacological pain management techniques was one of the areas that they received the least amount of information on, a factor that may have prevented them from using those therapies, identified obstacles that prevented nurses from using non phannacological pain management.

They found that workload, lack of proper materials, and lack of knowledge were the three main reasons. lack of time and competing nursing tasks as major barriers to using non pharmacological techniques. Other barriers identified included lack of distraction materials, shortage of nurse and heavy workload (Uysal,2018).

Strengths

- ✓ Highlighted on a more important issue in nursing in Sudan .
- ✓ It can be a valuable baseline data for future studies related to nursing education and practice.

Limitations

- lack of literature in national settings for comparing the results of the study should be considered and this study is hoped to be an input to this regard.
- It would be interesting if it was done in hospital settings mainly radiation and isotope centers because cancer patients need for such interventions.
- Sample size is small for descriptive study need repeating the study in more large population.

Conclusion

The study concluded that master degree nursing students had a considerable awareness toward non pharmacological strategies of pain management and barriers of adopting it were exists. So we need to encourage adopting non-pharmacological strategies of pain management in hospitals by overcoming barriers and increasing awareness in order to decrease use of analgesics and their side effects.

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Competing interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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