

**Perceptions of pain management at end of life care: Nurses’
knowledge and attitudes towards pain in the context of**

Saudi Arabian

Literature Review

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Abstract

Palliative care is an emerging field of nursing and medical care within Saudi Arabia. Personal experiences and anecdotal evidence suggest many terminal patients continue to die in pain and without adequate analgesia throughout the country. Indeed, pain during end-of-life care results in physical, psychological, social and emotional issues that impede and influence patients' quality of life. However, nurses play a vital role in the process of decision making related to pain assessment and management; therefore, nurses must be well prepared with adequate knowledge and more awareness regarding pain management in palliative care units. In addition, the aim of this review was to explore and provide a comprehensive summary of the current nurses' knowledge and attitudes regarding pain management during end-of-life care in Saudi Arabian. This review demonstrated that nurses' knowledge and attitudes toward pain management during end-of-life care in Saudi Arabian was far from the optimal. Thus, the findings from this review will contribute new information that is significant to improving the quality of the nursing care of patients in palliative care units and of those who are in need of end-of-life care.

Introduction

The fear of overdosing patients with narcotic pain medication is often seen in the daily practice of nurses and physicians, whether in acute care, long term care or

hospice facilities. However, pain left undertreated can impede the quality of life of an individual. There is an abundance of information that shows terminal patients experiencing pain that could be treated, especially patients with chronic illnesses. Learning to treat pain in a patient nearing the end of their life must become a priority, and has been a neglected area of healthcare for far too long. For example, one group of oncologists was surveyed, and the findings revealed that 76% of these physicians rated poor pain assessment as the most common cause of undertreated cancer pain, while 86% of them felt that the patients were under-medicated (Thompson, 2001).

Managing patient pain is possible, with evidence indicating that 80 to 90% of pain can be relieved by correctly following the international guidelines for managing pain (Foley, 2011). Despite the advancement in pain management techniques and the international prescribed guidelines for adequate pain management, studies have shown that patients at the ends of their lives still suffer from pain at different stages of their illnesses (Al Qadire et al., 2013; Dees et al., 2011). Many barriers hinder the delivery of effective pain management to these patients, which could be healthcare professional-related, healthcare system-related or patient-related (Oldenmenger et al., 2009; Apolone et al., 2009). Poor knowledge and negative attitudes towards pain management were reported as some of the most common barriers to effective pain management among nurses (Al-Khalaileh & Al Qadire, 2012).

Therefore, the aim of this review is describing the knowledge and attitudes of nurses regarding pain management in Saudi Arabian hospitals. Also, this will provide an overall examination of the level of knowledge, attitudes and beliefs of nurses toward pain management, and to explore the nurses' perceived barriers that hinder the

delivery of effective pain management. In addition, this literature review would explore the level of evidence regarding factors known to influence nurses' decision-making regarding pain management during end-of-life care. Moreover, this review will consider how cultural factors influence nurses' approaches to pain management during end-of-life care. This review will also critique and identify outcome measures and data collection tools used to evaluate nurses' knowledge and attitudes regarding pain management during end-of-life care.

Research Question

What is the current nurses' knowledge of pain management during end-of-life care in the context of Saudi Arabia?

What are the current nurses' attitudes towards pain management during end-of-life care in the context of Saudi Arabia?

How do the nurses' demographic and cultural factors affect the delivery of effective pain management during end-of-life care in the context of Saudi Arabia?

Search Strategy

To retrieve studies for this review, a search strategy was used. Thus, Cochrane library, the Medline with Full Text, CINAHL, PubMed and ProQuest databases were used to find relevant studies. Indeed, these databases are the most common ones related to nursing research. The keywords 'nurses knowledge and attitudes' And 'pain management' and 'Saudi Arabia' OR 'end-of-life pain' OR 'end-of-life care' were used to retrieve relevant articles. The research was then limited to full-text, recently

published studies (2008–2020) focusing on the adult population, as well as English language studies. However, non-English publications, studies conducted on the paediatric population and unrelated articles were excluded. Therefore, the related articles have been selected and found to be relevant to the topic to include it in this review.

Literature Review

Patients requiring end-of-life care are often suffering from pain that can be treated (Duignan & Dunn, 2009). If left untreated or undertreated, this pain would impede the patient’s quality of life and lead to serious physiological, psychological, social, emotional and spiritual complications (Polomano et al., 2008). Indeed, effective pain management for terminal patients at the ends of their lives requires nurses to have adequate knowledge of and positive attitudes towards pain management to provide effective care (Duignan & Dunn, 2009).

However, despite new techniques and new guidelines for adequate pain management, many patients continue to suffer from pain (Pasero & McCaffery, 2007). Therefore, the most fundamental of a nurse’s responsibilities are the pain assessment and management of patients who complain of pain. Patients’ pain can be highly influenced by nurses’ knowledge, perceptions, ethnicity and attitudes regarding pain (Schopflocher et al., 2010) and other physiological and social factors (Vivian et al., 2009). In addition, it has been found that nurses often have knowledge deficits and incorrect beliefs regarding pain assessment and management. These misbeliefs can lead to inappropriate, incorrect and inadequate pain management practices (De Silva,

2008; Manias, Bucknall, & Botti, 2005).

Even though many studies have been conducted regarding nurses' knowledge and attitudes related to pain management, they were conducted for general pain management (Al-Khalaileh & Al Qadire, 2012) or other specialized areas, such as orthopaedics (Matthews & Malcolm, 2007) and oncology (Yildirim et al., 2008). Thus, only a limited amount of research has focused on nurses' knowledge and attitudes regarding pain management related to end-of-life care, and very rare studies were focused on Islamic society and the Arabic culture, such as in the context of Saudi Arabia, where the Islam religion is dominant in this context.

Impact of Culture and Demographic Factors on Pain Management

One of the major competencies of nurses caring for any patient is that of pain assessment and management (Joint Commission, 2010). Nonetheless, numerous studies reports that nurses underestimate patients' pain (Al-shaer et al., 2011; Borglin et al., 2011). To achieve a high level of competency in providing pain management, nurses must have an adequate level of knowledge of and a positive attitude towards pain assessment and management (Schopflocher et al., 2010). In study took place in a tertiary hospital in Saudi Arabia, city of Jeddah, questionnaires were distributed to nurse staff in different areas in this hospital, most of the staff was overseas (Eid et al., 2014). The study found that there was some misconceived attitudes to pain management. Also this study found that nurses' have a low knowledge and inappropriate attitude to pain management. One of the most important recommendation in this study is to set up pain management program (Eid et al., 2014).

Different studies have been conducted in different contexts on the knowledge and attitudes of nurses, a positive relationship has been found between specific characteristics and factors regarding the nurses, especially the knowledge and attitudes of nurses about pain management. The characteristics of these nurses include the nurses' age/race/culture, level of education, experience with pain management and nursing profession experience (Al-shaer et al., 2011; De Silva & Rolls, 2011; Lui et al., 2008).

Knowledge and Attitudes Related to the Nursing Profession and Nursing Experience

The influence of the nursing practice and nursing experience on nurses' knowledge of and attitudes towards pain has been inconsistent (Lewthwaite et al., 2011; Liu et al., 2008). Nurses with more experience or who are in a special area, such as oncology, palliative care or hospice care, have been shown to have more knowledge related to pain management. A study by Alsayaghi et al., 2022, has been investigated nurses regarding their knowledge and attitudes towards pain management by using a version of the Knowledge and Attitude Survey Regarding Pain (NKASP). The study was conducted in Al-Medinah Al-Munawarah Region, Saudi Arabia. The study examined the nurses' characteristics in relation to their knowledge of and attitudes towards pain. The findings indicated that years of experience and nursing practice influenced the overall scores positively. Also the study found that different areas of practice have influenced the knowledge of and attitudes towards pain, such as emergency department comparing to outpatient department, which was the outpatient department had a high score of knowledge. Conversely, the scores related

to both pharmacological and non-pharmacological intervention in this study were low. Consequently, the nurses' ages, areas of practice and patient pain assessment relationships were not found to be significantly related to the assessment of the patients' level of pain (Alsayaghi et al., 2022)

A study by Lui et al. (2008) investigated 143 Chinese nurses regarding their knowledge of and attitudes towards pain management by using a Chinese version of NKASP found a similar results to the above mentioned study. This study surveyed the nurses' characteristics in relation to their knowledge of and attitudes towards pain. The findings of the study identified a correlation between the years of experience and nursing practice toward pain and pain management (Lui et al., 2008).

A study by Al-shaer et al. (2011) supported the relationship of nurses' demographic characteristics to their knowledge and attitudes regarding pain management. In total, 129 nurses were invited to participate in a non-experimental descriptive study that took place in a Midwestern metropolitan hospital in the United States (US). The data were collated using the NKASP. The results of the study revealed the average reported knowledge score was 25.9. The study findings did not report any significance in the relationship of the knowledge scores among the nurses' ages, working shifts, years of experience or area of practice such as intensive care unit or orthopaedic unit. Although the study did not indicate any significance in the relationships mentioned above, in this study, nurses who had 16 years of experience had higher knowledge scores than those with one to five years of experience, with median scores of 27.2 and 25.0, respectively. This study also found that of all the

participants, seven oncology nurses reported higher knowledge scores than the other nurses (Al-shaer et al., 2011).

Similar results were found in a qualitative study that described how pain management practices are influenced by experience. Despite the fact that the study included a small sample of eight oncology nurses from one public hospital in Sri Lanka, the results indicated positive outcomes between experience and pain management interventions. It was shown that the nurses who had pain management experience reported they would give patients more analgesic when necessary or needed. Moreover, they also reported confidence in administering analgesic when they had all of the information they needed regarding the analgesic medication (De Silva & Rolls, 2011). These results were both supported by and consistent with another study by Houle (2011), which compared oncology nurses with non-oncology nurses and determined oncology nurses had better knowledge of pain management. In contrast, even though oncology nurses had better knowledge than other nurses did, the study reported an overall knowledge deficit regarding pain management (Houle, 2011).

Although some studies have indicated oncology nurses have better knowledge than non-oncology nurses, numerous studies have found oncology nurses still lack knowledge regarding pain management in general and cancer pain in particular (Alnems, 2012; Wang & Tasi, 2010). In Alnems' (2012) study, 225 oncology nurses from the Oncology Nursing Society in the US were invited to complete the NKASP questionnaire. The results of this study revealed deficiencies in knowledge and showed oncology nurses were lacking in their knowledge of pain management. Even

though the study had a small number of participants, they were randomly selected from a well-known organization in the US.

Similar studies conducted in the Arabic culture area found that nurses had deficiencies in their knowledge of pain management. A study conducted by Abdu Rahman et al. (2013) used the NKASP to assess the level of knowledge and attitudes of 88 Lebanese nurses regarding pain management. This study found that the mean score for the correct answers was 56.15%, which indicated the nurses had inadequate knowledge of and negative attitudes towards pain management. The results of this study were supported by two Jordanian studies that revealed similar results (Al-Atiyyat, 2009; Al-Khalaileh & Al Qadire, 2012).

Influence of Pain Management Education on Knowledge of and Attitudes towards Pain Management

Numerous studies have shown the influence of pain management education programs and their significance on the knowledge and attitudes of nurses regarding pain management (Duignan & Dunn, 2009). Undoubtedly, nurses who attend pain management education sessions improve their knowledge of and attitudes towards pain management (Borglin et al., 2011; Long, 2013). Among these studies, a study has been conducted in by Samarkandi (2018) in Saudi Arabia, both private and public hospitals, among Saudi nurses showed a lower level of pain knowledge compared with nurses from other regional and worldwide nurses. This study has revealed and recommended to considered pain management in nursing undergraduate curricula and continuous education within hospitals (Samarkandi, 2018).

Another study has been done in different context comparing to Saudi Arabia, Long (2013) examined the knowledge and attitudes of 14 nurses regarding pain management both before and after implementing a pain management education program. After the initial education session, six months into the study, it was revealed there was an improvement in both the nurses' knowledge of and their attitudes towards pain management (Long, 2013).

Borglin et al. (2011) conducted a study that demonstrated the influence of an educational program on the knowledge and attitudes of nurses regarding pain management. After initiating education sessions related to improving nurses' knowledge and attitudes, this quasi-experimental study implemented a local guideline to investigate the efficiency of daily pain assessments. The study took place in two surgical wards in Sweden; 35 nurses who cared for cancer patients were recruited and then divided into an experimental and a control group. The study findings showed the experimental group had better knowledge of and positive attitudes towards pain management; in comparison to the control group, they were also more confident in administering analgesic and opioid medications.

Influence of Nursing Curricula on Knowledge and Attitudes regarding Pain

When assessing nurses' levels of knowledge and attitudes towards pain management, it is important to examine and have an understanding of this topic among nursing curricula of pain management in undergraduate level by assessing nursing students. Knowing the nurses' educational backgrounds, levels of knowledge and attitudes would be beneficial to these findings. Nurses' lack of knowledge and negative attitudes might be related to the pain curricula that had been taught at

universities at the undergraduate level. To that end, Al-khawaldah et al. (2013) conducted a study that involved three nursing schools in Jordan; they investigated the nursing students' levels of knowledge and attitudes regarding pain management. Their study findings revealed the students were lacking in knowledge and attitudes related to appropriate pain management. The authors concluded the nursing curricula at the undergraduate level should be changed to include pain management sessions and subjects that address these knowledge deficiencies.

Discussion

Based on the studies reviewed, it appears that nurses worldwide have a lack of knowledge of and negative attitudes towards pain management in general. Thus, nurses' lack of knowledge and skills, as well as their negative attitudes, are the most common factors that contribute to inadequate pain management. However, most studies included in this review were quantitative, cross-sectional or survey-design ones that depended on questionnaires for data collection; hence, there was a lack of details and explanations regarding why the nurses had inadequate knowledge. In addition, according to the Ministry of Health in Saudi Arabia (2006), Saudi nurses comprised 35% of all employed nurses in the country, whereas overseas nurses accounted for 65% of all nursing workers. Although the overseas nurses who travel to Saudi Arabia for work are usually experienced, their knowledge of and attitudes towards pain management are unknown. Therefore, there is a lack of significant data about nursing knowledge and attitudes regarding pain assessment and management in

the context of multi-national nurses, such as in Saudi Arabia, including how different backgrounds could affect the delivery of pain management.

A significant body of research already exists on understanding pain during end-of-life care. Indeed, while many studies have examined nurses' knowledge and attitudes towards pain management, the majority were conducted in western societies. See, for example, the work of Apolone et al. (2009); Lewthwaite et al. (2011); Oldenmenger et al. (2009); and Voshall, Dunn & Shelestak (2013). By contrast, only a few studies have been conducted in countries that parallel the Saudi Arabian context, such as Lebanon (Abdalahim, Majali & Bergbom, 2010), Jordan (Al-Khalaileh & Al Qadire, 2012), Turkey (Yildirim et al., 2008) and Iran (Rahimi-Madiseh et al., 2010) and very few studies have been conducted in Saudi Arabia (Eid et al., 2014, Alsayaghi et al., 2022, Samarkandi, 2018). Therefore, while a limited number of studies have been done to explore nurses' knowledge and attitudes regarding pain management during end-of-life care, none were conducted in Saudi Arabia and this has left a large gap in the existing research on this area.

The impact of this study review to the need to investigate the current levels of nurses' knowledge and attitudes toward pain management during end-of-life care and to explore how nurses' characteristics influence pain management in palliative care units in Saudi Arabia. Consequently, the results of this review is expected to contribute new information that is relevant to this area of the nursing profession. In addition, the results from this review will be used to contribute to future improvements to the quality of the nursing profession and the provision of care to

patients in palliative care units and those experiencing end-of-life care.

Furthermore, this review will direct health institutions' efforts to solve the problems that currently hinder the provision of effective pain management within the Saudi medical community. In so doing, this review has focused on studies that make necessary recommendations for the further development of nursing curricula for both undergraduate and postgraduate nursing programs, as well as inspire reform of the education provided in Saudi hospitals in this regard.

Conclusion

This review suggests important areas for future research, which will contribute to further improvements to the quality of care delivered to patients in palliative care units and to those who are in need of end-of-life care. These recommendations will necessitate changes to be made to the practices and policies regarding pain management among Saudi healthcare settings.

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