

Barriers to Pain Management as Perceived by Nurses Working at Surgical Units

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Abstract

Background: Pain is a clinical challenge for the practicing nurses. Nurses working at surgical unit do not provide adequate pain management, to meet patients' expectations in treating their pain, and struggle to change their practice regarding pain management. **Objective:** This study aimed to identify barriers to pain management as perceived by nurses working at surgical units, at Alexandria Main University Hospital (AMUH) and Health Insurance Hospital (Gamal Abdelnasser) (HIH). **Setting:** The study was conducted at "the surgery units" of (AMUH) and (HIH). **Subjects:** The subjects of this study comprised a convenient sample of 90 nurses working in the above-mentioned units: 40 nurses from (AMUH) and 50 nurses from (HIH). **Tool:** One tool was used for data collection entitled Postoperative Pain Management Barriers as perceived by nurses. It included three categories; Healthcare system -related barriers, Healthcare professionals-related barriers and Patient -related barriers. **Results:** The results revealed that nurse who participated in the study were of high educational background (bachelor) and practical nurses (diploma), The major healthcare system-related barriers perceived by those nurses were "low priority given to pain treatment", "failure to adopt a specific assessment tool" "specific pain management "and absence of pain management policy". Healthcare professionals' barriers included "inadequate knowledge and training of pain management". Patient-related barriers comprised "dissatisfaction with pain management" "underestimating the level of pain", and "failure to report pain to the nurse/physician accurately. **Conclusion:** It can be concluded that, the most commonly encountered barriers amongst the three studied categories were those related to health care system followed by health professional and patient barriers. **Recommendations:** Recommendations involved, training programs related to pain management conducted for nurses working at surgical units.

Keywords: acute pain, barriers in pain management

Introduction

Pain is one of the most common reasons for patients to seek medical attention and one of the most prevalent medical complaints in the world⁽¹⁾.

Despite health personnel lack skills of pain control, and still many patients suffer needlessly. In the United States, it has been estimated that 25 million people suffer

Barriers to Pain Management

acute pain resulting from surgery or accident⁽²⁾. In Egypt so far no statistical records, are available about pain.

Despite the increased focus on pain management programs and the development of new standards for pain assessment, postoperative pain (POP) remains a concern for many patients in health care settings. Postoperative pain constitutes a healthcare challenge, requiring knowledge in how to prescribe and administer drugs, assess and reassess pain, and a broad understanding of cultural and ethnic responses to pain and pain management. Improvements in pain management may be hindered by a lack of hospital financial resources and scarcity of educational programs designed to address these problems^(2, 3).

Pain causes an increase in the sympathetic response of the body with subsequent rises in heart rate, cardiac work and oxygen consumption⁽³⁾. Prolonged POP can reduce physical activity and lead to venous stasis and an increased risk of deep vein thrombosis and consequent pulmonary embolism. In addition, there can be widespread effects on gut and urinary tract motility which may lead, in turn, to postoperative ileus, nausea, vomiting and urinary retention⁽⁴⁾. These problems are unpleasant for the

patient and may prolong hospital stay. Therefore, effective postoperative pain control is an essential component of the care of the surgical patient. The advantages of effective postoperative pain management include patient comfort, satisfaction, earlier mobilization, fewer pulmonary and cardiac complications, a reduced risk of deep vein thrombosis, faster recovery with less likelihood of the development of neuropathic pain, and reduced cost of care⁽⁵⁾.

Inadequate pain control, apart from being unhumane, may result in increased morbidity or mortality^(6, 7). Evidence suggests that surgery suppresses the immune system and that this suppression is proportionate to the invasiveness of the surgery. Good analgesia can reduce this deleterious effect⁽⁴⁾. Postoperative pain relief must reflect the needs of each patient and this can be achieved, only if many factors are taken into account⁽⁵⁾.

Barriers to the effective pain management are numerous, complex, and resistant to change. These barriers exist at all levels of the healthcare system. The Agency for Healthcare Research and Quality summarized these barriers into three categories: *healthcare system barriers, healthcare professionals barriers and patient's related barriers*^(1, 2).

Healthcare System Barriers to pain assessment and management include a historical absence of clearly articulated practice standards and failure to make pain relief a priority. Some healthcare organizations have failed to adopt a standard pain assessment tool or provide health staff with sufficient time and chart space for documenting pain-related information⁽⁶⁾. What's more, inadequate health insurance to cover healthcare costs may interfere with the proper pain management. Adding to this, fragmented patient care increases the risk of poor coordination of care across treatment settings^(1, 7).

Healthcare Professionals Barriers include lack of the proper knowledge to assess and treat pain effectively. Many nurses/physicians are not trained to adequately assess pain, and commit several mistakes in doing so, such as: failure to ask directly about pain levels, inconsistent use of rating scales, and failure to document what has been assessed⁽⁸⁾. Multiple studies have demonstrated that healthcare professionals tend to underestimate patients' pain ratings, often by a significant amount⁽⁸⁾. Even after adequate assessment, many nurses/physicians fail to prescribe adequate classes and doses of analgesics.

Negative attitudes toward prescribing analgesics and opioids, and inadequate pain-assessment skills combine to create major barriers to pain relief⁽⁹⁾. The **healthcare system** itself can hinder pain relief through practical constraints in the community and fear of regulatory scrutiny by the **health team**. Also, lack of knowledge about pain management either pharmacological or non-pharmacological, may interfere with proper pain management⁽¹⁰⁾.

Patient-Related Barriers also are considered a major driver of under treatment. It includes lack of communication, psychological and attitudinal issues and unwarranted fears of addiction, which further complicate pain assessment and treatment. Fear of addiction, tolerance, and patients as the most important concerns described side effects⁽¹¹⁾. Several patients' psychological factors can influence pain assessment and treatment, such as anxiety, distress, depression, and anger, all of which can complicate assessment by masking symptoms. It has been reported that some patients expressed the belief that pain was inevitable, indicating that they did not expect medication to relieve their pain⁽¹²⁾. Other patients, associated pain with worsening disease. Such concerns can result in patients' reluctance to report pain or comply with a regimen that involves opioid medication⁽¹³⁾.

Barriers to Pain Management

Therefore, identifying barriers to the post-operative patients' pain management is of beneficial value to improve their quality of life and expected clinical outcome.

Aim of Study

Identify barriers to pain management as perceived by nurses working at surgical units.

Research Question:

-What are the barriers to pain management as perceived by nurses at surgical units?

Materials and Method

Materials

Design: A descriptive research design was utilized for this study.

Setting: The study was conducted at the general surgical units (male and female department) at Alexandria Main University Hospital (AMUH) and Health Insurance Hospital (Gamal Abd-elناصر) (HIH) at Alexandria.

Subjects: A convenient sample of ninety female nurses voluntarily participated in both hospitals as follow:

- Forty nurses, Alexandria Main University Hospital consisting of: 34 staff nurses: 23 diploma

nurses, 7 technical nurses, and 4 bachelor nurses and 6 interns.

- Fifty nurses, Health Insurance Hospital (Gamal Abd-elناصر) consisting of: 42 diploma nurses, and 8 bachelor nurses.

Tool: One tool was utilized for this study:

Post-operative pain management barriers as perceived by nurses: structured interview schedule:

- This tool is a questionnaire sheet; developed by the researcher based on a review of related literature^(1, 2, 8, 11). It aimed to assess barriers for pain management at the surgical units. It includes (29) barriers in three categories.

- **Category one** represented 11 barriers about **Healthcare system barriers** as “low priority given to pain treatment”, “failure to adopt a specific assessment tool”, “failure to adopt a specific pain management” and “inadequate health insurance or no health insurance, for some patients”.

- **Category two** represented The **Healthcare professionals' barriers, which consist** of 8 barriers for example “inadequate knowledge of pain management”, “inadequate training in pain management”, “poor pain assessment and inadequate pain assessment”.

- **Category three** represented, **Patient barriers** which consists of 10 barriers as” failure to report pain to the nurse/

Barriers to Pain Management

physician accurately”, “underestimating the level of pain”, “overestimating the level of pain” and “dissatisfaction with pain management”.

- Nurses were asked to describe the degree of their responses to the barriers, in each category mentioned (*not a barrier, minor barrier, and major barrier*).

Method

- An official letter was obtained from the Faculty of Nursing, Alexandria University to the administrative personnel in the identified settings.
- Permissions to carry out the study were obtained from the responsible authorities of the chosen setting after explanation of the aim of the study.
- Tool of the study “*the postoperative pain management barriers as perceived by nurses: structure interview schedule*” was developed by the researcher in Arabic language and then tested for content validity by five expert in the field of medical surgical nursing and general surgery.

- Reliability of the developed tool was tested statistically by Cronbach's Alpha test, the reliability coefficient of the tool indicated a positive correlation ($r = 0.70$).
- A pilot study was conducted to ensure the clarity and applicability of the developed tool, and identify obstacles and problems that might be encountered during data collection. It was applied on five nurses who were caring for post operative patients at the selected setting. The data of the pilot was excluded from the study.
- Biosociodemographic data were collected from every nurse participating in the study.
- Data was collected from the identified subjects through structured interviews; each interview took about 30 to 45 minutes individually using the developed tool. Interview with the nurses were done in the morning at café break on their units.
- Data were analyzed to identify barriers to pain management as perceived by nurses in surgical units.

Ethical Considerations:

- Oral approval was obtained from nurses participating in the study, after explanation of the study aim.

Barriers to Pain Management

- Privacy and confidentiality were assured.
- Anonymity and right to withdraw from the study was respected.

Statistical Analysis

After collection, data were coded and transferred into a specially designed format so as to be suitable for computer feeding. Following data entry, checking and verification processes were carried out to avoid errors during data entry.

- Statistical analysis was performed using software program package SPSS/WIN.
- Descriptive measures included frequency, and percentage.
- Table of different characteristics was presented.

Results

Table (1) shows percent distribution of nurses according to their sociodemographic data.

The highest percentage (71.11%) of nurses had less than 30 years old. Concerning nursing categories, 76.67% of nurses were practical nurses, while less than two-thirds of nurses (65.56%) had less than 10 years of experience. In relation to the marital status, around three quarters i.e. 73.33% of the nurses were single.

Table (2) depicts healthcare system barriers to pain management as perceived by nurses working at surgical units. The major barriers perceived were “low priority given to pain treatment”, “failure to adopt a specific assessment tool” and “specific pain management and pain management policy” 100%. Minor barriers included to “failure to give staff sufficient time and space to document pain” 22.22% .

Table (3) illustrates healthcare professionals' barriers to pain management as perceived by nurses working at surgical units. The major barriers related to healthcare professionals, as perceived by nurses were both “inadequate knowledge and inadequate training of pain management”, as it well agreed upon all the studied subjects i.e. 100%. As noticed, 38 nurses i.e 95% at the AMUH, perceived “ethnic/racial/gender biases as a minor barrier. Whereas in the HIH, 45 nurses representing 90%, viewed this barrier, also as a minor barrier.

Table (4) displays patient barriers to pain management as perceived by nurses working at surgical units. The major patient barriers identified by nurses at the two settings were “dissatisfaction with pain management, despite moderate or severe pain”, “underestimating the level of pain” and “failure to report pain to the nurse/physician accurately” “identified by 100%, 67.78%, and 62.22% of the sample,

Barriers to Pain Management

respectively. The minor barriers perceived were “fear pain portends a serious illness or poor diagnosis” and “confusion of the appropriate clinical use of pain killers with addiction” indicated by 36.67% of the total sample.

Discussion

Refining the surgical pain management process will depend on continued education and emphasis on pain assessment and a proactive approach to pain management, provider groups' effective collaboration with each other and with patients, and overcoming legal, regulatory, and cost barriers^(16, 17). This trend was not obvious in the present study results, which revealed that all nurses regardless of their experiences and their level of education had significant barriers to managing pain adequately.

Concerning, *healthcare system barriers to pain management*, it was noticed that “absence of pain management policy” was considered as a **major** barrier. The purpose of pain management policy is to be responsible for the best level of pain control that can safely be provided in order to prevent unrelieved pain⁽¹⁸⁾. No doubt, pain management policies provide guidelines

to caregivers in how to assess, treat, and evaluate managing a patient's pain⁽¹⁹⁾.

Nurses participating in the present study viewed “low priority given to pain management” as a **major** barrier. The American Pain Society (APS) 1996 introduced the phrase “pain as the 5th vital sign”. Therefore, the evaluation of pain became a requirement of proper patient care, as important and basic, as the assessment and management of temperature, blood pressure, respiratory rate, and heart rate⁽²⁰⁾.

According to American, Canadian and Australian pain guidelines; acute post operative pain management extends from intravenous injections, pain controlled analgesia (PCA), to epidural injection^(20, 21, 22).” Failure to adopt a specific assessment tool” and “failure to adopt a specific pain management” were considered by nurses as **major barriers** related to healthcare system. Perhaps, absence of pain assessment formats and clear pain management standards, could have led to these barriers, considered as major obstacles by nurses, under study. These results are in congruence with Wood (2008) who stated that, assessment of a patient's experience of pain is a crucial component in providing effective pain management⁽²³⁾. These results, are in line too with Bonomi et al (1999) who stated that all nurses and other health providers should be

Barriers to Pain Management

knowledgeable about assessing and management, patients' pain as pain assessment is the first step for pain management⁽²⁴⁾.

Regarding *healthcare professionals barriers to pain management*, the results of the present study revealed that nurses perceived "inadequate knowledge of pain management" and "inadequate training in pain management" as **major** barriers. This might reflect the lack of adequate training, or in-service education programs, about pain management organized by their hospitals, throughout nurses lengthy experience, which for some, exceeded more than 10 year. In addition, the nurses had lack of basic knowledge about pain management strategies. The problem might be accentuated by the low priority given to pain management in undergraduate nursing education. Both bachelor and diploma nurses participants in the study claimed that, they received only one theoretical lecture about pain concept (around 90 minutes) in their undergraduate education. This goes in line with Mccaffery (2001) who demonstrated an urgent need to strengthen pain education for nurses that targets knowledge deficit⁽⁹⁾.

These previous results, also are in agreement with international studies, which attributed the problem to the lack of attention given to pain management in all medical schools and nursing training programs⁽²⁵⁾. Traditionally, nurses/physicians are trained to assess, diagnose and treat disease – the likely root cause of the pain – as opposed to treating pain itself⁽⁶⁾. Consequently, nurses might believe that postoperative pain is a normal physiological process post surgery, which takes time and ends without or with little medical interventions.

Also, some nurses/physicians and healthcare providers may consider pain an inevitable and accepted part of life, that is influenced by culture, and other factor as age and sex⁽²⁶⁾. This, no doubt, might interpret the "ethnic, racial and gender biases", perceived by nurses as minor barriers.

As a matter of fact, Egyptian nurses are often, overwhelmed by extra-administrative tasks and duties, beyond their capabilities and divert their attention beyond their patients' basic needs.

The results revealed that "concerns about side effects of analgesics", was considered a minor barrier. Knowledge gaps, negative attitudes toward prescribing analgesics and inadequate assessment skills are barriers that clinicians can unwittingly bring, to clinical encounters with patients⁽²⁷⁾. Knowledge of the basic principles of analgesia, appropriate drugs, routes of administration and side

Barriers to Pain Management

effects enable ward teams to practice effectively in this respect. Astonishingly, these facts were not reflected in the previous study findings.

In this context, Mark (2010) reported that; opioids are the mainstay therapy for acute severe and persistent pain associated with advanced medical illnesses of various, and they are now being offered to growing numbers of patients with persistent non-cancer pain⁽¹³⁾. Excessive or inaccurate concerns about drug abuse and addiction may be a strong impediment to the appropriate selection of patients for these therapies, or optimal treatment that balances risks and benefits. Of interest, this former barrier could be reduced, by extending our nurses' knowledge base about drug abuse, pseudo-addiction and addiction and improving their specific skills in the safe use of opioids⁽⁶⁾.

The study revealed that more than half of the nurses viewed "inadequate pain assessment" as a major barrier. Lack of pain assessment was one of the most problematic barriers to achieving good pain control. The most critical aspect of pain assessment is that, it is done on a regular basis e.g., once a shift, every 2 hours using a standard format. The assessment parameters should be explicitly directed by hospital or unit policies and procedures. To meet

the patients' needs, pain should be reassessed after each intervention to evaluate the effect and determine whether modification is needed. The interval for reassessment, again should be directed by the unit policies and procedure standards⁽¹³⁾.

Regarding *patient barriers to pain management as perceived by nurses*, it was noticed that "patient's dissatisfaction with pain management, despite moderate or severe pain", was viewed by nurses as a **major** barrier. A key factor in patient satisfaction is a sense that the caregiver is doing their best and is genuinely concerned that therapy is adequate⁽¹⁶⁾. This dissatisfaction on part of the patient as a matter of fact, could be due to shortages of nursing staff (patient-to-nurse ratio), indicated by international references. This, no doubt could lead to increased workload and pressure, time constraints and poor quality care.

"Underestimating the level of pain", and "failure to report pain to the nurse", were considered as **major** barriers. This is supported by Donovan et al(2003) who stated that ,nurses sometimes, tend to underestimate or distrust patients' self report of pain, which suggest that they have their own benchmark of what is an acceptable level of pain, before analgesia is necessary⁽¹⁴⁾. McCaffery and Pasero (1999) reported

Barriers to Pain Management

that nurses consistently document lower pain scores than those reported by patients. Many clinicians believe that patients exaggerate pain, therefore high pain ratings by patients do not necessarily result in nurses administering more analgesia⁽²⁵⁾. In brief, patients are generally more satisfied when they receive adequate informations about their analgesia protocol⁽²³⁾.

Although “fear from abusing pain killers” is internationally a **major** pain management issue, it was not a patient related barrier as reflected in the present study findings. This may be due to the Egyptian patients’ culture; since many patients are familiar with painkillers medication to the extent that they take it, without medical prescriptions.

Although the nursing definition of pain is what the patient says it does, there is scant evidence that many nurses may perceive pain as a sequence of disease or treatment related.

The most commonly encountered barriers amongst the three studied categories were those related to health care system followed by health professional and patient barriers. Health system provides guidelines to nurses in how to assess, treat, and assist in managing a patient’s pain. Undoubtedly, once barriers are recognized and

addressed adequate pain relief could be reasonable and achievable.

Conclusion

The findings of the present study concluded that barriers in pain management as perceived by nurses are numerous:

Healthcare system related barriers to pain management perceived by the participants, and identified as major barriers were “low priority given to pain treatment”, “failure to adopt a specific assessment tool”, “failure to adopt a specific pain management” and “absence of pain management policy”. Minor barriers identified involved; “failure to give staff sufficient time and space to document pain” and “inadequate health insurance or no health insurance, for some patients”.

Healthcare professionals' major barriers to pain management included “inadequate knowledge of pain management and inadequate training on pain management”. Minor barriers were those related to “ethnic/racial/gender biases” and “concerns about patients becoming intolerant to analgesics”.

Patient related barriers to pain management included: “dissatisfaction with pain management”, then “underestimating the level of pain”, and “failure to report pain to the nurse/physician accurately. Minor barriers perceived were concerns “fear pain portends a serious illness or poor diagnosis”

Barriers to Pain Management

and “confusion of the appropriate clinical use of pain killers with addiction”

Knowledge—practice gap still exists within surgical patient's pain management. Increased caregiver education remains a necessity, but barriers and strategies that address resistance to change practice, within healthcare system must also be considered.

Exposure to negative life events may lead to anxiety and depression. Furthermore, there were positive correlation between life event risks and physical abuse, emotional abuse, anxiety and depression.

Recommendations

- Updating the present pain management theory and practice components, in undergraduate diploma, technical and bachelor programs, is required.
- Development of pain policies, procedure standards and manual guidelines about pain management, to guide care providers and patients at surgical and other hospital settings, is mandatory.
- Continuing on the job, training programs related to pain management should be addressed for nurses working at all clinical units.

Table (1): Percent distribution of nurses according to their sociodemographic data

Total		HHH		AMUH		Sociodemographic Characteristics
% (100)	NO=90	% (100)	NO=50	% (100)	No=40	
71.11	64	76	38	65	26	• Age (years) < 30
28.89	26	24	12	35	14	> 30
23.33	21	22	11	25	10	• Nursing categories Bachelor nurses
76.67	69	78	39	75	30	**Practical nurses
65.56	59	66	33	65	26	• Experience (years) <10
34.44	31	34	17	35	14	>10
						• Marital status
73.33	66	84	42	60	24	Single
26.67	24	16	8	40	16	Married
1.11	1	2	1	2.5	1	• Education background about pain: -Theory
0	0	0	0	0	0	-Practice
0	0	0	0	0	0	-Skills
0	0	0	0	0	0	• Attending training program about pain

N.B: AMUH= Alexandria Main University Hospital, HHH= Health Insurance Hospital

** Practical nurses = nurses with diploma or technical degree.

Barriers to Pain Management

Table (2): Healthcare System Related Barriers to pain management as perceived by nurses working at surgical units.

Healthcare System Related Barriers	AMUH (No=40)						HIH (No=50)						Total (No=90)					
	Not a barrier		Minor barrier		Major Barrier		Not a barrier		Minor barrier		Major Barrier		Not a barrier		Minor barrier		Major Barrier	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1- Low priority given to pain treatment	0	0	0	0	40	100	0	0	0	0	50	100	0	0	0	0	90	100
2- Failure to adopt a specific assessment tool	0	0	0	0	40	100	0	0	0	0	50	100	0	0	0	0	90	100
3- Failure to adopt a specific pain management	0	0	0	0	40	100	0	0	0	0	50	100	0	0	0	0	90	100
4- Failure to give staff sufficient time and space to document pain	5	12.5	9	22.5	26	65	2	4	11	22	37	74	7	7.78	20	22.22	63	70
5- Lack of accountability for pain management practices	4	10	3	7.5	33	82.5	5	10	3	6	42	84	9	10	6	6.67	75	83.33
6- Absence pain management policy	0	0	0	0	40	100	0	0	0	0	50	100	0	0	0	0	90	100
7- Reduced access to specialists, pain management facilities, or analgesics in managed care.	0	0	6	15	34	85	0	0	4	8	46	92	0	0	10	11.11	80	88.89
8- Inadequate health insurance or no health insurance, for some patients	4	10	7	17.5	29	72.5	2	4	9	18	39	78	6	6.67	16	17.77	68	75.56
9- Problems of availability of treatment or access to it	0	0	5	12.5	35	87.5	0	0	5	10	45	90	0	0	10	11.11	80	88.89
10- Opioids unavailable in the patient's pharmacy.	5	12.5	2	5	33	82.5	2	4	2	4	46	92	7	7.78	4	4.44	79	87.78
11- Inadequate economic status	2	5	10	25	28	70	5	10	8	16	37	74	7	7.78	18	20	65	72.22

N.B: AMUH= Alexandria Main University Hospital, **HIH**= Health Insurance Hospital

Barriers to Pain Management

Table (3): Healthcare professionals related barriers to pain management as perceived by nurses working at surgical units.

Healthcare professionals related barriers to pain management:	AMUH (No=40)						HIH (No=50)						Total (No=90)					
	Not a barrier		Minor barrier		Major Barrier		Not a barrier		Minor barrier		Major Barrier		Not a barrier		Minor barrier		Major Barrier	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1- Inadequate knowledge of pain management	0	0	0	0	40	100	0	0	0	0	50	100	0	0	0	0	90	100
2- Inadequate training in pain management	0	0	0	0	40	100	0	0	0	0	50	100	0	0	0	0	90	100
3- Ethnic/racial/gender biases	2	5	38	95	0	0	5	10	45	90	0	0	7	7.78	83	92.22	0	0
4- Concerns about side effects of analgesics	25	62.2	10	25	5	12.5	33	66	8	16	9	18	58	64.44	18	20	14	15.56
5- Concerns about patients becoming intolerant to analgesics	22	55	13	32.5	5	12.5	20	40	21	42	9	18	42	46.67	34	37.77	14	15.56
6- Poor pain assessment	8	20	10	25	22	55	11	22	14	28	25	50	19	21.11	24	26.67	47	52.22
7- Inadequate pain assessment	7	17.5	12	30	21	52.5	14	28	18	36	18	36	21	23.33	30	33.33	39	43.34
8- Reliance on behavioral cues in assessment	22	55	10	25	8	20	16	32	15	30	19	38	38	42.22	25	27.78	27	30

N.B: AMUH= Alexandria Main University Hospital, HIH= Health Insurance Hospital

Barriers to Pain Management

Table (4): Patient related barriers to pain management as perceived by nurses working at surgical units.

Patient related barriers to pain management:	AMUH (No=40)						HIH (No=50)						Total (No=90)					
	Not a barrier		Minor barrier		Major Barrier		Not a barrier		Minor barrier		Major Barrier		Not a barrier		Minor barrier		Major Barrier	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1- Failure to report pain to the nurse/ physician accurately	8	20	9	22.5	23	57.5	8	16	9	18	33	66	16	17.78	18	20	56	62.22
2- Underestimating the level of pain	5	12.5	6	15	29	72.5	7	14	11	22	32	64	12	13.33	17	18.89	61	67.78
3- Overestimating the level of pain	11	27.5	12	30	17	42.5	11	22	14	28	25	50	22	24.44	26	28.89	42	46.67
4- Abuse of painkillers	22	55	12	30	6	15	36	72	10	20	4	8	58	64.45	22	24.44	10	11.11
5- Fear pain portends a serious illness or poor diagnosis	14	35	15	37.5	11	27.5	14	28	18	36	18	36	28	31.11	33	36.67	29	32.22
6- Concerns about side effects of painkillers	28	70	8	20	4	10	33	66	9	18	8	16	61	67.78	17	18.89	12	13.33
7- Confusion of the appropriate clinical use of painkillers with addiction	22	55	12	30	6	15	20	40	21	42	9	18	42	46.67	33	36.67	15	16.66
8- Unwillingness to take more pills or injections	40	100	0	0	0	0	50	100	0	0	0	0	90	100	0	0	0	0
9- Dissatisfaction with pain management, despite moderate or severe pain	0	0	0	0	40	100	0	0	0	0	50	100	0	0	0	0	90	100
10- Concerns about becoming tolerant to pain medications.	40	100	0	0	0	0	50	100	0	0	0	0	90	100	0	0	0	0

N.B: AMUH= Alexandria Main University Hospital, HIH= Health Insurance Hospital

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Barriers to Pain Management

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Barriers to Pain Management

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