Barriers to Pain Management among Cancer Patients in Critical Care Units from Patients’ Perspectives

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1. ABSTRACT

Background: Cancer patients suffering from pain especially those admitted to critical care units. Many barriers can hinder cancer pain management. Identifying and managing such barriers will help to decrease some of the patients’ sufferings. Aim: This study aimed to identify barriers to pain management among cancer patients in critical care units from patients’ perspectives. Method: A descriptive research design was used with a sample of 150 critically ill cancer patients from the critical care unit of Mit Ghamr Oncology Center. Pain Management Barriers Patients’ Questionnaire was used to collect data for this study. Results: The most perceived pain management barriers from patients’ perspectives were related to pain medication, patients, and hospital policy (Mean±SD 12.59±6.85, 13.52±6.43 & 3.24±2.25 respectively). Conclusion: Cancer patients face many barriers to pain management related to pain medication, the patients, and hospital policy. Recommendations: There is a need for pain management policy in CCUs and educational programs for cancer patients to help them to express their feelings and manage their pain.

Keywords: Barriers to pain management, Cancer pain, Cancer patients

2. Introduction

Pain is the greatest concern of patients in critical care units (CCUs). Uncontrolled pain triggers physical and emotional stress responses, inhibits healing, increases the risk of other complications, and increases the length of CCU stay. Most critically ill patients (CIPs) experience moderate to severe pain (Chelazzi, Falsini, & Gemmi, 2018). Pain management is a topic of wide interest to healthcare professionals and healthcare institutions because of its significant effect on patients’ and families’ quality of life and its contribution as an accreditation requirement. Adequate cancer pain management is a fundamental human right (Gafaar et al., 2020).

The global cancer burden is expected to be 28.4 million cases in 2040 (Sung et al., 2021). Egypt was the leading country in cancer incidence with 134,632 new cases and 89,042 deaths (Sharma et al., 2022). One of the most significant, costly, and terrible symptoms of cancer is pain, which is considered a fifth vital sign in cancer patients. It is also the main factor that adversely affects patients’ quality of life. Between 39% and 66.4% of cancer patients report experiencing pain and this percentage rises as the disease progresses. For cancer patients, dealing with cancer pain is still a major challenge (Bouya et al., 2019).

Although cancer may be considered an end-of-life disease, the right to a healthy and pain-free life should not be denied for cancer patients and every effort must be made to prevent their suffering (Wang et al., 2019). In 90% of cancer patients, pain can be relieved with effective pain management by health professional services such as pain assessment, pain treatment, health education, and psychological care (Lou & Shang, 2017).

Cancer patients experience many barriers to cancer pain management. These barriers include cognitive barriers which are represented by fear of physiological dependence, fatalism, and poor pain communication; sensory barriers such as patients’ fear of drug side effects and affective barriers as anxiety and depression (Ibrahim, Khraim, and Al-Tawafsheh, 2020).

Ware and Cagle (2021) identified patients’ barriers to pain management as fear of addiction, poor communication, under-reporting of pain, concerns about painkillers’ side effects, worry about overdose, fatalism, fear of being a burden to others, and concerns about the patient developing a tolerance. Additionally, a lack of information and follow-up from healthcare professionals can make the patient believe that the problems are unsolvable, and the patient may stop the medication or alter the dosage (Can, Mushani, Rajhi & Brant, 2019).
From our experience in clinical practice, cancer patients still complain of severe pain despite advanced technology and highly qualified staff involved in Mit Ghamr Oncology Center CCU. Moreover, revising patients’ medical records revealed high severity scores of pain.

2.1 Research Aim:
This study aims to identify barriers to pain management among cancer patients in critical care units from patients’ perspectives.

2.2 Research Question:
What are the barriers to pain management among cancer patients in critical care units from patients’ perspectives?

3. Method
3.1 Research Design:
A descriptive research design was used to conduct the current study. The strength of this design is that it is practical and suitable for the nature of research that describes the characteristics of the population or a phenomenon studied (Sahin & Mete, 2021).

3.2 Setting:
This study was carried out in the CCU of Mit Ghamr Oncology Center. This unit has a capacity of seven beds. It provides healthcare services for both conscious and unconscious oncology patients with different types of cancer. This unit has the most recent technology and the manpower needed for the management of critically ill cancer patients.

3.3 Sample:
The study involved a purposive sample of 150 critically ill adult cancer patients of both genders who were conscious, able to communicate, and willing to participate in this study, and who were admitted to the previously mentioned setting during the study period.

3.4 Patients’ Sample Size Calculation
The sample size was calculated using the G power 3.0.10 program. The alpha error level is 5% and the confidence interval is 95%. The beta error level is 20% and the statistical power of the study is 80%. Hence, the sample size will be at least 147 patients, which compensates for non-responders and defaulters. The determined sample size was 150 patients. The significance level of the test was targeted at 0.05 (Wang & Tsai, 2010).

3.5 Data Collection Tool
One tool was developed to collect data for the current study: Pain Management Barriers Patients’ Questionnaire. It included two parts. The primary investigator (PI) developed this tool based on reviewing the relevant literature (Batih, 2014; D’emeh, Yacoub, Darawad, Al-Badawi, & Shahwan, 2016; Maiyo, Alaa-Eldin, & Yakout, 2018; Boyd-Seale et al., 2010; Valeberg, Miaskowski, Paul, & Rustoen, 2016; Zuccaro et al., 2012). It consists of two parts as follows:

Part I: Patients’ Socio-Demographic Characteristics and Health-Relevant Data
This part was used to collect data about participants’ socio-demographic characteristics including age, gender, marital status, level of education, causes of admission to the CCU, cancer status, past medical history, type of cancer, and the length of CCU stay.

Part II: Patients’ Perspective on Pain Management Barriers Questionnaire
This part was used to identify barriers to pain management from the patients’ perspectives. It involved barriers related to the patient, pain medication, and hospital policy such as patients did not want to annoy nurses, fear of painkillers’ injection, worrying about the painkillers’ unmanageable side effects, thinking that painkillers will cause weakness of the immune system, and hospital policy does not allow patients to get pain killers from outside the hospital.

The scoring system was distributed as follows: items were rated on a four point Likert scale ranging from 'not a barrier' to 'severe barrier' with (0) not a barrier, (1) small barrier, (2) medium barrier, and (3) severe barrier. High scores indicate a high level of perceived barriers to pain management and a lower score indicates a lower level of perceived barriers. A low level of perceived pain management barriers was between 50% and < 75%, a moderate level of perceived barriers to pain management was between 50% and < 75%, and a high level of perceived barriers was 75% and more (Attia, Abd-Elaziz, & Kandeel, 2013).

3.6 Validity and Reliability
The tool was tested for its content validity by a panel of five experts from the Critical Care and Emergency Nursing and Medical fields. The panel involved two consultant intensivists from Mit Ghamr Oncology Center and three lecturers from Critical Care and Emergency Nursing Department, Faculty of Nursing, Mansoura University. Using
Cronbach’s Alpha, the tool’s reliability was tested, and the result was 0.92, indicating a high reliable tool.

3.7 Pilot study

A pilot study was conducted on fifteen patients to assess the comprehensiveness, feasibility, clarity, and applicability of the data collection tool. The piloted patients were excluded from the study sample.

3.8 Ethical Considerations

Ethical approval was obtained from the Research Ethics Committee of the Faculty of Nursing – Mansoura University. Official permission to conduct the study was secured from the director of Mit Ghamr Oncology Center after explaining the nature of the study. Participant patients were informed about the details of the study including the aim, benefits, and probably risks. They were also informed about the voluntary nature of the study, and their right to withdraw at any stage without responsibility.

3.9 Data Collection Process

The PI collected the data between January and December 2020. Permission was obtained to conduct the study from the hospital’s administrative authority. Patients were screened for eligible participants. Upon agreeing to participate in the research, the patients’ questionnaire was distributed to patients to fill out during morning shifts and it took between 30 and 45 minutes to complete it. The PI was available to help participants if they needed any explanation during filling out the questionnaire. For illiterate patients, the PI read the questionnaire and recorded their selected answers.

3.10 Data Analysis

After completing data collection, it was analyzed using the Statistical Package for Social Sciences (SPSS) program version 22. The categorical variables were represented as numbers and percentages. Continuous variables were represented as means and standard deviations. An independent t-test was used to test the difference between the two means of continuous variables. The ANOVA test was used to determine the difference between more than two means of continuous variables. The p-value for statistical significance was considered at ≤ 0.05.

4. Results

Table 1 reveals the socio-demographic characteristics of the patients. The results showed that the mean age of the participant patients was 52.06 ± 7.02 and that 51.3% were above 50 years old. The results also illustrated that 76% of the participant patients were females, and 83.3% were married. The biggest proportions of the participants (33.3%) were illiterate and 30.7% had secondary school education.

Table 2 presents the health profile of the patients. It revealed that 58.7% of participants had non-metastasizing cancer and that 74.7% of them had been admitted to the CCU postoperatively. The biggest proportion of the participant patients (38%) has no past medical history. The most often reported past medical history was hypertension (HTN), followed by diabetes mellitus (DM) and HTN (20.7% and 16%, respectively). Additionally, 30.7% of the participants were diagnosed with gastrointestinal tract (GIT) cancer and 26% had gynecological cancer. The mean ± SD length of stay in the CCU among the participant patients was 4.67± 2.96, and 54% stayed in the CCU for less than five days.

Table 3 illustrates patients’ perspectives on pain management barriers related to the patient. It showed that the participants perceived having concerns about the side effects of painkillers (40%) and difficulty in completing pain scales (36.7%) as severe barriers to pain management (1.69±1.26 &1.65±1.22 respectively). On the other hand, the participant did not see not wanting to annoy nurses (59.3%), thinking that pain is a test from God (57.3%), or fearing of annoying the doctor (54%) as barriers to pain management.

Table 4 describes patients’ perspectives on pain management barriers related to pain medication. It showed that the most significant (severe) barrier to pain management, according to nearly half of the participant patients (49.3%) was worrying about the painkillers’ unmanageable side effects such as constipation, confusion, and drowsiness (Mean ±SD 1.91±1.22). Similarly, participant patients rated worrying about becoming addicted to painkillers (35.3%), fearing painkillers' injection (37.3%), and thinking that painkillers will weaken the immune system (33.3%) as severe barriers to pain management (Mean± SD 1.57±1.27 & 1.72±1.22 & 1.62±1.20 respectively). However, according to the participant patients, imagining that painkillers could make them say embarrassing things (42%) and preferring to tolerate pain rather than experiencing the side
effects of painkillers (34%) were not barriers to pain management (Mean± SD 1.19±1.23 & 1.40±1.23 respectively).

Table 5 shows patients’ perspectives on pain management barriers related to hospital policy. The fact that the patients were not allowed to get painkillers from outside the hospital (45.3%) was found the most significant (severe) hospital policy barrier to pain management. However, participants did not view the unavailability of painkillers sometimes in the hospital or the restriction on their prescription to a pain management physician as barriers to pain management (53.3% & 52.0% respectively).

Table 6 describes the relationship between patients’ perspectives on pain management barriers and their socio-demographic characteristics. A positive significant relationship was found between the age of the participants and their perception of pain management barriers ($P = 0.04$). However, no relationship was noted between the patients’ perception of pain management barriers and their gender, marital status, or level of education ($P = 0.71$ & 0.07 respectively).

Table 1: Socio-demographic Characteristics of the Patients

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 20-30</td>
<td>9</td>
<td>6.0</td>
</tr>
<tr>
<td>• 31-40</td>
<td>28</td>
<td>18.7</td>
</tr>
<tr>
<td>• 41-50</td>
<td>36</td>
<td>24.0</td>
</tr>
<tr>
<td>• ≥50</td>
<td>77</td>
<td>51.3</td>
</tr>
<tr>
<td><strong>Mean±SD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>52.06±7.02</td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>36</td>
<td>24.0</td>
</tr>
<tr>
<td>• Female</td>
<td>114</td>
<td>76.0</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Single</td>
<td>6</td>
<td>4.0</td>
</tr>
<tr>
<td>• Married</td>
<td>125</td>
<td>83.3</td>
</tr>
<tr>
<td>• Widowed</td>
<td>19</td>
<td>12.7</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Illiterate</td>
<td>50</td>
<td>33.3</td>
</tr>
<tr>
<td>• Primary education</td>
<td>18</td>
<td>12.0</td>
</tr>
<tr>
<td>• Preparatory education</td>
<td>15</td>
<td>10.0</td>
</tr>
<tr>
<td>• Secondary education</td>
<td>46</td>
<td>30.7</td>
</tr>
<tr>
<td>• Bachelor education</td>
<td>21</td>
<td>14.0</td>
</tr>
</tbody>
</table>

Data are expressed as numbers (n), frequency (%), SD: Standard Deviation

Table 2: Health Profile Data of the Patients

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Admission causes to the CCU</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Medical cancer diagnosis</td>
<td>38</td>
<td>25.3</td>
</tr>
<tr>
<td>• Post-operative cancer diagnosis</td>
<td>112</td>
<td>74.7</td>
</tr>
<tr>
<td><strong>Cancer Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Metastasis</td>
<td>62</td>
<td>41.3</td>
</tr>
<tr>
<td>• Non-Metastasis</td>
<td>88</td>
<td>58.7</td>
</tr>
<tr>
<td><strong>Past Medical History</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No medical history</td>
<td>57</td>
<td>38.0</td>
</tr>
<tr>
<td>• HTN</td>
<td>31</td>
<td>20.7</td>
</tr>
</tbody>
</table>
Barriers to Pain Management among Cancer

- Heart disease
  - Frequency: 9
  - Percentage: 6.0
- D.M
  - Frequency: 15
  - Percentage: 10.0
- Kidney disease
  - Frequency: 5
  - Percentage: 3.3
- HTN & heart disease
  - Frequency: 5
  - Percentage: 3.3
- HTN & D.M
  - Frequency: 24
  - Percentage: 16.0
- Stroke & Hepatitis
  - Frequency: 4
  - Percentage: 2.7

**Type of Cancer**
- Breast cancer
  - Frequency: 29
  - Percentage: 19.3
- Prostate cancer
  - Frequency: 2
  - Percentage: 1.3
- GIT cancer
  - Frequency: 46
  - Percentage: 30.7
- Gynecological cancer
  - Frequency: 39
  - Percentage: 26.0
- Head and neck cancer
  - Frequency: 19
  - Percentage: 12.7
- Lung cancer
  - Frequency: 5
  - Percentage: 3.3
- Lymphoma
  - Frequency: 10
  - Percentage: 6.7

**Length of CCU Stay**
- < 5 days
  - Frequency: 81
  - Percentage: 54.0
- ≥ 5 days
  - Frequency: 69
  - Percentage: 46.0

**Mean±SD**: 4.67±2.96

Data are expressed as numbers (n), frequency (%), SD: Standard Deviation, D M: Diabetes Mellitus, HTN: Hypertension, GIT: Gastrointestinal Tract, CCU: Critical Care Unit

**Table 3** Patients’ Perspective on Pain Management Barriers Related to the Patient

<table>
<thead>
<tr>
<th>Pain Management Barriers</th>
<th>Not a Barrier</th>
<th>Small Barrier</th>
<th>Medium Barrier</th>
<th>Severe Barrier</th>
<th>Mean±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The patient does not want to annoy nurses.</td>
<td>89</td>
<td>59.3</td>
<td>26</td>
<td>17.3</td>
<td>23 15.3</td>
</tr>
<tr>
<td>Preferring to report pain to the doctor, not to the nurse.</td>
<td>57</td>
<td>38.0</td>
<td>37</td>
<td>24.7</td>
<td>25 16.7</td>
</tr>
<tr>
<td>Thinking that a doctor's priority is to manage illness not to control pain.</td>
<td>51</td>
<td>34.0</td>
<td>43</td>
<td>28.7</td>
<td>34 22.7</td>
</tr>
<tr>
<td>Fearing annoying the doctor if he talks about pain.</td>
<td>81</td>
<td>54.0</td>
<td>31</td>
<td>20.7</td>
<td>26 17.3</td>
</tr>
<tr>
<td>Hesitating to report pain.</td>
<td>70</td>
<td>46.7</td>
<td>37</td>
<td>24.7</td>
<td>35 23.3</td>
</tr>
<tr>
<td>Lacking self-motivation to comply with prescribed medical treatment.</td>
<td>54</td>
<td>36.0</td>
<td>23</td>
<td>15.3</td>
<td>29 19.3</td>
</tr>
<tr>
<td>Believing that talking about pain means that a complainer patient.</td>
<td>81</td>
<td>54.0</td>
<td>37</td>
<td>24.7</td>
<td>20 13.3</td>
</tr>
<tr>
<td>Concerns about the side effects of painkillers.</td>
<td>43</td>
<td>28.7</td>
<td>21</td>
<td>14.0</td>
<td>26 17.3</td>
</tr>
<tr>
<td>Difficulty in completing pain scales.</td>
<td>38</td>
<td>25.3</td>
<td>32</td>
<td>21.3</td>
<td>25 16.7</td>
</tr>
<tr>
<td>Thinking that will be a good patient if not complain of pain.</td>
<td>80</td>
<td>53.3</td>
<td>38</td>
<td>25.3</td>
<td>19 12.7</td>
</tr>
<tr>
<td>Believing that pain is an inevitable\avoidable part of having cancer.</td>
<td>45</td>
<td>30.0</td>
<td>31</td>
<td>20.7</td>
<td>38 25.3</td>
</tr>
<tr>
<td>Thinking that pain is a test from God and bearing it will help to have faith in Allha.</td>
<td>86</td>
<td>57.3</td>
<td>10</td>
<td>6.7</td>
<td>15 10.0</td>
</tr>
</tbody>
</table>

Data are expressed as number (n), frequency (%), SD: Standard Deviation
Table 4: Patients’ Perspective on Pain Management Barriers Related to Pain Medication

<table>
<thead>
<tr>
<th>Pain Management Barriers</th>
<th>Not a Barrier</th>
<th>Small Barrier</th>
<th>Medium Barrier</th>
<th>Severe Barrier</th>
<th>Mean±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worried about becoming addicted to painkillers.</td>
<td>49</td>
<td>32.7%</td>
<td>20</td>
<td>13.3%</td>
<td>28</td>
</tr>
<tr>
<td>Fearing becoming tolerant to painkillers.</td>
<td>37</td>
<td>24.6%</td>
<td>31</td>
<td>20.7%</td>
<td>30</td>
</tr>
<tr>
<td>Fearing painkillers’ injection.</td>
<td>40</td>
<td>26.7%</td>
<td>18</td>
<td>12.0%</td>
<td>36</td>
</tr>
<tr>
<td>Believing that analgesics will not be effective if the pain gets worse.</td>
<td>41</td>
<td>27.3%</td>
<td>32</td>
<td>21.3%</td>
<td>31</td>
</tr>
<tr>
<td>Thinking that painkillers will cause weakness in the immune system.</td>
<td>40</td>
<td>26.7%</td>
<td>27</td>
<td>18.0%</td>
<td>33</td>
</tr>
<tr>
<td>Preferring tolerating pain rather than experiencing the side effects of painkillers.</td>
<td>51</td>
<td>34.0%</td>
<td>32</td>
<td>21.4%</td>
<td>23</td>
</tr>
<tr>
<td>Imagining that painkillers can make him/her say embarrassing things.</td>
<td>63</td>
<td>42.0%</td>
<td>35</td>
<td>23.3%</td>
<td>13</td>
</tr>
<tr>
<td>Worrying about the painkillers’ unmanageable side effects such as constipation, confusion, and drowsiness.</td>
<td>31</td>
<td>20.7%</td>
<td>26</td>
<td>17.3%</td>
<td>19</td>
</tr>
</tbody>
</table>

Data are expressed as number (n), frequency (%), SD: Standard Deviation

Table 5: Patients’ Perspective on Pain Management Barriers Related to Hospital Policy

<table>
<thead>
<tr>
<th>Pain Management Barriers</th>
<th>Not a Barrier</th>
<th>Small Barrier</th>
<th>Medium Barrier</th>
<th>Severe Barrier</th>
<th>Mean±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unavailability of painkillers sometimes in the hospital.</td>
<td>80</td>
<td>53.3%</td>
<td>49</td>
<td>32.7%</td>
<td>16</td>
</tr>
<tr>
<td>Hospital policy does not allow patients to get painkillers from outside the hospital.</td>
<td>38</td>
<td>25.3%</td>
<td>28</td>
<td>18.7%</td>
<td>16</td>
</tr>
<tr>
<td>Prescribing painkillers in the hospital sometimes is restricted to a pain management physician who attends two days a week.</td>
<td>78</td>
<td>52.0%</td>
<td>32</td>
<td>21.3%</td>
<td>26</td>
</tr>
</tbody>
</table>

Data are expressed as number (n), frequency (%), SD: Standard Deviation

Table 6: The Relation Between Patients’ Perspectives on Pain Management Barriers and Their Socio-demographic Characteristics

<table>
<thead>
<tr>
<th>Socio-demographic Characteristics of the Participant Patients</th>
<th>Perceived Pain Management Barriers</th>
<th>t /or F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
<td>Mean±SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 20-30</td>
<td>19.56±10.20</td>
<td>2.86</td>
<td>0.04</td>
</tr>
<tr>
<td>• 31-40</td>
<td>26.86±11.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 41-50</td>
<td>29.00±13.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ≥50</td>
<td>31.57±13.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Mean±SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>30.78±12.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Female</td>
<td>28.90±13.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td>Mean±SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Single</td>
<td>26.33±15.38</td>
<td>0.33</td>
<td>0.71</td>
</tr>
<tr>
<td>• Married</td>
<td>29.73±13.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Divorced</td>
<td>27.84±12.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Education</td>
<td>Mean±SD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Barriers to Pain Management among Cancer

- Illiterate: 32.24±14.93
- Primary education: 32.17±13.31
- Preparatory education: 28.33±14.72
- Secondary education: 28.32±10.86
- Bachelor education: 23.05±9.48

Data are expressed as SD: Standard Deviation & t: Independent test, F: ANOVA test

(*) statistically significant at \( p \leq 0.05 \).

5. Discussion

According to the findings of the current study, slightly more than half of the participant patients were above fifty years old. This could be explained by the fact that the majority of cancers are considered to be age-related diseases because the prevalence of the majority of cancer rises with age. This may also be related to prolonged exposure to carcinogens such as sunlight, radiation, environmental chemicals, and harmful substances in some food (Gale, 2022). This is consistent with the findings of a recent Egyptian study (Hassan, Masaud, Mohammed, & Ramadan, 2021).

The majority of the participant patients were females. This might be explained by the fact that only women are affected by specific cancers, such as breast, endometrial, cervical, and ovarian cancer. On the other hand, it was reported that males had higher cancer incidence rates than females (Zeng, Li, Lin, & Mizuno, 2020). This discrepancy can be the result of the researchers using a particular cancer diagnosis in their investigation.

The majority of the participant patients were married, and the biggest proportion of them were illiterate. Similarly, Abdel-Hafeez et al. (2021) reported that more than two-thirds of the patients were females, and the majority of them were married, and uneducated.

The majority of participants in the current study were admitted to the CCU postoperatively following oncology surgery. This is because, after such surgeries, oncology patients require close monitoring and specialized care from highly qualified staff, much like in the CCU. More than half of them had non-metastasis cancer. This may be due to the presidential initiatives and awareness campaigns in Egypt over the previous four years for early cancer detection and treatment. The Egyptian Health and Population Ministry announced that 20,839,336 women were examined under the Egyptian Women's Health Initiative (The Egyptian Health and Population Ministry, 2021).

The results also showed that HTN, followed by DM and HTN, was the most prevalent past medical history. Indeed, HTN and DM are considered the most common chronic diseases in Egypt (Aldugiem et al., 2021; El-Feky & Ali, 2020). Also, according to the International Diabetes Federation, the prevalence of DM among Egyptian adults is 15.2% (Abouzid, Ali, Elkawas, & Elshafei, 2022).

According to the results of the current investigation, the large percentage of patients were diagnosed with GIT cancer followed by the gynecological cancer. This may be because GIT cancer includes several cancer types, including stomach, colon, and liver cancer. The majority of the participant patients with gynaecological cancer were female, and various hormonal changes that take place as women age have an impact on the female reproductive system (National Cancer Institute, 2015). This is consistent with the findings reported by Mejin et al. (2019) that the gynaecological cancer was the most prevalent cancer type in their patients followed by gynecological cancer. Also, an Egyptian study showed that the most common cancer types were breast cancer among females and liver cancer among males (Khaled and Soliman, 2021).

According to the findings, more than one-third of the participant patients rated concerns about the side effects of painkillers as the most severe barriers to pain management related to the patient, followed by difficulty in completing pain scales. This could be explained by the patients' negative experience with side effects of the analgesics. Furthermore, it was reported that more than half of the patients in the study were over fifty. They might perceive their pain is a natural part of aging (Noroozian, Raeesi, Hashemi, Khedmat, & Vahabi, 2018).

These findings are consistent with other studies which reported that cancer patients who experience pain discontinue taking their analgesics because of the severity of side effects (Manzano, Ziegler, & Bennett, 2014; Meghani & Bruner, 2013; Meghani, Thompson, Chittams, Bruner,
Additionally, Bibi, Begum, Kausar, and Farooqi (2021) reported that it was difficult for cancer patients to rate their pain on the pain scales. On the contrary, Dequcker, Van-Lancker, and Van-Hecke (2017) showed that more than half of their patients had no troubles in determining the severity of their pain on the pain scales. The participants’ varying levels of education could be the cause of this discrepancy.

More than half of the participant patients believe that not wanting to annoy nurses or doctors by complaining about their pain, to be a good patient if not complained and thinking that pain is a test from God and bearing it will help them to have faith in Allah are not barriers to pain management. This is in harmony with Rodríguez, Wang, Padhya, and McMillan’s (2019) study which illustrated that patients believed that their doctor would be annoyed if they told them about the pain. Boyd-Seale et al. (2010) reported that cancer patients did not think that avoiding complaining about their pain was to be a good patient was not a barrier to pain management. Some Chinese studies reported that cancer patients who want to be a good patients think expressing their pain is a sign of weakness (Grant, Ugalde, Vafiadis, & Philip, 2015; Tung & Li, 2015). This may be due to Chinese patients’ belief of having joy or sorrow without expressing feelings. Pain is a subjective experience and affected by the belief and cultural background of the patients (Givler, Bhatt, & Maani-Fogelman, 2023). According to Orujlu et al. (2022) patients believe that pain and illness are God’s will. The reason for this is that Muslim patients believe that through going through enduring pain, they might atone for the sins they committed during their lives (Asadzandi, 2019).

Concerning patients’ perspectives of pain management barriers related to medication, nearly half of the participant patients rated worrying about the painkillers’ unmanageable side effects such as constipation, confusion and drowsiness as the most significant (severe) barrier to pain management. These findings are consistent with those of Valeberg et al. (2016) who reported patients’ fear of the side effects of painkillers such as drowsiness and confusion.

These findings are in the same line with a study by Dequcker et al. (2017) which illustrated that more than one-third of their patients reported being reluctant to take painkillers because of worrying about its side effects.

According to the current study, more than one third of participant patients rated worrying about becoming addicted to painkillers, fearing of painkillers’ injection, and thinking that using painkillers may weaken their immune system as severe barriers to pain management. Lee- DZF, Kiu-DK, and Voon (2018) reported that one of the most prevalent misconceptions by the cancer patients was the belief that painkillers will compromise their immune systems and lead to addiction. Our results agree with those of other studies. Ayoub, Jibreel, Nuseir, and Al-Taani (2022) found that patients’ fear of addiction and adverse effects of painkillers were barriers to pain management. According to Duncanson et al. (2021), patients with cancer, diabetes, and kidney failure had fear of painkiller injections.

On the other hand, a considerable percentage of participant patients believed that using painkillers might cause them to say embarrassing things, and they preferred tolerating pain instead of experiencing the side effects of painkillers. Despite this, this belief was not a barrier to pain management. These findings are in line with those of Maiyo et al. (2018), who found that patients would rather tolerate discomfort than experience the negative side effects of painkillers. Eshete et al. (2019) also noted that due to worries about becoming dependent on painkillers, patients preferred to tolerate and deal with severe pain. Eshete et al. (2019) also noted that due to worries about becoming dependent on painkillers, individuals preferred to withstand and manage severe pain.

The findings of the current study showed that the hospital policy that prohibits patients from obtaining painkillers from sources outside the hospital was perceived by the patients as a severe barrier to pain management. The hospital pays close attention to the safety of cancer patients and requires that any analgesics used by patients while they are in the hospital come from the hospital pharmacy and be administered with the approval and guidance of the responsible doctor and pharmacist. The current study setting adopt the Egyptian medication management and safety standard that emphasizes patients’ safety in using medication (Ismail, 2021).

On the other hand, slightly more than half of the participant patients did not view the unavailability of painkillers sometimes in the hospital, or the restriction of painkiller's prescription to a pain management physician as a barrier to pain management. Some patients
respond better to certain painkillers than others, so pain management is always individualized and necessitates a pain physician’s consultation. To meet the demands of patients, especially cancer patients, the Egyptian Medicines Authority consistently supplies hospitals with a variety of painkillers.

Mejin et al. (2019) reported that the government provide opioids for cancer patients and are available in hospitals with chemists and specialists. Hence, access to opioid was not a problem for pain management. However, Coyne, Mulvenon, and Paice (2018) reported that a lack of pain specialists and restricted access to opioids are two barriers to pain management related to hospital policy. The fact that not all therapies are covered by medical insurance could account for this discrepancy.

A positive significant relationship was noted between the age of the participants and their perception of pain management barriers. More than half of the participants were over the age of fifty, which may have contributed to their negative attitudes towards seeking pain management due to their belief that pain is a natural part of being old (Noroozian et al., 2018).

These findings support the results of Stein, Kassandra, Alcaraz, Kamson, and Fallon (2016) which illustrated that older cancer patients had a high level of perception of pain management barriers.

According to the current study, no relationship was found between the patients’ perception of pain management barriers and their gender, marital status, or degree of education. In contrast, a study conducted in the United States of America by Emanuel, Godinho, Steinman, and Updegraff (2018) revealed that a lower educational level was associated with more cancer pain management barriers. A cross-sectional study conducted in Mainland China by Zeng et al. (2020) to investigate the attitude toward pain management barriers and associated factors among cancer patients illustrated that female patients showed higher mean scores for pain management barriers than male patients. The investigators also found that patients with Bachelor’s education or higher had the lowest mean score for pain management barriers. This discrepancy may be due to the cultural differences in the above-mentioned study as it was conducted in China.

6. Conclusion and Recommendations

The current study provided a rounded picture of the pain management barriers from the perspectives of cancer patients. The significant perceived barriers reported in this study were related to the pain medications, the patients, and the hospital policy. In order to reduce these significant barriers, the findings compel healthcare policymakers to implement cancer pain management policies in hospitals and pay attention to cancer patients’ education about expressing and managing pain.

7. Limitations of the current study

The limited sample size and the collection of data from one hospital restrict the generalizability of the study findings.

8. Acknowledgment

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9. Statement of Competing Interests

The authors acknowledged no latent conflicts of interest regarding this study, authorship, and/or publication of this research.

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