



## DO OUR NURSES HAVE SUFFICIENT KNOWLEDGE OF PAIN? A DESCRIPTIVE STUDY IN HAJI ADAM MALIK HOSPITAL MEDAN- INDONESIA

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### ABSTRACT

**Background:** Pain treatments are closely related to pain assessment. Pain is probably one of the most common clinical phenomenon faced by nurses. Therefore, nurses are required to have adequate knowledge, skills and attitudes about pain, pain assessment and pain management. The objective of this descriptive explorative study was to identify the nurse's knowledge of pain, **Methods:** The samples were 33 nurses selected using convenience sampling method from medical surgical wards in selected hospital in Medan. Data were collected by using demography questionnaires and pain knowledge question sheet 30 items, **Results:** Subjects knowledge of pain ranged from 5 to 20 with average knowledge 11,33 (SD=3,33). Based on pain knowledge categories, more than half subjects (63,7%) were in moderate level, low level (33,3%), and only 3,0% in high level. Furthermore, based on subscales of pain knowledge, it was found moderate level of pain categories (M=3,82;SD=1,33) and pain mechanism's subscales (M=2,03;SD=1,05). However, this study also found that pain definition (M=0,97;SD=0,98), pain behaviours (M=1,52;SD=1,09), and pain assessment's subscales (M=3,00;SD=1,54) were in low level. In order to improve nurses knowledge of pain as well as the accuracy of pain assessment assessed by nurses, therefore nurses knowledge of pain need to be updated, **Conclusions:** this study found that nurses knowledge of pain was sufficient in moderate level, however need to be improved especially in three areas of knowledge including: pain definition, pain behaviours, and pain assessment.

**Keywords:** pain, knowledge, nurse

### INTRODUCTION

Pain treatments are closely related to pain assessment. Pain is probably one of the most common clinical phenomenon faced by nurses. Pain may associate with tissues damaged, however, pain may occur without injury or identifiable resources.

The International Association for the Study of Pain (IASP) Sub-committee on Taxonomy formulated the definition of pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or is described in terms of such damage". The

definition of pain indicates that pain is the combination of a sensory, emotional, and cognitive phenomenon. Although pain typically is associated with tissue damage, pain may occur in the absence of injury and often is not correlated with an identifiable source.

Pain treatment is closely related to the pain assessment. Assessment of pain should not only determine the intensity, frequency, and duration of pain but broadly including the responses and impacts on the patient's life. An appropriate and systematic pain



assessment may determine the accuracy of diagnosis and the effectiveness of pain management.

Pain assessment is a systematic process. Effective pain assessment can reduce the intensity of pain, increase comfort, improve the physiological, psychological and physical function of the patient, and increase the satisfaction of pain treatments. Schug et al. (2015) emphasized that pain is the fifth element of human's vital signs. It shows that the identification and assessment of pain are crucial to the patient by the health worker including the nurse.

The nurse is one of the healthcare professionals has a significant role in the treatment of pain. The nurse might be one of the healthcare provider dealing pain mostly. Therefore, nurses are required to have adequate knowledge, skills and attitudes about pain, pain assessment and pain management (Nursing and Midwifery Council/ NMC, 2008). Those knowledge, skills, and attitudes should be based on scientific evidence.

Previous evidence has shown that nurses have some limitations in assessing patient pain. Hall-Lord & Larsson (2006) stated that nurses have inadequate understanding, skills, and attitudes toward pain and assessment. Moreover, Hall-Lord & Larsson also stated that nurses have poor documentation of pain, assessment, treatment, and re-evaluation of pain.

The knowledge of the pain in this study defined as all that the nurse understands the pain that includes the definition of pain, pain categories, pain mechanism, pain behaviors, and pain assessment.

The objective of this study is to identify nurses' knowledge of pain

including the definition of pain, pain categories, pain mechanism, pain behaviors, and pain assessment at Haji Adam Malik Hospital, Medan Indonesia.

## **METHODS**

The design of this research is Descriptive with Cross-Sectional approach involving thirty-three nurses at Integrated Inpatient Ward (RINDU B) Haji Adam Malik Hospital, Medan. Data were collected by using demography questionnaires, while data of pain knowledge were collected by using pain knowledge question sheet 30 items. Each item in question is a problem base question. Pain knowledge consist of 5 subscales, included pain definition 4 items, pain mechanism 4 items, pain categories 7 items, pain behaviors 5 items and pain assessment 10 items.

## **RESULTS**

### **Subject's characteristics**

A total thirty-three nurses were recruited from the medical-surgical ward of the selected hospital. Age of the subject ranged from 26 to 53 years old (M=42,15, SD=7,25) with a majority being a middle adult (78,8%). More than half of the subjects (63,6%) had attained a bachelor's degree, and followed by diploma III (30,3%). Most of the subjects (78,8%) had work experienced more than 10 years. More than two third of the subjects (69,7%) have been in training about pain in the last 5 years. Tabel 1 shows the frequency and percentage of subject's demographic characteristics

### **Pain Knowledge**

The result of this study showed that nurses' knowledge of pain was at a



moderate level with average score 11,33 (SD=3,33) ranged from 5 to 20. Furthermore, based on subscales of pain knowledge, it was found that knowledge of the pain category (M=3,82; SD=1,33) and pain mechanism (M=2,03; SD=1,05) was at a moderate level. While, knowledge of pain definition (M=0,97;SD=0,98), pain behaviours (M=1,52;SD=1,09), and pain assessment (M=3,00;SD=1,54) were at low level. Table 2 shows the range, mean,

standard deviation and level of subject's knowledge of pain and the subscales.

Overall, more than half of the subjects (63,7%) were at a moderate level of pain knowledge, one-third of the subjects (33,3%) in a low level, and only three percent were in a high level of pain knowledge. Table 3 shows the frequency and percentage of subject's knowledge of pain.

Table 1. Frequency and percentage of subjects' demographics characteristics (N=33)

Demographics characteristic	F	%
Age		
26-35	7	21,2
36-55	26	78,8
(M=42,15; SD=7,25; min-max=26-53)		
Gender		
Female	33	100,0
Educational background		
Dipl. III of Nursing	10	30,3
Bachelor of Nursing	21	63,6
Master of Nursing	2	6,1
Nurses experiences		
1-5 years	3	9,1
6-10 years	4	12,1
>10 years	26	78,8
Pain Management Training		
Yes	23	69,7
No	10	30,3

Tabel 2. Range, mean, and standard deviation of subject's knowledge of pain and the subscales (N=33)

Pain knowledge and subscales	Range of score		M	SD	Level
	Possible score	Actual score			
Knowledge of pain	0-30	5-20	11,33	3,33	moderate
Pain definition	0-4	0-3	0,97	0,98	Low
Pain mechanism	0-4	0-4	2,03	1,05	Moderate
Pain categories	0-7	2-7	3,82	1,33	Moderate
Pain behaviours	0-5	0-4	1,52	1,09	Low
Pain assessment	0-10	0-7	3,00	1,54	Low

Table 3. Frequency and percentage of subject's knowledge pain (N=33)

Knowledge of pain	F	%
Low	11	33,3
Moderate	21	63,7
High	1	3,0



## DISCUSSION

Generally, this study has found that the level of pain knowledge of nurses was in moderate level. The moderate level of nurses' knowledge of pain concept might be related to the educational background. This study found that more than half of the subjects (63,3%) have a bachelor of nursing education background. Level of education has an important role in improving one's knowledge. Highly educational nurse, are more likely to be responsible dan aware of patients condition. Similarly, Miftah et al. (2017) found that more than half (58%) of nurses had adequate knowledge of pain management among pediatric nurses. Kizza et al. (2016) also found almost 71 percent of nurses had adequate knowledge of acute pain management. In addition, they found 43,5 percent nurses did not know or believe that a patient can rate their pain accurately.

However, the previous study found that nurses knowledge of pain and pain management might be low. Manwere et al. (2015) conducted a study in Zimbabwe and found that registered nurses had inadequate knowledge with a mean knowledge score of 64,5 percent. Craig (2014) conducted a study to identify nurses' knowledge of pain management and found that 72,2 percent of the nurses were indicated poor knowledge of pain management. Craig also found that knowledge of pain management was not correlated by nurses' education level or years of experience.

This study found a moderate level of nurses knowledge of pain in general, but according to the subscales of pain knowledge, this study found that knowledge of pain categories and pain

mechanism were at a moderate level, but knowledge of pain definition, pain behaviors, and pain assessment were at a low level. The definition of pain might be well known to the nurses. However, the subject of this study failed to identify subjectivity of pain, especially when nurses assessed pain. Similarly, previous study also found that 44 percent of nurses did not always agree with patients' statement about pain (Kizza, 2012). Manwere et al. (2015) found 20 percent of the nurses did not know the definition of pain whilst 10 percent of them failed to define pain in Zimbabwe.

Another aspect of pain knowledge in this study is pain behaviors. Nurses had lack of knowledge related pain behaviors. Nurses admitted that information of pain behaviors is new to them, although they had experience with the patient expressed their behavior when they were in pain. Furthermore, nurses had no idea how to assess patients behavior related pain.

Knowledge of pain assessment as mentioned found in a low level. An appropriate and systematic pain assessment may determine the accuracy of diagnosis and the effectiveness of pain management. Nuseir et al. (2016) found that among healthcare providers, nurses scored the lowest for knowledge of pain assessment and management. Manwere et al. (2015) found that majority of nurses (84%) failed to give correct tools used for pain assessment, 76 percent of nurses gave incorrect ideal time for pain assessment and 76 percent failed to identify types of pain measuring scales. Fitriwati et al. (2012) conducted a study in Intensive Care Unit and High Care Unit at Al-Islam Bandung Hospital. They found that majority of nurses (73,3%) were in a low-





level knowledge of pain assessment, and only 26,7 percent at a moderate level. Kizza (2012) found that among 90 percent of nurses who assess pain, almost all of them (96%) do not use pain assessment tools. Additionally, Kizza stated that. Barriers to pain assessment included; nursing workload (84.1%), lack of availability of assessment tools (74.1%), lack of education on assessment tools (82.4%), lack of familiarity with tools (78.2%), lack of protocols and guidelines on pain assessment and management (74.1%), poor documentation of pain assessment and management (77.6%) and poor communication of pain assessment priorities at the unit (74.7%).

## CONCLUSIONS

In general, nurses knowledge of pain has found in a moderate level. A moderate level of pain knowledge subscales including pain categories and pain mechanism. However, regarding of knowledge of pain definition, pain behaviors, and pain assessment were still at a low level. These results indicated a need to strengthen pain education, especially knowledge of pain definition, pain behaviors, and pain assessment.

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