

Pain Knowledge and Attitude Survey among Health-care Professionals at a University Hospital in Saudi Arabia

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ABSTRACT

Background: There is growing awareness in the hospital setting toward pain management to decrease patients' suffering, improve postsurgical outcomes and to decrease cost.

Objective: The aim of this study was to get an overview of the knowledge and attitude among health-care professionals toward pain management in the King Fahd Hospital of the University, and the need for an educational plan to improve pain service in hospitals.

Materials and Methods: We conducted a survey over a 3-month period based on a 30-question questionnaire to test pain knowledge and attitude among nurses and physicians of different specialties, the level of education and years of experience.

Results: The results of the data showed that knowledge and attitude of pain were deficient and unsatisfactory.

Conclusion: We concluded that efforts to spread knowledge and education of proper pain management among health-care professionals are required. Further surveys involving more hospitals are warranted.

Key words: Health-care professionals, pain attitude, pain knowledge, questionnaire

ملخص البحث:

ازداد الوعي مؤخرًا في المستشفيات عن أهمية علاج الألم لتخفيف معاناة المرضى وتحسين نتائج العمليات الجراحية وتقليل التكلفة. تهدف هذه الدراسة إلى معرفة ومواقف توجهات العاملين بمستشفى جامعي عن علاج الألم ومدى الاحتياج لخطة تدريبية لتحسين الخدمات المرضية لهذا الغرض في المستشفيات الأخرى. وضحت هذه الدراسة المبينة على الاستبيان أن معلومات وتوجهات العاملين عن الألم وعلاجه كانت ناقصة وغير مرضية. وأوصت بتكثيف الجهود لنشر المعلومات والتدريب الملانم لعلاج الألم. كما كان من توصيات الدراسة إجراء المزيد من الدراسة عن هذا الموضوع في المستشفيات الأخرى.

INTRODUCTION

Pain is one of the most common consequences after surgical procedures and is often associated with fear and anxiety, delayed mobilization, prolonged recovery

and increased patient morbidity.^[1] An adequate level of knowledge and positive attitude are essential components in proper pain management. However, literature suggests that inadequate pain control continues to bedevil

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postsurgical patients despite increased awareness among health-care professionals of the detrimental effects of inadequately treated pain.^[2]

In a large study, exploring nursing opinions about pain, researchers concluded that there is a tendency for nurses' personal opinions about patients' pain to influence their choice of opioid dose.^[3] Literature suggests that nurses' concerns about patient addiction and respiratory depression are likely causes of the under-treatment of pain.^[3-5]

Some studies based on nurses' knowledge and attitude toward pain control have included complete study questionnaires.^[6-8] Other studies have examined nurses' involvement in pain control using a number of different approaches based on the research objectives. Most researchers have examined a combination of different issues in the same study, including nurses' beliefs about the incidence of pain; the comparison of patient and nurse perceptions and knowledge of the physiology of pain; attitudes and beliefs about pain control, current practice, knowledge of drug therapy and side effects as well as the effectiveness of educational programs.^[9-14]

The aim of this study was to assess the knowledge and attitude among health-care professionals about pain management in King Fahd Hospital of the University (KFHU), Al-Khobar, Saudi Arabia. The researcher's plan was to use the collected information to improve the knowledge and performance of health-care professionals by conducting educational sessions and different pain awareness programs.

MATERIALS AND METHODS

After approval by the local ethics and hospital committees, a cross-sectional study was conducted from December 2012 to March 2013 in KFHU. Thirty true-and-false-type questions were distributed to all nursing units and clinical departments. Each head nurse was responsible for distributing the questionnaire to the nursing staff on the unit, and each medical secretary was responsible for distributing the survey questionnaire to physicians and paramedics in the clinical departments. The numbers of copies given to each unit were documented. The nurses and secretaries returned the questionnaires via a designated envelope assigned to the unit at the end of the data collection period.

The choice of the items in the questionnaire was based on revised McCaffery questionnaire (questions numbers

3, 4, 17, 18 and 19) and the questionnaire of Visentin *et al.* (questions number 1, 3 and 11).^[15,16] Revisions were made on the aforementioned questions to match the drugs and instruments used in KFHU. The remaining questions were formulated by the author to match the specific objectives.

Questions were divided into two categories; Questions 1–19 to assess knowledge and Questions 20–30 to assess attitude toward pain management. A correct response was given a value of one and an incorrect response or an unanswered question was given a value of zero.

Statistical Package for Social Science version 20 (SPSS Japan Inc., Tokyo, Japan) was used for statistical analysis. Data were presented in the form of numbers and percentages. Fisher's exact test was used for comparison. Statistical significance was considered $P < 0.05$.

RESULTS

A total of 346 questionnaires were distributed in the hospital to nursing units and clinical departments. Only 255 questionnaires (74%) were returned from all areas, and 26 were excluded because they left either the gender (15) or the job title (11) blank. Two hundred and twenty-nine (90%) respondents were analyzed. Of the total respondents, 60 were physicians (26.20%) and 169 were nurses (73.80%). Of the total number of physicians, 38 were residents (63.3%), 2 were registrars (3.3%), 7 were specialists (11.6%) and 13 were consultants (21.6%) comprising different specialties (medical 17, surgical 23 and anesthesia 16). The years of experience are shown in Table 1. The nurses were of different levels of seniority: 28 (0–<5 years), 59 (5–<10 years), 40 (10–<15 years), 42 (15–<20 years) and worked

Table 1: Physician's years of experience

Years	Total (%)
0–1	14 (23.33)
2	11 (18.33)
3	7 (11.67)
4	6 (10)
5	3 (5)
6	4 (6.67)
7	2 (3.33)
8	2 (3.3)
9	4 (6.67)
≥10	7 (11.67)

in different areas of the hospital (31 in operating rooms, 34 in medical wards, 36 in surgical wards, 43 in intensive care areas and 25 in outpatient clinics). Correct answers for knowledge questions and positive answers for attitude questions provided by the physicians were more than those of the nurses in all questions, but significance was only detected in 15 questions; 9 of them were knowledge-based questions (2, 7, 8, 10, 12, 14, 17, 18 and 19), while 6 of them were attitude-based questions (20, 21, 22, 24, 27 and 29). Physicians significantly answered correctly more than nurses in knowledge-based questions ($P = 0.0001$), significantly answered positively in attitude-based questions ($P = 0.0001$) and in all questions as a whole ($P = 0.0001$) [Table 2 and Figure 1]. The range of correct answers in knowledge questions were 29.59–95.27% for nurses and 41.67–96.67% for physicians, while the range of positive answers for attitude questions was 13.02–95.27% for nurses and 26.67–96.67% for physicians. Nurses scored <50% in Questions 6, 7, 8, 20, 21, 23, 24, 25 and 27, while physicians scored <50% in Questions 8, 23 and 27.

DISCUSSION

Despite the remarkable progress in pain management, health-care professionals continue to underestimate, under-medicate and mismanage patients in pain.^[16,17] This study provides an overview of knowledge and attitude toward pain management among health-care professionals in KFHU, Al-Khobar, Saudi Arabia. It demonstrates deficient knowledge and negative attitude toward pain management among physicians and nurses. Previous surveys conducted in other health-care centers reported similar issues that resulted in suboptimal pain management, such as poor pain assessment, insufficient knowledge and negative attitude together with inadequate guidance from pain specialists.^[18,19] Further concord is

found between this study and other studies with regard to opioid “phobia” that results from an over-concern of medication addiction and respiratory depression when opioids are used.^[4,7,15]

In contrast to our findings, previous surveys conducted at the University of Helsinki, Finland, and King Abdulaziz University, Jeddah, Saudi Arabia, revealed a positive attitude toward pain management in elderly patients with cancer.^[20,21] However, these studies were conducted among medical students who were not yet involved in actual patient management. Moreover, those surveys were limited to cancer patients. Furthermore, in the survey conducted at King Abdulaziz University, a English questionnaire was distributed to Arabic-speaking students which could have affected the surveyors’ understanding of the questions and, therefore, the results.

Nurses scored <50% in Questions 6, 7, 8, 20, 21, 23, 24, 25 and 27, while physicians scored <50% in Questions 8, 23 and 27. Scoring <50% in attitude questions is in contradistinction to the findings reported by others in which they demonstrated that the lowest scores were mainly related to knowledge.^[7,15-22] It has been suggested that the professionalization process of health-care providers reinforced negative attitudes associated with lack of enthusiasm to prescribe opioids, over concern of respiratory depression, patient addiction and drug regulatory agency sanctions.^[23] We suggest that barriers to optimal pain management might be due to the deficient educational programs on pain management, which has contributed to the lack of knowledge among health-care providers over the years. This has subsequently led to a negative attitude toward pain management due to fear of liability, unfamiliarity and anticipated risks that might include addiction, dependence and respiratory depression. Further research is needed refute or to support these suggestions.

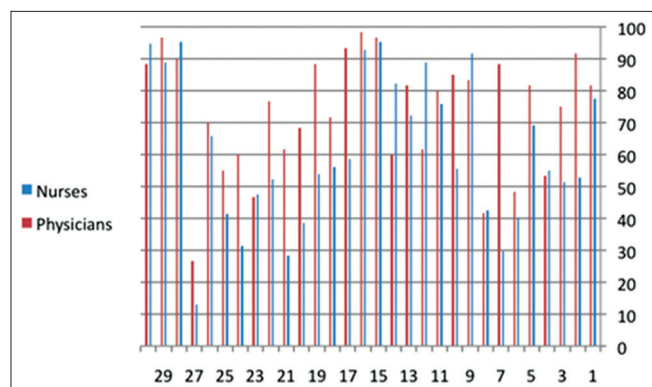


Figure 1: Percentages of physicians and nurses who answered correctly

This study revealed that physicians had a significantly better knowledge and less negative attitude as compared with nurses. A previous study indicated that many nurses lack sufficient knowledge of appropriate pain management and showed that nurses answered <70% of questions correctly.^[24] A possible explanation is the deficiency of pain management education in their nursing curricula.^[25] It has been shown that introduction of a short pain management course for final-year medical students improved their knowledge with regard to pain and led to better pain management.^[26] Furthermore, a recent study that assessed undergraduate nursing students’ pain knowledge after participation in a simulation scenario

Questions	<i>n</i> (%) correct answers by nurses	<i>n</i> (%) correct answers by physicians	<i>P</i>
1. Amitriptylin is a strong narcotic	131 (77.51)	49 (81.67)	0.58
2. Ibuprofen is not effective analgesic in bone pain	89 (52.66)	55 (91.67)	0.000*
3. Celebrex is a weak opioid	87 (51.48)	45 (75)	0.0015
4. Pain is considered one of the vital sings	93 (55.03)	32 (53.33)	0.8804
5. Pain intensity should be rated by the nurse not the patient	117 (69.23)	49 (81.67)	0.0668
6. Patient may sleep in spite of severe pain	68 (40.24)	29 (48.33)	0.2905
7. Frequents request of analgesia by the patients means he is already addicted	50 (29.59)	53 (88.33)	0.0001*
8. Beyond a certain dose of morphine increasing the dose will not increase analgesia (i.e., ceiling effect)	72 (42.60)	52 (41.67)	0.0001*
9. The goal of giving narcotic analgesia during the first 48 h postoperatively is to relieve as much pain as possible	155 (91.72)	50 (83.33)	0.0856
10. The preferred route of administration of narcotics in pain patients is the IM route	94 (55.62)	51 (85)	0.0001*
11. Continuous peripheral nerve block is one of the modalities to manage pain	128 (75.74)	48 (80)	0.05944
12. WHO analgesic ladder is the guideline approach to manage any type of pain	150 (88.76)	37 (61.67)	0.0001*
13. Presence of epidural catheter is a contraindication for patient to move	122 (72.19)	49 (81.67)	0.1692
14. PCA IV line should be kept for PCA use only	139 (82.25)	36 (60)	0.0012*
15. All postoperative patients should have a pain management plan	161 (95.27)	58 (96.67)	1.00
16. Collaborative effort between primary service and pain management team is a must for adequate pain control	157 (92.90)	59 (98.33)	0.192
17. The numerical rating scale is the only scale available to assess pain intensity	99 (58.58)	56 (93.33)	0.0001*
18. Sometimes propofol alone is enough to control patient pain	95 (56.21)	43 (71.67)	0.0455*
19. If the patient has no complaints that means he is not in pain	91 (53.85)	53 (88.33)	0.0001*
20. The patient with pain should be encourage to endure as much pain as possible before restoring to pain relief measures	65 (38.46)	41 (68.33)	0.0001*
21. If the patient can be distracted from pain that's mean he/she does not have a high intensity of pain	48 (28.40)	37 (61.67)	0.00018*
22. Allowing patients to administer their own pain medication through (PCA) is a superior way to provide analgesia	88 (52.07)	46 (76.67)	0.0003*
23. I worry that patient might become addicted to the analgesia we administer	80 (47.34)	28 (46.67)	0.8810
24. Patient with history of substance abuse should not be given opioids for pain relief	53 (31.36)	36 (60)	0.0001*
25. The potency of analgesia selected for the patient should be based on the type of surgery rather than on patient pain intensity	70 (41.42)	33 (55)	0.0725
26. Giving narcotics on a regular basis is preferred over PRN (as needed) for continuous pain	111 (65.68)	42 (70)	0.6328
27. Your visual assessment of the pain patient should influence your response to patient pain	22 (13.02)	16 (26.67)	0.0247*
28. Reporting medications side effects is one of the components of assessment process	161 (95.27)	54 (90)	0.2052
29. Timely response is one of the components that affect patient care	150 (88.76)	58 (96.67)	0.0735*
30. Inspecting the epidural insertion site and PCA IV access is a routine of patient care	160 (94.67)	53 (88.33)	0.1366

**P* < 0.05; PCA – Patient controlled analgesia; IV – Intravenous; IM – Intramuscular; PRN – As-Needed

recommended that future pain simulations should be included to give more opportunities for students to

choose appropriate pain medications when “as needed orders” are prescribed.^[27]

Limiting the study to one health organization limited the number of health-care practitioners included in the survey. In addition, it is understandable that the knowledge of the health-care providers is not comparable to that of a physician. Our recommendation is that KFHU conducts more educational programs to staff either through pamphlets, small group pain management workshops and poster presentations.

CONCLUSION

We concluded that there is a lack of knowledge and a negative attitude among health-care professionals in KFHU, Al-Khobar, KSA, to pain management and there is a strong need to improved their knowledge to achieve better patient care.

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Conflicts of interest

There are no conflicts of interest.

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