

**ASSESSMENT OF NURSES' KNOWLEDGE AND ATTITUDES
ABOUT PAIN MANAGEMENT AT AL-DIWANIYAH TEACHING
HOSPITAL, IRAQ**

BY

BAN SABAH NEAMAH ALMOHGAH



**The Institute of Health Sciences
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**SUPERVISOR
Asst. Prof. Dr. Başak KARASU**

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ACCEPTANCE AND APPROVAL

Ban Sabah Neamah ALMOHGAH the graduate student of The Institute of Health Sciences with the student number of 208210259 has successfully presented her thesis entitled " Assessment of Nurses' knowledge and attitudes about pain management at Al-Diwaniyah Teaching Hospital, Iraq" before the jury whose signatures are below, after fulfilling all of the requirements determined by the relevant regulations for the degree of Master of Science:

Advisor : Asst. Prof. Dr. Başak KARASU

Examining Committee Members:

Chairman : Asst. Prof. Dr. Başak KARASU
Faculty of Dentistry
Çankırı Karatekin University

Member : Asst. Prof. Dr. Songül ŞAHİN
Faculty of Dentistry
Çankırı Karatekin University

Member : Asst. Prof. Dr. Hacer EBERLİKÖSE
Faculty of Dentistry
Ankara Medipol University

Approved for the Graduate School of Health Sciences

Assoc.Prof. Dr. Nazan KAYTEZ
Director of Graduate School

ETHICS STATEMENT

The thesis entitled "Assessment of Nurses' knowledge and attitudes about pain management at Al-Diwaniyah Teaching Hospital, Iraq," which was prepared and presented as a thesis, was written by myself and under the scientific, academic rules, and ethical conduct. I researched the thesis; therefore, all of the used sentences and interpretations within the work belong to me. The idea/hypothesis of my thesis solely belongs to my supervisor and me.

I declare the issues above to be correct.

Signature

2023

Ban Sabah Neamah ALMOHGAH

ABSTRACT

ASSESSMENT OF NURSES' KNOWLEDGE AND ATTITUDES ABOUT PAIN MANAGEMENT AT AL-DIWANIYAH TEACHING HOSPITAL, IRAQ

Ban Sabah Neamah ALMOHGAH

Master of Science in Nursing

Advisor: Dr. Öğr. Üyesi Başak KARASU

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Background: Pain is one of the most important vital signs that need experience in nursing work, as only the patient can accurately express the intensity of his pain. Pain impacts the patient's lifestyle and recovery from illness, as well as feelings and reactions. Because they spend more time with patients the nurse must be familiar with pain management, pain physiology, and the physiological implications of acute and chronic pain. **Objectives:** The aim of the study was to assess nurses' knowledge and attitudes about pain management at Al-Diwaniyah teaching hospital. **Methodology:** A descriptive design study was conducted at Al-Diwaniyah Teaching Hospital (Surgery Department, Emergency Department, Oncology Department, Coronary Care Unit). Research tool A face-to-face questionnaire was used. The questionnaire consists of the following parts: demographic information (6 questions), nurses' attitudes toward pain management (22 questions), and knowledge about Pain. Management (14 questions) A non-probability (objective) sample was used to test (200 nurses working in the above units, the sample was collected during the period from April 1, 2022) to July 1, 2022. **Results:** The study shows The level of Assessment of knowledge and attitudes about Pain and its management is a fair average (90%); the characteristics of the current study showed that the highest percentage of females was (108) females at the age of (20-29) years. In addition, the highest percentage had nursing experience (1-5 years), and the highest percentage of nurses had a bachelor's degree. The highest percentage had not received training courses on Pain in the past, and There was no statistically significant association between nurses' knowledge, attitude, and socio-demographic characteristics.

Conclusion: The study results show that the knowledge and attitude about pain management are fair. **Recommendations:** Conducting activities to develop the knowledge and trends of pain management among nurses; educational lectures must be published to communicate updates from the latest studies regarding pain management and treatment, and continuing education systems must be activated in hospitals.

2023, 57 pages

Keywords: Nurses' Knowledge, Pain Management, Emergency, Oncology.



ÖZET

IRAK'IN AL-DİWANİYAH ŞEHRİNDE AKUT MİYOKARD ENFARKTÜSÜ İÇİN TROMBOLİTİK TEDAVİ GÖREN HASTALARIN HEMŞİRELİK YÖNETİMİNE İLİŞKİN HEMŞİRELERİN BİLGİLERİNİN DEĞERLENDİRİLMESİ

Ban Sabah Neamah ALMOHGAH

Hemşirelik, Yüksek Lisans

Advisor: Asst. Prof. Dr. Başak KARASU

Şubat 2023

Giriş: Ağrı, sadece hasta ağrısının yoğunluğunu doğru bir şekilde ifade etme yeteneğine sahip olduğundan, hemşirelik işinde deneyim gerektiren en önemli yaşamsal belirtilerden biridir. Ağrının hastanın ve ailesinin yaşamı üzerinde birçok olumsuz etkisi vardır ve hastanın yaşam tarzını, hastalıktan ve ölümden kurtulmasını, ayrıca duygu ve tepkilerini etkiler, hem de duygu ve tepkiler üzerine, Hemşirelerin diğer sağlık personeline göre hasta ile daha uzun süre birlikte olması açısından, hemşire ağrının fizyolojisinin ve ağrının nasıl yönetileceğinin ve akut ve kronik ağrının neden olduğu fizyolojik ve psikolojik etkilerin farkında olmalıdır. **Amaç:** Bu çalışmanın amacı, Al-Diwaniyah Eğitim Hastanesinde çalışan hemşirelerin ağrı yönetimine ilişkin bilgi ve tutumlarını değerlendirmektir. **Yöntem:** Al-Diwaniyah Eğitim Hastanesi'nde (Ameliyat Bölümü, Acil Servis, Onkoloji Bölümü, Koroner Bakım Ünitesi) tanımlayıcı bir tasarım çalışması yapılmıştır. Hemşireler için yüz yüze görüşme yöntemiyle bir anket kullanılmıştır. Anket aşağıdaki bölümlerden oluşmaktadır: demografik bilgiler (6 soru), hemşirelerin ağrı yönetimine yönelik tutumları (22 soru), ağrı yönetimi hakkında bilgi (14 soru) test etmek için (objektif) bir örneklem kullanıldı (yukarıdaki birimlerde çalışan 200 hemşire, örnek 1 Nisan 2022'den 1 Temmuz 2022'ye kadar olan dönemde toplanmıştır. **Bulgular:** Çalışmanın sonuçları, ağrı değerlendirmesi ve yönetimi ile ilgili bilgi ve tutum düzeyinin (%90) orta düzeyde olduğunu göstermektedir. Mevcut çalışmanın özellikleri, kadınların en yüksek yüzdesinin (20-29) yaşında (108) kadın olduğunu göstermiştir. Ayrıca hemşirelik deneyimine sahip olanların (1-5 yıl), hemşirelerin en yüksek yüzdesi lisans derecesine sahiptir. Bunların en yüksek yüzdesi

geçmişte ağrı konusunda eğitim almamıştı. Hemşirelerin bilgi, tutum ve sosyo-demografik özellikleri arasında istatistiksel olarak anlamlı bir ilişki yoktu. **Sonuç:** Çalışmanın sonuçları, ağrı değerlendirmesi ve yönetimi ile ilgili bilgi ve tutum düzeyinin orta düzeyde olduğunu göstermektedir. **Öneriler:** Hemşireler arasında ağrı yönetimi bilgi ve eğilimlerini geliştirmeye yönelik teşvik edici faaliyetlerde bulunmalıdır, Eğitim dersleri yayınlanmalı ve ağrı yönetimi ve tedavisi ile ilgili en son araştırma bulgularından güncellemeleri iletmek için çalışmalıdır ve Hastanelerde sürekli eğitim sistemleri etkinleştirilmelidir.

2023, 57 Sayfa

ANAHTAR KELİMELEER: Hemşirelerin Bilgisi , Ağrı Yönetimi , Acil servis.

PREFACE AND ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my Lord, who enabled me to complete my letter and my sincere thanks to my husband, who stood by my side in all my steps, and thanks to my family and my teachers at çankiri University for their efforts

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CONTENTS

ACCEPTANCE AND APPROVAL	i
ETHICS STATEMENT	ii
ABSTRACT	iii
ÖZET.....	v
PREFACE AND ACKNOWLEDGEMENTS	vii
CONTENTS.....	ix
LIST OF ABBREVIATIONS	x
LIST OF FIGURES	x
LIST OF TABLES	xii
1. INTRODUCTION	12
2. REVIEW OF LITERATURE.....	16
3. MATERIAL METHODS	28
3.1 Study Design.....	29
3.2 Sampling And Data Collection.....	29
3.3 Research Instrument.....	29
3.4 Administrative Arrangements And Ethical Considerations	30
3.5 Validity Of The Questionnaire.....	31
3.6 Reliability Of The Questionnaire.....	31
3.7 Statistical Data.....	31
4. RESULTS.....	31
5. DISCUSSION.....	39
6. CONCLUSION AND RECOMMENDATIONS.....	42
REFERENCES.....	43
APPENDICES	47
CURRICULUM VITAE.....	57

LIST OF ABBREVIATIONS

IASP	international association of pain
HCPs	health care professionals
APS	American Pain Society
WHO	world health organization
PCA	patient-controlled analgesia
5HT/NA	serotonergic non adrenergic
HIV	human immunodeficiency
AIDS	Acquired immunodeficiency syndrome
VAS	Visual Analogue Scales
NSAIDs	Non-steroidal anti-inflammatory drugs
PCA	patient-controlled analgesia
P.G.	Prostaglandin
TCAs	Tricyclic antidepressants
NSAIDs	Non-steroidal anti-inflammatory drugs
SSRIs	Selective serotonin reuptake inhibitors
SPSS	Statistical Package for Social Sciences

LIST OF FIGURES

Figure 2.1 Factors that Affect the Pain Experience Determined by Loeser's Model of Pain (practical pain management, 2015)	23
Figure 2.2 The Numeric Pain Rating Scale by (medical news today, 2020).....	24
Figure 2.3 Visual Analogue Scales (medical news today, 2020)	25
Figure 2.4 Faces Pain Scale (medical news today, 2020).....	25
Figure 4.1 Overall percentage.....	37



LIST OF TABLES

Table 4.1 Participants' Socio-Demographic Data of the Study (n= 200).....	32
Table 4.2 Attitudes of nurses about pain management	33
Table 4.3 Nurses' knowledge of pain management.....	35
Table 4.4 The overall Assessment	36
Table 4.5 Differences between Nurses' (knowledge, attitudes) and there demographic data (Gender and Participation in educational / training courses related to pain management).....	37
Table 4.6 Relationship between Nurses' (knowledge, attitudes) and their demographic data (Age, Education levels, Years of experience in nursing and Working place)	38

1. INTRODUCTION

According to Liyew, B.; Tilahun et al., 2019 Those who suffer from Pain in hospitals are about 50-80%, and thus Pain is considered a source of global danger, leaving the patient suffering from Pain despite the existence of solutions and unethical behavior. It is part of human rights to treat the patient and relieve his Pain. Despite the cognitive development, The treatment of pharmacological and non-pharmacological Pain has reached, but many patients still suffer from untreated Pain.

IASP (2018) defines Pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage." A nurse can identify Pain only through the patient's image, expressing unpleasant feelings, sensations, behavior, and emotions.

The definition of Pain by IASP is subjective, and this definition has wide acceptance as a practical description of the human experience. However, the phenomenological aspects of Pain are not adequately described.

Pain is one of the most important vital signs that need experience in nursing work, as only the patient can express the intensity of his Pain accurately. (Elliott, M., & Coventry, A. 2012)

The Pain is subjective, individual, and dynamic. Many factors influence such as emotion, sensory experience, cognitive, genetics, distraction, and behavior as the experience of pain data centers in the upper part of the brain that cause Pain.(Martucci, K. T., & Mackey, S. C. 2016)

The negatives of Pain and its effects can be directly described in the patient's personal and family life, and it has an impact on the patient's lifestyle and recovery from illness and death, as well as on feelings and reactions. (Mohamed Ali et al, 2022)

There are many reasons for the occurrence of acute Pain, including trauma, nerve damage, or operations, and it decreases with the occurrence of Healing; acute Pain is divided into two parts, malignant and non-malignant. Usually, Chronic Pain can last for three months. Acute Pain is short, occurs frequently, and decreases with development. Non-malignant chronic Pain may cause either neuropathy or Pain. Acute Pain, known as penetrating Pain, may occur due to chronic Pain. (Pasero and McCaffery 2005)

More than half (>50%) of hospitalized patients suffer from acute or chronic Pain, especially in surgical wards and inpatients. (Gregory, J., & McGowan, L. 2016)

Pain is a common symptom that can be relieved by medical techniques. A patient who suffers from Pain and does not receive treatment may be exposed to an obstruction in his daily life and physical and mental comfort, and thus on his lifestyle in general. The concepts of pain management indicate that Pain must be managed along with other vital signs. Self-report of Pain rather than of patient behavior is preferred. (Manwere et al., 2015)

In terms of the presence of nurses for a more extended period with the patient than other medical staff, the nurse must be aware of the physiology of Pain, how to manage Pain, and the physiological and psychological effects caused by acute and chronic Pain.

The nurse must be highly knowledgeable in pain management, as he is in direct contact with patients who suffer from Pain, whether inside hospitals, outpatient clinics, or at home. He must be highly skilled in pain assessment and know the methods of pain management and the results of these interventions. (Hinkle & Cheever, 2018)

Healthcare providers must be well-versed in how Pain is managed for Pain. In the work of health care professionals (HCPs), particularly in the nurses' workplace where Pain is managed daily, they must have experience evaluating Pain in reliable

detail. Because pain management and evaluation should be routine and daily, the American Pain Society (APS) has declared Pain a "fifth vital sign."(Nuseir, Kassab&Almomani, 2016)

The World Health Organization (WHO) recommends that attention be paid to the issue of pain relief, and this can be achieved through the development and implementation of programs for pain assessment and management because of the direct impact of Pain on a person's physical and mental treatment and social relationships

And all of these directly impact the individual's lifestyle, and the lack of treatment for Pain may cause the patient to prolong hospitalization and increase expenses. The reason for not treating the Pain may be due to the lack of knowledge and direction of the nurse or other medical and health care professionals in the Assessment and management of Pain, and here concerns arise from Abuse or overuse of analgesics and opiates, which leads to addiction. (Salim, Tuffaha& Brant, 2020)

1.1 Importance of the Study

Treating the patient and relieving and managing his Pain is one of his most basic rights. Therefore, he must be provided with nursing care at the highest level. Because most of the nurses' pain assessment and management skills come from their general experience and the lack of programs to develop nursing skills in pain management and Assessment, mistakes may occur, especially if their knowledge is insufficient.(Issa, M et al., 2017)

The nurses have knowledge of pain management and Assessment that contributes to maintaining the patient's lifestyle and helps provide advanced nursing care(Al-Shaer D, 2011)

Because of the active role of the nurses working in the oncology department in managing the Pain experienced by cancer patients, they must have high skills in managing and evaluating the patients' Pain. (Shahriary S. et al., 2015)

1.2 Statement of the Problem:

Assessment of Nurses' knowledge and attitudes about pain management at Al-Diwaniyah Teaching Hospital, Iraq.

Aims of study

- Assessment of nurses' knowledge of pain management in Al-Diwaniyah Teaching Hospital in departments (surgical services, emergency service, oncology department, coronary care unit)
- Assessment of nurses' attitudes regarding pain management in Al-Diwaniyah Teaching Hospital (surgical service, Emergency Service, oncology department, and Coronary Care Unit).
- Find out the educational status of the nurses who take management patients suffering from Pain.
- Find the difference between nurses' knowledge and attitudes and socio-demographic variables.

1.3 Definition of the Terms:

a) Nurses

- **Theoretical Definition:** The patient is considered part of the health care team and the doctor and health care members. They have an influential role and services in supporting mental and physical health, and they have the role of counselor and advisor in educating families and communities.
- **Operational Definition:** The nurses working in all hospital departments, including the oncology department, the emergency department, the surgical wards, and the coronary care unit. They provide nursing care to patients suffering from acute and severe Pain.

b) Knowledge

- **Theoretical Definition:** There is great importance in studying "knowledge" as it refers to "a person or group's knowledge of reality, emotions or experience."

Knowledge is one of the most critical aspects of humankind, and it has profound importance in the present and past world. (Mahajan,2016)

- **Operational Definition:** It is represented in the knowledge and skill of nurses in correctly assessing Pain through pain assessment tools, as well as an optimal nursing intervention in pain management.

c) **Attitude**

- **Theoretical Definition:** It is involuntary thoughts and reactions that occur through subconscious motives that take root in mind through fascinating experiences. It refers to the behavior of nurses in managing Pain (Liyew, DejenTilahun&Habtie, 2020).
- **Operational Definition:** Describes how nurses behave when nursing interventions in pain management.

d) **Pain management**

- **Theoretical Definition:** Reducing the Pain of a patient who suffers from severe or severe Pain to a point where the patient feels comfortable, divided into pharmacological and non-pharmacological analgesics.
- **Operational Definition:** Nursing interventions in which the nurse assesses and diagnoses Pain and plans how to reduce or terminate it, the nursing intervention and evaluation of outcomes.

2. REVIEW OF LITERATURE

2.1 GENERAL INFORMATION

2.1.1 Historical Back Ground Of Pain Management

In ancient societies, there were many beliefs about the causes of Pain and what Pain is related to, especially in societies far from Western or modern Medicine. In many ancient societies, Pain was considered part of social and cultural development. Beliefs that Pain is linked to supernatural powers did not last for a long time, and thus began to develop medical theories based on natural phenomena away or independently of divine forces, which happened in ancient China. The ancient Egyptians believed that Pain was seen in the heart, but in ancient India, it was Medicine. Buddhism and Hinduism influenced it. In the Paranoiac era, there were beliefs that the composition of body fluids determined health and disease .The French philosopher René Descartes in the early

modern period (1596-1650), derived the most crucial theory of Pain's dynamic and radical nature. Through his theory, the brain took the place of the heart, as the Pain represented in the heart was abandoned. Thus, Descartes' theory became a gateway to neuroscience that explains the mechanisms of Pain.

In 1803, the German pharmacist Friedrich Wilhelm Sertürner (1783-1806) isolated morphine, the opium alkaloid, for the first time. There was great importance for medical sciences in Western Medicine between the late eighteenth century to the middle of the nineteenth century when the pathophysiological theories of Pain began, and there was an apparent increase in scientific knowledge of Pain. Many developments related to anesthesia occurred between the two periods (1819-1868) and (1811-1879). Where the physician William Thomas Morton on October 16, 1846, where introduced anesthesia using ether. Pain during surgery has been avoided since then. In 1847, Scottish physician James Young Simpson first used chloroform as an anesthetic in gynecology. The physician Carl Koller discovered in Vienna between (1857-1944) that cocaine has narcotic properties, specifically in 1884. (1861-1949) using solutions of cocaine in spinal anesthesia. Despite good progress in studies of physical pain relief, pain management was not a therapeutic goal in that era as Pain is treated during surgery, meaning that it is secondary to the scope of anesthetic practice as chronic Pain was not the main topic. At the beginning of the twentieth century, opioid phobia emerged due to social anxiety about the use of morphine, as optimism in its ability to control Pain ended due to the discovery made in the American Civil War (1861-1865), where the spread of morphine addiction due to its misuse as result restrictions were imposed on Distribution of opiates, as the negative view of opium was confirmed after trials in Asia. (Soyannwo, O. A. 2010)

The importance of wars in stimulating the development of pain management discoveries is because soldiers were returning from wars suffering from severe, persistent Pain that the therapeutic stock could not overcome at the time. This could be considered a direct cause of the birth of a medical specialty in pain management. The International Association for the Study of Pain (IASP) was founded in 1979 by Bonica. The association formulated a basic definition of Pain that established national chapters years later. Pain was defined as "an unpleasant sensory and emotional experience

associated with actual, potential, or Describing it with the term such damage. "From this definition, we can conclude that pain is not only tissue damage; pain can occur without tissue damage, and it can occur as a result of psychological factors" (learning, memory, spirit, and emotional processes). In the twentieth century, there were multiple theories about Pain, the most important of which was shared by Monica, founder of the International Association for the Study of Pain (IASP), from the Canadian psychologist Ronald Melzak (1929). And the British physiologist Patrick de Wall (1925-2001) Gate Control Theory This theory describes the pain pathway in the spinal cord that regulates the transmission of pain impulses between the periphery and the brain. During the 1990s, it was believed that the intensity, self-perception, duration, and tolerance of Pain depended on ethnic attitudes and beliefs worldwide. This is essential information for a nurse or doctor if they know the cultural and religious beliefs of patients with chronic Pain. This is something that the patient feels comfortable with and appreciated by the health staff. In the period (1918-2005), a nurse, social worker, and later physician Cecily Saunders developed the concept of pervasive Pain as requiring continuous care and that chronic Pain in advanced disease impacts an individual's lifestyle directly. (Soyannwo, O. A. 2010)

In the early twentieth century, morphine and opium were used as pain relievers, but addiction also had dangers. Meperidine was considered an 'on-demand' or 'patient-controlled analgesia late in the last century before it was known, it was used to treat postoperative Pain and precancerous Pain (Sabatowski et al., 2004)

The concept of Pain and chronic Pain has undergone a long study period. Initially, Pain was seen as something supernatural that humans could only partially control. It became possible to control Pain to develop the physiological concept, which was expanded by accepting ethnic, cultural, and religious influences. Previously discovered opioids still play a significant role in treating cancer and neuropathic Pain; it should be noted that the treatment of non-cancerous Pain requires simple and non-opioid analgesics to reduce acute Pain, cancer pain, and neuropathic Pain in a large number of patients. (Soyannwo, O. A. 2010)

(Olson, 2013) The knowledge of Pain has reached a good level through new therapeutic techniques such as transcutaneous electrical nerve stimulation, massage, and pressure.

In the past year, research has been done to develop new ways to provide analgesics, such as epidural and patient-controlled analgesia (PCA), and acute pain programs to increase health workers' and patients' knowledge and education. However, the poor use of opioids globally (2001 to 2013) led to increased addiction, dependence on opioids, and death. With increased education and education of nurses about pain management, knowledge, and attitude, concerns about the dangers of opioids continue, as well as the suffering of patients from Pain. Moderate after surgery. (Carr et al., 2014)

2.1.2 An Overview Of Pain Management

In (September 2020, the (WHO) revised the definition of Pain as " an unpleasant sensory and emotional experience associated with or resembling that associated with actual or potential tissue damage. "

Pain is one of the symptoms in the underlying cases in the medical diagnosis. Pain is affected by social, psychological, and biological factors to varying degrees, as it is a personal experience. Pain is one of the symptoms that nurses deal with daily, and it is a prevalent symptom. And to express pain behaviors despite only verbal descriptions. The inability to communicate does not negate the exposure of humans or animals to Pain. Individuals learn the concept of Pain from their own experiences. It is not hidden that Pain impacts the individual's social lifestyle, despite adaptation, but it has unpleasant effects on the patient's psyche and well-being. (Raja et al., 2020)

Untreated Pain leads to real problems in patients as they experience health and social problems that directly affect their lifestyle, including decreased cognitive function, social isolation, fear and anxiety, sleep disturbance, despair, and memory impairment. There are many effects of untreated Pain, including depression, which suppresses the immune system. Delayed recovery leads to an increase in the period of hospitalization, which in turn results in delayed recovery, complications, and additional financial costs. Correct pain management is of great importance in the quality of health care and nursing. Pain relief requires the cooperation of the medical team to achieve

this. Nurses are considered experts in pain assessment by educating patients in health care settings. This requires effective pain management, scrutiny, knowledge, correct attitudes, appropriate attitude, and reliable measures of pain management. Some studies indicated a lack of knowledge, skills, and attitudes in treating Pain due to misinterpretation of Pain and poor health care in various hospitals worldwide.(Alkhatib, G.S et al.,2020)

2.1.3 Anatomic and Physiologic Principles of Pain

In short, The brain, brain stem, and spinal cord are components of the CNS, where the brain consists of (the brain stem, cerebrum, and cerebellum) and the brain is considered the place where the sensation of Pain occurs through the ascending pain pathway, as the injuries that occur in the body are felt through an area called Dandruuff which located in the back of the central sulcus. The brainstem consists of three sensory regions (midbrain, pons, and medulla). The spinal cord is a station for transmitting information about Pain, as it consists of three barriers from the inside (pia mater, arachnoid, and dura matter). They are called in their entirety (meninges). When we take a cross-section of the spinal cord, we find that it consists of a grayish butterfly-like layer surrounded by a white layer, and in the middle is the central channel that contains the cerebrospinal fluid that feeds the CNS. The spinal cord consists of the cervical cord region to which the motor fibers are connected, where nerve impulses are transmitted outside the spinal cord, and there are sensory fibers connected to it from the dorsal horn that bring the nerve impulses to the spinal cord. (Schaible, H. G., & Richter, F. (2004)

2.1.4 Ascending Pathway

When the wound occurs, chemical cytokines are released, the most important of which are prostaglandins, produced throughout the body in response to inflammation. Sensory nerve fibers are located around the body where they respond to the release of P.G. and transmit nerve signals to the back of the spinal cord by neurotransmitters such as (substance P) to the dorsal horn. The first signal is sent by the first-order neuron, which in turn will synapse with the second-order neuron In the region of the dorsal horn so that the second-order neuron will transmit the nerve signal to the opposite side. The second-order neuron transmits nerve impulses through (the thalamus-spinal canal) and

ascends through the residual cord to reach the thalamic region. (Schaible, H. G., & Richter, F. (2004)

2.1.5 Descending Pathway

The descending pain pathway is essential in inhibiting the ascending pain pathway. The main area of the ascending pathway is (Perry's aqueous substance of the gray channel of the midbrain and the nucleus of the medulla oblongata). Inhibition does not occur in it, but decreases (nucleus rap Magnus) and synapses with the second neuron called (5HT \ N.A.) and moves to the dorsal horn region of the spinal cord, (5HT \ N.A.) has a role in inhibiting or monitoring the communication between first-order neurons and neurons Class II and ascending pathway, which helps control signs of Pain. The dorsal horn area serves as a gateway for pain control. (Schaible, H. G., & Richter, F. (2004)

2.1.6 Classification of Pain:

- Acute Pain

Acute Pain is temporary Pain that usually lasts from 4-6 months and is a normal response to an injury or warns of an injury and can end with Healing (such as a surgical incision). Pain is stimulated by heat, cold, wounds, surgery, or pressure; the sympathetic nervous system responds to Pain by triggering a "fight or flight" response that causes (crying, complaining, or protecting painful areas of the body. Some of the behavioral symptoms that may appear in patients with severe Pain are (rapid heartbeat, sweating, high blood pressure, pallor of the face, shallow breathing, and mydriasis); Acute pain is treated in a variety of ways, including (palliative treatment such as cold or hot compresses, clinical and behavioral pain relief interventions, surgery or rehabilitation prescriptions). Hinkle& Cheever, (2018)

- Chronic Pain

Chronic Pain is continuous or intermittent Pain, usually more than six months, and the cause is unclear, so dealing with it is complex (such as neuralgia, neck pain, cancer, headache, back pain, and psychological Pain, Signs, and symptoms of chronic

Pain is that the patient becomes (muscle tension, depression, restlessness or anxiety, has poor movement, decreased energy, anger). (Hinkle& Cheever, (2018).

- Neuropathic Pain

Neuropathic Pain is the result of a defect in the brain, nerves, or spinal cord, and it can also occur due to cancer, accident, or chemical poisoning. There is a link between neuropathic diseases such as diabetes, cancer, multiple sclerosis, stroke, HIV, AIDS, amputation, and injury. The spine and others, and the Pain resulting from neuropathy may be unknown. (Finnerup, N. B., Kuner, R., & Jensen, T. S. 2021).

- Nociceptive Pain

It is a Pain resulting from damage and inflammation in tissues other than the central and peripheral nervous systems. It may be in the form of Pain or throbbing limited to a specific area and can be treated using opioid and non-opioid analgesics, The treatment of neuropathy is a process of managing the condition to prevent the occurrence of Pain and complications resulting from it. (Paul,Day & Williams, 2016).

Types of nociceptive Pain include:

Visceral - this Pain affects the internal organs represented by the intestines and stomach.

Physical - This affects bones, muscles, connective tissues, joints, and skin.

Cutaneous - occurs in the subcutaneous tissue or on the surface of the skin. (Zaki, Jet al, 2016).

2.1.7 Model of Pain

There are four dimensions of Pain in the pain model, the feeling of Pain, the behavior of Pain and suffering, the physical aspects of pain perception, as well as biological, psychological, and social causes, which are also crucial in understanding Pain and suffering, There are many factors that affect pain experience including the (age, fatigue or exhaustion, genetic sensitivity, cognitive feature, experience, fear and anxiety, and culture). (practical pain management, 2015)

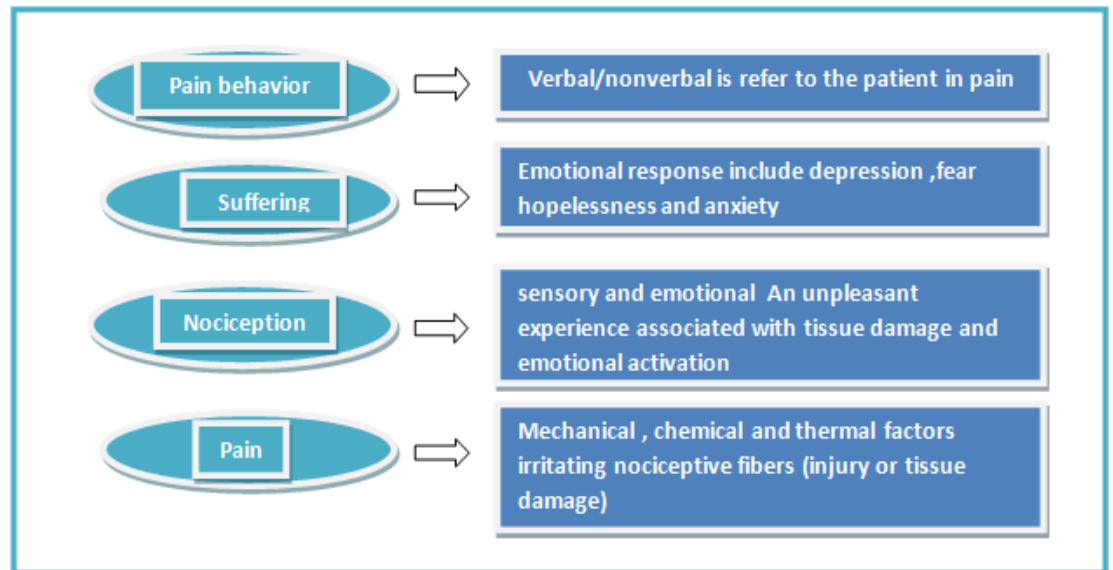


FIGURE (2.1) Factors that Affect the Pain Experience Determined by Loeser's Model of Pain (practical pain management, 2015)

2.1.8 Assessment of Pain

Pain assessment is the process of evaluating the patient who suffers from Pain by knowing the intensity, duration, nature, and location of the Pain, as well as his ability to move and work. The patient is considered the first source of pain assessment. But if the patient cannot communicate, he may seek the help of other methods; the pain assessment consists of several stages, including (Social, psychological, and occupational Assessment, Psychological Assessment, Physical evaluation and history, and multidimensional Assessment). It is crucial to evaluate Pain periodically, as it is essential and is considered one of the five vital signs.

- **Physical evaluation and history**

It can be applied to the patient's general condition of behavior and lifestyle. Determining the aspects of the Pain that he smells (pain intensity, pain duration, pain location, and the patient's description of the type of Pain. Self-management of Pain by the patient by knowing the drug history, injuries, diseases, and actions that the patient previously performed to relieve Pain.

- **Social, psychological, and occupational Assessment**

It includes the patient's lifestyle, the extent of his ability to carry out his daily activities and his work, and the opinions of the family and those close to the patient about the level of his patterns and behaviors in daily life, the psychological situation, and whether the patient is exposed to cases of depression due to Pain.

- **Multiple evaluations**

It is used for patients suffering from chronic or mixed Pain or other complex conditions that include The patient's description of the effects of Pain on his psychosocial lifestyle, as well as the McGill Pain Questionnaire for those suffering from severe Pain. (American Pain Society, 2007; Oregon Pain Commission, 2012)

2.1.9 Pain Assessment Tool

Pain assessment tools are divided into (a verbal rating scale and a numeric, visual, and face pain scale).

- **The Numeric Pain Rating Scale:**

It is to classify the patient's Pain by setting a scale to determine the level of Pain by evaluating the Pain from 0-10, where the number 0 indicates that the Pain is not present, and the number 10 indicates the maximum state of Pain. (medical news today, 2020)



FIGURE (2.2) The Numeric Pain Rating Scale by (medical news today, 2020)

- Visual Analogue Scales (VAS)

It helps evaluate the severity of the Pain by making the patient place a circle representing the location of the discomfort on a horizontal line ten cm long, representing the left anchor that there is no pain, while the right is the maximum degree of Pain to record the results. A ruler is placed along the line, and the patient's distance is measured from the lower left limb. Please write it down in millimeters or centimeters. (medical news today, 2020)

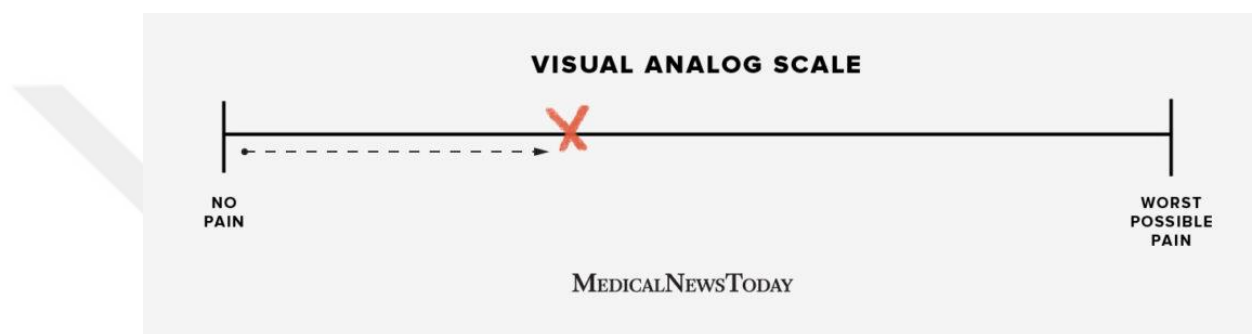


FIGURE (2.3) Visual Analogue Scales (medical news today, 2020)

- Faces Pain Scale

It consists of expressive faces. The patient chooses an expressive face that expresses his condition during Pain. (Medical news today, 2020)



FIGURE (2.4) Faces Pain Scale (medical news today, 2020)

2.1.10 Pain Management

From a human point of view, the patient's Pain must be alleviated, as it hinders the person's life and prevents him from carrying out his life and community activities and prevents them from talking or sharing with others or doing things like love. It can also affect their thinking and attitudes. (American Pain Society, 2007; Health Care Association of New Jersey, 2011).

Pain management consists of two parts, therapeutic and non-therapeutic:

- Non-Therapeutic Management Include: Reducing external stimuli such as (lighting, sound, and temperature), using heat or cold compresses, visualization, and relaxation techniques, cognitive behavioral therapy, psychotherapy, and acupuncture. (CPM Resource Center, 2010a, 2010b, 2010c, 2010d, American Pain Society, 2007; City of Hope National Medical Center, 2011).
- Therapeutic management of Pain: Managing Pain through the use of medication requires consideration of many aspects of the patient experiencing Pain, including the patient's medical history, the patient's age, addiction, and type of Pain.

(NSAIDs): Most notably, ibuprofen, naproxen, salicylates, and ketorolac should not be used in patients with gastrointestinal ulcers, hepatic or renal impairment, or bleeding disorders. It may also be used with Opioids for moderate Pain as well as for mild Pain.

Analgesic: Acetaminophen is used in the treatment of mild and moderate Pain. Attention should be paid to the number of doses the patient gives, as daily use may lead to liver poisoning.

Tricyclic antidepressants (TCAs) may provide mild pain relievers and include desipramine, amitriptyline, and nortriptyline.

Selective serotonin reuptake inhibitors (SSRIs): sertraline, fluoxetine, paroxetine.

Anticonvulsants: Examples include gabapentin and pregabalin carbamazepine.

Topical agents: These include creams that contain local anesthetic agents and can be used to relieve neuropathy or arthritis pain.

Anesthesia: including using nerve block or epidural anesthesia to treat chronic or acute Pain. It is temporary and can last for three or four months.

Opioids: they include the mild ones, oxycodone, codeine, and hydrocodone. The more potent and effective opioids are hydromorphone, morphine, and fentanyl. They can be used for all types of Pain, whether severe, acute, or chronic. (CPM Resource Center, 2010a, 2010b, 2010c, 2010d, American Pain Society, 2007; City of Hope National Medical Center, 2011).

2.2 PREVIOUS STUDIES

i. The First Study

A descriptive study was conducted on a random sample of (83) nurses working in Najaf teaching hospitals, including (Al-Sadr Medical Hospital, Al-Hakim Hospital, Al-Zahra Hospital, and Al-Furat Hospital) on 11/11/. 2011 to 3/28/2012, where evidence was collected through a composite transcription questionnaire, in a direct interview with nurses and individual interviews; the questionnaire consists of two parts, the first part consists of demographic information containing six questions (gender, age, workplace in the hospital, education level, years of experience, and the hospital in which he works) and the second part consists of 16 questions regarding pain management by nurses. The results showed that nurses' knowledge was fair about pain management, as well as the presence of a statistically significant relationship between sex and Pain management and the absence of statistically significant associations between other characteristics and nursing management. (Hamza, R. A, 2012)

ii. Second Study

In King Saud Medical City (KSMC), nurses' behavior and knowledge about pain management were investigated on a sample of (289) nurses working in intensive care units using a self-report questionnaire. Where (207) nurses answered the questionnaire at a rate of (71%), and the results were: There is a severe lack of knowledge, and their

attitudes towards pain management were terrible for patients in the intensive care unit, 60% of the questions related to knowledge were answered incorrectly, and 65% to the questions related to attitudes were incorrectly out of 50% of the nurses participating in the answer on the questionnaire. (Issa, M. R., Awajeh, A. M., & Khraisat, F. S. (2017)

iii. Third Study

Abdul-Hussein, H. N., & Hattab, W. A. A. (2022). A program was designed and created based on the initial Assessment of nurses' knowledge and attitudes in pain management for patients with acute myocardial infarction hospitalized in the unit. A pre-experiment application was used to obtain the study's objectives. A non-probability sample of 30 nurses working in the intensive care unit was selected. A group of experts reviewed intensive care and the contents of the program. The results showed statistically significant differences in nurses' knowledge regarding pain management in the pre and post-test with a value of ($p = .000$) and the difference between post-test and pre-test practices regarding pain management with the same value ($p = .000$).

Fourth Study

The research was conducted in Iran at Shahid Sadoqi Hospital; a cross-sectional research design was conducted using a questionnaire to evaluate nurses' attitudes and knowledge about Pain, and a sample was taken of 58 nurses working in the oncology department. It was noted that there is a lack of knowledge and bad attitudes at (75%) where The Percentage of those with a passing score was only (8.6%). (Shahriary S et al., 2015).

3. MATERIAL METHODS

This chapter presents the methods used to conduct this study, including the study design, a sample of the study, data collection, research instrument, administrative arrangements, ethical considerations, the validity of the questionnaire, reliability of the instrument (conducting pilot study), and statistical data analysis.

3.1 STUDY DESIGN

A descriptive design study will be conducted at Al-Diwaniyah Teaching Hospital (surgical department, Emergency Department, oncology department, and Coronary Care Unit). The research will be carried out to determine the knowledge level of nurses on pain management. The interview will be face-to-face with the nurse staff to fill in the questionnaire. The study applies from (April 1, 2022) to (July 1, 2022).

3.2 SAMPLING AND DATA COLLECTION

A purposive (non-probability) sample was chosen to obtain accurate and representative data. A total of 403 nurses work at Al-Diwaniyah Teaching Hospital (surgical department, Emergency Department, oncology department, and Coronary Care Unit). According to Yamane, the sample size for the 95% confidence level and $p = 0.5$ should be:

$$n = N / (1 + N (e)^2)$$
$$n = 403 / (1 + 403(0.05)^2)$$
$$n = 200$$

($N = 403$) Several nurse staff in Diwaniyah Teaching hospital (surgical department, Emergency Department, oncology department, and Coronary Care Unit).

($e = 0.05$) is the level of precision.

($n = 200$) refers to the representative sample of the current study, which included all nurses working at the Diwaniyah Teaching Hospital (surgical department, Emergency Department, oncology department, and Coronary Care Unit). (Sarmah, H. K. et al 2013)

After obtaining permission from the institution, the nurse staff filled out the questionnaire, and then data was collected. The interview method, which took 15-20 minutes approximately, was face-to-face with the nurse staff to fill in the questionnaire. The researcher obtains the consent of each nurse participating in the study and shows the study form. (Appendix 1)

3.3 RESEARCH INSTRUMENT

In 1987 the questionnaire was developed by Ferrell and McCaffery, and in 2014, the original authors revised the latest version. (Ferrell, B.R.; McCaffery, 2014).

This questionnaire was created and administered in Iraq by researchers (Saied, D. R., & Mansour, K. A. 2021), and permission was obtained from the researcher to use the questionnaire. (Appendix 2)

The survey consists of the following parts:

- SECTION I: Demographic Information (6 Questions).
- SECTION II: Nurses' Attitudes Towards Pain Management (22 Questions) (Choose (True) OR (False)).
- SECTION III: Nurses' knowledge of pain management (14 Questions) (Choose the correct answer from the answers below).

For this research, the number of correct answers was utilized to identify the level of knowledge and Attitudes of every nurse, rating scores from answers (2) correct and (1) incorrect. Assessment of nurses' knowledge and Attitudes is done by using the cut-off point as follows (Poor 1 - 1.33), (Fair 1.34 - 1.66), and (Good 1.67 - 2).

3.4 ADMINISTRATIVE ARRANGEMENTS AND ETHICAL CONSIDERATIONS

After obtaining the approval of the Ethics Committee of Çankiri Karatkin University to conduct the study on(7-3-2022) (Appendix 3), the researcher submitted a description that includes the objectives and project of the study to the responsible training and development department in Al-Qadisiyah Governorate. Permission was obtained on (14-03-2022) to conduct the study (Appendix 4). After that, the permission was sent to Al-Diwaniyah Teaching Hospital, and the researcher obtained permission to conduct the study on (30-3-2022). (Appendix 5)

Oral consent was obtained from the nurses participating in the study. The researcher informed them of the purpose of the study before participating and told the participants that their Participation in this study was voluntary and that they could withdraw from this study at any time they wanted. He also assured them that he would maintain the confidentiality of the data and would be kept securely during and after the study was conducted, following the subject agreement paper. Appendix 1)

3.5 VALIDITY OF THE QUESTIONNAIRE

The instrument's validity regarding nurses' knowledge and attitude about pain assessment and management is measured by a panel of experts that consisted of (15) experts. Eight faculty members from the University of Baghdad/College of Nursing, (2) faculty members from the University of Karbala/College of Nursing, (3) faculty members from the AL-Ameed University/College of Medicine, (2) doctors specializing in the intensive care unit and cardiac care unit in Imam Hussein Medical City. The questions included in the tool can measure all dimensions of the study, as the reliability of the research was relied upon (Saied, D. R., & Mansour, K. A. (2021) because we used the same questionnaire tool.

3.6 RELIABILITY OF THE QUESTIONNAIRE

The result of the reliability relied upon (Saied, D. R., & Mansour, K. A. 2021). He made a pilot study showing the person correlation coefficient (Chronbach's $\alpha = 0.949$), which is considered statistically acceptable to match the lower bound of the reliability coefficient (Tavakol, M., & Dennick, R. 2011).

3.7 STATISTICAL DATA

The data were analyzed using SPSS (Statistical Package for Social Sciences) version 26 application of statistical analysis system. Frequencies, Percentages, Standard deviation, mean of scores, and Bi charts were used to describe the data. Chi-Square is used for data inference. Mann-Whitney U and Kruskal-Wallis H were used for data difference. Degrees of significance were considered as follows: (Not significant (NS) = $P\text{-value} > 0.05$), (Significant (S) = $P\text{-value} \leq 0.05$) and (Highly Significant (HS) = $P\text{-value} \leq 0.01$).

4. RESULTS

This chapter demonstrates the post-processing and tabulation of data analysis. This presentation systematically evaluates nurses' knowledge and attitudes about pain

management at Al-Diwaniyah Teaching Hospital, Iraq. The study shows the demographic data of the research participants, then presents the results by study aims.

Table (4.1) Participants' Socio-Demographic Data of the Study (n= 200)

Socio-Demographic Data	Rating and Intervals	Frequency	Percent (%)
Gender	Male	92	46.0
	Female	108	54.0
	Total	200	100
Age	20-29	153	76.5
	30-39	35	17.5
	40-49	11	5.5
	50-60	1	0.5
	Total	200	100
Education level	Secondary School of Nursing	15	7.5
	Diploma in Nursing	47	23.5
	Bachelor in Nursing	123	61.5
	Postgraduate Studies (Masters + Ph.D.)	15	7.5
	Total	200	100
Years of Experience	1- 5	149	74.5
	6- 10	28	14
	11- 15	8	4
	16-20	9	4.5
	21-25	3	1.5
	26-30	3	1.5
	Total	200	100
Workplace	Surgical department	73	36.5
	Emergency Department	55	27.5
	Cardiac Care Unit	58	29.0
	Oncology department	14	7.0
	Total	200	100
Participation in previous courses related to patient care in case of Pain?	Yes	83	41.5
	No	117	58.5
	Total	200	100

Table (4.1) appears more than half of participating percentage are females (54%), with a slight difference from males, and the dominant age group is between (20-29) years old (76.5%). Additionally, the results indicate that (61.5%) of the participants

are Bachelor in Nursing. Regarding the years of experience, the study results show that three-quarters of participants had (1-5) Years of experience (74.5%). Regarding the workplace, the results show that (36.5%) of the participants are in the surgical department. In comparison (58.5%) of the participants did not participate in previous courses related to patient care in the case of Pain.

Item	Responses	Freq.	%	S.D	Mean	Assessment
D1Q1	Incorrect	176	88.0	0.326	1.12	Poor
	Correct	24	12.0			
	Total	200	100.0			
D1Q2	Incorrect	136	68.0	0.468	1.32	Poor
	Correct	64	32.0			
	Total	200	100.0			
D1Q3	Incorrect	144	72.0	0.450	1.28	Poor
	Correct	56	28.0			
	Total	200	100.0			
D1Q4	Incorrect	105	52.5	0.501	1.47	Fair
	Correct	95	47.5			
	Total	200	100.0			
D1Q5	Incorrect	121	60.5	0.490	1.39	Fair
	Correct	79	39.5			
	Total	200	100.0			
D1Q6	Incorrect	76	38.0	0.487	1.62	Fair
	Correct	124	62.0			
	Total	200	100.0			
D1Q7	Incorrect	86	43.0	0.496	1.57	Fair
	Correct	114	57.0			
	Total	200	100.0			
D1Q8	Incorrect	118	59.0	0.493	1.41	Fair
	Correct	82	41.0			
	Total	200	100.0			
D1Q9	Incorrect	155	77.5	0.419	1.23	Poor
	Correct	45	22.5			
	Total	200	100.0			
D1Q10	Incorrect	139	69.5	0.462	1.31	Poor
	Correct	61	30.5			
	Total	200	100.0			
D1Q11	Incorrect	142	71.0			Poor

	Correct	58	29.0	0.455	1.29	
	Total	200	100.0			
D1Q12	Incorrect	134	67.0	0.471	1.33	Poor
	Correct	66	33.0			
	Total	200	100.0			
D1Q13	Incorrect	57	28.5	0.453	1.71	Good
	Correct	143	71.5			
	Total	200	100.0			
D1Q14	Incorrect	40	20.0	0.401	1.80	Good
	Correct	160	80.0			
	Total	200	100.0			
D1Q15	Incorrect	154	77.0	0.422	1.23	Poor
	Correct	46	23.0			
	Total	200	100.0			
D1Q16	Incorrect	96	48.0	0.501	1.52	Fair
	Correct	104	52.0			
	Total	200	100.0			
D1Q17	Incorrect	160	80.0	0.401	1.20	Poor
	Correct	40	20.0			
	Total	200	100.0			
D1Q18	Incorrect	128	64.0	0.481	1.36	Fair
	Correct	72	36.0			
	Total	200	100.0			
D1Q19	Incorrect	73	36.5	0.483	1.64	Fair
	Correct	127	63.5			
	Total	200	100.0			
D1Q20	Incorrect	41	20.5	0.405	1.79	Good
	Correct	159	79.5			
	Total	200	100.0			
D1Q21	Incorrect	52	26.0	0.440	1.74	Good
	Correct	148	74.0			
	Total	200	100.0			
D1Q22	Incorrect	40	20.0	0.401	1.80	Good
	Correct	160	80.0			
	Total	200	100.0			
Mean D1					1.46	Fair

Table (4.2) Attitudes of nurses about pain management (D = Domain, Q = Question, S.D = Standard deviation, Mean 1.33 and less = Poor, Mean between 1.34 to 1.66 = Fair, Mean 1.67 to 2 = Good)

Table (4.2) shows that the Assessment of Domain 1 (Attitudes of nurses about pain management) is fair (Mean D1 = 1.46). The results indicate that the responses to (D1) are fair in (8) questions, poor in (9) questions, and good in (5) questions.

Item	Responses	Freq.	%	S.D	Mean	Assessment
D2Q23	Incorrect	190	95.0	0.218	1.05	Poor
	Correct	10	5.0			
	Total	200	100.0			
D2Q24	Incorrect	77	38.5	0.488	1.62	Fair
	Correct	123	61.5			
	Total	200	100.0			
D2Q25	Incorrect	136	68.0	0.468	1.32	Poor
	Correct	64	32.0			
	Total	200	100.0			
D2Q26	Incorrect	110	55.0	0.499	1.45	Fair
	Correct	90	45.0			
	Total	200	100.0			
D2Q27	Incorrect	133	66.5	0.473	1.34	Fair
	Correct	67	33.5			
	Total	200	100.0			
D2Q28	Incorrect	163	81.5	0.389	1.19	Poor
	Correct	37	18.5			
	Total	200	100.0			
D2Q29	Incorrect	85	42.5	0.496	1.58	Fair
	Correct	115	57.5			
	Total	200	100.0			
D2Q30	Incorrect	98	49.0	0.501	1.51	Fair
	Correct	102	51.0			
	Total	200	100.0			
D2Q31	Incorrect	136	68.0	0.468	1.32	Fair
	Correct	64	32.0			
	Total	200	100.0			
	Incorrect	140	70.0			

D2Q32	Correct	60	30.0	0.459	1.30	Poor
	Total	200	100.0			
D2Q33	Incorrect	91	45.5	0.499	1.55	Fair
	Correct	109	54.5			
	Total	200	100.0			
D2Q34	Incorrect	152	76.0	0.428	1.24	Poor
	Correct	48	24.0			
	Total	200	100.0			
D2Q35	Incorrect	163	81.5	0.389	1.18	Poor
	Correct	37	18.5			
	Total	200	100.0			
D2Q36	Incorrect	132	66.0	0.475	1.34	Fair
	Correct	68	34.0			
	Total	200	100.0			
Mean D2					1.35	Fair

Table (4.3) Nurses' knowledge about pain management (D = Domain, Q = Question, S.D = Standard deviation, Mean 1.33 and less = Poor, Mean between 1.34 to 1.66 = Fair, Mean 1.67 to 2 = Good)

Table (4.3) shows that the Assessment of Domain 2 (Nurses' knowledge about pain management) is fair (Mean D2 = 1.35). The results indicate that the responses to (D2) are fair in (8) questions, poor in (6) questions, and no good responses in any questions.

Main Domain	Mean	Assessment + percentage	Overall Mean	Overall Assessment + Overall Percentage
Domain1	1.46	Fair (89%)	1.41	Fair (90%)
Domain2	1.35	Fair (61.5%)		

Table (4.4) The overall Assessment

Table (4.4) The overall evaluation (mean = 1.41), which represents the evaluation of nurses' knowledge and attitudes about pain management at Al-Diwaniyah Teaching Hospital, showed the overall evaluation average (90%) and weak (10%) and a (good) percentage did not appear at the level of the evaluation. (Figure 4.1)

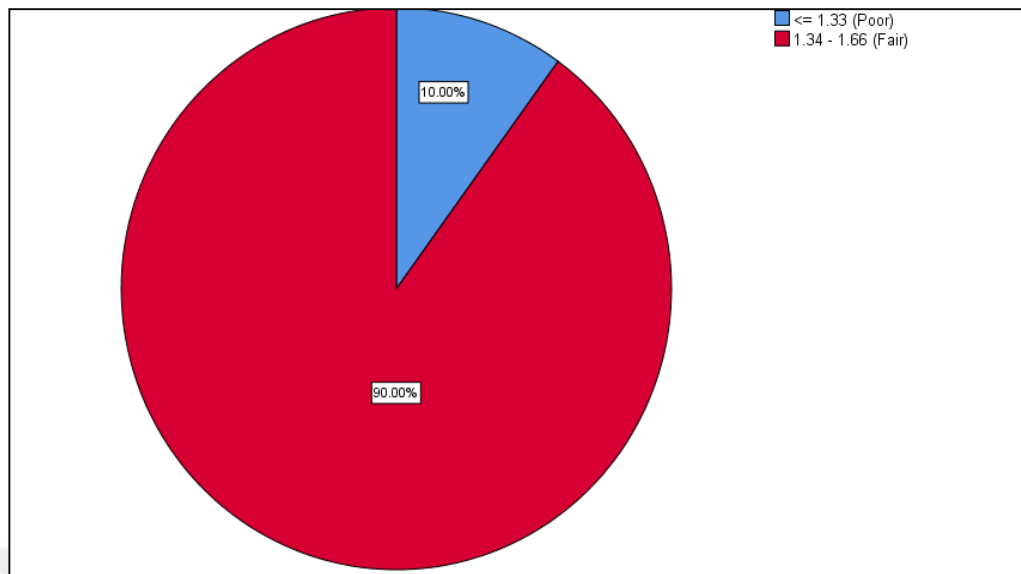


FIGURE (4.1): Overall Percentage.

When the nurses' knowledge and attitudes with their socio-demographic data were examined, It was determined that there were no significant differences in participants' knowledge and attitudes with their socio-demographic data ($p > 0.05$). (Table 4.5 and 4.6)

	Rank	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	p-value
Gender	Male	92	104.85	9646.00	4568.000	-.988	.323 NS
	Female	108	96.80	10454.00			
participate in educational / training courses related to pain management	Yes	83	103.81	8616.50	4580.500	-.687	.492 NS
	No	117	98.15	11483.50			

Table (4.5) Differences between Nurses' (knowledge, attitudes) and their demographic data (Gender and Participation in educational / training courses related to pain management).

	Ranks	N	Mean Rank	Kruskal-Wallis H	D.F	P. value
Age	20-29	153	102.27	.952	3	.813 NS
	30-39	35	95.23			
	40-49	11	96.18			
	50-60	1	62.00			
Education Levels	Secondary School of Nursing	15	103.77	.126	3	.988 N.S.
	Diploma in Nursing	47	102.20			
	Bachelor in Nursing	123	99.56			
	Postgraduate	15	99.63			
Years Of Experience In Nursing	1 -5	149	102.46	5.144	5	.399 NS
	6 – 10	28	103.70			
	11 – 15	8	63.31			
	16 – 20	9	99.39			
	21-25	3	114.50			
	26-30	3	62.00			
Working Place	Surgical department	73	105.88	3.724	3	.293 N.S.
	emergency department	55	104.88			
	cardiac care unit	58	95.15			
	Oncology department	14	77.43			

Table (4.6) Relationship between Nurses' (knowledge, attitudes) and their demographic data (Age, Education levels, Years of experience in nursing and Working place)

5. DISCUSSION

This chapter explains the discussion and interpretation of the study's results regarding its objectives, supported by the available literature and relevant studies.

Part-I: argumentation of the Participants' Socio-Demographic Characteristics of the Study Sample.

- **Age:** The results of the study revealed that more than three-quarters of the nurse's age (76.5%) ranged from (20-29) years old; in terms of compatibility only, a study was conducted by (Said, Dr. Mansour, K.A.2021), which recorded (63.3%) of the participants in the category of age (20-29) years.
- **Gender:** This study showed that more than half of the participating sample were females with a percentage (54%), and these results are consistent with the research conducted by (Abdul-Hussein, H. N., & Hattab, W. A. A. 2022). where the percentage of females was more than half (60%), and these results are consistent with the research conducted by (D'emeh, W et al., 2016), where the percentage of females was more than half (54.2%).
- **Educational level:** Regarding the education level of the research participants, the results showed that most of the research participants are holders of a bachelor's degree in nursing (61.5%). This result is consistent with the results of the study conducted by (Imeraj, Z., Veseli, D.) where the agreement was established that the proportion of participants with a bachelor's degree in nursing is about (59.7%).
- **Years of Experience in nursing:** The study showed results in terms of years of experience that most of the participating nurses (74.5%) have (1 - 5) years of experience. This is consistent with (Al-Attar, W. M. A., & Sameen, F. Y. 2015), which showed that most of the nurses (53.7%) had (1 - 5) years of experience in nursing.
- **Participate in educational / training courses related to Assessment of Nurses' knowledge and attitudes about pain management:** The study's results showed that (58.5%) of the sample did not participate in educational/training courses related to pain management. These results are consistent with (Imeraj, Z. et al. 2022)

and (D'emeh, W et al., 2016), who mentioned in their study that (76%) and (64.9%) of the participants did not participate in previous courses related to pain management.

- Workplace: Regarding the workplace, the research results showed that only one-third of the research participants work in surgical units (36.5%), which agrees with the research results. (Samarkandi, A. 2021), Where the percentage of workers in surgical units reached one-third of the participants, as it reached about (37.8%).

Part-II Discussion of the Overall Assessment of Nurses' attitudes and knowledge towards pain management.

- The study showed that the vast majority (90%) of nurses' knowledge about pain management was fair, with an average score (of 1.41).
- These results are consistent with (Saied, D. R., & Mansour, K. A. 2021), who conducted a study to assess the knowledge and attitudes of nurses in caring for Pain which proved that knowledge and attitudes are not acceptable for both groups (study and control group) before conducting the educational program.
- Another study is consistent with the results of the research conducted by (D'emeh, W et al., 2016)) on (n=439) nurses working in Jordanian hospitals, which is a descriptive cross-sectional study to find out their knowledge and attitudes in assessing Pain and the obstacles that prevent good pain management. The result showed that there is a lack of knowledge and attitude for pain management or it is insufficient, except for nurses working in surgical units, those with a master's degree and those who have participated in previous courses, and those with higher assessment scores.
- These results agree with the study (Hylton, A. 2019) to assess nurses' knowledge and attitudes about Pain where a different scale was used, where it was proven that the average overall performance rate is (73.1%). This study indicates insufficient knowledge and attitudes of nurses. The average knowledge may be because the largest group of the sample had a few years of experience ranging from (1-5) and that the most prominent section did not participate in courses

related to the care of a patient in Pain, as shown in Table (4.1), which in turn will affect the patient's pain management.

Part III: Discussing the differences between the social-demographic characteristics of nurses and the comprehensive Assessment: Based on the analyzed result, there is no statistically significant difference in (gender, age group, place of work, educational level, Years of experience in nursing, Participation in educational / training courses related to pain management) with ($p>0.05$)

- This is consistent with the research conducted by (Al-Sayaghi, K. M., et al., 2022), where the results proved that (age, gender, educational level, or total work experience) were not statistically significant.
- Place of work in hospital: The study's results showed no statistically significant differences between nurses' knowledge and their places of work, with a p-value of (0.293). This result is consistent with (Said, Dr., Mansour, K.A.2021), who also do not have significant differences with p-value (0.670).
- Participate in educational / training courses related to Assessment of Nurses' knowledge and attitudes about pain management: The study's results showed no statistically significant differences between nurses' knowledge and their Participation in previous courses regarding pain management and Assessment with a p-value of (0.492). This result is consistent with (Said, DR, Mansour, K.A.2021), who also had no significant differences with a p-value (0.713)

6. CONCLUSION AND RECOMMENDATIONS

Conclusion: The researcher's findings in this study will be discussed according to the results that have been extracted, and the necessary recommendations will be made to improve the level of pain management and its evaluation among the nursing staff.

During the current study, the following points were completed:

- The characteristics of the current study showed that the highest percentage of females was (108) females at the age of (20-29). In addition, the highest percentage of them had nursing experience (1-5 years), and the highest

percentage of nurses had a bachelor's degree. The highest percentage of them had not received training courses on Pain in the past. The study sample was collected in the intensive care unit, surgical ward, emergency department, and oncology department.

- The results of the Assessment show that the level of knowledge and attitude about pain assessment and management is fair to average at a rate of (90%), which is considered an unsatisfactory rate, which is similar to many studies that showed that the level of pain assessment and management among nurses is insufficient or unacceptable, and this will be reflected on the patient's pain management directly and need educational programs on pain assessment and management.
- There were no statistically significant differences between nurses' knowledge, attitude, and socio-demographic characteristics (gender, age, education level, years of experience, Participation in previous courses related to patient care in case of Pain, workplace).

Recommendations:

- Conducting activities to develop the knowledge and trends of pain management among nurses, such as training courses, educational seminars, and educational programs, and setting an effective plan to facilitate the delivery of information to all nursing staff working in the hospital.
- The educational lectures must be published and work to communicate updates from the latest findings of studies regarding pain management and treatment.
- Continuing education systems must be activated in hospitals to facilitate the holding of courses and lectures for the nursing staff working in them

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APPENDICES

APPENDIX1. Agreement Sheet.

APPENDIX 2. The Questionnaire.

APPENDIX 3. the approval from ethics committee of çankırı Karatekin University.

APPENDIX 4. Acceptance from Training and Development Department in Al-Qadisiyah Governorate.

APPENDIX 5. Acceptance from Al-Diwaniyah Teaching Hospital.



APPENDIX 1. AGREEMENT SHEET



APPENDIX 2. THE QUESTIONNAIRE



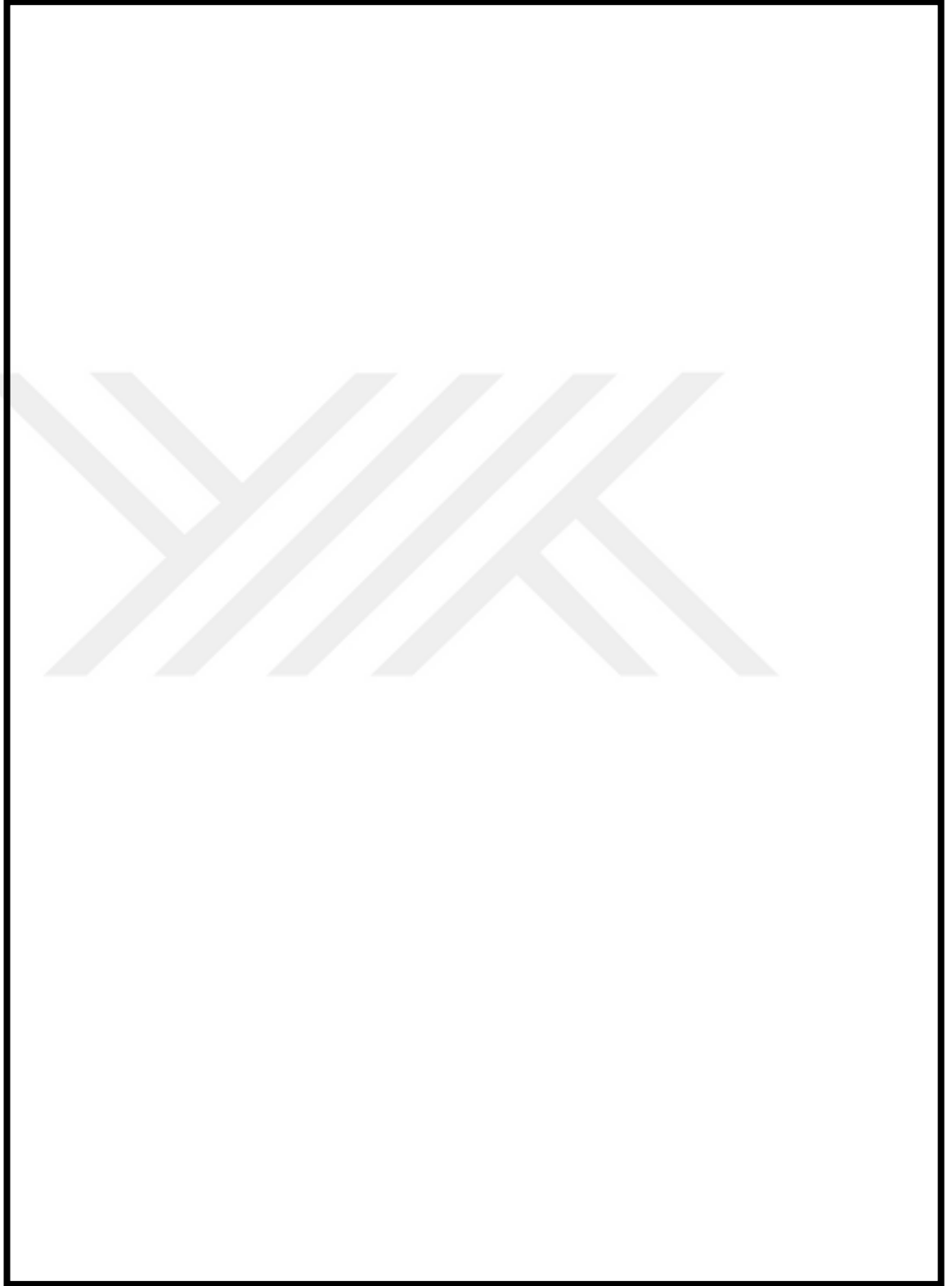








**APPENDIX 3. THE APPROVAL FROM ETHICS COMMITTEE OF ÇANKIRI
KARATEKIN UNIVERSITY**



**APPENDIX 4. ACCEPTAINCE FROM TRAINING AND DEVELOPMENT
DEPARTMENT IN AL-QADISIYAH GOVERNORATE**



APPENDIX 5. ACCEPTANCE FROM AL-DIWANIYAH TEACHING HOSPITAL



CURRICULUM VITAE

Personal Information

Name and Surname : Ban ALMOHGAH

Education

Work Experience