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Healthcare Providers' Perceived Barriers Toward Cancer-Related Pain

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Abstract: Different people perceive different things about the same situation. Healthcare providers' perceptions and judgments about pain are influenced by their experiences, knowledge and attitude about pain; misconception about pain can results in inappropriate, incorrect and inadequate pain management. Many barriers are facing management of cancer pain even chronic or acute pain. This study was aimed to determine healthcare providers' perceived barriers toward cancer-related pain. A descriptive research design was used in the study. The study was conducted at the following two settings; inpatient oncology units and surgical oncology units at Alexandria Main University Hospital (AMUH) and Medical Research Institute (MRI). A convenient sample of 160 healthcare providers (Nurses and physicians) was included. One tool was utilized titled as "Healthcare providers' perceived barriers toward cancer-related pain-structured interview". Results revealed that the majority of healthcare providers were females 59.3%. All studied nurses did not attend any pain training program except only one nurse; while 60% of studied physicians were attended. 81% of the studied nurses perceived lack of documentation as a major barrier while physicians' perception was 16.6%. The major organizational barriers as perceived by physicians were "failure to adopt a specific pain management", "inadequate health insurance or no health insurance " and "lack of psychological support services (Psychotherapist) " by 95, 91.6 and 85% respectively. In Conclusion healthcare professionals major barriers were “Inadequate knowledge of pain management, inadequate training on pain management and lack of pain assessment knowledge” as perceived by nurses and physicians. Patient major barriers included: “Dissatisfaction with pain management and fear of pain progression” as perceived by nurses only and "Patients fatalism" as perceived by physicians. Organizational system major barriers to cancer-related pain management as perceived by the nurses were “Absence pain management policy, low priority given to pain management, improper pain assessment tools and inadequate financial resources". Recommendation: Education programs and continuing educational sessions have to be organized for nurses and physicians about pain and its management approaches (Pharmacological and non-pharmacological).

Key words: Barriers in Pain Management · Postoperative Pain · Cancer Patients · Pain Perception · Chronic Pain

INTRODUCTION

Cancer is considered one of the leading causes of death globally [1]. Jemal *et al*. [2] estimated that by the year 2030 there will be 21.4 million new patients diagnosed with cancer annually. Pain is one of the most feared consequences of cancer and cancer treatment. It affects the physical, psychological, cognitive, social and spiritual domains of patients' lives; in turn, the experience of pain can be influenced by emotional, cognitive, social and spiritual factors. The burden of pain is manifested not only through suffering, but also through impaired function, decreased activity and alterations in one’s sense of identity and social role. Uncontrolled or poorly relieved cancer pain has a profoundly negative impact on Quality of Life (QOL) and it increases suffering for caregivers as well [3].

Cancer pain is a multi-dimensional syndrome with a combination of acute and chronic pain that causes physical, psycho-social, behavioral, emotional and spiritual problems, resulting in adverse effects on patients’ quality of life [4, 5]. The teamwork is essential for

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optimal pain management. Particularly, doctors and nurses should work in close collaboration. Nurses play a critical role in this teamwork because they deliver direct patient care on a 24-hour basis. The nurse should evaluate and monitor the patients and their relatives' attitude, knowledge and experiences. Healthcare providers' perception affects their approach to the patients in pain [6].

Oncology team embraces holistic care and has sustained contact with patients throughout the continuum of cancer care, they are in a position to identify undertreated and untreated cancer pain and advocate for its relief. As members of interdisciplinary teams involved in practice, education, administration and research, oncology nurses are in a pivotal position to improve cancer pain management [7].

Pain is defined according to International Association for the Study of Pain [8] as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. Pain can be categorized in several ways, most commonly classified into nociceptive and neuropathic pain based on underlying pathology. Acute and chronic pain is another classification according to its duration [9, 10].

Usually pain is regarded as chronic when it lasts or recurs for more than 3 to 6 months. Chronic cancer pain includes pain caused by the cancer itself (The primary tumor or metastases) and pain that is caused by the cancer treatment (Surgical, chemotherapy, radiotherapy and others). Cancer-related pain will be subdivided based on location into visceral, bony (Or musculoskeletal) and somatosensory (Neuropathic). It will be described as either continuous (Background pain) or intermittent (Episodic pain) if associated with physical movement or clinical procedures. Cancer-related pain can be acute or chronic [11]. Acute pain may be due to surgical removal of tumor which causes postoperative pain while chronic pain is pain caused by changes to nerves caused by cancer pressing on nerves or due to chemicals produced by tumor. Despite the widespread availability of analgesic therapies, cancer pain remains undertreated. Developing knowledge and skills on cancer-related pain management is of extreme importance for healthcare providers dealing with cancer patients [12-15].

The management of cancer- related pain should be improved by better collaboration between the disciplines of oncology, pain medicine and palliative medicine. This must start in the training programs of all healthcare professionals involved in the treatment of cancer pain [16]. Management thus starts with the diagnosis of the cause of pain by clinical assessment and imaging [17, 18]. Managing pain in patients with cancer is possible; evidence indicates by Alqahtani *et al*. [18] that 80 to 90 percent of pain can be relieved by correctly following international guidelines for managing cancer pain. Effective relief of pain is contingent upon a comprehensive assessment to identify physical, psychological, social and spiritual aspects and as a foundation for multidisciplinary interventions. Fortunately, advances in pain treatment and in the field of palliative care have provided effective treatments encompassing either pharmacological and/or non-pharmacological based on patient response can provide maximum pain relief [20, 21].

The under treatment of pain in patients with cancer continues to be a problem even though there are well-established clinical guidelines. Healthcare providers' have misconceptions, specific attitudes and knowledge deficits that contribute to this problem [21]. Johnstone [22] defined perception as; the organization, identification and interpretation of sensory information in order to formulate a mental representation through the process of transduction, which sensors in the body transform signals from the environment into encoded neural signals. It varies from person to person. Different people perceive different things about the same situation. In this study, perception means the healthcare providers' awareness, beliefs and experiences which they perceive or gain related to barriers of acute and chronic pain among patients suffering from cancer.

According to statistical records in both settings of surgical oncology units and inpatient oncology units at Alexandria Main University Hospital in 2015, the number of cancer patients is about 1560 cases, on the other hand in Medical Research Institute (MRI) is about 1620 cases [23].

Several barriers (System-related, staff-related, nurse-related, physician-related and patient-related) have been identified that hinder the health care professionals from achieving optimal pain management. There are many researches identifying barriers to pain management and categories barriers to patient, healthcare providers and organizational barriers which are the most comprehensive of barriers [24, 25]. Other studies categorize barriers to patient, organizational and physician related barriers [26, 27]. Moreover Campbell [28] stated that barriers are divided into patient-related as well as professional-related barriers and together they contribute significantly to the problems of cancer pain management.

Many barriers facing management of cancer pain even chronic or acute pain which include firstly, barriers related to healthcare professionals that display inadequate knowledge of pain management either pharmacological and/or non-pharmacological, poor of pain assessment knowledge [29, 30] lack of documentation of pain management methods and assessment of pain, inadequate training about pain management, over concerns about side effects of analgesics, fear of development of drug dependence, improper communication techniques among healthcare providers, nursing workload and nurses forgetfulness [31, 32].

Secondly, barriers related to patients which include fear of management methods (Pharmacological / non-pharmacological), concerns of patient about pharmacological side effects of pain management as confusion, drowsiness, constipation, nausea, vomiting and gastritis[24] confusion of the appropriate clinical use of painkillers with addiction, concerns about becoming tolerant to pain medications, patients fatalism, reluctance of patient to report pain, fear of distraction of doctor, fear of pain progression, failure to report pain to staff nurses/physician accurately, unwillingness to take more pills or injections and non-acceptance of patient pain management method [33, 34].

Finally, barriers related to organizational system which include absence pain management policy, low priority given to pain treatment, failure to give nurses sufficient time to document pain [33, 35] inadequate health insurance or no health insurance, for some patients, problems of availability of management methods, problems of accessibility of management methods, lack of accountability for pain management practices) Non-pharmacological), failure to adopt a specific pain management, lack of psychological support services (Psychotherapist)for patient, inadequate financial resources and unavailable and/or improper of pain assessment tools [36].

In controlling cancer pain the nurse needs to understand the psychological state of the cancer patient, cancer pain, cancer pain treatment, deleterious effects of unrelieved cancer pain and patient's socio-cultural background [37, 38]. Nurses are team members who have an active role at all stages of pain management such as pain assessment, healthcare planning and setting institutional and clinical standards for the pain. Effective doctor-patient communication is the cornerstone of successful pain treatment; however, poor communication between pain patients and their physicians remains a pervasive problem [26]. Berry *et al*. [39] analyzed audiotapes from oncologists' and cancer patients' consultations regarding cancer pain and concluded that physicians addressed mostly sensory issues leaving out the cognitive and emotional issues. Understanding physicians' contribution as crucial providers of pain management needs further investigation. Healthcare providers' perceptions and judgments about pain are influenced by their experiences, knowledge and attitude about pain; misconception about pain can results in inappropriate, incorrect and inadequate pain management.

Aim of the Study: The aim of this study was to determine healthcare providers' perceived barriers toward cancer-related pain.

Research Question: What are healthcare providers' perceived barriers toward cancer-related pain?

MATERIALS AND METHODS

Materials

Research Design: A descriptive research design was used in the study.

Settings: The study was conducted at inpatient oncology units and surgical oncology units of Alexandria Main University Hospital (AMUH) and Medical Research Institute (MRI).

Subjects: A convenience sample of 160 healthcare providers (nurses and physicians) was included in this study accordingly; all 100 nurses and 60 physicians including oncologists and surgical oncologists.

Tool: One tool was developed by the researcher based on review of related relevant literatures [32-36] and utilized for data collection titled as "Healthcare providers' perceived barriers toward cancer-related pain-structured interview": It consisted of three parts and comprised 30 items. Each item covered number of questions and formulated inform of statements.

Part I: Healthcare Professional Related Barriers: It included nine items questions. The items covered pain assessment, pain management methods, documentation and educational program for pain management, communication among healthcare providers; workload and knowledge about side effects of analgesics.

Part II: Patients' Related Barriers: It included ten items questions. The items included questions related to non-acceptance of patient pain management methods, fear of pain management methods, concerns of pharmacological side effects, patient's fatalism, reluctance to report pain, fear of pain progressions, failure to report and unwillingness to take more pills or injections. Also confusion of the appropriate clinical use of painkillers with addiction and concerns about becoming tolerant to pain medications were included.

Part III: Organizational System Related Barriers: It included eleven items covered questions related to absence pain management policy, low priority given to pain treatment, failure to give staff sufficient time and space to document pain, inadequate or no health insurance, for some patients, problems of availability of pain management (Pharmacological and non-pharmacological), problems of accessibility of pain management, lack of accountability for non-pharmacological pain management practices, inadequate financial resources, failure to adopt a specific pain management, lack of psychological support services (Psychotherapist), lack of availability of pain assessment tools and lack of proper pain assessment tools.

Each participant response for each item and each response was registered on 3-point -scale as 1 = not a barrier, 2= minor barrier, 3= major barrier.

Healthcare providers' socio-demographic data was attached to the tool included items related to age, gender, marital status, years of experience, educational level and previous attendance of training programs related to pain management.

Methods: An approval to conduct this study was obtained from hospitals responsible authorities after explanation of its purpose.

Tool Development: The developed tool in Arabic language was tested for content validity by five experts in the study field. A pilot study was carried out 16 healthcare providers after obtaining their oral approvals (Not included in the study sample) to assess the clarity and applicability of the tool. No modifications were done. The reliability of the tool was assessed using Cronbach alpha reliability ($\alpha = 0.84$).

Data Collection: The final draft of the structured interview was filled by the selected respondents individually during their break time in the morning shift. Each interview took about 30 to 45 minutes individually using the developed tool.

Ethical Considerations: Oral approval was obtained from the participants. The anonymity, confidentiality and privacy of responses have been asserted, voluntary participation and right to withdraw from the study were emphasized before inclusion in the study sample.

Statistical Analysis: SPSS package version 20 was used for statistical analysis. Descriptive statistical analysis for all study variables was conducted. Qualitative data were described using number and percent. The level of significance selected for this study was P equal to or less than 0.05.

RESULTS

Table 1 shows percent distribution of healthcare providers according to their socio-demographic data. A group of 160 healthcare providers were enrolled in this study. The highest percentage (43.1%) of respondents had 25 to less than 35 years old. The majority of healthcare providers were female 59.3%. The female nurses represented the highest percentage in acute and chronic pain management (92.7 & 91.1% respectively) in compare with male physicians by percentages of 97 & 92.3% in acute and chronic pain management settings respectively.

In relation to the marital status, 45% of the respondents were married. Physicians who hold master degree in medicine were only 10%, while 36.8% of nurses have a nursing diploma. According to year of experiences 33.7% of healthcare providers had 5 to less than 10 years of experience. Regarding Pain training program attendance, all studied nurses in acute and chronic pain management did not attend any pain training program except only one nurse, while 60% of studied physicians were attend.

Table 2 illustrates healthcare professionals' related barriers to cancer-related pain management as perceived by healthcare providers. The major barriers related to healthcare professionals as perceived by all nurses and physicians 100% were both "inadequate knowledge and inadequate training of pain management". In addition, the

Table 1: Distribution of socio-demographic characteristics of studied healthcare providers in acute and chronic pain management (n = 160)

	Acute Pain				Chronic Pain					
	Nurse (n = 55)		Physician (n = 34)		Nurse (n = 45)		Physician (n = 26)		Ttoal (n = 160)	
	No.	%	No.	%	No.	%	No.	%	No	%
Hospital										
AMUH*	45	81.8	20	58.8	29	64.4	18	69.2	112	70
MRI*	10	18.8	14	41.2	16	35.6	8	30.8	48	30
Age (years)										
Less than 25	18	32.7	17	50	19	42.2	6	23	60	37.5
25 to less than 35	25	45.4	10	29.4	21	46.6	13	50	69	43.1
Equal or more than 35	12	21.8	7	20.5	5	11.1	7	26.9	31	19.3
Gender										
Male	4	7.2	33	97	4	8.8	24	92.3	65	40.6
Female	51	92.7	1	3	41	91.1	2	7.6	95	59.4
Marital status										
Single	13	23.6	14	41.1	8	17.7	7	26.9	42	26.2
Married	20	36.3	18	52.9	23	51.1	11	42.3	72	45
Divorced	10	18.8	2	5.8	8	17.7	4	15.3	24	15
Widowed	12	21.8	0	0	6	13.3	4	15.3	22	13.7
Qualifications										
Nursing diploma	36	65.4	0	0	23	51.1	0	0	59	36.8
Institute of technical nursing	18	32.7	0	0	22	48.8	0	0	40	25
B.Sc. nursing	1	1.8	0	0	0	0	0	0	1	6
B.Sc. medicine	0	0	18	52.9	0	0	15	57.6	33	20.6
Master medicine	0	0	12	35.2	0	0	4	15.3	16	10
Doctorate medicine	0	0	4	11.7	0	0	7	26.9	11	6.8
Years of experience										
Less than 1	3	5.4	4	11.7	6	13.3	6	23	19	11.8
1 to less than 5	14	25.4	10	29.4	13	28.8	10	3.8	47	29.3
5 to less than10	18	32.7	12	35.2	16	35.5	8	30.8	54	33.7
Equal or more than 10	20	36.3	8	23.5	10	22.2	2	7.6	40	25
Previous pain programs attendance										
No	54	98.1	10	29.4	45	100	14	53.8	123	76.9
Yes	1	1.8	24	70	0	0	12	46.1	37	23.1

*AMUH; Alexandria Main University Hospital,

*MRI; Medical Research Institute

Table 2: Healthcare professionals related barriers to cancer-related pain as perceived by healthcare providers

	Nurses (n = 100)						Physicians (n = 60)					
	Not a barrier		Minor barrier		Major barrier		Not a barrier		Minor barrier		Major barrier	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1- Inadequate knowledge of pain management methods (pharmacological management and non- pharmacological)	0	0	0	0	100	100	0	0	0	0	60	100
2- Inadequate training about pain management	0	0	0	0	100	100	0	0	0	0	60	100
3- Lack of pain assessment knowledge	10	10	5	5	85	85	0	0	0	0	60	100
4- Lack of pain documentation (assessment and management)	19	19	0	0	81	81	35	58.3	15	24.9	10	16.6
5- Improper communication techniques among healthcare providers	95	95	0	0	5	5	50	83.3	5	8.3	5	8.3
6- Over concerns about side effects of analgesics.	75	75	0	0	25	25	40	66.6	0	0	20	33.3
7- Fear of development of drug dependence.	67	67	2	2	31	31	15	25	0	0	45	75
8- Work overload	12	12	16	16	72	72	20	33.3	15	25	25	41.6
9- Forgetfulness	55	55	3	3	42	42	10	16.6	50	83.8	10	16.6

Table 3: Patient related barriers to cancer-related pain as perceived by healthcare providers

	Nurses (n = 100)						Physicians (n = 60)					
	Not a barrier		Minor barrier		Majorbarrier		Not a barrier		Minor barrier		Major barrier	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1- Non acceptance/dissatisfaction of patient pain management method	0	0	0	0	100	100	40	66.6	20	33.3	0	0
2- Fear of management methods (pharmacological / non-pharmacological):	17	17	33	33	50	50	50	83.3	10	16.6	0	0
3- Concerns of patient about pharmacological side effects of pain management	0	0	38	38	62	62	40	66.6	10	16.6	10	16.6
4- Concerns about becoming tolerant to pain medications.	10	10	40	40	50	50	30	50	30	50	0	0
5- Confusion about the appropriate clinical use of painkillers with addiction.	72	72	11	11	17	17	33	55	12	20	15	25
6- Patients fatalism	85	85	10	10	5	5	17	28.3	10	16.6	33	55
7- Hesitancy or failure of patient to report pain to healthcare providers	55	55	0	0	45	45	50	83.3	10	16.6	0	0
8- Fear of distraction of doctor to focus on pain not illness	66	66	3	3	31	31	60	100	0	0	0	0
9- Fear of pain progression.	30	30	0	0	70	70	40	66.6	0	0	20	33.3
10- Unwillingness to take more pills or injections	100	100	0	0	0	0	60	100	0	0	0	0

Table 4: Organizational system related barriers to cancer-related pain as perceived by healthcare providers

	Nurses (n = 100)						Physicians (n = 60)					
	Not a barrier		Minor barrier		Major barrier		Not a barrier		Minor barrier		Major barrier	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1- Absence pain management policy.	0	0	0	0	100	100	20	33.3	30	50	10	16.6
2- Low priority given to pain management.	0	0	0	0	100	100	15	25	10	16.6	35	58.3
3- Failure to give sufficient time to document pain.	10	10	2	2	88	88	15	25	0	0	45	75
4- Inadequate health insurance or no health insurance, for some patients.	25	25	0	0	75	75	0	0	5	8.3	55	91.6
5- Problems of accessibility or availability of management methods.	0	0	20	20	80	80	0	0	12	20	48	80
6- Lack of accountability for non-pharmacological pain management practices.	7	7	14	14	79	79	13	21.6	7	11.6	40	66.6
7- Failure to adopt a specific pain management.	0	0	43	43	56	56	2	3.3	1	1.6	57	95
8- Lack of psychological support services (psychotherapist) for patient.	0	0	37	37	63	63	3	5	6	10	51	85
9- Lack of pain assessment tools	11	11	25	25	64	64	2	3.3	4	6.6	46	76.6
10- Improper pain assessment tools	0	0	0	0	100	100	30	50	20	33.3	10	16.6
11- Inadequate financial resources.	0	0	0	0	100	100	11	18.3	0	0	49	81.6

results in the same table indicated that, all of the studied physicians had response of major barrier about lack of pain assessment knowledge. Regarding lack of documentation, 81% of the studied nurses perceived as a major barrier while physicians' perception was 16.6%. In relation to improper communication techniques among healthcare providers, the studied nurses and physicians had response as not a barrier by 95 and 83.3% respectively. The majority of the study respondents were perceived the over concern about side effects of analgesics as not a barrier. More than half (55%) of the studied nurses had perception about forgetfulness as not a barrier, while 83.8% of studied physicians perceived as a minor barrier.

Table 3 shows patient related barriers to cancer-related pain management as perceived by healthcare providers. The main patient related barriers recognized by nurses as a major barriers were “Non-acceptance/ dissatisfaction with pain management”, “Concerns about medication side effect" by 100 and 62% respectively. As regarding physicians' perception of patient related barriers, it was found that more than half of them 55% perceived patient fatalism as a major barrier. Unwillingness to take more pills or injections was perceived form all 100% respondents as not a barrier. The minor barriers perceived were “Concerns about becoming tolerant to pain medications” from nurses and physicians indicated by 40 and 50% respectively.

Table 4 represents organizational barriers to cancer-related pain management as perceived by healthcare providers. All nurses' perception responses were with a major barrier toward “Absence pain management policy", " Low priority given to pain management", "improper pain assessment tools" and "Inadequate financial resources" by 100%. The major barriers as perceived by physicians were "Failure to adopt a specific pain management", "Inadequate health insurance or no health insurance" and "Lack of psychological support services (Psychotherapist)" by 95, 91.6 and 85% respectively. Minor barriers were related to "Failure to adopt a specific pain management" as perceived by nurses with 43% while "Absence pain management policy" as perceived by physicians with 50%.

DISCUSSION

Cancer pain remains a significant clinical problem worldwide. Causes of cancer pain are multifactorial and complex and are likely to vary with an array of tumor

related and host-related factors and processes. Despite significant advances in understanding, early detection and treatment of cancer, progress related to the treatment of cancer-related pain has been slow and largely inadequate. 1 in 3 patients on average do not receive pain medication considered appropriate for the intensity of pain experienced. Surprisingly, the barriers to effective pain management have remained largely the same over the last few decades [40].

It is the moral and ethical responsibility of the healthcare providers and a fundamental human right for patients to live free of pain [37]. Therefore, it is very important to determine the barriers perceived by healthcare providers to assessment and management of pain [6]. Their perceptions affect their approach to the patient in pain. This study was carried out to determine healthcare providers' perception toward cancer-related pain management barriers.

The present study represented that, nearly half of the studied members were at middle age group. Majority of the studied participants were female. The finding is nearly similar to the finding of Elcigil*et al*. [6], Ali *et al*. [41] and Manwere *et al*. [42] who reported that, the participating nurses comprised a majority who were nearly at middle age and majority of nurses were female. The profession of nursing used to be seen as a female dominated profession. The feminization of the nursing profession is potentially considered as a gender barrier for men to become nurses.

According to Yuen-ching [38] who confirmed that, most of the nurses had a baccalaureate or higher degree and did not attend pain management courses. The finding was nearly similar to result of the present study which reported that, about all studied nurses and majority of physicians did not attend any pain management program courses. Actually both bachelor and diploma nurses' degree had been received only one theoretical lecture about pain concept (About 90 minutes) in their undergraduate education, while the physicians did not receive in their curriculum concept of pain in undergraduate level. The quality of pain assessment depends on the knowledge, attitudes and skills of those who provide the care.

A lack of knowledge regarding pain assessment and management among clinicians is still very common. Regarding *healthcare professionals barriers to cancer-related pain management*, the results of the present study revealed that all nurses and physicians perceived that “Inadequate knowledge of pain management” and “inadequate training in pain management” as major barriers. This may reflected the lack of adequate training or in-service education programs about pain management organized or provided by their hospital, throughout some of participants had lengthy experience which for some exceeded more than 10 year. In addition, the nurses had lack of basic knowledge about pain management strategies. The result is compatible with Sun *et al*. [25] who reported that, one of the most serious professional barriers is the severe deficits in skills and knowledge related to pain management. This problem stems primarily from a lack of fundamental training in healthcare professional’s curriculum or in continuing education. Also, this is in line with Mccaffery [43] who demonstrated an urgent need to strengthen pain education for nurses that targets knowledge deficit. The 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.

Also, more than three quarter of the studied nurses had high perceived a major barrier about lack of pain documentation. This may be related to insufficient time for nurses specifically with their responses about workload as also a major barrier. The finding is in agreement with Alqahtani [44] who mentioned that, there was poor documentation of pain assessment and management due to the nurses’ workload one of barrier that influenced the effective pain management practices of nurses. These findings are congruent with Nega and Kassa [45] who reported that, majority of nurses did not document their daily pain management activities.

On the other hand, over concerns about side effects of analgesics was perceived as not barrier by the majority of the studied nurses and physicians. This result is also supported by EL-Badry [46] who mentioned that “Concerns about side effect 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. 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 forms barrier could be reduced, by extending our nurses’ knowledge base about drug abuse, pseudo-addiction and addiction, improving their specific skills in the safe use of opioids [47]. The finding is in disagreement with Rosenthal and Burchum [48] who stated that, some health professionals may harbor strong fears about ability of opioid analgesics to cause physical dependence and

addiction, because of these fears, nurses may administer it less than was prescribed when treating pain and these concerns lead to needless suffering and can impair pain control.

The appropriate assessment and treatment of pain is highly dependent upon communication between physicians and nurses [49]. In this context, majority of the studied nurses and physicians had response as not a barrier about improper communication techniques among nursing staff and physicians in cancer-related pain management. This may be due to nurses being careful to attend physicians rounding in order to know about treatment decisions and patient care. In addition, this may be due to the Egyptian sympathy culture to cancer patients. A collaborative relationship between the two professions would ensure that the barriers experienced by nurses could be resolved in a supportive team approach. Also, Lopez [50] and Iannotti [51] reported that, inadequate communication between nurses and physicians was a significant barrier to pain management.

The present study showed that, the majority of the studied nurses and physicians had perceived a major barrier about workload pertaining to insufficient time to pay attention to patients' pain needs. Moreover, these finding are in line with Nimmaanrat *et al*. [52] who stated that, more than half of the interns felt that healthcare providers did not have enough time to attend to patients' needs. This is especially true in Thailand as the patient to healthcare provider ratio is high.

Regarding *patient barriers to cancer-related pain management*, it was noticed that "Patient's dissatisfaction with pain management", was viewed by all 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 [53]. 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 finding is inconsistent with Rantala *et al*. [54] who stated that, one of the perceived barriers to postoperative pain management was minority of patients reluctance to take pain medication owing to fear of overmedication. In this respect, care search and palliative care knowledge network stated that, non-pharmacological approaches may contribute to effective analgesia and are often well accepted by patients.

In relation to fear of pain management interventions, half of the studied nurses had perceived as a major barrier in contrast with physicians with perception no a barrier. This may be related to injection is considered as one of painful punishment method in Egyptian culture. This finding is supported with El-Badry [46] who stated that, although "Fear from abusing pain killers" is internationally a major pain management issue, it was not a patient related barrier.

Regarding concerns of patient about pharmacological side effects of pain management, majority of the studied nurses had perceived a major barrier. This finding is contracted Cancer research United Kingdom [55] who stated that, fear of addiction one of the main barriers for treating pain. Also, this finding is not consistent with International Association for the Study of Pain [56] who stated that, some fear addiction or being perceived as an addict this fear may be more pronounced in minority patients.

In addition, the result about concerns of patients becoming tolerant to pain medications, half of the studied nurses had perceived a major barrier and half of physicians had perceived as a minor barrier. This finding is in the same line with IASP [56] who stated that, many patients also fear that early pain control will preclude pain control later in the disease because of concerns which their physicians often share that they will become tolerant to pain medications.

The present study showed that, majority of the studied nurses and physicians equally had perceived not a barrier about reluctance of patient to report pain. The result is not in the same line with Shute [57] who stated that a patient's reluctance to report their pain and hesitancy to comply with treatment is also a major driver for inadequate pain management. This reluctance often comes down to erroneous beliefs shared by patients. Patients often view pain as an inevitable part of having cancer and that admitting pain is a sign of weakness. Furthermore, patients often hesitate to report their pain as they want to appear as a 'good' patient; they may not want to distract their doctor from treating their cancer or may fear that pain is a sign of disease progression. In this respect, Wood [58] stated that, patients' self-reporting of their pain is regarded as the gold standard of pain assessment measurement as it provides the most valid measurement of pain. Also, this finding is not in the same line with Borneman *et al*. [35] who stated that, patients are reluctant to report their pain for reasons including fear of side effects, fatalism about the possibility of achieving pain control, fear of distracting physicians from treating cancer and belief that pain is indicative of progressive disease.

The *organizational system barriers to cancer-related pain management* within which pain management takes places often imposes a number of restrictions which may inadvertently hinder the effective management of pain. In relation to, absence pain management policy, all nurses had perceived as a major barrier and half of physicians had perceived as a minor barrier. In this respect, El-Badry [46] stated 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. No doubt pain management policies provide guidelines to caregivers in how to assess, treat and evaluate managing a patient's pain. Moreover, the result is supported with Alqahtani *et al*. [18] who stated that, one of the barriers that may unintentionally hinder the effective management of pain was lack of national policy, that impeded the nurses' performance and the nurses believed that the hospital policy and pain guidelines, including the narcotic policy played a major role in effectively managing pain.

All 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.

Also, the majority of all respondents had perceived as a major barrier toward failure to give sufficient time to document pain. In this respect, Chatchumn *et al*. [59] stated that, the nurses mentioned that according to policies and guidelines, they should manage all documentation. However, the nurses had a heavy workload of caring for patients; as the documentation process was also very time-consuming, the records were sometimes not completed. The nurses mainly completed the documentation of pain assessment as a matter of routine and not with the primary intention of detecting patients' pain and helping to alleviate it.

Also, one of the major barriers perception was recorded by the majority studied nurses and physicians about inadequate health insurance or no health insurance, for some patients. In this respect, Alex [33] who reported that, one of the healthcare system barriers to pain assessment and management is the fact that 39 million Americans have either no or inadequate health insurance to cover healthcare costs and Medicare and many private insurance programs do not cover the cost of prescription drugs. Low-income people experience greater pain and suffering from cancer than do other Americans and a disproportionate share of people with little or no insurance are minorities. For those who are insured, reimbursement policies may favor the use of more expensive pain management modalities over less expensive ones. Also, Niu *et al*. [60] stated that, one of the barriers to receive treatment is not all organizations accept uninsured patients and lower quality treatment primarily serving the uninsured.

Concerning, the problems of accessibility or availability of management methods, the results of the present study was perceived as a major barrier by the majority of healthcare providers. This is in the same line with Prandi *et al*. [61] who reported that, in many countries even today the treatment of pain is frustrated by inadequate availability and by poor use of analgesics, especially in the case of opiates. The result also is in agreement with Cherubino *et al*. [63] who reported that, one of the institution/healthcare system barriers to effective pain management of chronic cancer pain was problems of availability of treatment or access to it and stated that, fear of drug addiction, both for patients and for the general population, if strong therapeutic opioids are easily available, is one of the main justifications for legislation and implementation of local policies to limit opioid use.

The present study showed that, majority of the studied nurses and physicians perceived as a major barrier about "failure to adopt a specific pain management". Moreover, all studied nurses had a perception about "unavailable of pain assessment tools" and "inadequate financial resources". In this context, Wood [57] stated that, assessment of a patient's experience of pain is a crucial component in providing effective pain management. According to Dohlman and Warfield [63] the obstacles of pain management are many and complex but not insurmountable. The lack of material and human resources is clearly one problem. Surprisingly, inadequate resources aren't simply due to poor finances. Also, the result in chronic pain management is contradicted with Smith *et al*. [64] who mentioned that, the main finding from this single-institution study is that the availability of financial resources is limited.

Based on the present study, it can be concluded that the study identified several barriers to cancer-related pain management, which continue to hinder efforts to provide adequate pain management for patients suffering from cancer. The patients are at great risk for under-treatment of pain and that can affect all parts of the patients' life due

to presence of barriers in the healthcare system, the patient and healthcare provider. To meet the special pain-related needs of those patients, nurses must be able to assess and treat pain effectively.

A critical component of the healthcare providers' role in pain management is pain assessment as the information obtained guides the plan of care, including both pharmacologic and non-pharmacologic therapies, utilizing evidence-based practice guidelines in clinical care, implementing alternative modalities, evaluating treatments through reassessment and documenting outcomes and identifying existing barriers to pain management is a logical and crucial first step in achieving optimal pain management. So, it is important to identify cancer-related pain management barriers as perceived by health care providers.

CONCLUSION

From the findings of the present the study, it can be concluded that: *Health care professionals' major barriers* to cancer-related pain management were "inadequate knowledge of pain management, inadequate training on pain management and lack of pain assessment knowledge" as perceived by nurses and physicians. A minor barrier was related to "Forgetfulness" as perceived by physicians' only. *Patient major barriers* to cancer-related pain management included: "dissatisfaction with pain management and fear of pain progression" as perceived by nurses only and "patients fatalism" as perceived by physicians. Minor barrier as perceived by nurses and physicians was "concerns about becoming tolerant to pain medications", while "unwillingness to take more pills or injections" not perceived as a barrier by both nurses and physicians. *Organizational system major barriers* to cancer-related pain management as perceived by the nurses were "absence pain management policy, low priority given to pain management, improper pain assessment tools and inadequate financial resources", while "failure to adopt a specific pain management, inadequate health insurance or no health insurance" were perceived by physicians. 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".

Recommendations:

- Education programs and continuing educational sessions have to be organized for nurses and physicians about pain and its management approaches (Pharmacological and non-pharmacological). Educational manual booklets with drawing and simple explanation must be distributed for nurses to enhance and reinforce knowledge pertaining to pain management.
- Development of pain management policies, procedures standards and manual guidelines for healthcare providers and patients at surgical oncology units and inpatient oncology departments. Pain assessment tools are not to be only developed and generalized but also to be applied correctly.
- Priority is given to teach patients about treatment modalities of pain management, which enable them to participate in the plan of care rather than remaining passive recipients of care.

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