Perceived Nurses' Barriers and Facilitators of Pain Management among Oncology Critically Ill Patients

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Abstract

Background: Cancer pain is one of the worst, debilitating experiences among oncology critically ill patients. However, it is still undervalued and undertreated. So, it is critical to address barriers and facilitators of pain management among critical care nurses. **Aim:** Identify perceived nurses' barriers and facilitators of pain management among oncology critically ill patients. **Subjects and Method: Design & Setting:** A descriptive correlational research design was conducted in the oncology hospital of Tanta Main University Hospital, Affiliated to the Ministry of Higher Education and Scientific Research. **Subjects:** A convenience sample of 70 critical care nurses from both sex. **Tools:** included **Tool I:** Nurses' structured questionnaire regarding barriers and facilitators of pain management. **Tool II:** Nurses' perception regarding pain management. **Results:** Findings showed that the most perceived barriers from nurses' perspectives were related firstly to hospital then nurse and finally patient, but facilitator were related firstly to nurse then hospital and finally patient. Finding also demonstrated that 72.86% of nurses had low knowledge level and 65.71% of them had low perception level toward cancer pain. Also, there is a negative correlation between total barriers score and total knowledge score and a negative correlation between total attitude score and barriers related to nurses. **Conclusions:** Ineffective cancer pain management is related definitely to many barriers and facilitators that nurses encounter during their work, In addition to their low perception level toward cancer pain. **Recommendations:** There is an urgent need for creating educational programs for nurses about cancer pain in accordance with WHO standards and evidence-based nursing practice.

Keywords: Barriers, Cancer pain management, Facilitators, Oncology critical ill patients.

Introduction

Cancer is the second leading cause of premature death after cardiovascular diseases worldwide and is projected to be the first leading cause of death by the end of this century with steadily increasing global prevalence which in 2020, 19.3 million people globally were diagnosed with cancer, and 28.4 million people predicted to be newly diagnosed with cancer in 2040 **(Saklani, 2024)**. One of the most significant, serious, and terrible symptoms related to cancer is pain especially during the advanced metastatic stage of the disease. It has a profound effect on all dimensions of patient' life, that include emotional well-being, cognitive function, daily activities, and communication with beloved ones **(Colosia et al., 2022)**. So, it is imperative to seek effective pain management that involves alleviating or controlling pain via various strategies including pain assessment and treatment, health education in addition to psychological care.

Although management of cancer pain is provided in accordance to the analgesic ladder approach proposed by the World Health Organization, it was found that this method positively impacts alleviating cancer pain, anxiety about addiction and the negative effects of pharmaceutical interventions but continue to have difficulties related o management approach **(Dave., 2024**).

So, in accordance to the first national clinical practice guidelines on cancer pain that produced by the Agency for Health Care Policy and Research In 1994, it was found that there are many barriers in addition to facilitators that affect negatively or even positively on pain management and categorized into three strata: patient, nurse and system related barriers and facilitators **(Sørensen et al., 2024)**.

Patient-Related Barriers and Facilitators; the golden standard for pain assessment is the own self-reporting of pain by the patient. As the high subjectivity of pain experience make pain self-reporting is the premium way to assess patients' pain **(Rababa, Al-Sabbah & Hayajneh, 2021)**, despite a considerable proportion of nurses do not trust or have faith in patients' self-reporting of pain and this consider a strong barrier for pain management especially for patients who are cognitively impaired or have communication deficits **(Kodagoda Gamage, Pu, Todorovic & Moyle, 2024**).

Health-care professional Related Barriers and Facilitators, the most considerable pain management barriers include physicians, nurses and other health care staff' lack of knowledge about critical areas of pain management, including misconceptions about the pharmacological effects of analgesics and inconsistent practice related to pain assessment. Conversely, improved collaboration among doctors and nurses was perceived by nurses to be a major facilitator to the

effective pain management **(Shaban, Shaban, Mohammed & El-Kest, 2024)**.

System related barriers and facilitators, the study finding demonstrated that absence of standardized pain assessment tools, guidelines, and treatment protocols is considered the first systemic obstacle to efficient pain management in the intensive care unit. Therefore, one key component of effective pain control is the availability of standardized procedures and protocols for pain assessment and treatment (**Chaleewong, Chaiviboontham & Christensen., 2024)**.

The role of nurses in pain treatment is crucial, without a doubt. For the simple reasons that it is one of their specialized roles and because nurses spend the greatest amount of time directly interacting with patients compared to other members of the treatment group. So, it is critical for oncology nurses to have basic knowledge in order to identify pain, assess its severity, and take the necessary measures for treatment in addition to the necessity of adopting a positive attitude from nurses which is essential component in the delivery of pain management **(Alsaiari, Alhofaian & Tunsi, 2024)**.

Significance of study:

More than 10 million individuals across the globe are already diagnosed with cancer annually. Pain related to cancer diagnoses is a serious concern and one of the most prevalent symptoms as reported by cancer patients and have a detrimental impact on patient's performance status and outcome of care **(Snijders, Brom, Theunissen; van den Beuken-van Everdingen, 2023)**. Unfortunately**,** pain management in oncology units is frequently undervalued, despite its significance, resulting in numerous numbers of patients who experiencing insufficient pain relief (**Filipponi., 2025)**. Thus, the significance of this research comes from its potential to provide database information about barriers and facilitators of pain management as perceived by nurses in oncology critical care areas, which can be incorporated in cancer patient' care plan to decrease their sufferings.

The aim of the study:

Was to identify perceived nurses' barriers and facilitators of pain management among oncology critically ill patients.

Research questions:

1-What are the barriers affecting pain management for oncology critically ill patients?

2-What are the facilitators affecting pain management for oncology critically ill patients?

3-What is the nurse's perception regarding pain management for oncology critically ill patients?

Subjects and Method

Design:

A descriptive research design was employed in this study.

Setting:
The study was conducted in the critical care units at the oncology hospital of Tanta Main University Hospital.
Subjects:
This study involved conveniences sampling of all nurses who are working and available at the previously mentioned setting from both genders and provided direct care for cancer patients who were included. The determined sample size was 70 nurses, with the significance level of <0.05.
Tools of the study: Two tools were employed in this study.
Tool I: Nurses Structured Questionnaire regarding Barriers and Facilitators of Pain Management. It included three parts:
Part (A) Nurse's socio demographic characteristics sheet: This part was developed by the researcher, to identify nurse's socio demographic data (Brant, Mohr, Coombs, Finn and Willmarth., 2017).
Part (B) Nurses' Structured Questionnaire regarding Barriers of Pain Management. It included collecting data regarding the following:
- Barriers related to the patients from nurses' perspectives: It intended to identify barriers of pain management in cancer patient from nurses' perspectives (Batiha., 2014; Dequeker, Van Lancker & Van Hecke., 2018) such as, patient' fear of side effects and dependency of analgesics.
- Barriers related to nurses and other health care providers. It designed to identify barriers of pain management between oncology patients from nurses' perspectives (Gunnarsdottir, Donovan, Serlin, Voge & Ward, 2002). Such as, interruption of nurses during pain management.
- **Barriers related to health care organization:** It was developed by the researcher based on relevant literature (Alotni, Guilhermino, Duff, & Sim, 2023). It aimed to identify barriers of pain management according to health care facility such as lack of clear policies and guidelines for pain management in hospital.
Scoring system will be as follow: Score (1) not barrier, score (2) weak barrier, score (3) strong barrier.
Part (C) Nurses Structured Questionnaire regarding Facilitators of Pain Management. It included collecting data regarding the following:
- Facilitators related to patients from nurses 'perspectives. It aimed to identify facilitators of pain management according to patient (Alotni et al., 2023) such as self-reporting of pain by the patient as this is the golden pain facilitator.
- Facilitators related to nurses and other health care providers. It aimed to identify facilitators of pain management according to nurse and other health care provider (Wøien, 2020) such as, better understanding and interpretation of pain behavior from nurses.

- Facilitators related to health care organization. It aimed to identify facilitators of pain management according to facility (Alnajar et al., 2021) such as establishing a proper guideline for proper pain management.

Scoring system will be as follow: Score (1) not facilitator, score (2) weak facilitator, score (3) strong facilitator.

Tool II: nurses' perception regarding pain management: It contain two parts

Part (a) Nurses' knowledge regarding pain management: this part developed by the researcher after reviewing of relevant literature (Delgado-Guay et al., 2021; Eshete, et al., 2019) that included nurse's knowledge about different types of pain and mechanism of pain.

Scoring system will be as follow: Score (2) correct and complete answer, score (1) correct and incomplete answer, score (0) incorrect answer.

Part (b): Nurses' Attitude regarding Pain Management: Included if the nurses know that pain is life-threatening for the patient or not and the impact of pain on the outcome of care.

Scoring system will be as follows: Score (1) strongly disagree, score (2) disagree, score (3) neutral, score (4) agree and (5) strongly agree.

Method:

This study was accomplished through the next steps:

1. Administrative process: an official permission for data collection was attained from the responsible authorities at the faculty of nursing, Tanta University, to the director of Tanta Main University oncology center to carry out the study.

2. Ethical considerations:

- An ethical committee approval was obtained from the Faculty of Nursing Tanta University with code No: 467 \ 5 (2024) before conducting the study.
- Informed consent was obtained from the nurses to participate in the study after explaining the aim of the study. They were also informed that their participation in this study was voluntary and that they had the right to accept or refuse to take part in the study.
- Moreover, participant nurses were notified that they had the right to withdraw from the study at any time without responsibility
- Confidentiality and privacy were assured using code numbers on sheets instead of names.
- Tools of data collection have been developed and translated into Arabic by the researcher.
- This questionnaire was distributed to nurses to fill out at morning shift and last for 20 to 30 minutes. And researcher helped them with any explanation and teach them how to fill out the questionnaire.

3.Tools development:

Tool Ⅰ Part (A) of the study was adopted from (Brant et al., 2017). The researcher developed Part (B) and (C) after reviewing the literature review (Batiha, 2014; Dequeker et al., 2018; Gunnarsdottir et al., 2002).

Tool Ⅱ Part (A) and (B) was developed by the researcher after reviewing the literature (Delgado et al., 2021; Eshete et al., 2019).

4.Validity of the tools:

All tools were tested by five panels of experts in the field of critical care and emergency nursing to check content validity and clarity of questionnaire prior to its utilization.

5.Reliability of tools:

Cronbach's Alpha for **tool I is 0.941** for 54 items, Cronbach's Alpha for **tool II is 0.838** for 26 items, Cronbach's Alpha for the sheet in total is **0.927** for 80 items.

6.Apilot study:

It was conducted on 10% (7 nurses) of the study sample to test the clarity, feasibility and applicability of tools and determine any obstacles that may encountered during data collection period. accordingly, needed modification was done, and pilot study was excluded from the study subjects.

7. Data collection:

Data collected within 6 months started from the first of October 2024 to the end of March 2025.

8.Tools of data collection were developed and translated into Arabic by the researcher.

The study was carried out into three phases:

Preparation phase:

- Met the head nurse, introduce myself, explain the aim of the study and take acceptance for collecting data.
- Prepared the data collection tools after reviewing the recent relevant literature.
- Set up a meeting with the available nurses working in the selected study setting
- Introduce myself to the staff nurse, explained the aim and nature of the study.
- Explain the questionnaire sheet items, given the staff opportunities to read clearly and asked for more questions.
- Gave each participant nurse a code number to be used as an identifier during data entry and to ensure confidentiality.
- Translate tools into the Arabic version and the back translation technique to ensure the validity of translation.
- Estimate the time required for data collection, it estimated that 20 minutes.

Implementation phase:

-Screened nurses for eligible participation. Upon agreeing to participate in the research, nurses' questionnaire was distributed to nurses to fill out during morning shits and it took between 20 and 30 minutes to complete.

-The researcher was available to help participants if they needed any explanation while filling out the questionnaire.

Evaluation phase:

- As mentioned before, researcher used a three- point Likert Scale to score participant nurses' response to pain management barriers, facilitators

and to assess nurses' knowledge.

- In addition to five - point Likert Scale to score participant nurses' attitude to pain management.

Results

Table (1): Revealed distribution of the studied nurses regarding their socio-demographic characteristics. It showed that the mean age of the studied nurses was **29.77±3.592** and that more than half of them 54.3% were between 20 - 30 years old, 57.1% of them were females, and the majority 82.9% were married also, 58.6% of nurses were technical institute and 41.4% of them have experience (2-<5) years in addition to 88.6% of them didn't attend any previous pain management training programs.

Table (2): Revealed distribution of the studied nurses regarding the barriers of pain management related to the patient. It demonstrated that 64.29% of the participants nurses perceived that patient afraid from annoying the doctor if he talks about his pain, was the strongest barriers of pain management. On the other hand, 65.71% of the participants did not view that pain is a test from god, is barrier to pain management. But 57.14% of them viewed that pain is inevitable/avoidable part of having cancer was the weakest barrier.

Table (3): Revealed distribution of the studied nurses regarding the barriers of pain management related to nurse and other health care providers. It illustrated that 71.43% of the participants nurses perceived that lack physicians' trust in nursing assessment and interruption of nurses during pain management were the strongest barriers to pain management. Contrary to 50.00% of the studied nurses viewed that inconsistent practice around as needed medications was the weakest barrier to pain management and 28.57% of them did not view this as barrier for pain management.

Table (4): Revealed distribution of the studied nurses regarding the barriers of pain management related to hospital organization. It showed that 67.14% of the participants nurses perceived that lack of clear and constant polices and guidelines for pain management in the hospital was the strongest barrier of pain management. And actually, most of barriers related to hospital organizations consider strong barrier of pain management with percentage exceed 50%.

Table (5): Revealed distribution of the studied nurses regarding the facilitators of pain management related to the patient. It revealed that 71.43% of the participants nurses perceived that family and peer support for patient was the strongest facilitator of pain management. On contrary, 57.14% of the participants perceived that the ability of patients to complete pain scales was the weakest facilitator of pain management. Moreover, 35.71% of the studied nurses

perceived that patient's positive thinking about pain management and using music therapy, relaxation technique to enhance comfort, wasn't considered a facilitator to pain management.

Table (6): Revealed distribution of the studied nurses regarding the facilitators of pain management related to the nurse and health care provider. It showed that 71.43% of the participants nurses perceived that good collaboration between doctors and nurses was the strongest facilitator of pain management. Actually, all the facilitators related to nurse and health care practitioners considered strong facilitator for pain management with percentage 50% and above.

Table (7): Revealed distribution of the studied nurses regarding the facilitators of pain management related to the health care organization. It showed that 64.29% of the participants nurses perceived that availability of painkillers and opioids in the hospital was the strongest facilitator of pain management. On the other hand, 57.14% of the participant perceived that availability of nurses' training programs regarding pain management was the weakest facilitator of pain management and only 14.29% of nurses perceived that hospital adherence to financial and budgetary support weren't facilitator to pain management.

Table (8): Revealed distribution of the studied nurses according to total level of knowledge about pain management. It was found that 72.86% of the studied nurses have **low level of knowledge** about pain management and only 27.14% of them showed **moderate level of knowledge** with Mean ± SD knowledge score was 17.64±4.999.

Table (9): Revealed distribution of the studied nurses according to their perception level regarding pain management. It showed that 65.71% of nurses had **low perception level** and 34.29% of them had **moderate perception level** with Mean ± SD perception score was 26.11±2.986.

Table (10): Reveals correlation among barriers and facilitators related to patient, nurse and hospital facility, their total score, knowledge and attitude score. It was shown that there was a highly significance correlation among **total barriers score** and **total facilitator score** where R =0.658 and p = 0.000**. In addition, a negative correlation between **total barriers score** and **total knowledge score** were R =-0.005 and p =0.968. Also, there was a negative correlation between **total attitude score** and **barriers related to nurse** where R = -0.040 and p =0.744.

Table (1): Distribution of the studied nurses regarding their socio-demographic characteristics

Characteristics	The studied nurses (n=70)	
	No	%
Age (in years)		
- (20-<30)	38	54.3
- (30-<40)	30	42.9
- (40-<50)	2	2.9
Range	**(25-41)**	
Mean ± SD	**29.77±3.592**	
Gender		
- Male	30	42.9
- Female	40	57.1
Marital status		
- Single	12	17.1
- Married	58	82.9
Educational level		
- Technical institute	41	58.6
- Bachelor	28	40.0
- Post studies	1	1.4
Experience (in years)		
- (<2)	22	31.4
- (2-<5)	29	41.4
- (5-<10)	19	27.1
Range	**(1-7)**	
Mean ± SD	**3.13±1.857**	
Previous attendance of pain management training programs		
- None	62	88.6
- 1	2	2.9
- 2	6	8.6

Table (2): Distribution of the studied nurses regarding the barriers of pain management related to the patient

Barriers related to the patient	The studied nurses (n=70)					
	Not barrier		Weak barrier		Strong barrier	
	No	%	No	%	No	%
- Patient does not want to annoy nurse	28	40.00	18	25.71	24	34.29
- Preferring to report pain to the doctor, not to the nurse.	19	27.14	26	37.14	25	35.71
- Thinking that the doctor's priority is to manage illness not to control pain.	11	15.71	39	55.71	20	28.57
- Fearing annoying the doctor if he talks about his pain.	24	34.29	1	1.43	45	64.29
- Hesitating to report his pain.	20	28.57	20	28.57	30	42.86
- Lacking self-motivation to comply with prescribed medical treatment	10	14.29	35	50.00	25	35.71
- Believing that talking means that a complainer patient.	16	22.86	34	48.57	20	28.57
- Difficulty in completing pain scales.	13	18.57	15	21.43	42	60.00
- Thinking that will be a good patient if not complain of patient.	6	8.57	24	34.29	40	57.14
- Believing that pain is inevitable/avoidable part of having cancer and nothing can be done	5	7.14	40	57.14	25	35.71
- Thinking that pain is a test from god and bearing it will help him to have faith in Allah.	46	65.71	20	28.57	4	5.71
- There is relationship between patient health status and severity of pain.	18	25.71	30	42.86	22	31.43

Table (3): Distribution of the studied nurses regarding the barriers of pain management related to nurse and other health care providers

Barriers related to nurse and other health care providers	The studied nurses (n=70)					
	Not barrier		Weak Barrier		Strong barrier	
	No	%	No	%	No	%
- Nurses have a lack of knowledge about pain management	5	7.14	20	28.57	45	64.29
- Lacking physicians' trust in nurses' assessment of pain	5	7.14	15	21.43	50	71.43
- Interruption of nurses during pain management by doctors, alarms and calls	5	7.14	15	21.43	50	71.43
- Following pain management regimens and measures is difficult for nurses in presence of heavy workload (time limitations)	5	7.14	30	42.86	35	50.00
- Administrating of medications as needed varies from one nurse to another (inconsistent practice around as needed medications)	20	28.57	35	50.00	15	21.43
- Nurse cannot ascertain whether patient is in pain due to the patient frequent complaints about pain	10	14.29	30	42.86	30	42.86

Table (4): Distribution of the studied nurses regarding the barriers of pain management related to hospital organization

Barriers related to hospital organization	The studied nurses (n=70)					
	Not barrier		Weak barrier		Strong barrier	
	No	%	No	%	No	%
- Lack of clear and constant polices and guidelines for pain management in the hospital	13	18.57	10	14.29	47	67.14
ack of proper assessment tool in the hospital	4	5.71	21	30.00	45	64.29
- Hospital lacking psychological support services for patients.	5	7.14	20	28.57	45	64.29
- Unavailability of pain medications sometimes in the hospital.	15	21.43	10	14.29	45	64.29
- Hospital policy does not allow the patients to get pain medications from outside the hospital.	16	22.86	23	32.86	31	44.29
- Prescribing pain medications in the hospital sometimes is restricted to pain management physician who attend according to hospital policy	5	7.14	25	35.71	40	57.14
- Shortage of nursing staff (patient to nurse ratio not followed)	0	0.00	25	35.71	45	64.29
- Lack of nurses' training programs regarding pain management.	5	7.14	20	28.57	45	64.29

Table (5): Distribution of the studied nurses regarding the facilitators of pain management related to the patient

Facilitators related to the patient	The studied nurses (n=70)					
	Not facilitator		Weak facilitator		Strong facilitator	
	No	%	No	%	No	%
- Patient able to self-report his pain	10	14.29	24	34.29	36	51.43
- Preferring to report his pain to the nurse	8	11.43	16	22.86	46	65.71
- Patient has support from family and peers	0	0.00	20	28.57	50	71.43
- Patient adopting positive thinking about pain management	25	35.71	5	7.14	40	57.14
- Patient has self-motivation to comply with prescribed medical treatment	5	7.14	30	42.86	35	50.00
- Patient able to complété pain scales	15	21.43	40	57.14	15	21.43
- using music therapy and simple relaxation therapy to relieve pain and enhance comfort	25	35.71	35	50.00	10	14.29

Table (6): Distribution of the studied nurses regarding the facilitators of pain management related to the nurse and health care provider

Facilitators related to the nurse	The studied nurses (n=70)					
	Not facilitator		Weak facilitator		Strong facilitator	
	No	%	No	%	No	%
- Nurses have sufficient pain management knowledge	12	17.14	20	28.57	38	54.29
- Nurses use adequate pain assessment and use pain rating scales in clinical practice	5	7.14	25	35.71	40	57.14
- Nurses follow pain management regimens and measures easily	5	7.14	30	42.86	35	50.00
- Nurse able to ascertain whether patient is in pain or not and administrating as needed medications	10	14.29	25	35.71	35	50.00
- Good collaboration between physicians and nurses	0	0.00	20	28.57	50	71.43
- There is ongoing education and professional training related to pain assessment and management	5	7.14	25	35.71	40	57.14
- Nurse considering physiological indicators, when carrying out pain assessment and management	10	14.29	15	21.43	45	64.29
- Nurse considering verbal and nonverbal indicators, when carrying out pain assessment and management	15	21.43	20	28.57	35	50.00

Table (7): Distribution of the studied nurses regarding the facilitators of pain management related to the health care organization

Facilitators related to the health care organization.	The studied nurses (n=70)					
	Not facilitator		Weak facilitator		Strong facilitator	
	No	%	No	%	No	%
- Hospital establishes a proper guideline for quality pain management	8	11.43	20	28.57	42	60.00
- Hospital provides adequate levels of privacy in hospital environment to facilitate nurses' pain assessment and management practices	8	11.43	18	25.71	44	62.86
- Hospital adheres to financial and budgetary support	10	14.29	30	42.86	30	42.86
- Availability of painkillers and opioids.	5	7.14	20	28.57	45	64.29
- Availability of nursing staff (patient to nurse ratio is followed)	8	11.43	30	42.86	32	45.71
- Availability of nurses' training programs regarding pain managements.	5	7.14	40	57.14	25	35.71

Table (8): Distribution of the studied nurses according to total level of knowledge about pain management

Total knowledge level	The studied nurses (n=70)	
	No	%
- Low	51	72.86
- Moderate	19	27.14
Range	**(7-25)**	
Mean ± SD	**17.64±4.999**	

Low (<60%) Moderate (60-<80)% High (≥80)

Table (9): Distribution of the studied nurses according to their perception level regarding pain management

Perception level	The studied nurses (n=70)	
	No	%
- Low perception level	46	65.71
- Moderate perception level	24	34.29
Range	**(21-32)**	
Mean ± SD	**26.11±2.986**	

Low (<60%) Moderate (60-80)% High (>80)

Table (10): correlation among barriers and facilitators related to patient, nurse and hospital facility, their total score, knowledge and attitude score

	The studied nurses (n=70)							
	Barriers related to patient		Barriers related to nurse		Barriers related to hospital organization		Total barriers score	
	r	P	r	P	r	P	r	P
- Facilitators related to the **patient**	**0.275**	**0.021***	**0.743**	**0.000****	**0.373**	**0.001****	**0.534**	**0.000****
- Facilitators related to the **nurse** and health care provider	**0.455**	**0.000****	**0.656**	**0.000****	**0.596**	**0.000****	**0.686**	**0.000****
- Facilitators related to the **health care organization**	**0.362**	**0.002****	**0.560**	**0.000****	**0.477**	**0.000****	**0.560**	**0.000****
Total facilitators score	**0.411**	**0.000****	**0.703**	**0.000****	**0.542**	**0.000****	**0.658**	**0.000****
Knowledge score	0.162	0.181	-0.015	0.904	-0.202	0.094	-0.005	0.968
Attitude score	0.038	0.756	-0.040	0.744	0.137	0.260	0.061	0.614

r: Pearson' correlation coefficient

* Statistically significant level at P<0.05

Discussion

Cancer patients suffer from pain frequently as a result of the disease process or its treatment. While it is true that 95% of cancer pain may be effectively treated, the insufficient treatment may slow recovery of oncology patients, increased complication rates, and diminished their outcome of care. Because pain management is an intervention that nurses often employ, it is critical to identify the perceived facilitators and barriers of cancer pain management **(Mangolianshahrbabaki, Farokhzadian, Ahmadi & Khabazadeh, 2025)**. The purpose of this research was to assess nurses' knowledge and attitude and identify potential barriers and facilitators to cancer pain management among cancer patients. Furthermore, this study is essential to evaluate nurses' pain management practices in order to enhance the outcome of care for oncology critically ill patients.

Section I: Socio-demographic characteristics of the participant nurses. The study research revealed that more than three quarter of participant nurse were female between the age of twenty and thirty years, consistent with a relevant study in Mansoursa which demonstrated that the majority of nurses were female and 68.9% of them being between 25 and 30 years **(Khalil, Meawad & Abd Elhameed, 2022)**. Moreover, in accordance with educational level, above half of studied nurses had a technical institute degree in nursing, corresponding to **Khalil et al. (2022)** which revealed that more than half of the nurses graduated from a technical nursing institute. Also, the current study demonstrated that the higher percentage of the participants nurses were around 2-5 years of work experience in the oncology theatre. This may be due to the shortage of qualified nursing staff and relying on newly graduated nurses. This not corresponds with **Khalil et al. (2022)** who found that most of the participants nurses had Bachelor degree and had from 0 to 10 years of oncology nursing experience.

Consistent with a prior study on cancer pain management among Ethiopian oncology nurses, which found that the majority of the nurses surveyed had never attended a pain management training program, this one also found that most of the nurses surveyed had never received either internal or external pain management training **(Adams, Varaei & Jalalinia, 2020)**.

Section II: As regard to nurses' perspectives on pain management barriers related to the patient, more than half of the participant nurses demonstrated that ‘‘patients' fear from annoying the doctor if he talks about his pain and thinking that will be a good patient if not complain’’ as the strongest barrier for pain management, corresponding to **Zeng, Li, Lin and Mizuno (2020)** who

rated that good patients should avoid talking about their pain and don't complain from pain and this may lead to distracting physicians and annoying them.

Regarding to nurses perspectives on pain management barriers related to nurse, more than two thirds of the participant nurses reported that ''Lacking physicians' trust in nurses' assessment reporting and documentation of pain'' as the strongest barriers of pain management related to the nurse, and this finding agreed with **Rababa et al. (2021)** who believe that inadequate interaction between doctors and nurses about nonverbal cues of pain impedes pain assessment and effective treatment.

Regarding to nurses perspectives on pain management barriers related to hospital organization, more than two thirds of the participant nurses reported that ''Lack of clear and constant polices and guidelines for pain management in the hospital'' as the strongest barrier of pain management related to hospital organization and this finding agreed with **Ayoub, Jibreel, Nusei, and Al-Taani (2022)**.

Section III: Regarding to nurses' perspectives on pain management facilitators related to the patient, more than two thirds of the participant nurses rated that ''having support from family and peers to cancer patient'' as the strongest facilitator of cancer pain management related to the patient, and this finding align with a previous study conducted in Iran, which demonstrated that organizational and emotional support from peers, presence and support of family emerged as the most important factors in facilitating pain management for patients with cancer **(Mangolianshahrbabaki et al., 2025)**.

Regarding to nurses perspectives on pain management facilitators related to the nurse, more than two thirds of participant nurses reported that ''Good collaboration between physicians and nurses'' from the most strongest facilitator of cancer pain management and this finding supported by **Rababa et al. (2021)** who viewed that good collaboration between doctors and nurses was a major facilitator to cancer pain management.

Regarding to nurses perspectives on pain management facilitators related to the health care organization, the study finding showed that above half of participant nurses stated that ''Availability of painkillers and opioids in the hospital'' as the strongest facilitator of pain management regarding to the hospital. Corresponding with **Offu, Visram, Rathbonen and Lindsey (2024)** who illustrated that the availability of analgesics in pharmacies, low costs of pain medications, and sufficient health insurance reimbursement for pain services and medications from the

strongest facilitator of pain management.

Section V: Nurses' knowledge about pain management. The current analysis has shown that nurses had low level of knowledge regarding cancer pain control, with a mean knowledge score of 17.64. Corresponding with the findings of other relevant research studies regarding nurse's knowledge, attitudes and clinical practices related to pain management. Such as **Al-Sayaghi et al. (2022)** who demonstrated knowledge deficit among nurses working in Saudi, with mean score of 45.29%. In addition, Jordanian nurses who have limited knowledge score **(Othman & Al-Atiyyat., 2022)**.

Section VI: Nurses' perception about pain management. The study result revealed that the vast majority of the respondents nurses 65.71% had low level of perception towards cancer pain management and the remaining nurses 34.29 % had a moderate perception level, with overall mean perception score of 26.11 and a standard deviation of 2.986. On the whole, the result revealed poor attitudes among oncology nurses concerning pain management, who dealing with cancer patients, which corresponding to previous literature **(Liyew, Dejen Tilahun, Habtie Bayu & Kassew, 2020; attitude score = 49.33; Admass et al., 2020; attitude score = 20.4; Nguyen, et al., 2021; attitude score = 45.2).** All these results support current finding but conflicting with **Majeed, Hassan & Abidet. (2020)** who found that majority of the nurses 82.8% have positive attitude toward cancer pain management.

Section VII: Regarding to the **correlation among barriers and facilitators related to patient, nurse and hospital facility, their total score, knowledge and attitude score,** there was a highly significance correlation among total barriers score and the total facilitator score where R = 0.658, corresponding to **Gorzelitz, Bouji and Stout (2022)** where Pearson correlation coefficients illustrated strong association between facilitators and barriers (*R*= 0.62).

In addition, a negative correlation between total barriers score and total knowledge score where R = -0.005. This credible finding supported from a study from North Saudi Arabia **(Alenezi et al., 2022)** which found a significant negative correlation between barrier scores and knowledge (R −0.315, $p < 0.001$). Finally, there was a negative correlation between total attitude score and barriers related to nurse which is consistent with the Saudi study which found that nurse-related obstacles had the greatest detrimental impact on nurses' attitudes and knowledge (R = -0.040) **(Maribbay, Bdair, Alalyani & Al-Shloul, 2023)**.

Conclusion

The current research study illustrated many barriers and facilitators related to cancer pain management from nurses' perspectives. Findings also revealed sever knowledge deficit among nurses toward cancer pain management in addition to their negative attitude about pain agement and its strategies.

Recommendations

- There is an urgent need for designing educational programs about effective cancer pain assessment and management in order to improve nurses' knowledge and attitude regarding cancer pain.
- It is worthy to eliminate all barriers related to cancer pain management and maximize all facilitators and facilitate the access to it.
- Replicate the study after educating nurses about cancer pain management and monitoring the effect on patient's outcome of care.

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