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Acute, Subacute and Chronic Nature of Pain during Prescription Opioid Medications in Cancer Survivor: A Qualitative Analysis of Iraq's Oncology Experts

Ali A Fahdil[1], Mohammed Haider Hamad[2], Muataz Mohammed Al-Taee[3], Anfal Nabeel Mustafa[4], Hussein Ali Hussein[5], Reem Mohsin Khalaf[6], Ahmed S. Abed[7]*

Abstract

Background: Opioid prescription medications (POM) have considerably aided in treating cancer survivors and patients suffering from pain after surgery or other therapies. However, healthcare practitioners have always been concerned about using POM for pain management. Several rigorous regulations surrounding POM have been proposed in Iraq, impacting the general attitudes of oncology specialists and cancer survivors.

Aim: This study's primary objective is to ascertain the opinions of oncology specialists in Iraq on the use of POM for pain management in cancer survivors.

Methods: Iraqi oncology specialists participated in semi-structured interviews for a qualitative study. Eight respondents were selected through purposeful sampling, and thematic analysis was performed.

Results: After the interviews were transcribed and coded, four major themes were identified: (1) Pain Management in Cancer Survivors, (2) Handling of Prescription Opioid Medication (POM) in Cancer Survivors, (3) Alternative Therapies for Pain Management in Cancer Survivors, and (4) Policies regarding POM.

Conclusion: This study indicated that the abuse of opioids by cancer survivors prompted the adoption of severe laws governing the distribution of opioids, motivating healthcare providers to focus on alternative therapies. While prescribing opioids for cancer survivors, these stringent regulations have also highlighted that healthcare practitioners describe the type of pain (acute, subacute, or chronic).

Keywords:

Cancer Survivor; Pain Management; Prescription Opioid Medications; Oncology Experts; Iraq; Qualitative Study

[1]Medical technical college/ Al-Farahidi University, Baghdad, Iraq, [2]Medical Laboratory Techniques Department/Al-Mustaqbal University college, Babylon, Iraq, [3]Department of Medical Laboratories Technology, AL-Nisour University College/Baghdad/Iraq, [4]Department of Pharmacy, AlNoor University College, Nineveh, Iraq, [5]Scientific Research Center, Al-Ayen University, Thi-Qar, Iraq,[6]Mazaya University College/Iraq, [7]Hilla University college, Babylon, Iraq/Department of Prosthetic Dental Technology
E-mail: a77medsalim2@gmail.com

Address for correspondence:
Ahmed S. Abed,
Hilla University college, Babylon, Iraq/Department of Prosthetic Dental Technology
E-mail: a77medsalim2@gmail.com

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Introduction

According to the Global Cancer Observatory (2021), the number of male and female cancer cases in Iraq increased by more than 33,000 in 2020.[1] Due to increased exposure to carcinogens, lifestyle changes, population growth, and urbanization, cancer incidence is anticipated to rise in the Eastern Mediterranean region in the coming years.[2] In Iraq, breast, lung, and bladder cancer incidence rates are already relatively high.[1-3] With increased risk factors such as poor diet, smoking, and diabetes, Iraq requires an effective palliative care system.[4] Pain is a difficult and demanding symptom of cancer that can impair cancer patients' and survivors' quality of life.[5] Cancer survivors are

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individuals who have been diagnosed with cancer at any time before their death,[6] and their pain thresholds vary based on various cancer-related and lifestyle factors. While acute pain is temporary,[7] chronic pain persists for over three months.[8] Approximately 40% of cancer survivors experience persistent discomfort.[5]

In addition, cancer survivors may have both acute and subacute pain and chronic pain over the long term.[5] More than 90% of cancer survivors in the United States reported enduring short-term pain owing to their treatment,[9] whereas 6% of adult cancer survivors in Australia experienced severe pain.[10] Pain is particularly prevalent in survivors of certain types of cancer, such as lung and breast cancer.[11] 20% of cancer survivors reported experiencing discomfort due to childhood cancer therapy.[12]

Identification, classification, and pain management choices are required for cancer survivors with pain.[13, 14] Pain management strongly depends on the nature and severity of the patient's symptoms, as well as the patient's level of education, to guarantee that pain is adequately managed throughout.[13, 15] The goal of pain management is to regulate and minimize symptoms so that patients' daily activities and quality of life are not significantly impacted; nevertheless, it is estimated that 30% of cancer survivors do not receive pain management therapy and medication based on the level of their suffering.[16]

Opioids have been the most frequent medication for pain management for decades.[17] Oncologists utilize opioids to treat both the short- and long-term problems of cancer survivors. However, pain management in cancer survivors is complex and complicated, with no general agreement.[14] Cancer pain management can be complicated by a lack of resources and knowledge, inadequate assessment, limited access to opioids, and severe limitations on opioids.[16, 18] Lack of knowledge and comprehension of pain thresholds, misconceptions about drugs due to incorrect information, and a lack of knowledge about pain management and prescription among cancer specialists exacerbate the suffering of cancer patients.[18, 19] Opioids are not indicated for pain treatment in other disorders.[20] Therefore the use of opioids to treat chronic pain is a subject of ongoing dispute. To effectively utilize opioid therapy, pain management in cancer survivors requires understanding the unique characteristics linked with the cancer type and the patient's symptoms.[21] Existing research has demonstrated that regulations impact the usage of opioids in cancer pain treatment.[22]

It is necessary to evaluate the opioid prescribing practices in Iraq and the understanding and supervision of opioid therapy among cancer survivors and oncology specialists. This study aims to assess the acute, subacute, and chronic nature of pain induced by opioid prescriptions in Iraqi cancer survivors. The following research questions have been developed following the purpose of our study.

- How can opioid prescription be used to manage pain in cancer survivors in Iraq?
- How do cancer survivors and oncology experts handle opioid prescriptions?
- What oncology experts recommend alternative pain management therapies for pain management in cancer survivors?

Literature Review

Opioid prescription for pain management in cancer survivors

The Survivorship Task Force of the European Organization for Research and Treatment of Cancer (EORTC) defines a cancer survivor as someone who has obtained a cancer disease identification, completed their initial treatment excluding maintenance therapy, and shows no symptoms of active illness.[23]

Cancer patients and survivors frequently suffer discomfort, which the disease or its treatment can cause. In cancer survivors, pain is associated with malignancies or treatment. Even after completion of treatment, it causes survivors discomfort. Morphine is the most effective and recommended pain medication for cancer patients and survivors of prolonged pain. Cancer location and disease stage can influence the frequency and severity of cancer pain.[14, 24, 25]

Long-term opiate abuse is associated with endocrinopathies, sleep apnea, and neurotoxicity. Once it is no longer required, extremely gradual opioid dose reduction with ongoing, positive support is often performed without difficulty. Most long-term cancer survivors without evidence of disease recurrence will be able to quit opioid use completely; nevertheless, some survivors may still require very small dosages, as determined by the survivor, the physician, and in collaboration.[26] However, oncologists and physicians are now focusing on non-drug therapy to manage acute pains, particularly in long-term survivors, because of the rising rate of substance dependence that can arise when survivors are not provided with sufficient assistance, assessment of substance usage risk, and support. Despite this, research[6, 19] indicates that opium remains the most prevalent means of pain management among cancer survivors.

Management of Opioids prescriptions by oncologists & survivors

According to studies, pain-stricken cancer survivors find it difficult to manage narcotic prescriptions. They find it challenging to manage substance usage and addictions caused by opioid medications. A lack of competence about addiction and substance misuse, as well as inadequate counseling and care for cancer survivors, may potentially contribute to the surge in opioid addictions caused by prescriptions. In the absence of frequent drug testing and other examinations, physicians have also expressed concern regarding opioid abuse attitudes. There is a lack of risk minimization programs and barriers to

the use of opioid medications, which has diminished doctors' trust in their use. In addition, clinicians lack the essential training and instruments to ensure the effective use of opioids. In addition, physicians lack the expertise to treat these addictions. As a result, they are heading in the direction of removing narcotic pain medications. Nonetheless, opioid medication remains a vital component of pain management in health care.[6] In contrast, several studies show physicians and doctors worry about administering opioids due to their negative effects, rising substance usage, and addictions. They lack confidence in the use of drugs for cancer pain treatment. It could be related to a lack of understanding and awareness regarding the use of opioids for pain management in cancer survivors. However, it has been discovered that doctors and physicians who receive sufficient training and information about cancer pain management are more receptive to using opioids for therapy and pain prescriptions. Additionally, they are reported to be more effective in managing pain in their patients. In addition, survivors and patients are reluctant to utilize opioids for pain management out of fear of addiction and abuse. Some of them shun opioid therapies for cultural and religious reasons. It demonstrates a lack of understanding and awareness regarding narcotic pain remedies.[24, 27]

Alternative pain management therapies

Research suggests a variety of alternative pain treatment approaches. Implantable Drug Delivery Systems (IDDS) is one of the treatments designed for individuals who have been on long-term opioid therapy but have experienced inadequate pain relief despite increasing their drug doses or who have improved from their treatment but cannot continue receiving it due to negative side effects. Intrathecal pumps aid in optimizing pain management while preventing systemic absorption, decreasing the likelihood of unwanted and unwarranted side effects. In addition, IDDS may gradually reduce or eliminate the use of opioid medicines by carefully tailoring doses to the patient's condition. For the benefit of IDDS, it is required to select the patient population with care, deliver the medication with prudence, titrate it, and regularly manage the pump. Numerous studies have demonstrated that IDDS is effective.[28]

Moreover, wellness center therapies that strengthen the coping mechanism and assist in managing pain through light physical activity, mindfulness, and various types of mental support with the aid of counseling and group work[26] are recommended by research to combat pain.

Methodology

Research Design and Approach

A research technique is a procedure for locating, selecting and analyzing relevant information within the context of the issue being studied.[29] A research study's design is crucial since it decides whether the study will yield the desired results. The selected research methods must align with the defined study objectives and research questions for a successful strategy. A research design is particularly useful in this scenario since it contains a methodological system, research methodology, and research method. It was chosen to address the research questions posed.

The research methodology's numerous methods and approaches are implemented to collect data. It aids in selecting an appropriate method of research analysis. Mixed, quantitative, and qualitative research approaches are utilized to collect and analyze data. A qualitative method includes collecting textual or visual data alongside a qualitative approach. Case studies, interviewing, and other data collection methods are used to achieve this objective. The qualitative approach, word cloud analysis, and different approaches are among the most commonly utilized qualitative research analysis tools and procedures.[30] A qualitative methodology will be most helpful for addressing the research questions since it permits a comprehensive understanding of the concepts and ideas of selected respondents within the context of the current study.

Because this study was mostly exploratory, qualitative methods were utilized. Due to this process, we could ask open-ended questions and request further information. The research was approved by both the (Blinded for Review) Institutional Review Board and the (Blinded for Review) Scientific Review Committee. Although this procedure identified the specific experiences of the linked target audience in the context of the present study, it is more prone to researcher bias than a quantitative survey, which takes a more direct approach. To avoid this issue, the researcher's bias was disclosed at each data collecting and evaluation stage.

Sample and recruitment procedures

We utilized purposive sample procedures, in which the researcher seeks out cases or individuals with much information using specified inclusion criteria.[31] Data analysis identifies a population as the target audience for data collection.[32] When selecting the population, the study's anticipated objectives and research questions are considered. This study examines the Acute, Subacute, and Chronic Nature of Pain During Opioid Prescriptions in Cancer Survivors. Consequently, Iraqi oncologists were this study's most pertinent target audience. An acceptable approach for purposive sampling was used to obtain the required sample size for the data collection. Methodological factors and existing knowledge of qualitative research informed the sample size determination.[33] Eight oncologists from various Iraqi healthcare facilities were chosen for this purpose. Oncological experts who had expressed an interest in research were contacted by phone, provided with study materials, and screened for candidacy. After eligibility was determined, informed consent was obtained.

Data collection procedures

A semi-structured interview was devised to gather

viewpoints and experiences with prescription opioid medications (POM). During the interview guidelines creation, the community advisory committee for the project gave suggestions. In the oncologists' interview guide, the following topics were covered: cancer patients' concerns about POM; pain assessment procedures; communication regarding pain treatment techniques; substance misuse disorder screening procedures in oncology settings; comfort with dealing with addiction; and the impact of the opioid crisis and policy frameworks on clinical practice. The flow and intelligibility of the questions have been modified somewhat. Interviews were conducted over the phone or in person, depending on the participant's preference, and lasted an average of 45 minutes. After obtaining respondent permission, two review panel members conducted interviews while audio recording them.

Data Analysis

After the interview transcription is collected, the qualitative technique, which entails codifying major parts of the qualitative data using the NVivo program,[34] will analyze the data appropriately. This strategy, which is phrase-based, aids in identifying trends in the completed qualitative data. If inconsistencies are discovered during the review of qualitative data gathering, the data's credibility and reliability may be jeopardized. To create accurate and sufficient results for the current study, uniformity and clarity will be maintained during the data analysis phase.

Interviews Results

After conducting interviews with a selection of oncology experts, the interview transcripts were reviewed, and key topics were established for thematic analysis, detailed in the following sections.

Theme I: Pain Management in Cancer Survivors

The respondents stated that the advancement of technology in the medical profession had facilitated the creation of several useful tools for earlier cancer diagnosis. This has also created opportunities for the effective treatment of malignancies. Consequently, a substantial number of cancer survivors are currently being followed. According to one respondent, however, cancer survivors were more likely to endure long-term or short-term impacts of therapy and disease.

"Even though we are privileged to have advanced technologies in the medical field which have helped in early diagnosis of cancer, we are still likely to face various post-treatment impacts faced by cancer survivors, especially chronic pain."

In addition, according to the respondents, cancer survivors experience post-surgical pain that is not appropriately managed, leading to additional mental and physical problems such as stress, sadness, etc. To address acute, subacute, and chronic pain in cancer survivors, several pain management strategies, such as opioids and non-steroidal anti-inflammatory medicines, have been studied (NSAIDs). Regarding this, one of the responses stated:

"Most cancer survivors experience pain after different surgical treatments, which remain unnoticed or untreated properly. This might impact their overall attitude and behaviors. Therefore, I always take special care of pain management while treating my patients post-surgery as if not managed properly; chronic pain can impact their overall quality of life."

In addition, most responders underlined the importance of effective communication between the cancer survivor and healthcare practitioner for pain management. In several instances, it has been noticed that patients do not express their worries regarding pain issues that may become problematic in the future.

Theme II: Handling of Prescription Opioid Medication (POM) in Cancer Survivors

The majority of responders utilized opioids to treat cancer survivors' pain. In light of this, they argued that cancer survivors and healthcare professionals must advocate for properly managing opioid prescriptions. They thought inappropriate POM management by cancer survivors led to opiate dependence, which harms its overall efficacy. It was evident from the response of one of the responders as he stated:

"The history and follow-ups of the patients are necessary to adjust the dose of the prescribed opioid. Therefore, in case of opioid abuse, extra care is needed to fulfill the patient's need; otherwise, the patient will continuously complain about the pain."

Patient education is also essential for the proper handling and disposal of POM. Many responders highlighted the need to provide patients with effective POM knowledge for improved outcomes. Over the years, the unfavorable media coverage of POM has also influenced the self-management decisions of cancer survivors. One respondent thought:

"Negative image of opioids has largely influenced the cancer patients. Most of them resist taking any opioids and prefer other pain management therapies. We have to struggle to convince our patients of the significance of POM; this requires a lot of patience and struggle."

However, respondents stated that there is no problem with POM and that the main problem lies with the drug's abusers. Further, they asserted that they attempt to detect opioid abusers to prevent ethical violations in the healthcare industry.

Theme III: Alternative Therapies for Pain Management in Cancer Survivors

Based on the responses of various respondents, it was determined that cancer survivors were less likely to suffer from an opioid use disorder. Still, they are more prone to become dependent on opioids, which has prompted many

healthcare providers to seek alternate pain management treatments for cancer survivors. In response to a question about opioid usage, one respondent stated:

"I think the cancer survivors are likelier to possess drug addiction as we see millions of cancer survivors live as usual, but we're still writing prescriptions for them. Therefore, we need to focus on handling POM in this regard. This can be managed by educating the patient regarding POM, or if things get out of control, alternative therapies should be considered for managing pain."

The majority of responders dispensed non-opioid analgesics for the treatment of mild to moderate pain in cancer survivors. In this sense, the most prevalent drug class was NSAIDs. However, responders also considered various natural therapies to meet the demands of their patients. An individual respondent stated:

"One of my patients suffered from moderate pain post-surgical treatment of breast cancer, so considering her history of drug abuse, I preferred to recommend her paracetamol instead of opioids. No doubt the process was slow, but it was worth it."

Respondents also reported that their patients were more interested in exploring non-medical alternatives to manage acute and chronic pain following therapy. This turned the focus of numerous oncology specialists toward essential oils, yoga, acupuncture, and other similar treatments.

Theme IV: Policies regarding POM

In the context of POM, the respondents were concerned about the stringent policies. They argued that the ongoing overuse of opioids in the healthcare industry had reduced the availability of opioids for cancer patients. In this setting, one respondent remarked:

"Nowadays in Iraq, it is getting harder for cancer patients and survivors to get their hands on opioids due to strict regulations and a lot of paperwork. This procedure might take many days to complete, and the patient suffers from pain during this period."

Increased paperwork and dosage restrictions have made it more difficult for healthcare practitioners to prescribe opioids after implementing new laws. Respondents were asked to categorize the pain as acute or chronic while administering the corresponding medication. Discharging cancer patients with a three-to-seven-day supply of opioid medication was another issue identified by healthcare personnel. This increased patient follow-ups to provide the necessary amount of opioid analgesics. An individual respondent stated:

"We cannot provide an effective supply of POM to our patients due to the development and implementation of strict healthcare policies. This has slowed the healthcare system as we must spend much time completing the required paperwork."

Due to stringent laws and substantial paperwork, many respondents were unwilling to prescribe opioids, opting for alternate pain management treatments.

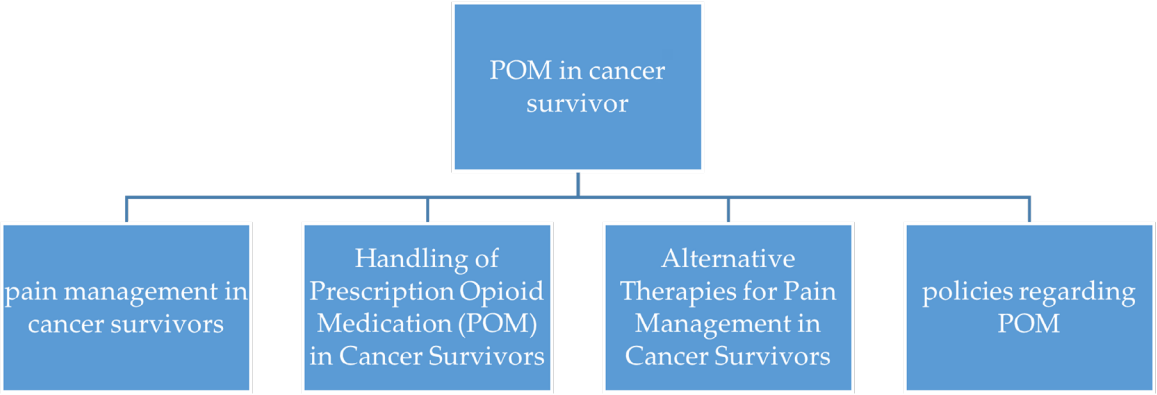

Figure 1. Thematic Analysis

Discussion

The purpose of the study was to shed light on prescription opioid medications used to treat acute, subacute, and chronic pain in Iraqi cancer survivors. The study's results demonstrated that technical improvements in Iraq had enabled doctors to detect and treat cancer patients; yet, pain management following treatment remains a complex process that can substantially impact the quality of life. Existing studies have also indicated that inadequate pain management can significantly diminish the quality of life of cancer survivors,[5, 35] and another study found that acute and chronic pain among cancer survivors from diverse backgrounds had a substantial impact on their quality of life and increased their risk of depression.[36] In our study, oncologists also noted that low quality of life among cancer survivors is associated with mental health problems. In addition, Iraqi oncologists who participated in our study reported that a lack of communication between doctors and patients limits efficient pain management. The inability of patients to explain the degree of their pain results in erroneous pharmaceutical prescriptions. The research undertaken by Mercadante *et al*.[37] yielded comparable findings. Due to insufficient communication between the two parties, low opioid drug intake led to poor pain management.

In addition, our study explored how cancer survivors and oncologists handle and administer opioid medications. Effective opioids are utilized by all professional oncologists for pain management, according to the study's findings. However, there is a considerable risk of prescription opioid medication misuse among users. Chronic pain is also connected to opioid abuse, as patients can tolerate the drug and increase their dosage to alleviate discomfort.[38] Nonetheless, research on adult cancer survivors in the United States revealed that the misuse of opioid prescriptions among cancer survivors was comparable to that of non-cancer patients, indicating that the risk of opioid abuse is not higher among cancer survivors.[39] Educating patients on proper drug usage can prevent this type of drug abuse. Providing and teaching patients about the appropriate use of medication reduces their medication anxiety and enhances the safe use of opioid medicines, according to research.[40, 41]

As described in current studies[42], expert oncologists underlined that patients are likely to acquire opioid dependence with continued use for pain management. In addition, the study found that alternative pain management techniques are being researched and implemented in Iraq. NSAIDs are commonly used to treat acute to mild pain. Expert oncologists also discussed recommending non-medical treatments such as yoga, essential oils, and acupuncture to patients. Existing literature has also explored the effect of non-pharmaceutical therapy on pain management. It has been reported that acupuncture was a prevalent and effective pain management method for breast cancer survivors[43] and that yoga provided cancer survivors with symptomatic relief, including physical benefits such as joint and muscle pain and mental health benefits by reducing anxiety.[44]

In addition, the stringent regulation of opioid medications poses substantial problems for cancer survivors and physicians. A study on palliative care in Iraq indicated that, due to the country's unstable political climate, there is a lack of drugs for cancer patient survivors.[45] Restrictions on opioid doses have also made it more difficult for individuals to control their pain. With dosage restrictions, cancer survivors must increase their doctor appointments for opioid prescriptions. Oncologists must classify the pain before prescribing any opioid medication, and the extensive paperwork prevents them from doing so. This is reinforced by Dania et al. research .'s on the effect of legislation and culture on opioid use in the Middle East.[46] According to the study, physicians cannot prescribe opioids due to stringent rules; nevertheless, governments and healthcare authorities should consider chronic pain patients.[46]

Conclusion

The goal of this study was to examine the prescription of opioid medications among cancer survivors with acute, subacute, and chronic pain. Expert oncologists offered a thorough overview of the use and administration of opioid medications as well as alternative treatments. The study indicated that opioid prescriptions for cancer survivors' pain treatment are frequent in Iraq. Oncologists also use non-medical treatments and non-steroidal anti-inflammatory drugs (NSAIDs) that are generally known to provide physical and mental benefits to cancer survivors.[43, 44] A lack of understanding and communication places cancer survivors in Iraq at risk of misusing opioids.

In addition, the stringent limitations on opioid painkillers disrupt the supply and demand for the substance. Opioid usage is widespread among cancer survivors worldwide, and the lack of pain management drives individuals to self-medicate or engage in substance abuse.[47] Consequently, promoting awareness and educating patients about the potential of tolerance and addiction to OUD is essential. Oncologists and cancer survivors must continue effective communication to fulfill their functional demands.[41]

Implications

Significant new information has been contributed to the current literature regarding opioid prescriptions among cancer survivors in Iraq. The research has shed light on the obstacles that impede patient treatment in Iraq. As an ethical and health concern, healthcare authorities and policymakers in Iraq can use the study's findings to address the issue of rigorous regulation and extensive paperwork. In addition, healthcare officials in Iraq should monitor the safe use of opioids and raise cancer patients' and survivors' understanding of risk tolerance and drug addiction. Oncologists should establish effective communication with cancer survivors to appropriately prescribe opioid drugs and raise awareness about their proper use.

Limitations and future research recommendation

While the study has supplied extensive knowledge on the topic, it has limits that future researchers should consider. A qualitative technique was used for the analysis, which resulted in a thorough comprehension; however, a quantitative approach can be used for a more comprehensive investigation of the topic. Another disadvantage of our study is that cancer survivors' perceptions were not assessed. Therefore, future research can combine cancer survivors' perspectives to comprehend the usage, handling, and availability of opioid painkillers.

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