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Knowledge and practices of nurses regarding pain assessment in Intensive Care Units of tertiary care hospitals in Peshawar

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ABSTRACT

Background: Pain is a significant problem experienced by patients, especially in the adult Intensive Care Unit (ICU). Inexorable pain is the most common condition among critical patients that may seriously affect their well-being, health outcomes, and quality of life. **Method:** A descriptive cross-sectional study was carried out among 58 registered nurses working at different ICUs in public and private hospitals. A non-probability purposive sampling technique was used, and frequency distribution and percentages were used for different variables. The data was collected through a modified adoptive questionnaire and the data was analyzed using SPSS 22.0 version and Microsoft excel 2010. **Objectives:** This study aimed to assess the nurses' knowledge and practices related to pain assessment in critically ill patients. **Results:** Among all participants, 23 (39.7%) participants were from public hospitals and 35 (60.3%) from private hospitals, 24 (41.4%) were male and 34 (59.6%) were female. The overall knowledge and practice of participants 6.90% had poor knowledge, 53.40% had good knowledge, 39.70% had a very good knowledge, 13.80% of participants had poor practice, 69.0% had a good practice and 17.20% had a very good practice. **Conclusion:** Nurses have a key role in the assessment and management of pain because pain is a nursing-sensitive indicator. Unfortunately, the treatment of pain is highly insufficient because of inadequate clinical knowledge about the best ways to manage pain; the current study findings reported that the nurses were having good knowledge about pain assessment. Most of the respondents had adequate knowledge about it and have good practice. And the majority of them were using pain assessment tools.

Keywords: Nurses Knowledge, Pain, Intensive Care Unit, Nurses Practice.

INTRODUCTION

Pain as is an unpleasant sensory and emotional experience, associated with actual or potential tissue damage [1]. Pain deeply affects the quality of life. Pain may be acute or chronic. Chronic pain starts intermittently and progresses with the passage of time. While acute pain is rapid and it diminishes with treatment [2]. The improper management of pain can cause negative impact on the body and disturb the sleep and level of comfort of patient. About 50% to 80% of patients experience pain at some time during their hospitalization as a result of procedures, surgical interventions, and disease states [3].

It is obvious that regardless of the ambulatory and health care settings, the care and satisfaction of patient in term of pain indications to improve the patient quality of life, long-term care for pain assessment and management is necessary [4]. For good health outcome, the nurses and other health care providers need to properly assess the pain of the patient according to the subjective data. Therefore, the nurses need to acquire a good knowledge regarding pain assessment and management [5].

It has been reported that 78% of the patients who experienced pain came at the emergency department [6]. Assessment of pain may be influenced by many factors some of which are attitudinal and educational. The majority of the nurses rated pain assessment is moderately and extremely significant for line insertion, wound care, repositioning, drain removal and suctioning which has been demonstrated in a study conducted in Canada on 140 critical care nurses [7].

However, the findings by Salameh in 2017 for the practice differed as fewer nurses rated assessment of pain during some procedure for example during suctioning occurring more than 50% of the time during performing of the procedures in intensive care unit (ICU). This may show that the knowledge about the need to assess for procedural pain was adequate but not being into practices.

A study was conducted by Ufashingabire, Nsereko, Njunwa, and Brysiewicz, (2016) to assess the knowledge of nurses regarding pain assessment and management in three referral hospitals in Rwanda. It has been observed that nurses have poor attitude towards pharmacological management of pain and lack of adequate knowledge, in regard of pain assessment and management. Another institutional base study regarding pain assessment and management also shows that nurses have a very poor knowledge regarding pain assessment and management due to the communication gap between the nurse and the physician [2].

One of the study was conducted by Kituyi, Imbaya, Wambani, Sisenda, and Kuremu, (2011) highlighted that 87% nurses have the ability to handle post-operative pain assessment in the same study, whereas 21% of health care givers have never attended any formal teaching related to pain assessment in ICU. In addition, results of this study shows that the duration of service among all the health care providers in the post-operative care units did not affect the knowledge of nurses and assessment of pain.

Kizza, (2012) described a positive view that nurses have adequate knowledge about pain assessment. More than fourth-fifth of the participants has good knowledge about pain,.Samarkandi, 2018, highlighted that the nurses either they are female, or male have no proper education on pain assessment and management [8].

Salameh(2018) reveals that the knowledge and practice of nurses about the pain assessment in ICU is of inadequate level and needs to improve their knowledge and enhance their assessment practice for critical ill patient [9] . The objective of this study was to highlight the level of knowledge and the practice of nurses for pain assessment in ICU.

MATERIALS AND METHODS

Study Design

The current study was descriptive cross-sectional study which was performed in two tertiary care hospitals having ICU. The target population of our study was nurses who were working at critically ill units. Universal sample size was used at the level of selecting the hospitals and critical units from which the participants were recruited. Informed consent was signed by the nurses available at critical units. The number of participants in our study were 58. Registered nurses who were working at ICU for at least one year were included in the study while those who were not directly involved in the bedside patient care were excluded. Quantitative data was collected by using adaptive questionnaire (Rose, 2011). The reliability of the tool had not been reported but the experts rated the instrument clarity and content validity.

Ethical consideration

Study was carried out according to Hensalki's declaration 2016. Written permission was obtained from the Head of Nursing Services departments of both hospitals. Informed consent was distributed among participant of this research. Subject was informed that they have a right to participate or not to participate and explained that their information will be kept confidential.

Data analysis

Frequency distribution and percentages were used for categorical variables. Data analysis was performed with SPSS version 22.0 and Microsoft excels 2010. Frequencies and proportions were used on responses about knowledge related to pain assessment principles. Section 3 of the Questionnaire consisted of questions examining nurses' and self-reported knowledge of the principles of pain assessment. Each correct answer was assigned a score of 1 and an incorrect answer assigned a zero score on each item. Then a total of the scores for correct responses was obtained for each individual and a percentage was calculated by using SPSS version 20.0 and Microsoft Excel 2010.

Furthermore, the participants were divided into three categories. Participants who scored 9-10= were considered very good, 5-8= good, whereas 0-4= were evaluated as poor (table 1).

Table. 1: Standard scale for knowledge and practice

Category	Marks range	Percentage %
Poor	0-4	<40%
Good	5-8	<80%
Very good	9-10	90-100%

RESULTS

This study was conducted from 58 ICU nurses including public and private sectors, including 23 (39.7%) participants who were working in public hospital and 35 (60.3%) participants were from private hospital (Figure 1). The study was consisted of 24 (41.4%) males and 34 (59.6%) females (Figure 2).

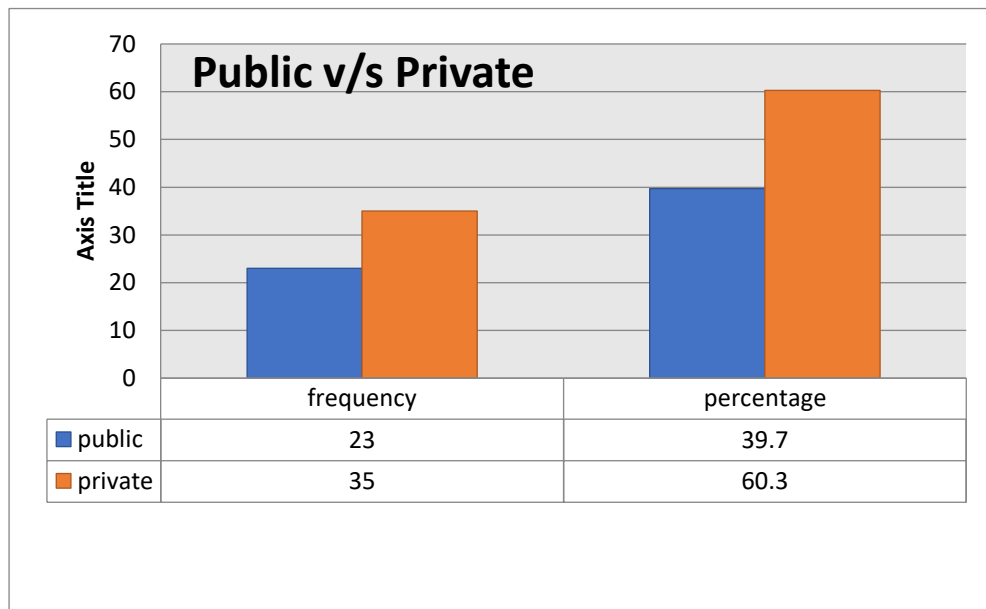


Figure.1: Participants' distributions between public v/s private hospitals

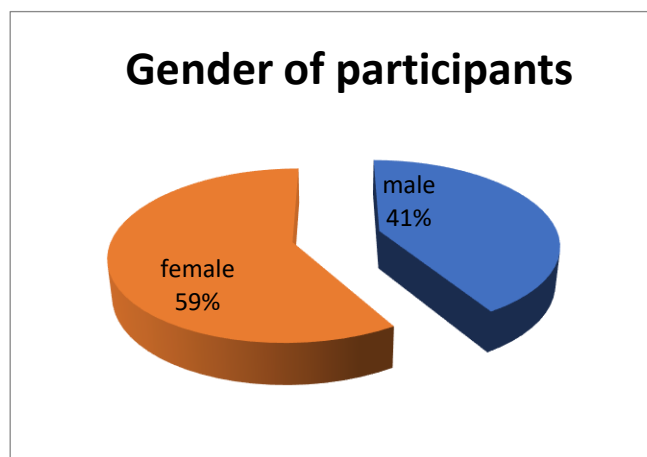


Figure 1. Gender distribution of participants in the study

The number of participants in this study in the age limit from 20-30 years was 48(82.8%), 31-40 years was 9(15.5%), and from 41-50 years was 1(1.7%) (Figure 3).

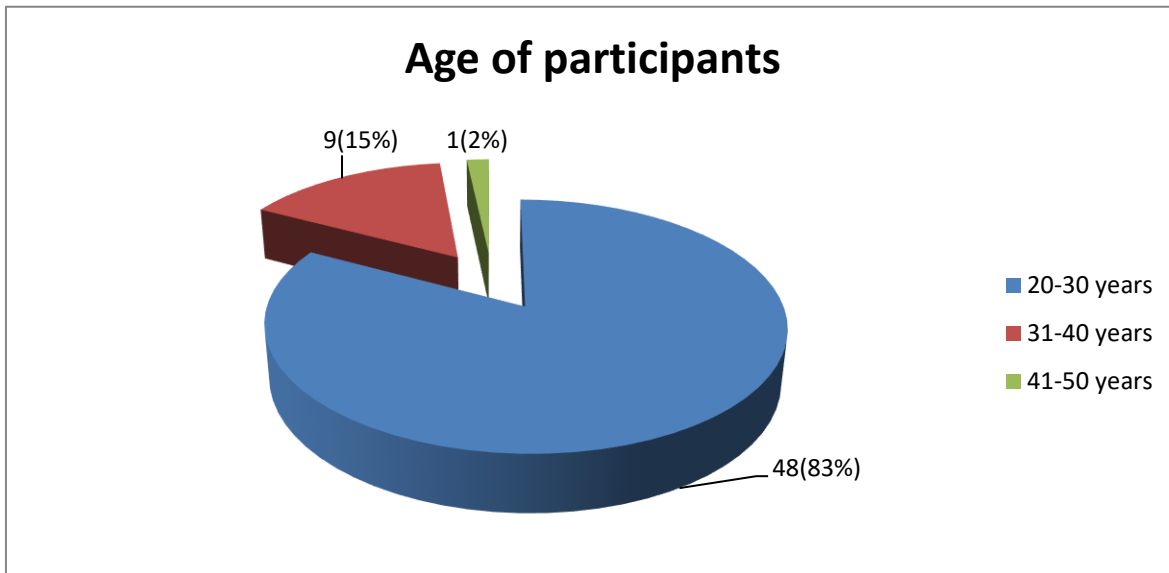


Figure 2. Distribution of participants on the base of age

Concerning to educational level of participants, 27 (46.6%) were BSN degree holders, 30 (51.7%) were diploma holders, and 1 (1.7%) was master's degree holder (Figure 4).

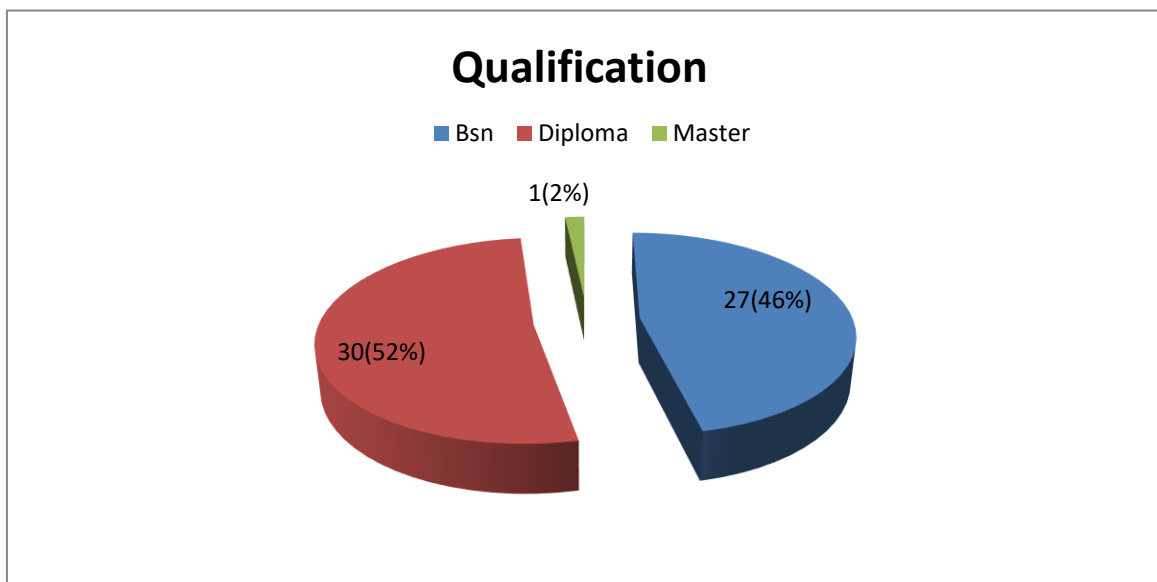


Figure 3. Distribution of participants based on their qualification

Besides, participants were also distributed based on their level of experience as shown in figure 5.

Assessment of knowledge of nurses about pain in public hospitals

The current study showed that 3(13%) had poor practice, 14(60.9%) had good practice, 6(26.1%) had a very good practice. While in terms of knowledge 2(8.7%) had poor knowledge, 14(60.9%) had good knowledge, and 7(30.4%) had a very good knowledge (table 2).

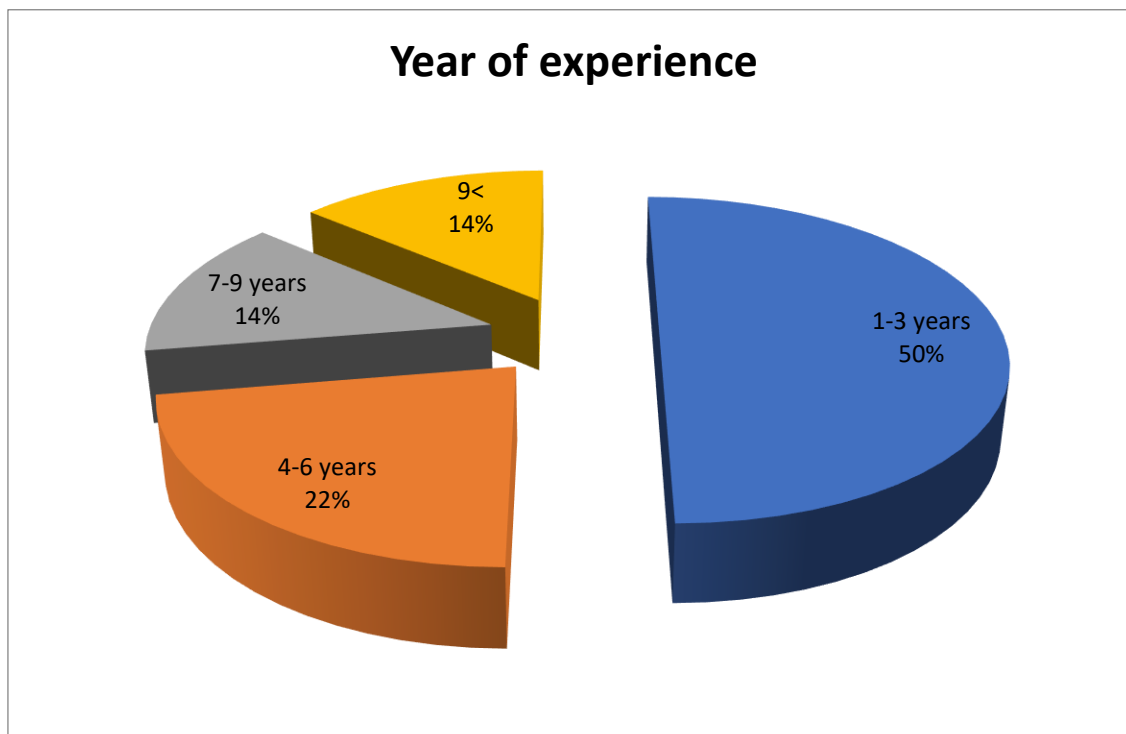


Figure 4. Distribution of participant based on their level of experience

Table.2: Distribution of nurses based on their knowledge and practices in public hospital

Category	Knowledge marks %	Practice marks %
Poor	2(8.7%)	3(13%)
Good	14(60.9%)	26(60.9%)
Very good	7(30.4%)	6(26,1%)

Knowledge and practice about the assessment of pain in private hospital

From study it is founded that 2(5.7%) had poor knowledge, 17(48.6%) had good knowledge and 16(45.7%) had a very good knowledge. Practice in private hospitals for critical ill patients, the pain assessment was 5(14.3%) which was considered as poor, 26(74.3%) was good and 4(11.4%) had a very good practice (table 3).

Table.3: Distribution of nurses based on their knowledge and practice in private hospital

Category	Knowledge marks %	Practice marks %
Poor	2= 5.7%	5= 14.3%
Good	17= 48.6%	26=74.3
Very good	16= 45.7%	4= 11.4%

Combine result of both hospitals private and public

The knowledge and practice of both hospitals were calculated in percentage. The results showed that over 6.90% had poor knowledge, 53.40% had good knowledge and 39.70% had a very good knowledge. Similarly, our results showed that the 13.80% of participants had poor practice, 69.0%, had good practice, and 17.20% had a very good practice (figure 6).

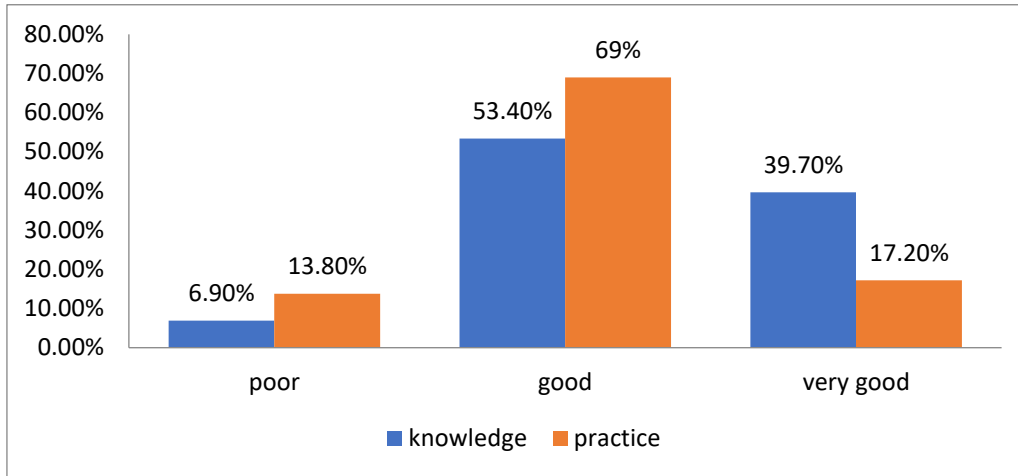


Figure.6: Combine percentage of knowledge and practice of both hospitals

The current study highlighted that 75.86% of participants discussed the pain scores during nurse-to-nurse report and 65.51% of the respondents stated that the pain assessment was also discussed during unit rounds and the study also showed that 86.20% of the respondents were using a pain assessment tools for pain assessment (table.4).

Comparison of knowledge and practice between public and private hospital

Comparatively the knowledge level of the participants was good among the respondent of public (60.90%) sector hospital and practice (74.30%) was good in private sector hospital (figure 7).

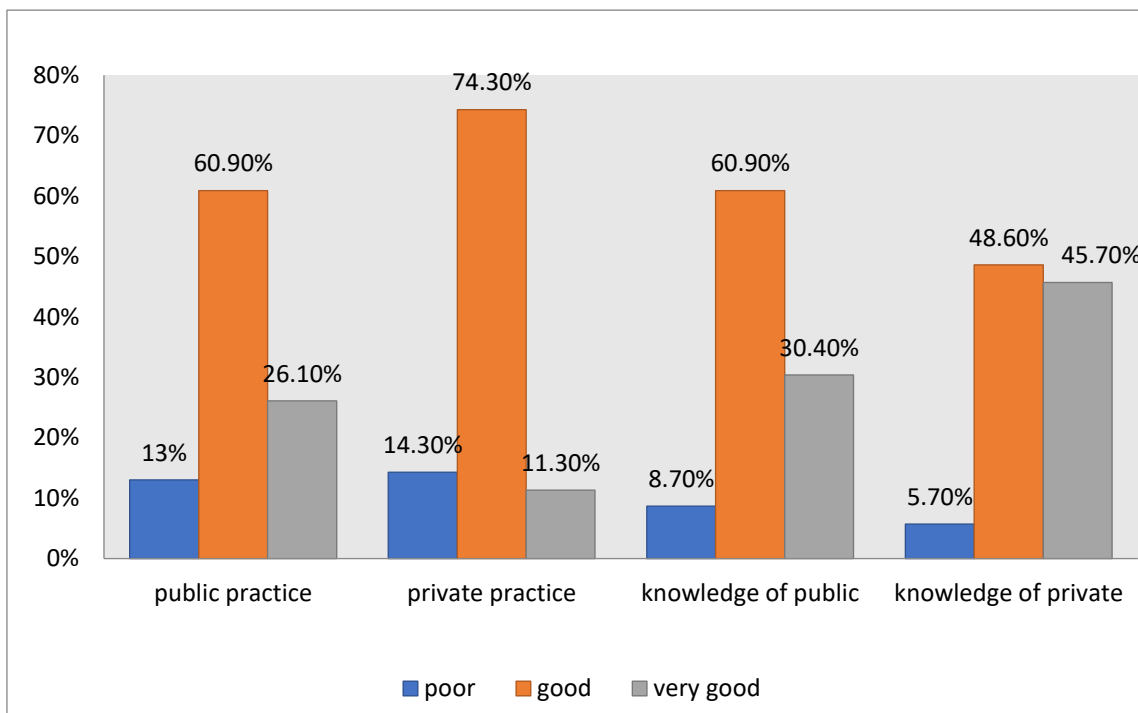


Figure 7. Comparison knowledge and practice between public and private hospital

Table.4: Comparison of knowledge and practice between public and private hospitals

Category	Public practice	Private practice	Knowledge of public	Knowledge of private
Poor	13.0%	14.30%	8.70%	5.70%
Good	60.90%	74.30%	60.90%	48.60%
Very good	26.10%	11.40%	30.40%	45.70%

DISCUSSION

The main objective of this study was to assess nurses' knowledge regarding pain management in critical care units and the results revealed that majority of the nurses in existing study scored poorly on knowledge scale. The overall knowledge of critical care nurses in this study was found poor regarding pain assessment and management. The present study showed that 53.40% of the respondents currently had a good knowledge about pain assessment and 84% of the nurses indicated that they had adequate knowledge about pain assessment. These findings were consistent with a study conducted by Tsai et al., (2010) that majority of critical care nurses (53.4%) had good knowledge regarding pain assessment.

In current study majority of nurses (86.20%) were using pain assessment tool and 75.86% of the respondents mentioned that pain scores were discussed during nurse-to-nurse report in ICU. In contrast, a study conducted by Mondal (2018) highlighted that 58.5% nurses were using pain assessment tools while 74.5% of participants discussed pain score during nurse-to-nurse report.

Contrary to the results of the present study, a study was conducted in Azad Kashmir by Shuaib (2018) highlighted that (74.5%) had poor knowledge, (25.5%) had good knowledge and (0.5%) had a very good knowledge.

In current study the participants reported that pain assessment tools and scales were used in ICU. However, in their study by Horton and Hizar (2006) highlighted that nurse do not use proper pain assessment tools and scales in critical areas. Like the findings of the current study Shaer et al., (2011) discussed that nurses had no opportunities during their service to update their knowledge about pain assessment and pharmacological interventions.

CONCLUSION

Nurses have a key role in the assessment and management of pain because pain is a nursing sensitive indicator. Unfortunately, the treatment of pain is highly insufficient because of inadequate clinical knowledge about the best ways to manage pain. The current study findings reported that the nurses had good knowledge about pain assessment. Most of the respondents had adequate knowledge about it and had good practice. However, majority of the nurses were using pain assessment tools.

CONFLICT OF INTEREST

All authors declared no conflict of interest.

AUTHOR CONTRIBUTION

All the authors equally contributed.

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N/A.

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