



## Nurses' Knowledge Regarding Immediate Postoperative Pain Management

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### ABSTRACT

**Background:** Postoperative pain is a very important issue for several patients. Indifferent of the surgery type or method, pain management is very necessary. The relief from suffering leads to early mobilization, less hospital stays, reduced hospital costs, and increased patient satisfaction. Nurses in all settings play a key role in the management of pain as experts in assessment, drug administration, and patient education. They are uniquely positioned to assume this role as the member of the health care team most consistently at the patient's bedside. These characteristics have led to their distinction as the patient's primary pain manager.

**Objectives:** To assess nurses' knowledge regarding immediate postoperative pain management in surgical wards. To find out association between nurses' knowledge and their demographical data.

**Methodology:** A descriptive study is conducted to achieve the study objectives. It started from February 3rd, 2024 until May, 20th, 2024. A Non-Probability (Purposive Sample) of (50) nurses from the staff of Al-Imam Al-Hussein Medical City in Karbala, this type of sampling is used because it is appropriate for the purpose of the study, it include the nurses with an experience more than one year and acting as a Practioner and provide direct bedside care for the patients. Data are collected through using of a well-designed questionnaire consist of two parts: Part I: Demographic characteristics: It was consisted of (9) items. And Part II: Nurses knowledge regarding pain management: It was consisted of (14) items.

**Results:** The findings of the present study indicate that the overall assessment for nurses' knowledge is poor. Also, there is a non- significant association ( $P>0.05$ ) between the overall assessment of nurses' knowledge and their demographic data.

**Conclusion:** the study highlights significant deficits of knowledge regarding pain management among nurses working in surgical wards.

**Keywords:** Nurses, Knowledge, Pain Management, Postoperative.

### INTRODUCTION

There is an increasing global importance of pain assessment that is increasing recognized as a serious worldwide public health concern. Pain is an undesirable feeling related to tissue impairment and a cause for requiring medical services. Feeling of pain has an undesirable effect on the quality of life and satisfaction level of patients (Shdaifat, et al., 2020).

Uncontrolled pain produces complications owing to stimulation of the sympathetic nervous system, hyperglycemia, lipolysis, muscles breakdown, and delayed wound healing. In addition, anxiety, confusion, sleep disturbance, delirium, and paranoia also result from unmanaged pain (Ufashingabire et al., 2016).

In some hospitalized populations, about 44% of patients are in severe pain at discharge. High pain intensity during hospitalization is a risk factor for deleterious psychological outcomes, such as depression and PTSD,<sup>1</sup> as well as the chronification of acute pain. In fact, anywhere from 3% to 20% of acute pain cases may develop into persistent pain. Pain is a bio psychosocial experience, and thus, clinicians should aim to target these factors early in the course of treatment during hospital stays to achieve optimal recovery, and ideally, to evade chronic pain development (Abraham, 2023).

Pain control is important in the management of patients because untreated pain has a detrimental impact on the patient's quality of life. Nurses spend a significant portion of their time with patients. Thus, they have a vital role in the decision-making process regarding pain management (Samarkandi, 2018)

Pain is a stressful experience that is considered a global health problem. Studies have reported that 55% to 78.6% of inpatients experience moderate-to-severe pain (Liyew, et al., 2020)

The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage". Up to 80% of chronic pain is MSK in origin. Chronic pain is also associated with premature aging, given that telomere length (a biomarker related to age-related pathology) has been found to be shorter in the chronic pain population [4]. This is of particular concern, because aging is associated with the risk of developing severe disease, especially after the age of 40. This relationship between pain and telomere length is only found in those who do not exercise regularly (Corte-Rodriguez, et al, 2024).

## AIMS OF THE STUDY

To assess nurses' knowledge regarding immediate postoperative pain management in surgical wards. To find out association between nurses' knowledge and their demographical data.

## METHODOLOGY

### Study Design:

A descriptive study is conducted to achieve the study objectives. It started from February 3rd, 2024 until May, 20th, 2024.

### Sample and Sampling:

A Non-Probability (Purposive Sample) of (50) nurses from the staff of Al-Imam Al-Hussein Medical City in Karbala, this type of sampling is used because it is appropriate for the purpose of the study, it include the nurses with an experience more than one year and acting as a Practioner and provide direct bedside care for the patients.

### Ethical Considerations:

Before data are collected, the study title and the objectives are explained to the patients. Therefore, their agreement to participate in the present study is achieved.

### Data Collection:

Data are collected through using an interview technique with each patient. The data collection process taking about 15-20 minutes for each patient.

### Study Instrument:

The study uses a well-designed questionnaire consist of three parts: Part I: Demographic characteristics: It was consisted of (9) items. And Part II: Nurses knowledge regarding pain management: It was consisted of (14) items.

### Data analysis:

The data analyzed by using of (SPSS) program V19 (Statistical Package for Science Service), and the Microsoft Excel (2010). Below are the statistical data analysis methods to analyze the study result: Descriptive statistics (Frequencies and Percentages, Statistical means of score); and Inferential statistics (chi-square).

## RESULTS

Table 1 shows that the majority of the study subjects (39.4%) are within the age group (26-33 years). Regarding to the study subjects' gender, the results indicate, that the higher percentage of the

study sample are females. Concerning educational levels, the higher percentage (42.6%) are Nursing Institute graduated. Concerning to marital status, majority of subjects (48.9%) are married. Regarding residency, the current study results show that most of the sample (90.4%) is live whom at urban area. Most of the sample results indicate that (50%) of the study sample are Satisfied monthly income. Regarding years of experiences, the highest percentage is (57.4%) are within the group (3-10 years). the current study results show that most of the nurses (27.7%) is working in emergency. Nurses who have 1 to 4 training courses in pain management (40.4%) and highest percentage is (36.2%).

Table (2) shows that the overall assessment for nurses' knowledge regarding the immediate postoperative pain management is poor. While, table 3 shows that there is a non- significant relationship between the nurses' knowledge and their demographic data.

## DISCUSSION:

The current result indicates the majority of the study subjects (39.4%) are within the age group (26-33 years). These results are supported by Samarkandi, (2018) their result indicate that the most age group from 26 and more than. Regarding to the study subjects' gender, study result shows that the majority of study sample are females. The current result comes along with Alnajar et al., (2019) who founds that the majority of study sample are females. Concerning educational levels, the higher percentage (42.6%) are nursing institute graduated. This result agrees with Ou et al., (2021) who reports that most the study sample are nursing institute graduated. According to marital status, majority of subjects (48.9%) are married. This result supported by Tekletsadik et al., (2021) who have found that the majority of study sample are married. Regarding residency, the current study results show that most of the sample (90.4%) live in urban regions. This result supported by Yassin et al., (2020) they have indicated

that more than three quarter of sample from urban regions. Most of the sample results indicate that (50%) of the study sample are satisfied monthly income. This result agrees with Nguyen et al., (2021) who have found that the majority of study sample are satisfied monthly income.

Regarding years of experiences, the highest percentage is (57.4%) are within the group (3-10 years). This result comes along with Kabsay & Pitkäjärvi, (2019) they found that the majority of study sample are years of experiences are within the group (3-10 years) and more than.

The current study results show that most of the nurses (27.7%) is working in Emergency. These results agree with Parise et al., (2016) they found that the majority of study sample have training courses in pain management within the number (1-4). The study results also indicate that the most of the Nurses' Knowledge toward Pain Management and Initial assessment at general mean of score (0.14). These results agreed with Samarkandi (2018) reveals in their studies that most of the nurses' knowledge for management of pain is poor. The results of study conducted by (Manwere, et al. 2015) in their study, whose result stated that there was low knowledge levels and poor attitude regarding pain management.

The results of study conducted by (Bölükbaş, and Şahin, 2021) in their study, whose result stated that nurses have moderate level knowledge and attitude about management of pain. The study results indicate that there is a non- significant relationship between the nurses' knowledge and their demographic data except with their duration of training sessions at p-value 0.06.

There were no statistically significant differences between nurses' sociodemographic characteristics and the total knowledge level and attitude score ( $p > 0.05$ ) (Bölükbaş, and Şahin, 2021).

In addition, Manwere, et al., (2015) found that there no statistically significant relationships between knowledge on pain management and demographic variables such as age, years of experience and rank

( $p > 0.05$ ). There was no significant association between knowledge and attitude score and marital status, educational level and age (Shdaifat, et al., 2020).

## CONCLUSIONS:

The study concludes that there is a significant deficit of knowledge regarding pain management among nurses. And there are no statistically significant differences between nurses' knowledge and their demographic characteristic except with their duration of training sessions at  $p$ -value 0.06.

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## TABLES:

Table (1): Study Sample Demographic Characteristics

Variables	Rating	Frequency	Percent
Age Groups	≤ 25.00	34	36.2
	26.00 - 33.00	37	39.4
	34.00 - 41.00	14	14.9
	42.00 - 49.00	6	6.4
	50.00 - 57.00	2	2.1
	58.00 ≥	1	1.1
<b>Mean + SD</b>		<b>30.11±7.99</b>	
Gender	Male	30	31.9
	Female	64	68.1
Educational Level	Nursing School Graduated	23	24.5
	Nursing Institute graduated	40	42.6
	College of Nursing Graduated	27	28.7
	Postgraduate	4	4.3
Marital Status	Single	43	45.7
	Married	46	48.9
	Divorced	4	4.3
	Widow	1	1.1
Residency	Rural	9	9.6
	Urban	85	90.4
Socio-Economic Status	Satisfied	47	50.0
	Satisfied to some extent	36	38.3
	Un satisfied	11	11.7
Years of Experiences	≤ 2.00	20	21.3
	3.00 - 10.00	54	57.4
	11.00 - 18.00	13	13.8
	19.00 - 26.00	3	3.2
	27.00 - 34.00	2	2.1
	35.00 - 42.00	2	2.1
<b>Mean + Standard Deviation</b>		<b>7.74±7.37</b>	
Previous Training	Yes	38	40.4
	No	56	59.6
Number of training	1.00 - 4.00	34	36.2
	5.00 - 8.00	5	5.3
<b>Mean + Standard Deviation</b>		<b>1.07±1.77</b>	

Table (2): Overall Assessment of Nurses' Knowledge

Final Knowledge Assessment	Response	Frequenc y	Percent	M.S.	Stand. D	Asses s.
	Fail	78	83.0	1.33	0.14	Poor
	Pass	16	17.0			
	Total	94	100.0			

M. s. = Mean of Score, (Poor= M.S. less than 1.5).

Table (3): Relationship between Overall Nurses Knowledge and Their Demographic Data

Demographic Data		Statistics	Knowledge Response		Chi-Square	P-value
			Poor	Good		
Gender	Male	Frequency	26	4	.424 <sup>a</sup>	0.5
		%	33.3%	25.0%		
	Female	Frequency	52	12		
		%	66.7%	75.0%		
Residency	Rural	Frequency	6	3	1.875 <sup>a</sup>	0.1
		%	7.7%	18.8%		
	Urban	Frequency	72	13		
		%	92.3%	81.3%		
Marital Status	Single	Frequency	36	7	5.717 <sup>a</sup>	0.1
		%	46.2%	43.8%		
	Married	Frequency	38	8		
		%	48.7%	50.0%		
	Divorced	Frequency	4	0		
		%	5.1%	0.0%		
	Widow	Frequency	0	1		
		%	0.0%	6.3%		
Socio- economic Status	Satisfied	Frequency	41	6	1.571 <sup>a</sup>	0.4
		%	52.6%	37.5%		
	Satisfied to some extent	Frequency	29	7		
		%	37.2%	43.8%		
	Un satisfied	Frequency	8	3		
		%	10.3%	18.8%		
Educational Level	Nursing School Graduated	Frequency	17	6	3.292 <sup>a</sup>	0.3
		%	21.8%	37.5%		
	Nursing Institute graduated	Frequency	33	7		
		%	42.3%	43.8%		
	College of Nursing Graduated	Frequency	25	2		
		%	32.1%	12.5%		
	Postgraduate	Frequency	3	1		
		%	3.8%	6.3%		
Working Area	Medical	Frequency	19	3	8.192 <sup>a</sup>	0.1
		%	24.4%	18.8%		
	Surgical	Frequency	13	5		
		%	16.7%	31.3%		
	CCU	Frequency	3	3		
		%	3.8%	18.8%		
	Emergency	Frequency	24	2		
		%	30.8%	12.5%		
	Dialysis	Frequency	1	0		
		%	1.3%	0.0%		
	Other	Frequency	18	3		
		%	23.1%	18.8%		