



# Association of the knowledge of nurses about the pain management with their attitude towards cancer patients

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## ABSTRACT

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**Objective:** Proper training and knowledge about pain and pain management can help nurses during their task of active management to relieve pain, but it also builds positive attitude towards patients. We aimed to determine the association between knowledge and attitudes of the nurses about pain management of cancer patients and the relationship to different demographic and educational factors.

**Methodology:** This cross-sectional study was conducted in four hospitals of Lahore, (Pakistan) from 1st July 2013 to 1st July 2014. A self-administered questionnaire was used to collect data. 100 nurses working in cancer units (both medical and surgical oncology wards) were included in the study using convenient sampling technique. Nurses not working in cancer units, high positioned (head nurses) and nurses with higher education [e.g. MSc (N), post RN-BSc (N), other courses] were excluded from the study. Questionnaire used based upon the "Knowledge and Attitudes Survey Regarding Pain (KASRP)" for knowledge and attitude. Data was collected and analyzed using SPSS version 21.0.

**Results:** Out of one hundred nurses 90% were females while 10% were males. The mean age of participants was  $30.88 \pm 8.91$  years. Majority of the nurses i.e., 59% had inadequate knowledge. Attitude score regarding the cancer pain management was 60%. Knowledge of pain management was significantly associated with nurses attitude towards pain management ( $p = .001$ ).

**Conclusion:** There is positive association between the knowledge and attitude towards cancer pain management. Thus, by showing good attitude, the nurses, who spend most of their time with patients can help to minimize their pain. This is only possible if the nurses have proper knowledge and education in this field.

**Key words:** Pain; Knowledge; Attitude; Nurses; KASRP

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## INTRODUCTION

Cancer is the term to describe a pathological condition when cells of the body start uncontrolled growth. Cancer is a very ancient disease and records for the ailment are found throughout the history and it is also

evidently found in fossil bones and Egyptian mummies.<sup>1</sup>

Approximately 6.6 million people died of cancer per year.<sup>2</sup> According to WHO, the prevalence of cancer was found to be high in female gender i.e., females

51.8% and males 48.1%.<sup>3</sup> The pain experienced by cancer patients is one of the most terrible one. Unmanaged pain has been identified as a major obstacle in the care of oncology patients.<sup>4</sup> In fact, more than 70% of this population will experience chronic cancer-related pain at some point in the course of their disease with the majority receiving ineffective treatment.<sup>5</sup> Cancer pain, which can be caused by tissue damage due to tumor invasion or as a result of treatment, such as radiation therapy and chemotherapy, can have adverse effects on the quality of life of the patients and their caregivers. Consequently, guidelines for pain management in oncology have been developed to foster better assessment techniques and interventions.<sup>6-8</sup> The prevalence of pain in cancer patients has been estimated to range from 52% to 77%. The mean prevalence of pain in patients with various stages of cancer was 50%.<sup>9</sup>

Nurses can play an effective role in pain management; therefore, nurses' knowledge is of critical importance in the care of patients with cancer pain.<sup>10</sup> Pain management of cancer patients can influence by their knowledge and attitudes of nurses.<sup>12</sup> Untreated and undertreated pain significantly interferes with the patient's physical, emotional and spiritual wellbeing, thus can alter the patient's quality of life.<sup>13</sup>

To manage pain, nurses must have understanding of important features of cancer pain and its' management. In depth knowledge in all areas as pain background, previous experiences to manage pain and identified barriers that resist in management help to improve the existence and quality in pain management. So, the purpose of this study was to assess the association of the knowledge of the nurses and their attitude about the pain management of cancer patients. 'Nurses Knowledge and Attitude Survey' (NKAS) tool was used for this purpose.

## METHODOLOGY

This quantitative, descriptive cross sectional study included 100 consecutive Registered Nurses (RN's) from four hospitals of Lahore; Institute of Nuclear Medicine and Oncology, (INMOL), Mayo Hospital, Jinnah Hospital, and Gulab Devi Chest Hospital, were during the period of 1st July 2013 to 1st July 2014.

Nurses working in oncology units both (medical & surgical), were included in the study, while high positioned (head nurses) and nurses with higher education (MSc (N), Post RN-BSc (N), other postgraduate nursing courses) were excluded from the study because mostly working in administrative posts,

they are not directly involved with patient management.

Data were collected using the structured survey questionnaire KASRP which is comprised of two sections, and 36 items. Twelve out of thirty six questions were presented in a multiple choice format with one correct answer, whereas 22 items were true or false questions, and rest of two questions were in 'yes' or 'no' form.

A score of '1' was awarded for each correct answer. 70% was the cut off score, with 70% designated as poor knowledge, and 70% was termed as good knowledge

Statistical analysis: Data were analyzed by using Statistical Package for the Social Sciences (SPSS) version 21.0. Mean  $\pm$  SD was given for quantitative variables. Frequencies, percentages were given for qualitative variables. Correlation of the knowledge and attitude of the nurses in the pain management of cancer patients was analyzed by using Pearson correlation coefficient. Level of significance was taken as 5%. A chi-square test of independence was used to measure association between knowledge and attitude.

## RESULTS

Out of 100 nurses, 90 were females while 10 were males. The mean age of the participants was 30.88  $\pm$  8.91 years. Regarding education, 37% had secondary school certificate, 34% had higher secondary school

Table 1: Demographic data

| Variables                      |                         | Result           |
|--------------------------------|-------------------------|------------------|
| gender                         | Male                    | 10 (10)          |
|                                | Female                  | 90 (90)          |
| Age (mean $\pm$ S.D)           |                         | 30.88 $\pm$ 8.91 |
| Marital status                 | Single                  | 34 (34)          |
|                                | Married                 | 66 (66)          |
| Knowledge score(mean $\pm$ SD) |                         | 59 $\pm$ 18.3    |
| Knowledge                      | Adequate/sufficient     | 41 (41)          |
|                                | Inadequate/insufficient | 59 (59)          |

Data shown as n (%) or mean  $\pm$  SD

Table2: Association of the knowledge of nurses with their attitude towards pain management.

| Attitude towards pain management | Knowledge score |         | p-value |
|----------------------------------|-----------------|---------|---------|
|                                  | <70%            | =70%    |         |
| Good                             | 32 (32)         | 80 (80) | 0.001   |
| Poor                             | 68 (68)         | 20 (20) |         |

(intermediate) certificate; whereas, 23% were graduate and 6% had earned a masters degree. One third (66%) nurses were married. The mean knowledge score on cancer pain management was  $59 \pm 18.3$ . Majority (59%) of the nurses had inadequate knowledge about cancer pain management (Table 1). The mean attitude score was 60 with a range score of 34-90. Knowledge of pain management was significantly associated with nurses' attitudes towards pain management ( $p = 0.001$ ) as shown in Table 2.

## DISCUSSION

Our results showed that majority of the nurses engaged in pain management of cancer patients were females (90% vs. 10%). Miller AJ et al. in their study reported that most nurses were females (97.1%).<sup>15</sup> Another study by Latchman et al. concluded a similar result.<sup>6</sup> Our study showed similar results, while Shahnazi H et al. reported that female nurses for the pain management of cancer patients were 81.6% vs. 18.4%.<sup>4</sup>

The mean age of the nurses in our study was  $30.88 \pm 8.91$  years. Shahnazi et al. found mean nurse age to be  $38.7 \pm 7.04$  years.<sup>4</sup> In contrast with the present study Miller AJ et al. demonstrated that the mean age of the nurses was  $58.2 \pm 6.96$  years, which may be due to small sample size in the study.<sup>15</sup>

The criterion for minimally acceptable percentage score on the NKAS is 70%. Present study reported that majority of the nurses had inadequate knowledge with a mean knowledge score of 59%. The attitude toward cancer pain management was reported as average 60% supported by findings by Manwere A et al. who examined that the total mean knowledge and attitude scores were 64.5% and 56%.<sup>10</sup> Shahnazi et al. analyzed that the total mean knowledge and attitude scores were 61.2% and 63%, and it showed poor knowledge and attitude regarding the pain management. Another study by Latchman Jet al. analyzed that the total mean knowledge and attitude score were 17% and 48%,

showed very poor knowledge and attitude regarding the pain management.<sup>6</sup> Yava A et al. reported poor knowledge of the nurses towards the cancer pain management at 39.65%; perhaps due to different sampling frame this study showed contradictory results.<sup>16</sup>

Present study proved that knowledge of pain management was significantly associated with nurses' attitudes towards pain management ( $p$ -value 0.001); similar results were shown by other studies.<sup>4,6</sup>

In contrast Ho SE et al. reported that knowledge of the nurses towards the pain management was insignificantly associated with their attitude ( $p = 0.05$ ).<sup>11</sup>

Present study reported that there was a direct correlation between the knowledge of the nurse and their attitude. ( $r = 0.410$ ;  $p = 0.001$ ), as shown by Shahnazi H et al. ( $r = 0.313$ ;  $p = 0.002$ ).<sup>4</sup>

## CONCLUSION

We conclude that there is a positive association between the knowledge of the nurses about the cancer and cancer pain and their attitude towards cancer pain management.

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KZ: Review of literature, overall supervision

MG: Manuscript editing

SA&AS: Data analysis, interpretation

## REFERENCES

1. Ali TS, Baig S. Evaluation of a cancer awareness campaign: experience with a selected population in Karachi. *Asian Pac J Cancer Prev.* 2006 Jul-Sep;7(3):391-395. [PubMed] [Free full text]
2. Bhurgri Y, Faridi N, Kazi LA, Ali SK, Bhurgri H, Usman A. et al. Cancer esophagus Karachi 1995-2002: epidemiology, risk factors and trends. *J Pak Med Assoc.* 2004 Jul;54(7):345-8. [PubMed] [Free full text]
3. Hanif M, Zaidi P, Kamal S, Hameed A. Institution-based cancer incidence in a local population in Pakistan: nine year data analysis. *Asian Pac J Cancer Prev.* 2009 Apr-Jun;10(2):227-30. [PubMed] [Free full text]
4. Shahnazi H, Saryazdi H, Sharifirad G, Hasanzadeh A, Charkazi A, Moodi M. The survey of nurse's knowledge and attitude toward cancer pain management: Application of Health Belief Model. *J Educ Health Promot.* 2012;1:15. doi: 10.4103/2277-9531.98573 [PubMed] [Free full text]
5. Erickson JM, Brashers V, Owen J, Marks JR, Thomas SM. Effectiveness of an interprofessional workshop on pain management for medical and nursing students. *J Interprof Care.* 2016 Jul 3;30(4):466-74. doi: 10.3109/13561820.2016.1159185 [PubMed]
6. Latchman J. Improving pain management at the nursing education level: evaluating knowledge and attitudes. *J Advanced Practitioner Oncol.* 2014 Jan;5(1):10-16. [PubMed] [Free full text]
7. American Cancer Society Cancer Action Network fights for better pain care. American Cancer Society [Online]. 2009 [cited 2017 May]; Available from: URL: [http://action.acscan.org/site/PageServer?pagename=pain\\_campaign](http://action.acscan.org/site/PageServer?pagename=pain_campaign).
8. American Society of Clinical Oncology. Exploration of pain management following implementation of WHO pain guidelines. [Online]. 2007 [cited 2017] Available from: URL: [www.asco.org](http://www.asco.org).
9. Van den Beuken-van Everdingen MH, De Rijke JM, Kessels AG, Schouten HC, Van Kleef M, Patijn J. Prevalence of pain in patients with cancer: a systematic review of the past 40 years. *Annals of oncology.* 2007 Sep 1;18(9):1437-49. [PubMed] [Free full text]
10. Manwere A, Chipfuwa T, Mukwamba MM, Chironda G. Knowledge and attitudes of registered nurses towards pain management of adult medical patients: a case of Bindura Hospital. *Health Sci J.* 2015;4(9):1 [Free full text]
11. Ho SE, Ho CC, Pang Yuen H, Lexshimi R, Choy YC, Jaafar MZ, et al. A study of knowledge and attitudes of registered nurses towards pain management in an urban hospital. *Clin Ter.* 2013 May-Jun;164(3):215-9. [PubMed]
12. Omran S, Al Qadire M, Al Ali N, Al Hayek MF. Knowledge and Attitudes about Pain Management: A Comparison of Oncology and Non-Oncology Jordanian Nurses. *Nurs and Health* 2: 73-80 [Free full text]
13. Singh P, Chaturvedi A. Complementary and alternative medicine in cancer pain management: A systematic review. *Indian J Palliat Care.* 2015 Jan-Apr;21(1):105-115. [PubMed] [Free full text]
14. Fink R. Pain assessment: the cornerstone to optimal pain management. *Proc(Bayl Univ Med Cent).* 2000;13(3):236-9. [PubMed] [Free full text]
15. Miller AJ. Hospice Nurses-Attitudes and Knowledge about Pain Management. Graduate Theses and Dissertations [Online] Jan 2012 [cited 2017] Available from: URL: <http://scholarcommons.usf.edu/etd/4165>
16. Yava A, Çicek H, Tosun N, Özcan C, Yildiz D, Dizer B. Knowledge and attitudes of nurses about pain management in Turkey. *Int J Car Sci.* 2013 Sep;6(3):494-505. [Free full text]
17. Ferrell B, McCaffery M. The Knowledge and Attitudes Survey Regarding Pain (KASRP) [Online]. revised 2012 [cited 2017] Available from: URL: <http://www.midss.org/content/knowledg-e-and-attitudes-survey-regarding-pain-kasrp>

