

## Nurse's Knowledge and Attitudes toward Cancer Pain Management at Baghdad Hospitals

معارف واتجاهات الممرضين تجاه تخفيف الم السرطان في مستشفيات بغداد

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### الخلاصة:

**هدف الدراسة:** تهدف الدراسة الحالية الى تقييم معارف واتجاهات الممرضين تجاه تخفيف الم السرطان في مستشفيات بغداد.  
**المنهجية:** أجريت الدراسة الوصفية للمدة من ٢٩ من كانون الاول ٢٠١٤ إلى الأول من تموز ٢٠١٥. وتم اختيار عينة غرضية غير احتمالية ل ٩٥ ممرض وممرضة من مستشفى الامل الوطني لمعالجة السرطان و مستشفى بغداد التعليمي. يتكون الاستبيان من جزئين ( الصفات الديموغرافية و المعارف واتجاهات الممرضين تجاه تخفيف الم السرطان ) وتم تحديد صدق الأداة من خلال عرضها على (١٧) خبيراً من ذوي الاختصاص ومن ثم تطبيق (الاختبار- وإعادة الاختبار) لتحديد ثبات الاستمارة من خلال حساب معامل الارتباط بيرسن (٠.٧٩). جمعت العينة من ٣٠ اذار ولغاية ١٠ ايار ٢٠١٥. تم تحليل البيانات من خلال الاحصاء الوصفي (التكرارات، النسبة المئوية، والوسط والانحراف المعياري) والاحصاء الاستنتاجي (معامل الارتباط واختبار مربع كاي).

**النتائج:** اظهرت نتائج الدراسة أن معارف واتجاهات الممرضين في وحدات الأورام تجاه معالجة الألم كانت ضعيفة وان معدل الاجابات الصحيحة ٣٧.٤٪، والتي تراوحت اجاباتهم ما بين ( ٩.٥٪ إلى ٨٢.١٪) ووجدت ان (٧.٤٪) من درجات الممرضين كانت اكثر من ٥٠٪، و (٩٢.٦٪) درجاتهم أقل من ٥٠٪، و عدم وجود فروقات بين الصفات الديموغرافية ومعارف الممرضين واتجاهاتهم حول معالجة الألم سرطان، بينما وجدت فروقات ذات دلالة معنوية بين الدورات التدريبية في معالجة الم السرطان خارج العراق بمستوى معنوية (٠.٠٥)

**الاستنتاج:** استنتجت الدراسة بان معارف واتجاهات الممرضين في وحدات الأورام تجاه معالجة الم السرطان بمستوى غير مقبول بالنسبة لاهمية المرض للمريض.

**التوصيات:** يوصي الباحث اقامة دورات ومحاضرات منتظمة للممرضين حول السيطرة على الألم و إجراء دراسات حول تأثير علاجات الم السرطان للمدى البعيد وتفعيل استمارة قياس الألم.

### ABSTRACT

**Objectives:** The present study aims to assess Nurse's Knowledge and Attitudes toward Cancer Pain Management at Baghdad Hospitals.

**Methodology:** Descriptive study was conducted during the period from December 29th 2014 to July 1<sup>st</sup> 2015. The sample was selected purposive (non probability) of 95 nurses from Al –Amal National Hospital for Cancer Management and Baghdad Teaching Hospital. The study instrument consisted of two major parts constructed for the purpose of the study (socio-demographic characteristic and Knowledge and Attitudes Survey Regarding Pain (KASRP). Reliability of the questionnaire form was determined through a pilot study while the content validity of the questionnaire was determined through a panel of experts; and collected data from 30<sup>th</sup> of March to 10<sup>th</sup> of May 2015. The data were analyzed by used descriptive statistics (frequencies, percentages, mean, S.D), inferential statistical analysis (correlation coefficient and chi- square test).

**Results:** Results of the study showed that, the knowledge and attitudes towards pain management were poor. The correct answer rate for the entire scale, on average, was 37.4%, ranging from (9.5% to 82.1%), And found that (7.4%) of nurses score were more than 50%, and (92.6 %) of nurses score were less than 50% level, In socio-demographic characteristics has no significant relationship with knowledge and attitudes, about cancer pain management, while training session in cancer pain management out Iraq has found significant differences at (P value < 0.05).

**Conclusion:** The study concluded that, the knowledge and attitudes of nurses in oncology units towards the toward cancer pain management is unaccepted to the importance of the patient's disease.

**Recommendation:** The researcher recommends the establishment of regular courses for nurses about pain control and conduct studies on the impact of cancer pain treatments for the long term and activating pain measurement chart.

**Keywords:** Pain, Knowledge, Attitude, Nurses

## INTRODUCTION:

Pain in cancer patients is one of the most feared and burdensome symptoms<sup>(1)</sup>. Pain may have debilitating effects on patient's physical, emotional and spiritual wellbeing and thus, can alter their quality of life<sup>(2)</sup>. Unrelieved pain is the most feared symptoms of cancer and occurs in over 75% of people with advanced disease<sup>(3)</sup>. In a recent systematic review, the prevalence of pain was found to be 64% in patients with advanced and metastatic disease, 59% in those on anticancer treatment, and 33% in those who had been cured of cancer<sup>(1)</sup>. Under-treatment of the cancer pain is still a serious problem despite widespread availability of effective medications and treatment modalities<sup>(4)</sup>. Pain management is an important aspect of patient care and nurses play a significant role in the acute care setting in the providing pain assessment and treatment<sup>(5)(6)</sup>. The pain can be well managed in 80% to 90% of cancer patient with the use of conventional analgesics and adjuvant according to the principles of the World Health Organization (WHO) analgesic ladder for cancer pain relief<sup>(7)</sup>. Cancer pain is a serious problem that requires specialized nursing knowledge to manage. Unrelieved pain remains a significant clinical problem and one of the most feared consequences of cancer<sup>(1)</sup>. Nurses are the central person in the healthcare team to be able to assess and manage pain, Information about nurses' knowledge and attitudes can help to alter behaviors to improve outcomes for cancer patients in pain<sup>(8)</sup>. Pain management is one of the most important aspects of patient care and nurses have a key role in effective pain management<sup>(9)(10)</sup>.

## OBJECTIVES OF STUDY

1. To assess the nurse's knowledge and attitudes toward cancer pain management.
2. To find out relationship between the nurse's knowledge and attitudes tool and their demographic characteristics

## METHODOLOGY:

**Design of the study:** A descriptive study

**Sample of the study:** The sample was selected purposive (non probability) of 95 nurses

**Setting of the study:** Al –Amal National Hospital for Cancer Management (51) nurses were included and Baghdad Teaching Hospital (Hematology & oncology units) (44) nurses were included, and collected data from 30<sup>th</sup> of March to 10<sup>th</sup> of May 2015

**Instruments:** The questionnaire was constructed for the purpose of the study. The Instruments consisted two parts:

**Part I:** socio-demographic characteristic, which includes (6) variables (age, gender, level of education, Years of service in the field of the nursing profession, Years of experience in the oncology unit, training sessions).

**Part II:** the questionnaire related to Knowledge and Attitudes Survey Regarding Pain (KASRP), by Ferrel and McCaffery (2008)<sup>(9)</sup> was used to measure the knowledge and attitudes of nurses

towards pain management .This questionnaire was developed and translated to Arabic language, the questionnaire was consisted 38-item (22 true or false questions, 14 multiple choice questions and two case studies).

**Validity and Reliability of the instrument:** Content validity of the questionnaire was determine through a panel of (17) experts. Reliability of questionnaire was determined through test re-test ( $r= 0.79$ ) of pilot study.

**Statistical methods:** The analysis of the data was used descriptive statistics (frequencies, percentages, mean, S.D), and inferential statistical analysis (correlation coefficient and chi-square test).

## RESULTS:

**Table (1) Demographic Characteristics of the Nurses.**

Variable	Items	F	%
Age	Mean&(SD)=36.47± 6.03		
	18-22	3	3.2
	23-27	20	21.1
	28-32	21	22.1
	33-37	13	13.7
	38-42	11	11.5
	43 years and more	27	28.4
Gender	Male	58	61.1
	Female	37	38.9
Level of Education	Secondary Nursing School	47	49.5
	Nursing institute	33	34.7
	College of Nursing	14	14.7
	High nursing	1	1.1
Years of service in the field of nursing profession	1-5	51	53.7
	6-10	18	18.9
	11-15	8	8.4
	16-20	6	6.3
	21 and more	12	12.6
Years of experience in the oncology unit	1-5	66	69.5
	6-10	12	12.6
	11-15	6	6.3
	16-20	5	5.3
	21 and more	6	6.3
Training sessions	-No. of sessions in cancer management in Iraq		
	No session	8	8.4
	1-3	68	71.6
	4-6	17	17.9
	7and more session	2	2.1

	<b>-No. of sessions in cancer pain management out Iraq</b>		
	<b>No session</b>	<b>83</b>	<b>87.4</b>
	<b>1-3</b>	<b>12</b>	<b>12.6</b>
	<b>4-6</b>	<b>0</b>	<b>0</b>
	<b>7 and more session</b>	<b>0</b>	<b>0</b>

Table 1: demonstrates the demographic characteristics of the whole study sample. The results show that the majority (28.4 %) of nurses in the sample are within the age group (43 years and more) and with a mean of  $36.47 \pm 6.03$ . Most of them (61.1%) was male. Most of nurses were Secondary Nursing School (49.5 %), and the highest of sample rang (1-5) years of service in the field of nursing profession were (53.7%). With regard to the years of experience in the oncology unit the results shows (69.5%) were (1-5 years). According to the number of sessions in cancer

pain management in Iraq were (1-3 training session) and constituted of (71.6%), With regard to number of sessions in cancer pain management out Iraq (87.4%) of the nurses had no session.

**Table (2) Frequencies and Percentages Distribution of the Nursing Knowledge and Attitudes (22 true or false questions)**

No	Items Content	Correct answers		Ass.
		F	%	
1-	Vital signs are always reliable indicators of the intensity of a patient's pain.)	22	23.2	L
2-	Because their nervous system is underdeveloped, children under two years of age have decreased pain sensitivity and limited memory of painful experiences	24	25.3	L
3-	Patients who can be distracted from pain usually do not have severe pain.	38	40	L
4-	Patients may sleep in spite of severe pain.	54	56.8	L
5-	Aspirin and other non-steroidal anti-inflammatory agents are NOT effective analgesics for painful bone metastases.	30	31.6	L
6-	Respiratory depression rarely occurs in patients who have been receiving stable doses of opioids over period of months.	61	64.2	M
7-	Combining analgesics that work by different mechanisms (e.g., combining an opioid with an NSAID) may result in better pain control with fewer side effects than using a single analgesic agent.)	51	53.7	M
8-	The usual duration of analgesia of 1-2 mg morphine IV is 4-5 hours.	30	31.6	L
9-	Research shows that promethazine (Phenergan) and hydroxyzine (Vistaril) are reliable potentiators of opioid analgesics.	37	38.9	L
10-	Opioids should not be used in patients with a history of substance abuse.	27	28	L
11-	Morphine has a dose ceiling (i.e., a dose above which no greater pain relief can be obtained).	33	34.7	L
12-	Elderly patients cannot tolerate opioids for pain relief.	36	37.9	L
13-	Patients should be encouraged to endure as much pain as possible before using an opioid.	28	29.5	L
14-	Children less than 11 years old cannot reliably report pain so nurses should rely solely on the parent's assessment of the child's pain intensity.		44.2	L
15-	Patients' spiritual beliefs may lead them to think pain and suffering are necessary.	69	72.6	H
16-	After an initial dose of opioid analgesic is given, subsequent doses should be adjusted in accordance with the individual patient's response.	67	70.5	H
17-	Giving patients sterile water by injection (placebo) is a useful test to determine if the pain is real.	27	28.4	L
18-	Vicodin (hydrocodone 5 mg + acetaminophen 500 mg) PO is approximately equal to 5-10 mg of morphine PO .	59	62.1	M
19-	If the source of the patient's pain is unknown, opioids should not be used during the pain evaluation period, as this could mask the ability to correctly diagnose the cause of pain.	22	23.2	L
20-	Anticonvulsant drugs such as gabapentin (Neurontin) produce optimal pain relief after a single dose.	24	25.3	L
21-	Benzodiazepines are not effective pain relievers unless the pain is due to muscle spasm.	73	76.8	H
22-	Narcotic/opioid addiction is defined as a chronic neurobiological disease, characterized by 22-behaviors that include one or more of the following: impaired control over drug use compulsive use, continued use despite harm, and craving .	78	82.1	H

n= number of samples, F= frequency, %=percentage, Ass=assessment=low<50%, M =moderate (50-70%) H=high>70%

Table 2 shows that, the correctly answered items from item (1-22) with high percent (82.1%) in items (22), which about Narcotic/opioid addiction is defined as a chronic neurobiological disease. The table shows that only (8) items from (22) were more than 50%.

**Table (3) Frequencies and Percentages Distribution of Correct Answers of Nursing Knowledge and Attitudes (14 multiple choice questions)**

No	Items Content	Correct answers		Ass.
		F	%	
1-	The recommended route of administration of opioid analgesics for patients with persistent cancer-related pain is:	12	12.6	L
2-	The recommended route administration of opioid analgesics for patients with brief, severe pain of sudden onset such as trauma or postoperative pain is:	46	48.4	L
3-	Which of the following analgesic medications is considered the drug of choice for the treatment of prolonged moderate to severe pain for cancer patients?	30	31.6	L
4-	Which of the following IV doses of morphine administered over a 4 hour period would be equivalent to 30 mg of oral morphine given q 4 hours?	22	23.2	L
5-	Analgesics for post-operative pain should initially be given.	28	29.5	L
6-	A patient with persistent cancer pain has been receiving daily opioid analgesics for 2 months. Yesterday the patient was receiving morphine 200 mg/hour intravenously. Today he has been receiving 250 mg/hour intravenously. The likelihood of the patient developing clinically significant respiratory depression in the absence of new comorbidity is:	25	26.3	L
7-	The most likely reason a patient with pain would request increased doses of pain medication is :	44	46.3	L
8-	Which of the following is useful for treatment of cancer pain?	32	33.7	L
9-	The most accurate judge of the intensity of the patient's pain is:	28	29.5	L
10-	Which of the following describes the best approach for cultural considerations in caring for patients in pain :	26	27.4	L
11-	How likely is it that patients who develop pain already have an alcohol and/or drug abuse problem?	34	35.8	L
12-	The time to peak effect for morphine given IV is:	47	49.5	L
13-	The time to peak effect for morphine given orally is:	30	31.6	L
14-	Following abrupt discontinuation of an opioid, physical dependence is manifested by the following:	28	29.5	L

n= number of samples, F= frequency, %=percentage, Ass=assessment=low<50%, M =moderate (50-70%) H=high>70%

Table 3 shows the correctly answered of 14 multiple choice items, all items of this table less than 50%.

**Table (4) Frequencies and Percentages Distribution of Correct Answers of the Nursing Knowledge and Attitudes (two case studies questions)**

No	Items Content	Correct answers		Ass.
		F	%	
	<u>1-a-Patient A:</u> Ahmed is 25 years old and this is his first day following abdominal surgery. As you enter his room, he smiles at you and continues talking and joking with his visitor. Your assessment reveals the following information: BP = 120/80; HR = 80; R = 18; on a scale of 0 to 10 (0 = no pain/discomfort, 10 = worst pain/discomfort) he rates his pain as 8. On the patient's record you must mark his pain on the scale below.	20	20.1	L
	1-b-Your assessment, above, is made two hours after he received morphine 2 mg IV. Half hourly pain ratings following the injection ranged from 6 to 8 and he had no clinically significant respiratory depression, sedation, or other untoward side effects. He has identified 2/10 as an acceptable level of pain relief. His physician's order for analgesia is morphine IV 1-3 mg q1h PRN pain relief..	9	9.5	L
	<u>2-a-Patient B:</u> Ali is 25 years old and this is his first day following abdominal surgery. As you enter his room, he is lying quietly in bed and grimaces as he turns in bed. Your assessment reveals the following information: BP = 120/80;HR = 80;R = 18; on a scale of 0 to 10 (0 = no pain/discomfort, 10 = worst pain/discomfort) he rates his pain as 8.On the patient's record you must mark his pain on the scale below.	22	23.2	L
	2-b-Your assessment, above, is made two hours after he received morphine 2 mg IV. Half hourly pain ratings following the injection ranged from 6 to 8 and he had no clinically significant respiratory depression, sedation, or other untoward side effects. He has identified 2/10 as an acceptable level of pain relief. His physician's order for analgesia is "morphine IV 1-3 mg q1h PRN pain relief.	9	9.5	L

n= number of samples, F= frequency, %=percentage, Ass=assessment=low<50%, M =moderate( 50-70%) H=high>70%

Table 4 reveals that, the correctly answered items of two case studies were very low correct answers response.

Tables 2,3&4 show that, the percentages of all correctly answered questionnaire for all nurses the average correct response rate was (37.4%), ranging from (9.5% to 82.1%).

**Table(5) Association between Basic Socio-Demographical Characteristics Variables with Knowledge and Attitude score about Pain Management**

Age	Knowledge& attitude score				Total	
	less than 50%		more than 50%			
	F	%	F	%	F	%
18-22 years	2	2.1	1	1.05	3	3.1
23-27 years	19	20	1	1.05	20	21
28-32 years	21	22.1	0	0	21	22.1
33-37 years	13	13.6	0	0	13	13.6
38-42 years	9	9.4	2	2.1	11	11.5
43 years and more	24	52.2	3	3.1	27	28.4
<b>Total</b>	88	92.6	7	7.4	95	100
$\chi^2 = 8.271$ df= 5 p>0.05 NS mean &SD=36.47±6.03						
<b>Gender</b>					F	%
Male	53	55.7	5	5.2	58	61
Female	35	36.8	2	2.1	37	38.9
<b>Total</b>	88	92.6	7	4.4	95	100
$\chi^2 = 0.342$ df=1 p>0.05 NS						
<b>Level of Education</b>	F	%	F	%	F	%
Secondary Nursing School	44	46.3	3	3.1	47	49.4
Nursing institute	30	31.5	3	3.1	33	34.7
College of Nursing	13	13.6	1	1.1	14	14.7
High nursing	1	1	0	0	1	1
<b>Total</b>	88	92.6	7	7.4	95	100
$\chi^2 = 0.291$ df= 3 p>0.05 NS						
<b>Years of experience in the oncology unit</b>	F	%	F	%	F	%
1-5	61	64.2	5	5.2	66	69.4
6-10	12	12.6	0	0	12	12.6
11-15	5	5.2	1	1.1	6	6.3
16-20	4	4.2	1	1.1	5	5.2
21>	6	6.3	0	0	6	6.3
<b>Total</b>	88	92.6	7	7.4	95	100
$\chi^2 = 3.365$ df= 4 p>0.05 NS						
<b>No. of sessions in cancer pain management in Iraq</b>	F	%	F	%	F	%
No session	7	7.3	1	1.1	8	8.4
1-3 session	63	66.3	5	5.2	68	71.6
4-6 session	16	16.8	1	1.1	17	17.9
7 and more session	2	2.1	0	0	2	2.1
<b>Total</b>	88	92.6	7	7.4	95	100
$\chi^2 = 0.523$ df= 3 p>0.05 NS						



No. of sessions in cancer pain management out Iraq	F	%	F	%	F	%
No session	80	84.2	1	1.1	83	87.4
1-3 session	8	8.4	6	6.3	12	12.6
4-6 session	0	0	0	0	0	0
7 and more session	0	0	0	0	0	0
<b>Total</b>	88	92.6	7	7.4	95	100
$\chi^2 = 34.154$ $df= 3$ $p<0.05$ S						

Table 5 shows there were no significant between Knowledge & attitude score and demographic characteristics (age, gender, level of education, years of experience in the oncology unit and number of

sessions in cancer pain management in Iraq) at (P value >0.05). While there was significant differences between the Knowledge & attitude score and training session in cancer pain management out Iraq at (P value < 0.05). Found in this table the scores of the sample were (92.6%) less than 50% level and (7.4%) more than 50% level.

## DISCUSSION:

The results of the study demonstrated that the oncology units nurse's knowledge and attitudes towards pain management were unacceptable. The correct answer rate for the entire scale, on average, was (37.4%) ranging from (9.5% to 82.1%) items and only (8) items from all items of correct answer questionnaire were more than 50%, this mean that the knowledge and attitude of nurses were poor knowledge and attitude. These results agree with study conducted by <sup>(11)</sup> show that knowledge and attitude of nurses was (54.1%), also these result agree with Alqahtani, M. 2014 that conduct a study about Examining Knowledge, Attitudes and Beliefs of Oncology Units Nurses towards Pain Management in Saudi Arabia, the participating nurses in Alqahtani's study answered (35% to 55 %) of the answers correctly, indicating low levels of knowledge and attitudes towards pain management <sup>(12)</sup>. The researcher confirmed that the poor knowledge and attitudes of nurses in cancer pain management may be related to lack of emphasis on pain management in formal lectures on cancer pain management in undergraduate nursing courses in nursing education in Iraq.

The present study suggested that there were no significant differences between knowledge and attitudes, about cancer pain management and socio-demographic characteristics (age, gender, level of education, years of experience in the oncology unit, Training sessions in cancer pain management in Iraq), and while training session in cancer pain management out Iraq Shows that there were significant differences at (P value < 0.05).

These results agree with other study by Yava A. 2013, that shows no significant differences in nurses' pain knowledge and nurses' age (p>0.05)<sup>(13)</sup>

Liao, et al. (2013) respectively consistent no significant difference in pain knowledge scores between educational levels<sup>(14)</sup>.

Present study disagree with a study conducted by Wong M.( 2007), that shows there was a very weak positive correlation between the two variable,  $r=0.08, n=71, p<0.50$ , suggesting a weak relationship between years of professional experience and scores on the KASRP<sup>(15)</sup>.

this finding agree with other studies Guducu F. et al. (2013), and Alqahtani, M. (2014), which concluded that nurses with more than 10 years of professional experience scored the lowest on the KASRP tool.<sup>(11)(12)</sup>.

Our findings supported with a study by Nega et.al (2014), nurses who had training session of cancer and/or pain related have a better pain knowledge score than those nurses who have no such training & statistically significant at (p<0.05)<sup>16</sup>. Others finding support our study result conducted in Florida ,Italy, and Greece also revealed that prior pain management training had an impact on nurse's knowledge <sup>.(17)(18)(19)</sup>

## CONCLUSIONS

The study concluded that most of the nurses have a poor knowledge and attitudes about cancer pain management,

## RECOMMENDATIONS:

1. Regular courses on pain management for nurses within their clinical setting are highly recommended and needed.
2. Further research is needed on the long term effects of inadequate pain management in the cancer patient population.
3. Improve training sessions should be organized for nurses regarding WHO pain ladder, and other pain assessment tools.
4. Pain Chart should be integrated into nursing practice

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