Original Article

Pain Management at Oncology Units

# Nurses Perception and Barriers toward Pain Management at Oncology Units

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## ABSTRACT

**Objective:** To determine the perceived barriers to effective pain management in oncology units and to find out the relationship between nurses' sociodemographic and professional characteristic and their perceptions and barriers toward pain management

**Study Design:** Descriptive cross-sectional study

**Place and Duration of Study:** This study was conducted at the Middle Euphrates Health Institutions in the Governorates of Babylon, Karbala and Najaf, from 1st September 2025 to 28th February 2026.

**Methodology:** 200 participants were enrolled.

**Results:** Sociocultural beliefs were the most notable perceived barriers. The belief that a patient's level of pain is a reflection of their underlying health condition and the course of their disease was the most highly rated barrier (63%), followed by the belief that suffering is a test from Allah (55.5%).

**Conclusion:** A moderate level of perceive barriers, the relationship between nurses' sociodemographic and professional characteristics and perceived barriers toward pain management.

**Key Words:** Perception, Barriers, Pain management, Oncology.

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## INTRODUCTION

Pain is among the most prevalent and distressing symptoms in cancer patients, occurring in 37% to 64% of patients depending on the stage and treatment. Prevalence reaches 50% across all phases and rises to 66% in advanced stages. Approximately 30% of patients experience moderate to severe pain, increasing to 40–50% in more severe cases.[1] Among cancer patients, pain remains a persistent and undertreated problem. Over 40% of patients receive inadequate pain management. The International Classification of Diseases (ICD-11) now includes the taxonomy 'chronic cancer pain' to reflect its distinct clinical burden.).[2] The cancer patients also experience fatigue due to therapy or other unknown factors. Cancer patients describe this chem. with phrases like "I feel tired," "weak," "exhaustion," and "weakness," which can appear suddenly at any time and persist for months after op into a major treatment is completed.[3]

Despite advances in cancer treatment, effective pain management remains a critical challenge. More than one-third of cancer patients experience inadequately treated pain. Cancer pain is a complex condition arising from inflammatory, neuropathic, and tumor-related mechanisms.[4] The nurses encounter multiple barriers such as limited knowledge in pain assessment, negative attitudes toward strong analgesics, absence of clear protocols, and organizational challenges like resource constraints and workload pressure.[5] Pain management is crucial for cancer patients, but it can be challenging due to a number of factors, including factors related to healthcare providers, patients, and the healthcare system.[6]

Nurse-related barriers include inadequate education on pain mechanisms and types of analgesia, insufficient assessment and documentation of pain, negative attitudes towards opioid medications, lack of experience and knowledge, and other challenges faced by nurses in managing cancer pain.[1] Patient-related barriers include a lack of knowledge about pain management techniques, inadequate use of opioids, negative pain complaints, and patients' attitudes and beliefs about pain and analgesics.[7] Organizational-

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related barriers include strict opioid regulation, remote areas, staff shortages, and a lack of clear and consistent pain management guidelines.[8]

# METHODOLOGY

This descriptive cross-sectional study was conducted in Middle Euphrates Health Institutions, Governorates of Babylon, Karbala, and Najaf from 1st September 2025 to 28th February 2026 letter No. 535 dated 15-8-2025. Twenty of the 220 nurses who were selected for the study participated in the pilot study, while the remaining 200 nurses comprised the main study sample. The nurses who worked in oncology units and who wanted to participate were included. The nurses who did not work in oncology units and who did not want to participate were excluded. Data was gathered using a structured self-administered questionnaire consisting of 54 items divided into four sections: Demographic and Professional data, pain assessment and documentation, nurses' perception, and barriers toward pain management. It took about (15-20) minutes to complete the questionnaire. The instrument's tools were validated by a panel of 11 nursing experts. The reliability test showed good internal consistency with a Cronbach's alpha level (0.79). The data was analyzed through SPSS-26. Shapiro-Willk test, Kruskal-Wallis H test, and Mann-Whitney U test utilized to assess normality of data distribution.

# RESULTS

Mostly the participants were from Karbala 46.5% and young 61% falling in the 20-29 age and a slight majority 55% were males. They possessed a bachelor degree in nursing 67%, and were in the urban areas 81.5%. The staffing was relatively young with 41% having a total nursing experience of 1-3 years with more than half (55%) having only 1-3 years of experience in oncology units in particular. A large portion of the participants 77% indicated that they had obtained specific training in pain management (Table 1).

The patient beliefs (high assessment) are the greatest impediments that have been identified (Mean=2.37, and Mean=2.50 respectively), which are the cultural/religious concept that suffering is a God-sent test (Cultural/religious beliefs) and the perception that there is a direct relationship between the severity of pain and the progression of the disease (Mean=2.50). Systemic problems also made it in the list of moderate barriers with hospital regulations on access to outside painkillers (Mean=2.15) and policies which restrict prescription power to certain physicians (Mean=2.12) taking the lead. Interestingly, structural barriers such as staff shortages (Mean=2.00) and the absence of assessment tools (Mean=1.96) were viewed as moderate barriers but the psychological support services (Mean=1.60) and the belief that nice patients do not complain (Mean=1.61) were considered the lowest barriers (Fig. 1).

The overall assessments of barriers toward pain management in oncology wards shows a moderate level of perceived barrier, with the mean score of 1.91=0.31. The results revealed that the majority of the nurses (77%) barriers are moderate with 16.5% low and only 6.5% are high (Table 2).

The Governorates (p=0.000) remains a significant source with Karbala nurses having the highest perception scores. Academic qualification (p=0.004) and being given special training in pain management (p=0.002) both significantly contribute to positive perceptions. Besides that, marital status (p=0.044) was statistically significant in this model and single nurses reported significantly higher scores in this perception than their married or divorced colleagues.

**Table No. 1: Association between sociodemographic and professional data and overall assessment of barriers (N = 200)**

| Variable | Mean±SD | P value |
|---|---|---|
| **Governorates** | | |
| Karbala | 93 | 46.5 |
| Al-Najaf | 76 | 38.0 |
| Babylon | 31 | 15.5 |
| **Age (years)** | | |
| 20–29 | 122 | 61.0 |
| 30–39 | 65 | 32.5 |
| 40–49 | 13 | 6.5 |
| **Gender** | | |
| Male | 110 | 55.0 |
| Female | 90 | 45.0 |
| **Marital status** | | |
| Single | 102 | 51.0 |
| Married | 90 | 45.0 |
| Divorced | 8 | 4.0 |
| **Residence** | | |
| Urban | 163 | 81.5 |
| Rural | 37 | 18.5 |
| **Academic qualification** | | |
| Bachelor's Degree | 134 | 67.0 |
| Diploma | 63 | 31.5 |
| Master's Degree | 3 | 1.5 |
| **Nursing experience (years)** | | |
| 1–3 | 82 | 41.0 |
| 4–6 | 60 | 30.0 |
| 7–9 | 41 | 20.5 |
| > 10 | 17 | 8.5 |
| | 110 | 55.0 |
| **Oncology unit experience (years)** | | |
| 1–3 | 110 | 55.0 |
| 4–6 | 63 | 31.5 |
| 7–9 | 21 | 10.5 |
| > 10 | 6 | 3.0 |
| **Pain Training** | | |
| Yes | 154 | 77.0 |
| No | 46 | 23.0 |

**Table No. 2: Barriers to pain management identified by 200 nurses**

| Item | Agree n (%) | Neutral n (%) | Disagree n (%) | Mean | SD | Assessment |
|---|---|---|---|---|---|---|
| Believing suffering is a test from God (Allah) | 111 (55.5) | 52 (26.0) | 37 (18.5) | 2.37 | 0.78 | High |
| Pain degree and health state are related | 126 (63.0) | 47 (23.5) | 27 (13.5) | 2.50 | 0.72 | High |
| Believing suffering is unavoidable in cancer | 91 (45.5) | 53 (26.5) | 56 (28.0) | 2.17 | 0.84 | Moderate |
| Restricted external painkiller access | 90 (45.0) | 50 (25.0) | 60 (30.0) | 2.15 | 0.86 | Moderate |
| Restriction to specific pain physicians | 81 (40.5) | 63 (31.5) | 56 (28.0) | 2.12 | 0.82 | Moderate |
| Inadequate medical compliance | 60 (30.0) | 82 (41.0) | 58 (29.0) | 2.01 | 0.77 | Moderate |
| Sickness is doctor's priority (not pain) | 55 (27.5) | 90 (45.0) | 55 (27.5) | 2.00 | 0.74 | Moderate |
| Shortage of nursing staff | 68 (34.0) | 64 (32.0) | 68 (34.0) | 2.00 | 0.83 | Moderate |
| Lack of proper assessment tools | 68 (34.0) | 57 (28.5) | 75 (37.5) | 1.96 | 0.85 | Moderate |
| Difficulty in completing pain scales | 53 (26.5) | 86 (43.0) | 61 (30.5) | 1.96 | 0.76 | Moderate |
| Lack of clear hospital policies/guidelines | 63 (31.5) | 61 (30.5) | 76 (38.0) | 1.94 | 0.83 | Moderate |
| Insufficient training programs | 62 (31.0) | 64 (32.0) | 74 (37.0) | 1.94 | 0.82 | Moderate |
| Inconsistent nursing practice (PRN meds) | 58 (29.0) | 68 (34.0) | 74 (37.0) | 1.92 | 0.81 | Moderate |
| High nursing workload (time constraints) | 54 (27.0) | 68 (34.0) | 78 (39.0) | 1.88 | 0.81 | Moderate |
| Lack of nursing knowledge | 48 (24.0) | 72 (36.0) | 80 (40.0) | 1.84 | 0.79 | Moderate |
| Patient hesitation to report pain | 45 (22.5) | 71 (35.5) | 84 (42.0) | 1.80 | 0.78 | Moderate |
| Lack of time due to frequent complaints | 45 (22.5) | 66 (33.0) | 89 (44.5) | 1.78 | 0.79 | Moderate |
| Physician lack of faith in nurse assessment | 46 (23.0) | 61 (30.5) | 93 (46.5) | 1.76 | 0.80 | Moderate |
| Patient avoiding annoying the nurse | 42 (21.0) | 61 (30.5) | 97 (48.5) | 1.72 | 0.79 | Moderate |
| Patient fearing being a "complainer" | 41 (20.5) | 61 (30.5) | 98 (49.0) | 1.72 | 0.79 | Moderate |
| Occasional unavailability of painkillers | 42 (21.0) | 58 (29.0) | 100 (50.0) | 1.71 | 0.79 | Moderate |
| Fear of upsetting the doctor | 30 (15.0) | 80 (40.0) | 90 (45.0) | 1.70 | 0.72 | Moderate |
| Preference for reporting to physicians | 35 (17.5) | 66 (33.0) | 99 (49.5) | 1.68 | 0.76 | Moderate |
| Belief that "non-complainers" are "nice" | 38 (19.0) | 46 (23.0) | 116 (58.0) | 1.61 | 0.79 | Low |
| Lack of psychological support services | 39 (19.5) | 42 (21.0) | 119 (59.5) | 1.60 | 0.80 | Low |

**Table No. 3: Overall assessment of barriers (N = 200)**

| Level | Cutoff Points | No. | % | Mean±SD | Overall Assessment |
|---|---|---|---|---|---|
| Low | 1.00–1.66 | 33 | 16.5 | | |
| Moderate | 1.67–2.33 | 154 | 77.0 | 1.91±0.31 | Moderate |
| High | 2.34–3.00 | 13 | 6.5 | | |

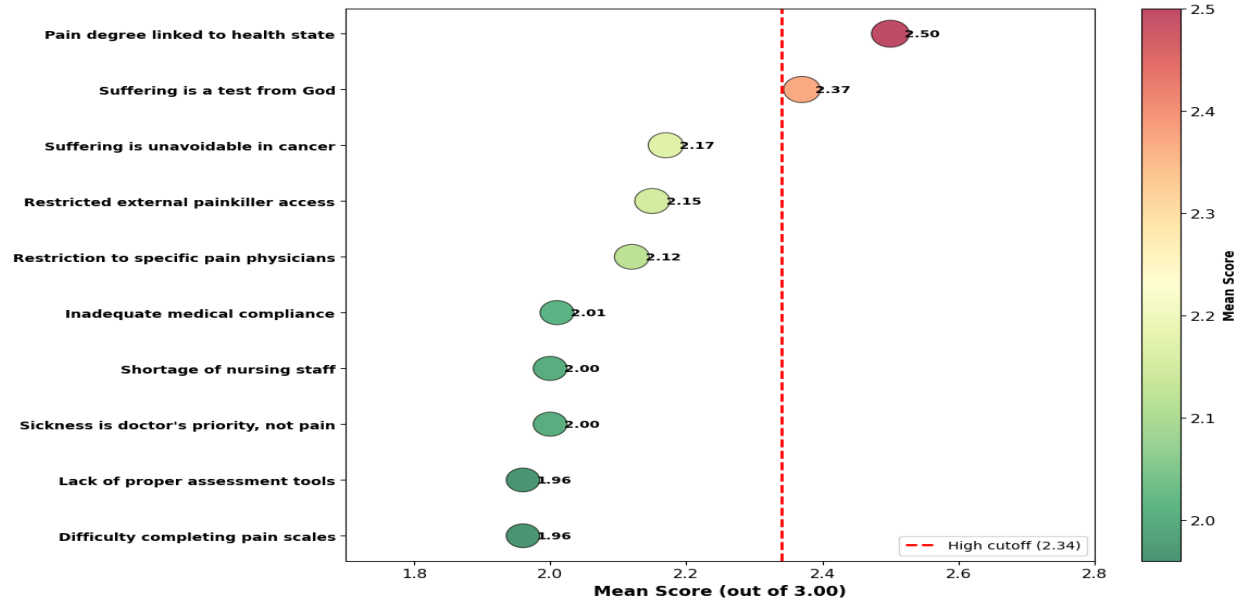



**Figure No. 1: Barriers to effective pain management**

**Table No. 4: Association between sociodemographic and professional data and overall assessment of barriers (N = 200)**

| Variable | Mean±SD | P value |
|---|---|---|
| **Governorates** | | |
| Al-Najaf | 2.00±0.27 | 0.000 (H) |
| Babylon | 1.97±0.23 | |
| Karbala | 1.83±0.35 | |
| **Age (years)** | | |
| 20–29 | 1.90±0.33 | 0.018 (H) |
| 30–39 | 1.90±0.28 | |
| 40–49 | 2.13±0.24 | |
| **Gender** | | |
| Male | 1.90±0.32 | 0.297 (U) |
| Female | 1.93±0.31 | |
| **Marital status** | | |
| Single | 1.87±0.34 | 0.053 (H) |
| Married | 1.94±0.29 | |
| Divorced | 2.04±0.19 | |
| **Residence** | | |
| Urban | 1.93±0.32 | 0.143 (U) |
| Rural | 1.84±0.25 | |
| **Academic qualification** | | |
| Bachelor's Degree | 1.92±0.33 | 0.762 (H) |
| Diploma | 1.90±0.29 | |
| Master's Degree | 1.96±0.24 | |
| **Nursing experience (years)** | | |
| 1–3 | 1.89±0.33 | 0.107 (H) |
| 4–6 | 1.90±0.23 | |
| 7–9 | 2.01±0.30 | |
| > 10 | 1.85±0.45 | |
| **Oncology unit experience (years)** | | |
| 1–3 | 1.87±0.31 | 0.015 (H) |
| 4–6 | 1.93±0.28 | |
| 7–9 | 2.12±0.31 | |
| > 10 | 1.83±0.41 | |
| **Pain Training** | | |
| Yes | 1.89±0.32 | 0.006 (U) |
| No | 2.00±0.27 | |

H=Kruskal–Wallis test; U=Mann–Whitney U test

# DISCUSSION

The overall level of formal in pain management training amongst the participants in this study was relatively high (77%), however, the majority of nurses were very young, with nearly two thirds (61%) falling within the 20-29 age group, and the vast majority were working early careers in oncology. The present findings are broadly aligned with those reported in oncology nursing populations across neighboring Arab healthcare systems.[9]

The overwhelming majority of nurses in the current sample (67%) have a bachelor's degree in nursing compared to the significant proportion of nurses who held a diploma degree (31.5%), and the small percentage of master's degree nurses (1.5%) which is consistent with the gradual academic upgrading of oncology nursing workforces across Middle Eastern health systems.[10]

Over half of the participants report that they only had 1-3 years' experience specifically in oncology units, reflect the frequent workforce instability and limited opportunities for long-term specialization of the oncology nurses observed in the low- and middle income health system.[11]

The urban concentration of the present sample (81.5%) is also significant from a health systems perspective, in line with the general trend of centralization of specialized oncology services in major urban hospitals.[12]

The findings of this study, however, that deeply rooted sociocultural and religious beliefs with respect to the linkage between pain experienced and underlying disease severity (M=2.50) and that suffering represents a test from God (M=2.37) are strongly congruent with previous ethnographic and qualitative research on how illness beliefs shape patients' willingness to report pain and how those beliefs affect nurses' interpretation of the reported pain in a variety of culturally conservative healthcare settings.[13]

The moderate level of institutional and resource based barriers identified in the present study, such as access to painkillers from outside the institution (M=2.15) and the authority of the prescription (M=2.12), is fairly similar to the results of the barriers in oncology setting reported in other Gulf and Middle Eastern healthcare system, where formulary restrictions and prescribing hierarchies have been identified as significant.[14]

The moderate barriers identified in this study: staff shortage(M=2.00), lack of assessment tools (M=1.96), and inadequate training programs (M=1.94) has been a recurrent finding in the research of nursing barriers in East Africa, which shows this factors recurring in barriers to systematic pain management practices in low-resource systems.[11]

This study reported that physicians consider the underlying illness to be more important than pain control (M=2.00), is in line with the literature describing the recurrent interprofessional power imbalance within oncology care teams, where nurses' observations and recommendations about pain are not always given clinical weight equal to physicians' diagnostics and curative priorities.[15]

The communication- and trust-related barriers identified among the lower end barriers in the present study, including (patients' reluctance to report pain, fear of being labelled a "complainer", and reluctance to ‘"annoy" the nurse), closely align with the central themes uncovered in qualitative studies on therapeutic communication barriers in nurse–patient relationships that show that asymmetries of trust, hierarchy, and

perceived social acceptability inhibit symptom disclosure.[16]

When compared to the general perception of sociocultural and institutional barriers to effective pain management discussed above, the agreement of the belief that "non-complaining" patients are viewed more favorably (M=1.6) and the perceived lack of available psychological support services (M=1.60) are relatively low. This suggests that while a significant minority of nurses recognize these aspects, they are typically less prominent than the more general areas of institutional and sociocultural barriers.[17]

According to the current findings, the majority of nurses (77%) reported moderate levels of perceived barriers, with a relatively small percentage reporting low (16.5%) and high (6.5%). Studies conducted in the Gulf region have shown a similar pattern, with the majority showing moderate levels of perceived barriers to cancer pain management among oncology nurses.[18]

The strong association found between governorate and overall barrier scores in the current study (p=0.000), with Karbala nurses reporting the highest perception and the lowest barrier scores, is notable and internally consistent, as it might suggest that the same set of institutional or training factors that enhance nurses' perception in Karbala also decrease their perceived barriers. This is supported by findings from a Chinese nursing study, which similarly indicated that facility-level differences in resourcing and institutional support can have a consistent effect on multiple dimensions of pain management perception and practice.[19]

The significant association between age group and barrier scores in the present study (p=0.018), with the oldest age group 40-49 years indicating the highest barrier scores, is similar to the significant association between oncology-unit experience and barrier scores (p=0.015), in which the highest scores were reported by the mid-tenure group of nurses, indicating a pattern of increasing, rather than decreasing, barrier scores over the course of nursing careers, a pattern reflecting findings from other research on oncology.[20]

A statistically significant association was found between pain management training and barrier scores in the present study (p=0.006), This further supports the idea that pain management training can positively influence both perception and barrier scores, as previously observed in a sample of Ethiopian oncology nurses, in which training exposure was similarly associated with significantly lower composite barrier scores compared to untrained counterparts.[21]

This study showed that there was no association between overall barrier scores and sex or residence, but academic qualification was associated with perception scores, highlights an important difference in the factors that influence these two outcome measures; in previous study of nurses' barriers to pain management in Nepal, factors related to knowledge (academic qualification), showed greater association with perception scores than with overall barrier scores.[22]

The association found between marital status and the barriers to pain management in the present study (Table 4), which was marginally significant at (p=0.053), with the divorced nurses having the highest perceived barriers.[7]

# CONCLUSION

The developing and implementing educational and training programs as well as adopting standardized protocols for pain assessment and management, it also emphasized the significance of enhancing highlighted interdisciplinary collaboration, improving health education for patients and families, and resolving organizational and administrative barriers that hinder effective pain management in oncology units.

**Recommendations:** It is advised to adopt standardized protocols for the assessment and management of pain, as well as to develop and implement educational and training programs. It also improves patient and family health education, and removed administrative and organizational obstacles that prevent efficient pain management in oncology units.

**Author's Contribution:**

| | |
|---|---|
| Concept & Design or acquisition of analysis or interpretation of data: | Sahar Sattar Al-Ghazi, Fakhria Jaber Muhaibes |
| Drafting or Revising Critically: | Sahar Sattar Al-Ghazi, Fakhria Jaber Muhaibes |
| Final Approval of version: | All the above authors |
| Agreement to accountable for all aspects of work: | All the above authors |

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