# **Barriers to Effective Pain Management among Patients with Cancer**

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# **Abstract**

Background: Pain is one of the most common symptoms in patients with cancer. The common causes of acute cancer pain involve cancer itself or therapeutic modalities related to cancer include chemotherapy, radiation, targeted therapy, surgery, and diagnostic procedures; it requires effective pain management, and the barriers to cancer pain management are prevalent among patients with cancer around the world, this may hinder patients with cancer from receiving effective pain management.

Study Objective: The current study aim to determine the attitudinal patient-related barrier.

Methods: Across the sectional study, the nonprobability (heterogeneous purposive sample) of (130) patients diagnosed with cancer are included in the present study. The study instrument includes four parts: patient's demographic and clinical data and pain management barriers by using the Barriers Questionnaire II (BQ II).

Outcomes: The study results indicate that there is a significant effect of the attitudinal patient-related barriers on effective pain management among patients with cancer include patients' concern about addiction and the harmful effects of pain treatment.

Conclusion: The main patient-related barriers that negatively affect effective pain management included patients' concern about addiction and the harmful effects of pain treatment.

Recommends: designing interventional and educational programs to handle the barriers that negatively affect pain management to improve the quality of pain management for patients with cancer.

**Keywords**: Cancer pain, Patient-related barriers, Pain Management.

### Introduction

Cancer is currently the leading cause of premature death in most countries with a high Human Development Index. Pain is the most common symptom associated with cancer. It ranges intensity from moderate to severe in more than half of patients with advanced cancer. It is the most common cause for community-based cancer patients to contact out-of-hours primary care services and frequent

reasons for their hospitalization. Cancer pain continues to be a worldwide issue, and it is still inadequately treated (Chapman et al., 2020) & (Al-Ghabeesh et al. 2019).

Pain is particularly common in patients with cancer; it affects more than (60%) of patients with advanced cancer, metastatic or terminal disease and can be initiated by cancer itself, surgery, treatment, treatment side effect, tests and procedures (Aman et al., 2021).

However, cancer pain is also a frequent occurrence at the earlier stages of disease; around a third of patients who have undergone curative treatment experience pain, especially these types of cancer, including pancreatic cancer, head and neck cancer, and spinal cord (Alsharawneh & Hasan, 2021). In addition, the cancer pain is not necessarily related to the growth of cancer they may; a very small tumour pressing on a nerve can be extremely neuropathic pain in spinal cord tumours (Falk et al., 2014).

Daily pain is highly prevalent among elderly cancer patients. Older patients are more likely to complain about the side effects of pain relievers than younger patients, and these side effects tend to be more severe. Painkillers can stay in the body for longer, and elderly patients are more sensitive to them. This increases the possibility of drug interactions with analgesics (González-Roldán et al.. 2020).These interactions can reduce the effectiveness of a drug or increase the possibility of serious side effects (Rewale, 2021). Additionally, cancer pain has serious negative consequences and a great influence on the overall quality of life; patients living with cancer pain are more prone develop physical, emotional, psychological distress (Rodriguez et al., 2019). Therefore, pain is a significant health issue that needs to be addressed in all health care settings. Cancer pain management and treatment are complicated and require frequent assessment, evaluation, reassessment, and constant observation by health care providers (Yassin et al., 2020).

Cancer pain takes many forms; it can be mild, aching, sharp, or burning; it can be constant, intermittent, moderate, or severe. The pain intensity depends on several factors, including the type of cancer, how late it is, where it is located and how well you tolerate the pain (Caraceni & Shkodra, 2019). To effective pain management should be managed Barriers to cancer pain management and factors that affecting on pain management (Wang et al., (2019) & (Brant, 2018). Uncontrolled pain can lead to catastrophic consequences on physical, mental, social, and financial levels. Effective treatments for pain are available, and they can provide adequate pain relief when used effectively. Some possible side effects of prescribed painkillers, such as addiction, tolerance, communication concerns, fatalistic beliefs, and respiratory depression, may influence the decisions of its administration and result in ineffective pain management (Darawad et al., 2019). In addition, Several barriers of effective pain management (system-related, staff-related, nurse-related, physician-related, and patient-related) (Al-Mahrezi, 2017).

In addition, cancer pain is a multidimensional symptom that is frequently undermanaged, but nearly half of the world's patients with cancer who experience pain receive less than optimal pain management. These multifaceted barriers in cancer pain management are the most common reasons for the failure of cancer pain management (Singh et al., 2017) &(Kwon, 2014). Prior research in the USA suggests that patients' who have attitudinal barriers to cancer pain management use less potent analgesics than those who do not have such barriers. In turn, these patients have more pain, experience more pain-related interference with life activities, and impaired quality of life. Moreover, attitudinal barriers to pain management are a challenge in patient education. However, interventions have been found to decrease barriers and in turn improve adherence to pain management, reduce pain, and improve quality of life (Gunnarsdottir et al., 2017) & (Gigantesco et al., 2015).

Patients-related barriers to effective pain management are classified into four main barriers: physiological, cultural and religious approaches to managing pain and concerns regarding disease progression, and tolerance are the most frequent patient-related barriers. (Goblan et al., 2021)&(Timmerman et al., 2019). In this context, there are no previous studies forward to determine those barriers in Iraq. Therefore, the present study fell the research gap in nursing research.

Study objective: The current study aimed to determine attitudinal patient-related barriers (Physiological effects of pain treatment, Fatalism, Communication, and Harmful effects of pain treatment) to effective cancer pain management using the barriers Questionnaire II.

The study hypotheses: There is a relationship between attitudinal patient-related barriers (physiological effects of pain treatment, fatalism, communication, and harmful effects of pain treatment) factors and the effectiveness of pain management provided for patients with cancer.

#### **Materials and Methods**

Design of the Study: A quantitative descriptive cross-sectional design was used in the current study to determine the barriers to effective pain management among patients with cancer. The data collection process has taken two months, starting from 13th December 2022 to 13th February 2022.

Sampling and Sample of the Study: The researcher used a nonprobability (heterogeneous purposive sample) of 130 patients, those who visit A Middle Euphrates Cancer Center in Al-Najaf City for treatment, follow up, or both.

Determination of Sample Size: In the present study, the researcher uses the following parameters to determine the adequate sample size; power (95%), significantly (0.05), and middle effect size (39%). Therefore, the sample size is equal to (96). To increase the power to (99%), the researcher increases the sample size to (130). In addition, The G-Power program version 3.1.9.7 was used to determine the sample size. The acceptable level of power analysis includes the standard power (80%), and level of significance (usually set at 0.05 in nursing studies) (Grove et al., 2013).

Ethical Considerations: Α legal. governmental agreement obtained the ethical study approval before conducting the study according to the standards for conducting research with human beings from the National Research Ethics Committee (NREC). In addition, before beginning data collection, it is necessary to protect the subjects' rights through informed consent for researcher The participation right, participation rights.

which includes the following important elements the researcher, introduces himself and his identity to the subject; explains the study's objectives, describes the study's benefits; ensures the confidentiality of the patient's identity and information; participation voluntary in the study, and insure the subjects right to withdraw from the study at any time.

The Study Instrument: To investigate the study phenomenon, the researcher used a study instrument based on previous kinds of literature. The final instrument consists of the following parts: patients' demographic and clinical data, and BQ II consists 25 items, including 12 items about physiological effects, 3 items about fatalism, 6 items about communication, 4 items about harmful effects. To assess patient-related barriers to effective cancer pain management

Data Collection: The researcher uses face-to-face interviews to collect the demographic data, clinical data, and BQ II. The data collection process has taken two months, starting from 13th December 2022 to 13th February 2022, to complete data collection.

Statistical Analyses: The data are analyzed using the descriptive analysis by presented as tables' frequencies, percentages, and graphic presentation by using bar charts, and statistical mean and standard deviation were calculated. And inferential analysis by using Chi-square, which is used to determine the association between the pain intensity and the studied barriers to specifying which barriers affect pain management in the form of percentages or frequencies and Pearson correlation coefficient, which is used to determine a correlation between the pain intensity and the barriers to effective pain management.

### Study results

Table (1): Summary Statistics of the Socio-Demographic Study Characteristics.

Demographic Data	Rating and Intervals	Frequency	Percentage
Age / Years	20-29	8	6.2
	30 - 39	15	11.5
	40 - 49	28	21.5

	50 - 59	40	30.8
	60 and more	39	30.0
	Total	130	100.0
	Mean (Std. Dev.)	50.9 (11	1.5)
	Male	59	45.4
Gender	Female	71	54.6
	Total	130	100.0
	Rural	39	30.0
Residence	Urban	91	70.0
	Total	130	100.0
	Doesn't read and write	32	24.6
	Read and write	26	20.0
	Primary School Graduate	32	24.6
Levels of Education	Intermediate School Graduate	13	10.0
,	Preparatory School Graduate	12	9.2
	Institute Graduate	9	6.9
	College Graduate	4	3.1
	Post Graduate	2	1.5
	Total	130	100.0
	Married	119	91.5
Marital Status	Divorced	11	8.5
	Total	130	100.0
	Retired	10	7.7
	Housewife	64	49.2
	Employee	34	26.2
Occupation	Jobless	15	11.5
	Private worker	7	5.4
	Total	130	100.0
	Sufficient	8	6.2
Socio-Economic Status	Sufficient to some extent	55	42.3
	Insufficient	67	51.5
	Total	130	100.0

	Yes	3	2.3
Smoking	No	98	75.4
	Past smoker	29	22.3
	Total	130	100.0

Table (1) shows that (30.8%) of the study sample are (50-59) years old, (54.6%) are female, (70.0%) are from an urban residential area. Regarding the levels of education, the study results indicate that (24.6%) of the study subjects do not read and write and are primary

school graduates. Additionally, (49.2%) of the study subject are housewives. Moreover, (51.5%) of the study subjects have insufficient socioeconomic status, (75.4%) of them are non-Smoker.

Table (2): Assessment of pain intensity among the study sample

Clinical Data	Rating and Intervals	Frequency	Percentage
Pain intensity	Moderate (4-6)	15	11.5
	Sever (7-10)	115	88.5
	Total	130	100.0

Table (2) asserts that the (88.5%) of the patients exhibit severe pain take (7-10) points on the numeric pain rating scale. And, (11.5%)

of the patients are suffering from moderate pain, taking (4-6) points on the numeric pain rating scale.

Table (3) Overall Assessment of Patients-Related Attitudinal Barriers to Effective Pain Management

Main Studied Domains	Levels of Barriers	Frequency	Percent
Overall	None or Mild Barriers	0.0	0.0
Assessment of Patients-Related Barriers	Moderate Barriers	119	91.5
	Strongly Barriers	11	8.5
	Total	130	100.0

None or mild barriers (mean of scores 1-1.66), moderate barriers (mean of scores 1.67-2.33), and strongly barriers (mean of scores 2.34 and more).

Table (3) the study results of an overall assessment of patients-related barriers to effective pain management indicate that there is (91.5%) of the patients face moderate barriers.

Table (4) Relationship between the Pain intensity and the Attitudinal Barriers of Effective Pain Management

Main Studied Domains	Levels	Pain Severity Assessment		Chi- Square Value	d.f.	P-Value
		Moderate	Sever	v aruc		
Physiological effects of	Moderate Barriers	13	86	3.423	1	.181 NS
pain treatment	Strongly Barriers	2	29			

Tota	al	15	115			
	None or Mild Barriers	3	41	5.360	2	.252 NS
Fatalism	Moderate Barriers	11	50			
	Strongly Barriers	1	24			
Tota	al	15	115			
	None or Mild Barriers	5	31	5.790	2	.215 NS
Communication	Moderate Barriers	10	67			
	Strongly Barriers	0	17			
Total	Total		115			
Harmful effects of pain	Moderate Barriers	0	2	64.569	1	.0001 HS
treatment	Strongly Barriers	15	113			
Tota	al	15	115	-		
Overall Assessment of Patients-Related Barriers	Moderate Barriers	15	104	6.808	1	.045 S
	Strongly Barriers	0	11			
Tota	Total		115			

Table (4) (illustrate) the relationship between the pain intensity and the studied barriers to specifying which barriers affect pain management. Generally, the study results indicate that there is a significant effect of the attitudinal patient-related barriers on effective pain management. This effect is maximised in the harmful effect of the pain treatment domain and minimised in the other studied domains.

Table (5) Correlation between the Pain intensity and the Barriers of Effective Pain Management

Main Studied Domains	Statistics	Pain Intensity
Physiological effects of pain treatment	Pearson Correlation	.137
treatment	Sig. (2-Tailed)	.119
	N	130
Fatalism	Pearson Correlation	.091
	Sig. (2-Tailed)	.305
	N	130
Communication	Pearson Correlation	.043

	Sig. (2-Tailed)	.627
	N	130
Harmful effects of pain treatment	Pearson Correlation	.405**
	Sig. (2-Tailed)	.000
	N	130
Overall Assessment of Patients- Related Barriers	Pearson Correlation	.195*
	Sig. (2-Tailed)	.026
	N	130

Table (5) illustrates the correlation between the pain intensity and the attitudinal patient-related barriers to effective pain management. Generally, the study results show that there is a significant, direct (positive) and weak correlation between the pain intensity and attitudinal patient-related barriers. This effect is maximized at the harmful effect of pain treatment and minimised at another studied barrier (i.e., when the harmful effect at pain treatment increases, it is associated with increased pain intensity and vice versa).

# Discussion

The outcome of the present study is to determine the patient-related barrier that the indicated; generally, there is a significant effect of the studied barriers and pain intensity, this effect is maximized in the harmful effect of pain treatment. The majority of patients expressed the highest concern arising within the harmful effects subscale was the addictive nature of pain medicine.

Kiu et al., (2021) they studied "Patients-related Barriers to Pain Management among Cancer Patients" they concluded that the Patients-related barriers were reluctant to report pain, the harmful effects, fear of addiction, and side effect of pain treatment are major barriers among patients with cancer.

In similar studies in Korea, Turka, Australia by Kwon, (2014) & (Bağçivan et al., (2009)&Yates et al., (2002) they concluded that the harmful effects were the major barriers among patients with cancer, and it was found that fear of drug addiction and its side effects was prevalent among the patients with cancer. In addition, they have misconceptions

regarding pain medicine (fear of adverse effects, addiction, and lowered immunity caused by pain medicine).

Al Qadire, (2012) conducted another cross-sectional study to investigate barriers to pain management in Jordan; they reported in their study that the harmful effects were the major barriers with the highest mean score among patients with cancer.

The present study has conducted the patients with cancer; they have a misconception about the harmful effects of pain medication, including that pain medication negatively affects the immune system, as well as the fear of addiction to pain medications due to their misconception that treatments are highly addictive, is the main barriers to effective pain management among patient with cancer. This may indicate the need for patients' education about cancer pain and its treatment.

#### **Conclusions**

The study concluded to determine the barriers to effective cancer pain management provided for patients with cancer indicate that the main barriers among patients with cancer include the harmful effects of pain medication (i.e., fear of side effects of pain treatment, addiction, and lowered immunity caused by pain treatment).

Recommendations: the study recommended should be designing interventional nursing programs to improve the quality of pain management and to handle barriers to effective pain management for patients with cancer.

Limitation of the study: The study result and findings cannot be generalized to another

population because the study focuses on barriers determining to effective management and does not include patients with mild pain. In addition, there is no accurate and comprehensive data base for all patients who have cancer. The patients who visit hospital didn't accurately represent population.

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