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College of Nursing**



Effectiveness of End of Life Concept Educational Program on Critical Care Units Nurses' Knowledge and Perception in Mosul Teaching Hospitals

A Dissertation Submitted to
The Council of College of Nursing, University of Babylon
in partial fulfillment of the requirements for the Degree of
Doctorate of Philosophy in Sciences of Nursing

By

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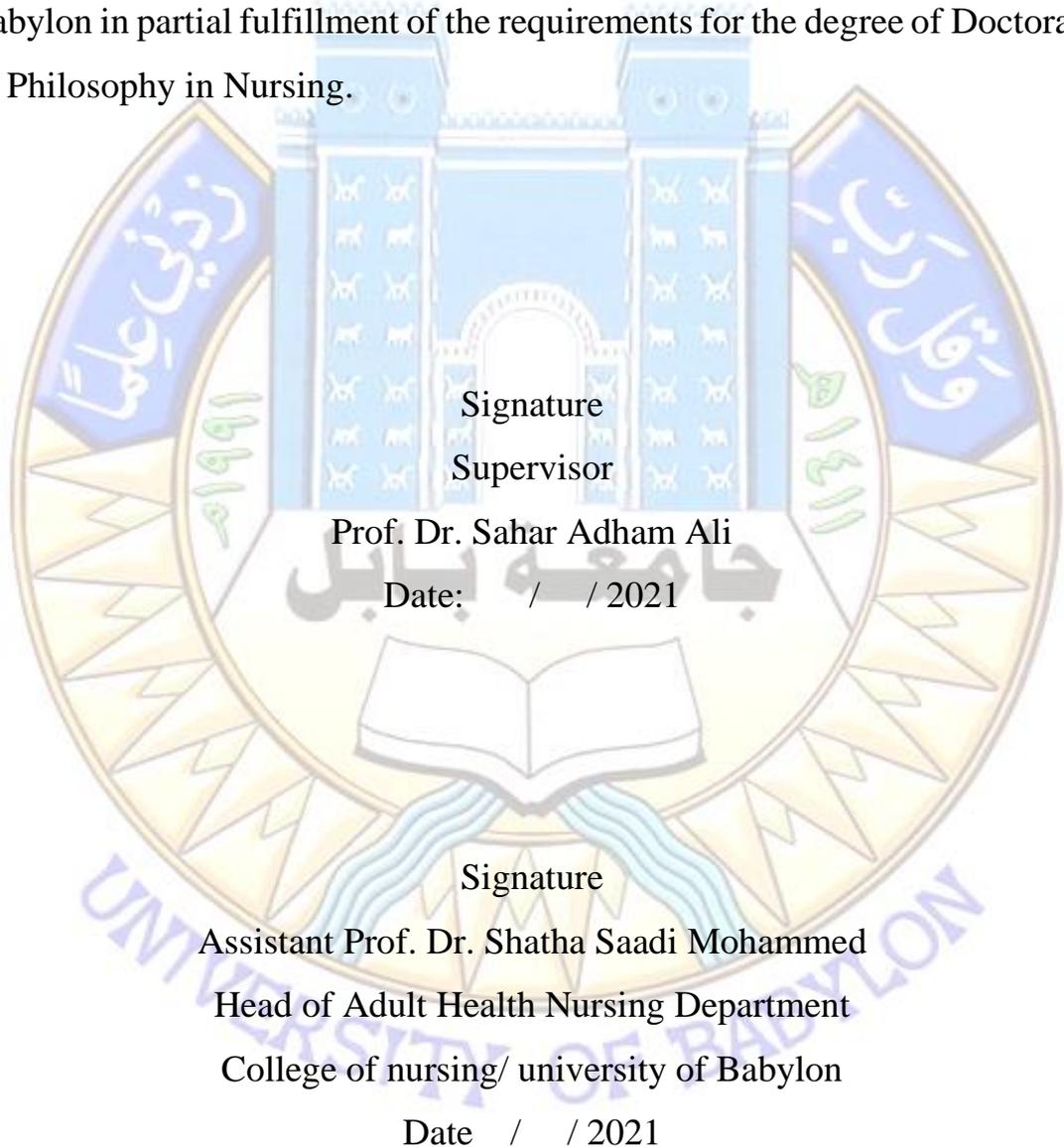
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Supervisor certification

I certify that this dissertation which is entitled (**Effectiveness of End of Life Concept Educational Program on Critical Care Units Nurses' Knowledge and Perception in Mosul Teaching Hospitals**), was prepared under my supervision at the College of Nursing, University of Babylon in partial fulfillment of the requirements for the degree of Doctorate of Philosophy in Nursing.



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We, the members of the dissertation discussion committee, certify that we have reviewed the dissertation entitled (**Effectiveness of End of Life Concept Educational Program on Critical Care Units Nurses' Knowledge and Perception in Mosul Teaching Hospitals**), submitted by **Mohammed Zuhair Thanoon**, and examined the student in it is content, and what is related to it in / /2021.

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Dedications

*To the one who gave away everything
and took nothing, to the one I have none
than him, to the most sacrificed example,
the one who no matter I do I never pay
him back, my great father **Zuhair Thanoon**
all love and respect.*

*To the one, I never forget, to the one who
can take the place of all others but her
place no one else can take, **My Mother**
with All Love and Respect.*

*To my wife with all love and all respect
for infinite and beyond.*

My sons and daughters with love

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Abstract

Background: Everybody with a life-limiting disease has the right to live free from pain and distress in the last days of his life, as well as the right to a dignified life and a peaceful death. End-of-life (EOL) care is now recognized as an essential component of patient care in a critical care unit (CCU), and all these nurses are responsible for providing EOL care, so education and training programs in this specific area were essential for nurses to acquire the basic knowledge, professional competencies, values and ethics of EOL care.

Objective: To evaluate the effectiveness of the EOL concept educational program upon increasing the knowledge and perception of critical care unit nurses at Mosul teaching hospitals.

Methodology: A quasi-experimental study was conducted to evaluate the effectiveness of an educational program for CCU nurses regarding knowledge and perception related to the EOL concept in Mosul teaching hospitals from the period (1st October 2019 until 4th July 2021). The purposive sample consist of (60) nurses, which are divided into two groups (30) nurses considered as an experimental group, and (30) nurses are considered as a (control group). A special questionnaire and educational program were conducted through an extensive literature review, books, previous studies, and the information gained by assessing nurses' needs and the study objectives. For collecting data, a questionnaire was utilized; it was composed of three fundamental parts :(Demographical Data Sheet, Questionnaire to assess nurses' knowledge, and modified Questionnaire to Assess Nurses' Perception regarding EOL concept). The validity obtained by the panel of (16) experts and reliability calculated after carrying out a pilot study. Pre and two post-tests were performed to evaluate the effectiveness of the educational program.

Results: The results of the study presented that most of the study sample were between (36-40) years age group, 52 (86%) were male in both groups.

The mean score elevated from (M=41.1) on the pretest to (M=55.1) on the post-test II, while it was (M=55.4) on the post-test I. also, the Education program had improved nurses' perception significantly (mean score of FATCOD before the study were (M=78.2) and after intervention were (M=121.23).

Conclusions: The knowledge and perception deficiency is mainly found in all nurses toward the EOL concept among both groups; therefore, after implementation of the educational program, there is highly improvement nurse's knowledge and perception which lead to providing a high quality of EOL nursing care in CCU units.

Recommendations: The current study recommends implementing an EOL educational program based on the results of this study, as well as issuing periodicals and educational bulletins related to EOL sponsorship for the continuing education of nurses employed by the Iraqi Ministry of Health and Environment and the Ministry of Higher Education and Scientific Research.

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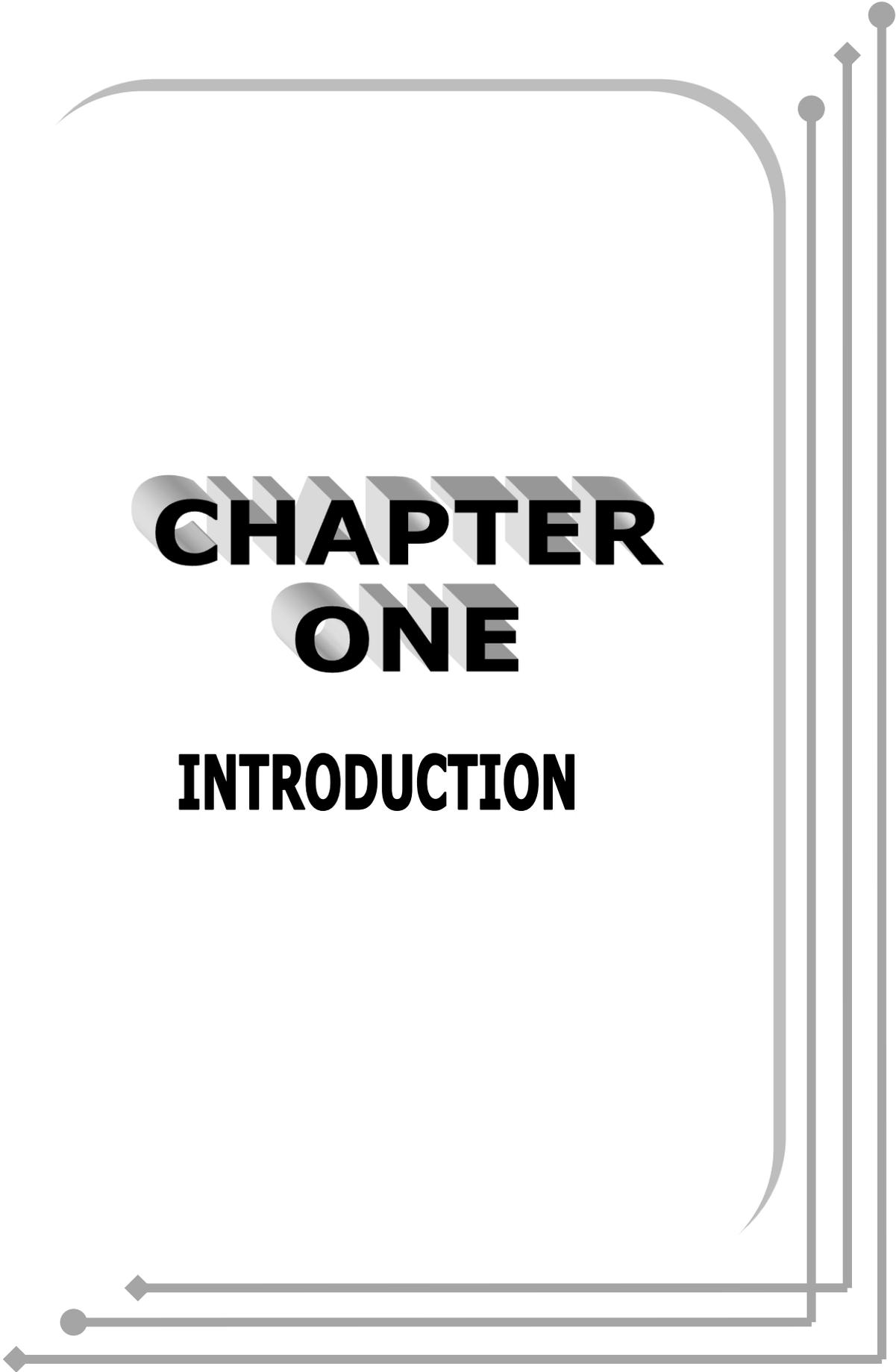
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Table of Abbreviations

Abbreviation	Meaning
ANOVA	Analysis of variance
CCN	Critical care nurses
CCU	Critical care unit
CDC	Centers for Disease Control and Prevention
COVID-19	coronavirus disease of 2019
ELNEC	End of Life Nursing Education Consortium
EOL	End-of-Life
EOLC	End-of-Life Care
et al	And others
FATCOD	Frommelt Attitude Toward Care of the Dying Scale
HIV	Human immunodeficiency virus
MCQs	Multiple Choice Questions
MNDA	Motor Neuron Disease Association
PC	Palliative care
P.value	Probability Value
Ph.D.	Philosophical Doctor
QOC	Quality of care
QOL	Quality of life
SPSS	Statistical Package for the Social Sciences
USA	United States of America
WHO	World health organization



CHAPTER ONE

INTRODUCTION

Chapter One

Introduction

1.1 Introduction

Death is an inevitable part of the lifecycle. It may result from the relentless progression of chronic disease, for example, cancer, progressive chronic lung disease, heart failure, Human immunodeficiency virus (HIV), and neurological system illnesses. In addition, often, death can be imminent in the short time of severe acute disease, when all medical treatment, including life-supporting interventions in the critical care unit (CCU), appears futile (Myatra et al., 2014).

Medical management, including critical care, is unlikely to restore the patient to meaningful existence; it is the physician and nurse's responsibility to provide effective end-of-life (EOL) care. Indeed, access to EOL care is a human right. Everyone with a life-limiting illness has a right to live free from pain and distress (psychosocial or spiritual) and also the right to a dignified life that includes the process of death (Stuart, 2020).

Every individual deserves to have a good death. A good death is 'peaceful and dignified' without the unnecessary suffering of dying. The nursing perspective of 'a good death' focuses on providing comfort to all involved (Lang, 2020). Even though many studies in the world have highlighted nurses' perspectives on EOL care, this is the first study conducted among Iraqi nurses.

In 2018, the ten leading causes of death (heart disease, cancer, unintentional injuries, chronic lower respiratory diseases, stroke, Alzheimer's disease, diabetes, influenza and pneumonia, kidney disease, and suicide) remained the same as in 2017. Causes of death are ranked according to the number of deaths (Xu et al., 2021). One-third of all deaths in the United States in 2018 occurred in a general hospital (Xu et al., 2020).

Due to the increased mortality and aging throughout the world, better standards of EOL care are required. According to the World Health Organization, the mortality rate increases drastically due to life-limiting disease categories (Glover et al., 2017).

Living one year before the death of someone with advanced illness, regardless of whether they are getting palliative care (PC), is called end-of-life. It is important to give adequate care to people during their life-threatening illnesses because they are both patients and family members. People with advanced, progressive, incurable diseases, such as amyotrophic lateral sclerosis, receive EOL care to help them maintain their QOL as their illness progresses. It is possible to control distressing symptoms, such as breathlessness, pain, fatigue, and anxiety while honoring the wishes of the individuals, and families are also more likely to say that they are satisfied with the EOL care they receive (Anstey et al., 2016).

The transition from curative intent to EOL is challenging for the healthcare team, patients, and family members. However, the appropriate and timely planning for EOL can help patients identify realistic care goals, avoid interventions or costly healthcare resources that may not offer any clinical benefit, minimize distress, and ease the bereavement process for caregivers (Kaasa et al., 2018).

End-of-life care describes the health care and support that patients receive when faced with a terminal illness. Long-term care occurs as months, weeks, and days leading to the patient's final heartbeat and last breath. EOL care can take place in many different settings such as homes, hospice centers, and hospitals. Palliative care and hospice care are designed for EOL care that patients receive to control symptoms and improve their QOL (Dufour, 2018).

During the EOL, services, and issues related to death and dying are provided. EOL care is tailored to patients' physical and psychosocial needs.

The goals for EOL care are to offer emotional support to family members, support the patient's quality of life (QOL) while dying, and give the patient a comfortable and dignified death (Atiyeh, 2020).

Quality of care (QOC) related to the EOL may be described by patients, caregivers, and healthcare providers as unissued distributed among five aspects which specifically fixed by a survey study of adult patients as receiving adequate pain and symptom management, avoiding inappropriate prolongation of dying, achieving a sense of control, relieving burden, and strengthening relationships with loved ones (Coltin, 2021).

Internationally, nurses comprise the largest group of healthcare providers. Nurses are a vital resource for ensuring safe and effective care for the global population (Phillips et al., 2020).

As well as patients suffering from life-limiting illnesses, nurses play a crucial role in providing their special needs nurses, and nursing students should be well-versed in EOL treatment to effectively performance (Hench et al., 2017).

In-depth and comprehensive medical care nurses are exposed to dealing with patients suffering from serious illnesses, and they spend more time with patients and families than any other health professional; nurses have a wide range of responsibilities related to pain assessment and management (Bakitas et al., 2015). Critical care nurses spend more time with patients and families than any other health professional as they face serious illnesses. Expert nursing care reduces the distress and burdens of those facing death and offers support for the patients and their families' unique physical, social, psychological, and spiritual needs. Collectively, nurses have demonstrated a commitment to palliative care, with some nurses showing even greater initiative in treating EOL patients (Schroeder and Lorenz, 2018).

Even though death often occurs in the critical care unit, traditionally, little or no education and training have been provided to nurses in the critical care unit (CCU), especially those working with terminally ill patients and close persons. Although education is not the only challenge for critical care nurses, other critical issues may be necessary to providing EOL care. One critical issue may be an effective work environment where patients, families, and staff members provide excellent communication and collaboration between nurses and physicians. These supportive services may include the use of PC services and ethical consultations. (Zaghla et al., 2014)

About 75% - 90% of patients admitted to CCU receive care to improve and restore the QOL, especially those suffering from life-threatening diseases; this is the primary goal of critical care nursing. However, the CCU has become the most commonplace of death. Admission to the CCU is for therapeutic goals; only when the therapeutic purpose has failed then should the goal of restorative care be changed to PC that is, the transition from cure to comforts, this is one of the most challenging and essential aspects of critical care nursing (Truog et al., 2008).

Palliative care is now recognized as a core component of care for all patients in CCU, regardless of diagnosis or prognosis, and all CCU clinicians and nurses are responsible for providing palliative care (Leemhuis and Shichishima, 2019)

Comprehensive symptom assessment and management promote high-QOC nursing by providing patient comfort, by symptom assessment to identify a patient need which is necessary as the first step in PC, followed by providing interventions to alleviate patient suffering (Cortegiani et al., 2017)

Caring for critically ill patients happens in CCU, where about 20% of patients have been known to die. The mortality rate in CCU of the USA, Canada, and Sweden has been reported to range between 10% and 20%.

Because of the complex nature of patients admitted to the CCU, death, EOL care, and challenging decision-making is commonplace at the CCU(Rafii et al., 2016).

Despite the varying composition of EOL care teams based on patient needs and available resources, the constant presence of a nurse is used to incorporate the team, patient, and family. These four stakeholders rely on each other and having a nurse as a team member puts this framework into practice for every care situation. Thus, nurses have a central role in providing EOL care for patients and their families, acting in the best interest of patients and their families, and providing continuous care. That relationship between the patient and the nurse, established in the early stages of EOL care, plays a critical role in that care's administration, so the epitome of good nursing practice is providing EOL care (Pereira et al., 2018).

The advanced modern medicine and people's open-minded perceptions about death call develop PC and EOL care issues. Clients and their family members also promote higher requirements to the professionals and the quality and quantity of the service. Education and training programs in this specific area are necessary for nurses to get a basic knowledge, professional competencies, values, and ethics of EOL care before working with clients (Li, 2021).

There is insufficient education about death; death in many continuing nursing education programs, and nurses are often left unprepared to give adequate care for dying patients and deal properly with their family members in these challenging situations. There is also a marked lack of interest in developing the ability of nurses to communicate satisfactorily with patients in EOL, educate them and truly listen to their concerns, values, and goals (Hjelmfors et al., 2016).

Ensuring adequate knowledge about EOL care and positive perceptions towards death; death is a critical educational aspect when preparing undergraduate nursing students and continuing nursing education programs to effectively respond to the complexities of caring for people affected by a progressive, life-limiting disease (Goode et al., 2019).

Inadequate knowledge can hinder the provision of high-quality nursing care, potentially leading to nurses feeling poorly prepared and stressed when caring for a person who needs PC and EOL care. Such feelings can contribute to the development or exacerbation of negative perceptions towards death and caring for the dying that may further impact the standard of care. Perceptions towards death and care for the dying person are psychological behaviors learned as part of their social and cultural experiences during their lifetime. For healthcare professionals, such perceptions can also be influenced by professional education and real-world clinical experiences (Dimoula et al., 2019).

1.2. Importance of the Study

The World Health Organization (WHO) (2014) estimates that worldwide, in 2011, over 20 million individuals required specialist care at the EOL. It is projected that 37% of people dying will require specialist EOL care. To relieve pain and dignity in death is seen as an international human right, requiring urgent and sensitive strategies that address a range of barriers that include integrating EOL care into all health professionals' undergraduate and continuing professional education (Mukherjea et al., 2020). The WHO (2014) recommends focusing on PC and EOL care across global and national health agendas to achieve this.

Earlier studies examining training for physicians, nurses, and social workers recognized the considerable deficiencies in education for these professions regarding death and EOL caregiving (Vivekananda et al., 2020).

Palliative and end-of-life care education is essential in implementing EOL care into a health care system and providing PC to the state's people. The provision of PC and EOL care education across the globe varies enormously (Willemsen et al., 2021), and PC education in Iraq is limited and disparate.

There is an increasing focus on PC and EOL care due to the high cost and poor QOC near the EOL(Singer et al., 2016).

Providing End-of-Life care is challenging because of the multidimensional (physical, psychological, social, and spiritual) and multidisciplinary aspects. Physicians and nurses working in nearly all specialties and many care settings regularly have to provide PC and EOL care to the chronically and terminally ill. They should, therefore, acquire in their training the necessary perceptions, knowledge, and skills to do so (Pieters et al., 2019).

The World Health Organization (WHO) and the European Association for PC underline the importance of PC and EOL care education. Lack of PC and EOL care education in the undergraduate nursing curricula throughout Europe is considered one of the most critical barriers to integrating EOL care in health care systems(Centeno et al., 2017).

Based on research, health professionals' education on EOL care has been limited or non-existent in nursing and medicine. It is the responsibility of all healthcare providers to provide competent and compassionate EOL care. Each discipline must design and implement education strategies for its students and practitioners in PC and EOL care. Programs for medical research and fellowships for PC were rare (Schroeder and Lorenz, 2018).

Due to an increase in the percentage of older people and particularly those over 80, the ratio of older people to younger people has greatly

increased over the last few decades. PC focuses on providing comfort for patients and their families, and its primary goal is to enhance the QOL from the onset of a serious illness. To provide quality care for patients at the EOL (or those with a chronic illness), nurses must possess excellent knowledge, perception, and understanding of PC (Das & Haseena, 2015)

Wolf et al., 2019 mentioned that the significant barriers to accessing palliative care in the CCU remain, unrealistic patient, family, nurses, and clinician expectations of CCU treatment, the inability of patients to participate in treatment discussions, and insufficient education and training for physicians and nurses.

Nurses' knowledge and skills significantly influence this type of EOL care provided by nurses who are working in the Kurdistan region trained to provide care for the terminally ill to have more positive perceptions towards this area of patient care than those who have not had the training (Abdulla et al., 2014).

However, for many CCU nurses, it's unlikely they have the necessary knowledge and skills to provide excellent care for patients near the end of their lives and support their families and caregivers. To date, there are no current firm statistical data on the mortality rate in private and general hospitals in the Kurdistan region of Iraq or mortality rate in the CCUs, but it appears that the death rate is significant; consequently, the CCU nurses must develop critical skills to improve the care that they offer to their patients (Rafii et al., 2016).

Nurses are frontline healthcare providers, especially in clinical settings where healthcare is provided, such as palliative nursing. To make sure PC is provided safely, effectively, and compassionately, nurses oversee PC delivery. As disappointing as it is, it is unfortunate that nursing

knowledge about PC is poor, and the quality of PC remains a serious challenge (Aboshaiqah, 2020).

In addition, nurses must be adequately educated and trained to perform each part of EOL care, which includes managing pain and physical symptoms, holistic nursing care, and the provision of psychosocial support to patients and their families (Seow and Bainbridge, 2018).

In general, nurses have demonstrated a strong commitment to PC. A few have shown an even greater degree of dedication in treating EOL patients. The systematic review of PC health services found that nurses support any health profession for performing PC services. In the 98/124 studies that addressed provider professions, nurses appeared to be the most commonly employed intervention providers working in teams or as individual practitioners in 70% of studies (Singer et al., 2016).

The CCUs provide the best possible nursing care to help critically ill patients survive acute threats to their lives. At the same time, the CCU is also the most common place to die. Thus the CCU nurses should be competent in all aspects of EOL care (Crit et al., 2013).

A statement from one of the pioneers of palliative care in India Dr. Suresh Kumar, a physician, activist, and notable leader of developments focused on community strategies. In a 2012 interview, Kumar states: Although the spotlight and research on EOL care, this type of care globally are only available to less than 8% of people in need today. It should be painfully obvious to everyone now that we'll never achieve meaningful coverage regardless of our efforts. Innovative strategies are required (Zaman et al., 2017)(Mathews & Kumar, 2012).

Palliative care is a newer specialty, still unfamiliar to clinicians and nurses caring for patients in CCUs and elsewhere. An educational program may help educate these clinicians and nurses about the potential benefits of

palliative care consultation and focus on those patients and families most need specialist input (Nelson et al., 2013).

Most students enter nursing school to help people save lives, and the educational emphasis is similarly placed on acquiring life-saving skills. While these skills are appropriate and necessary, a rapidly aging population means nurses must also possess the necessary skills to care for patients and families at the EOL when death is inevitable (Thrane, 2020).

Knowledge about EOL care is essential to supporting patients during decision-making and EOL closure in ways that recognize their unique responses to illness and support their values and goals. Education, clinical practice, and research concerning EOL care are evolving, and the need to prepare nurses and other health care specialists to care for the dying has emerged as a priority (Okumura-Hiroshige et al., 2020).

Despite the high mortality rate in low and middle-income countries, little research has been done about palliative and EOL care delivery. Many studies focus on a few European countries, which account for 90% of palliative care research (Abu-Odah et al., 2020).

In order to train future Iraqi nurses to address the nursing shortage and increase palliative care in nursing education, the biggest challenge for nurses.

1.3. Statement of the study

Effectiveness of End-of-Life Concept Educational Program on Critical Care Units Nurses' Knowledge and Perception in Mosul Teaching Hospitals

1.4. Hypothesis

Does an end-of-life concept educational program directed towards nurses working in critical care units effectively affect their knowledge and perception?

1.5. Objectives of the Study

1. To assess nurses' knowledge and perception toward the EOL concept.
2. To develop an educational program for nurses towards the EOL concept in the CCU.
3. To evaluate the effectiveness of the educational program on critical care nurses' knowledge and perception toward the EOL concept.
4. To identify the demographical and employment characteristics of the study sample.
5. To find out the association between nurses' knowledge and perception and their demographic and employment characteristics.

1.6. Definitions of the Terms

1.6.1. Effectiveness

1.6.1. a. Theoretical Definition

The ability to produce a specific result or exert a specific, measurable influence (Hami, 2020).

1.6.1. b. Operational Definition

It refers to the educational program's ability to enhance and stabilize the knowledge and perception of critical care nurses regarding the end-of-life concept.

1.6.2 End-of-Life care

1.6.2. a. Theoretical Definition

Refers to all aspects of the care relating to dying, death, and bereavement; deceasing and relieving suffering by managing pain or other symptoms and providing psychological, social, spiritual, and physical support (Abate et al., 2019).

1.6.2. b. Operational Definition

Care is provided to people in the last months, weeks, or days of their lives in critical care units to relieve pain and decrease the severity of other symptoms so that the patients can be as comfortable as possible, modulated as holistic care provided to the patients and their families.

1.6.3 Education Program

1.6.3. a. Theoretical Definition

Education Program refers to any formalized projects, programs, presentations, instructional materials, activities, and interpretive experiences that have (a specific goal and defined content, and that identifies a primary discipline, utilize a specific delivery method, and target a primary audience)(Ali et al., 2019).

1.6.3. b. Operational Definition

Information collected concerning end-of-life care and arranged lectures promotes and improves nurses' knowledge and perception about end-of-life care.

1.6.4 Critical care nurse

1.6.4. a. Theoretical Definition

Nurse work in the nursing field focuses on the utmost care of critically ill or unstable patients following extensive injury, surgery, or life-threatening diseases (Health Workforce Australia, 2014).

1.6.4. b. Operational Definition

A critical care nurse is participating in a current study at Mosul Teaching Hospitals. They work in a place dedicated to providing medical and surgical nursing care to patients suffering from acute and life-threatening diseases or unstable patients following extensive injury or surgery. The care

includes providing the investigation, diagnosis, and treatment of acute illness, systems management and patient safety, ethics, end-of-life care, and support of families.

1.6.5 Knowledge

1.6.5. a. Theoretical Definition

It is a familiarity with someone or something, including facts, information, descriptions, or skills acquired through experience or education (Al-saad, 2020).

1.6.5. b. Operational Definition

It is described as the education and experiences gained related to the knowledge of end-of-life care and its impact on nursing and nursing care practice in general.

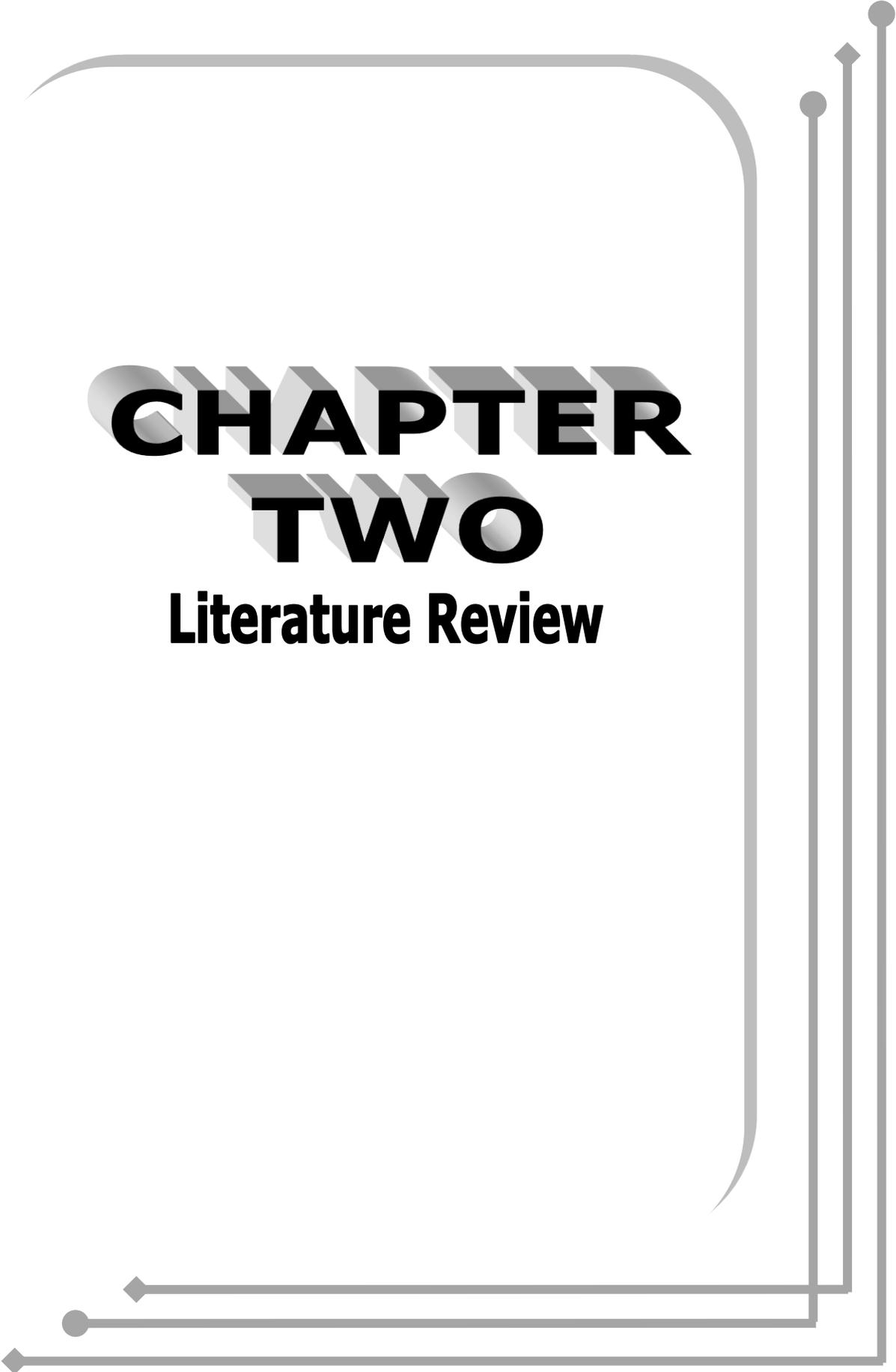
1.6.6 Perception

1.6.6. a. Theoretical Definition

The mental process of becoming aware of or recognizing an object or idea; primarily cognitive rather than affective, although all three aspects are manifested. Perception is greatly influenced by previous experience and the stored data accumulated from such experience (Farlex, 2012).

1.6.7. b. Operational Definition

Recognition and interpretation of sensory information, also how to respond to the information regarding end-of-life care. Perception allows one to take the sensory information in and make it into something meaningful.



CHAPTER
TWO
Literature Review

Chapter Two

Literature Review

The purpose of this chapter is to provide an overview of the relevant literature pertinent to this study. A computer-aided literature search was performed to find research studies and articles about palliative care and the End-of-Life concept. This review will discuss also the theoretical framework of the study and theories that explain adult learning theory and peaceful death theory. Finally, this chapter will also review the previous studies related to this study.

Part I: Reviewing Related Literature of End-of-Life Concept

2. 1. Historical Overview

"Verily the death from which you escape will surely come to you" (Quran 62:8).

Multi-stages of human life commence with birth, initiation, marriage, and death. Death is the most distressing of all phases since it disturbs everyday life and creates space in the greater society and family. As such, death is the ultimate living phase of a universal, natural experience. Death has a variety of characteristics and is inexorable and irreversible. Death is not only a bio-experience. Instead, it is a diversified social, religious, cultural, and spiritual event (Hamid et al., 2019).

Each individual has a set lifetime at birth in Islam. The death angel removes the soul from the body after this predetermined time is finished. Islam represents the periods of life, death, and life beyond death in several ways. Thus, the Islamic perception of death is founded on norms and rituals that determine the first response to death, burial, and grief. Eschatology instigates the monotheistic religion of Islam in a comprehensive list of rituals weaving Quranic verses, the Prophet's sayings, and the cultural views of early Muslim cultures. These religious practices have been strengthened,

reinterpreted, and, at times, abandoned throughout the history of human beings and the variety of Islamic traditions (Jahangir & Hamid, 2020).

Medicine can do little to prevent, cure, or prolong disease, and living to old age requires tremendous wealth for most human history. Dying like being born was generally a family, communal, and religious event, not a medical one. Because many deaths occurred at home, people were likely to care for dying relatives and, thus, to have a relatively personal and direct experience with dying and death (Clark, 2016).

In the 19th century, main demographic and socioeconomic changes started to influence the way individuals died. The modernist transferal in the construction of dying was getting began. The development of morphine injection and the hypodermic syringe provided new techniques of pain treatment. It started to emphasize medical books when death is approaching (Zaman et al., 2017).

In general, at the end of the nineteenth and beginning of the twentieth centuries, in several European cities, exceptional care homes and shelters were established, inspired by religion and on a small scale, it developed a particular philosophy of care that later led others from the mid-20th century to move to palliative care and modern aged care (Marshall & Hale, 2017).

Increasing public interest in death and dying and developing a specialized medical treatment for the terminally ill in the middle of the twentieth century, at the same time, Glaser and Strauss (1965) published consciousness of death. However, there has been growing concern about medical neglect of the dying (Lokker et al., 2012).

First, started talking about proper treatment for dying patients. Elderly care and palliative care are increasingly preferred to dying patients normative among medical professionals and some public members. However, recent

research points to two important shifts in treatment at the EOL. Second, social and demographic differences in EOL care have shifted (Hauschildt, 2020).

In the initial sixties, this perception began to change in Western countries such as the United States and Britain. A body of recent literature clarified this topic and then created new services at the community level, which agreed on modern elderly care principles. New places for specialized care for the dying are ready, while several publications have been issued for teaching and related research. It is clear that social science criticism of EOL care has played its part, but the work of Cecily Saunders and colleagues has been crucial in this as well (Saunders, 1967).

Due to the healthcare system's emphasis on curative techniques, healthcare personnel is frequently unfamiliar with palliative care and the skills necessary to administer it (Kennedy, 2016).

By the mid-1970s, this direction was taking on the name 'palliative care.' Quite quickly, it found advocates within the health care system, building on the achievements of the hospice founders who had been oriented mainly to endeavors outside of the mainstream in free-standing charitable, non-government and non-profit organizations. It also began to gain interest in many countries around the world. Initially, this work focused on those dying from cancer, but this soon began to change. Palliative care continues to be associated with care when death is approaching, and if palliative care is not necessarily synonymous with EOL care, the former is undoubtedly a part of the latter (Quill & Abernethy, 2013).

The World Health Organization (WHO) has drawn attention to the global problem of cancer palliative care and then to the broader issue of palliative care since the early 1980s. Using public health terminology to describe and embrace palliative care concepts in a global setting is a resource

that WHO has begun to draw on as it seeks scalable answers to these concerns (WHPCA, 2014).

Clark noted in 2016 that specialist palliative care within hospice care has defined the traditional pathway and set standards for EOL care.

2.2. Facts and Statistics

Almost one in five Americans die in CCU or shortly after CCU stay (Puntillo et al., 2010). Despite medical advances in patient management, CCU mortality remains high with large variations according to patient case-mix and care organization. Mortality is a significant endpoint in epidemiologic and interventional studies in the CCU(Orban et al., 2017).

More patients die in CCU than anywhere else in United State hospitals. Half a million Americans die in or after CCU treatment each year, whereas many others remain chronically critically ill with severe functional and cognitive impairments (Howard et al., 2021).

According to the WHO estimates, in 2011, there are approximately fifty-five million deaths worldwide, and annually, more than 20 million people benefit from palliative care at the EOL (Gayatri et al., 2020).

The majority of them were people over the age of 60, according to a detailed assessment. They accounted for almost 90% of individuals who died from noncommunicable illnesses. Furthermore, the advent of infectious illnesses such as HIV and multidrug-resistant tuberculosis, and complicated humanitarian catastrophes in many developing nations cause suffering and necessitate pain control, palliative care, and hospice care (Knaul et al., 2015).

Among the elderly aged 65 years and above, the mortality rate of those living at home with their family is 14.4%, while those admitted to medical institutions, including nursing facilities, are 77.1%. In other words, most people die in medical institutions in South Korea. Due to becoming an aging

society, advancing medical services, and various life support equipment, many patients are admitted to the CCU in South Korea (Lee & Choi, 2021).

2.3 Death and Dying

2.3. A. Dying

Dying is a life-threatening illness period and the pain and symptoms in the rest of the lifespan. In general, the use of ‘dying’ means that a person will die soon. Physicians consider that dying happened when a major of organs (heart, lung, brain, and kidneys) stop to sustain Life (Schwarz & Benson, 2018).

Reith & Payne (2009) thought there were several dying stages: the first stage is the potential death when people know they are diagnosed with a fatal illness. Then the crisis knowledge of death, people are informed or come to know that their illness might lead to death. The third phase reaches a peak called the acute crises phase, a subsequent anxiety period. The chronic living dying phase is the fourth phase; after receiving a prognosis, patients decline anxiety and start to prepare for their impending death. At the final stage, the suffering on physical and social factors limited the quality of Life until the last step came to the point of death. Through the dying process, patients are quickly feeling tired, weak, frailty, and pain. At the final stage of dying, some people even lose consciousness about the physical decline; they do not want to leave the bed and meet visitors, they have less interest in things happening around them, they start to feel anxious and unrest. Their digestive system becomes less effective, and they may not want to eat or drink and become breathless and disorientated (Li, 2021) (Persson et al., 2018).

2. 3. B. Death

Death is an inevitable stage in every person's life, but all people do not know where and when they will die. In many western countries, the confirmation of death is determined when blood circulation ceases, breathing stops, and the whole brain or brain stem death, but some countries argued that death is only confirmed when lung and heart cease (Sarbey, 2016).

Death could be a natural and well-prepared experience when people get old and have diseases, and it also could be a sudden and unpredicted moment include human-induced death (accidents, violent crimes, suicide, genocide, or war) and natural disasters such as earthquakes, tsunami, and flood (Li, 2021).

The attitude towards death is like Becker (1973) noted: "that the fear of death is usual and presents in everybody's life, no one can be protected no matter how disguised it may be, it is the basic fear that affects all others".

Death is a painful and horror experience, some people have experienced the process of death, and some are closed to death due to the death of their loved ones. Therefore, death can be seen as the most challenging crisis that everyone has to face in their lives (Matthews, 2019).

2. 4. Grief, Mourning, and Bereavement

Although the phrases are sometimes used interchangeably, bereavement refers to the condition of being lost, whereas Mourning refers to the reaction to loss. Individual, family, social, and cultural displays of sadness and accompanying behaviors are mourning. As people learn to live with the loss, their grief reactions and mourning habits alter (Ozel & Ozkan, 2020).

Bereavement is the time after a loved one's loss. We feel sorrow and complaint during this process. During sorrow, several factors determine how much time one spent waiting for a loss, including just how attached one was to a dead person (Boelen & Smid, 2017).

Grief is a common reaction to loss that happens in consequence of the real loss of a loved one and the loss of what may have been. After a loss, there are two types of emotions: psychological and physiological. Psychological reactions include depression, wrath, guilt, worry, and despair; physiological reactions include sleeping issues, eating changes, physical problems, and sickness (O'Connor, 2019).

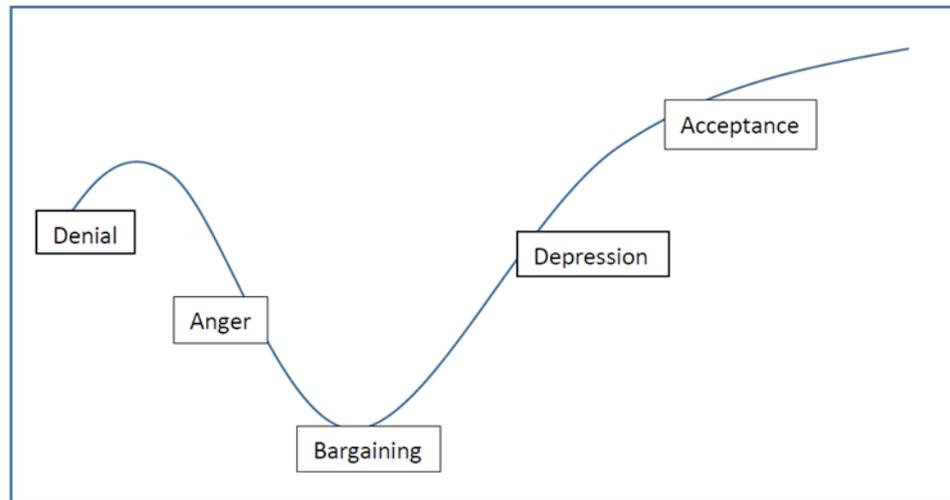
Kubler-Ross described a theoretical model of five phases experienced by terminally ill patients; the five phases are denial, anger, bargaining, depression, and acceptance, as shown in (table 2-1) (Kubler-Ross, 1969).

Stage	What Person May Say	Characteristics
Denial	No, not me. It cannot be true.	Denies the loss has taken place and may withdraw. This response may last minutes to months.
Anger	Why me?	May be angry at the person who inflicted the hurt (even after death) or at the world for letting it happen. May be angry with self for letting an event (e.g., car accident) occur, even if nothing could have stopped it.
Bargaining	Yes me, but . . .	May make bargains with God, asking, "If I do this, will you take away the loss?"
Depression	Yes, me, and I am sad.	Feels numb, although anger and sadness may remain underneath
Acceptance	Yes, me, but it is okay.	Anger, sadness, and mourning have tapered off. Accepts the reality of the loss

(Table 2- 1) Kubler-Ross’s Grief Model(Smaldone & Uzzo, 2013)

The stages of this model are not intended to be linear, as shown in (figure 2-1). There is no specific timeframe for each stage. A person may not go through the stages in a specific order, and they may not necessarily feel

the feelings of each individual. You may find that the person has skipped some stages and finds that he suffers from feelings related to the later stages (Corr, 2019).



(Figure 2-1) Grief’s Model Five Phases- adapted from (Corr, 2020).

The manner a person grieves is influenced by elements such as religious influences or spiritual beliefs, mental and physical health, economic resources, family ties, social support, and time spent preparing for death. However, it mainly depends on the relationship with the deceased person (for example, the family, the parent), the physical and emotional means for coping, the concurrent stresses of life, cultural values, and personality (Jaaniste et al., 2017).

The patient and the family may discuss emotions to solve the complaint process. This helps them. It is essential to respect the privacy and the need or wish of the patient to talk or not talk. Honesty is vital in answering inquiries and providing information (Khalaf et al., 2018).

Prescribing medication and participating in counseling were two of the most popular ways to treat grief. These may include sedative medications, antidepressants, or anti-anxiety medications to help them get

through the day. Besides, the doctor may prescribe medication to help sleep (Buck et al., 2020).

Counseling is a more reliable approach to grieving. Support groups, bereavement groups, or individual counseling can help deal with unresolved grief. This is a useful therapeutic alternative when a sad event creates obstacles in everyday life (Nakajima, 2018).

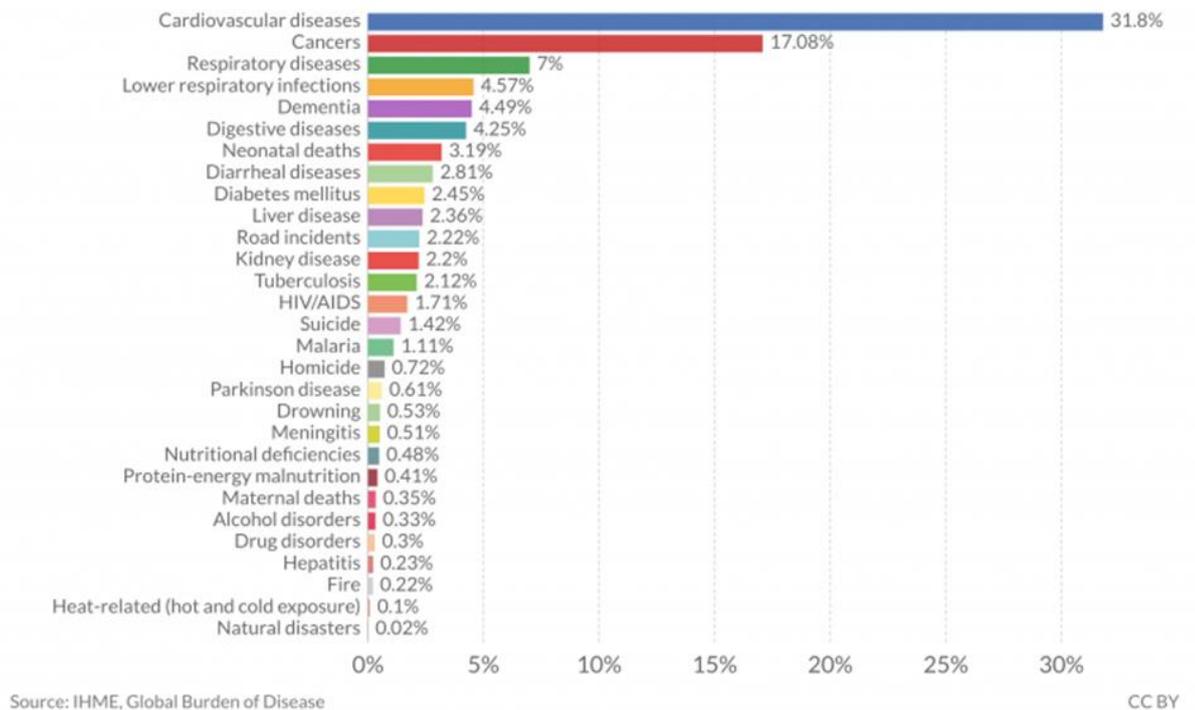
2. 5. The Death and Dying Current Trends

Deaths have largely arisen from cardiac and cancer problems over the last three decades. Rendering to the Centers for Disease Control and Prevention CDC (Murphy et al., 2020), the important reasons for death in the US were as follows:

1. Heart disease (596,577)
2. Cancer (576,691)
3. Chronic lower respiratory diseases (142,943)
4. Stroke (cerebrovascular diseases) (128,932)
5. Accidents (unintentional injuries) (126,438)
6. Alzheimer's disease (84,974)
7. Diabetes (73,831)
8. Influenza and pneumonia (53,826)
9. Nephritis, nephrotic syndrome, and nephrosis (45,591)
10. Intentional self-harm (suicide) (39,518)

According to mortality data provided by countries to the WHO, in International Classification of Diseases-Ninth Revision ICD-9 or International Classification of Diseases-Tenth Revision formats ICD-10,

combined with the United Nations Population Division data query (Figure 2-2) shows the percentage of death by risk factors (Nowbar et al., 2019).



(Figure 2-2) shows the percentage of death by risk factors, world, 2017 (Mokdad et al., 2018).

The intervention of modern medicine has helped people to extend their lifespans. As a result, it has added to the difficulty in identifying when the goal of finding a cure should be abandoned. The disease's natural course progresses, and the patient will inevitably die as a result (McHugh et al., 2015).

2. 6. Signs and Symptoms of Physical Illness at the EOL

Dying is the direction of death through the appearance of sure signs on the deceased, and dying may take a period that varies from person to person. Dying can also be defined in medical terms as the cessation of all vital signs in the human body, where vital signs include heartbeat, brain activity, and breathing (Parish et al., 2018). The dying process makes gurgling sounds due to the accumulation and congestion of secretions in the trachea (Van Beek et al., 2016).

Shortness of breath: which is one of the results of gargling, as it leads to repeated suffocation of the dying process, which has a role in the lack of regular circulation of the lungs, which leads to a state of increased breathing rate after periods of a complete stop(Curtis, 2008).

Confusion occurs due to the gradual cessation of mental abilities, which leads to weakness in memory and forgetfulness, the lack of recognition of those around him, or the lack of identification of the place or time he is located. In general, a state of mental confusion occurs (Wilson et al., 2019).

Urinary incontinence occurs because of the weakening of nerve cells that occurs gradually until the dying process loses complete control of the bladder, and urine is often limited but concentrated amounts due to the slowing of the kidneys (Chughtai et al., 2017).

Feeling cold occurs as an inevitable result of reduced blood supply in the extremities, which has a clear impact on the coldness of both hands and feet of the dying process, and most often, the cold is accompanied by a state of pallor in the dying skin (Torrent et al., 2017).

A state of hallucination and delusion occurs for the dying without any medical reason and results in the delirium of the dying process. Physical signs and symptoms at the EOL are listed in (table 2-2) (Kellehear, 2017)

System	Manifestations
Sensory system	
Hearing	<ul style="list-style-type: none"> • Usually, the last sense to disappear
Taste and smell	<ul style="list-style-type: none"> • Decreased with disease progression
Sight	<ul style="list-style-type: none"> • Blurring of vision • Sinking and glazing of eyes • Blink reflex absent • Eyelids may remain half-open
Cardiovascular system	<ul style="list-style-type: none"> • Increased heart rate; later slowing and weakening of pulse • Irregular rhythm • A decrease in blood pressure • Delayed absorption of drugs administered intramuscularly or subcutaneously
Respiratory system	<ul style="list-style-type: none"> • Increased respiratory rate • Cheyne-Stokes respiration (pattern of respiration characterized by alternating periods of apnea and deep, rapid breathing) • Inability to cough or clear secretions, which results in grunting, gurgling, or noisy congested breathing (death rattle or terminal secretions) • Irregular breathing, gradually slowing down to terminal gasps (may be described as "guppy breathing")
Urinary system	<ul style="list-style-type: none"> • A gradual decrease in urinary output • Incontinent of urine • Inability to urinate
Gastro-intestinal (GI) system	<ul style="list-style-type: none"> • Loss of appetite and thirst sensations • Slowing or cessation of GI function (may be attributed to opioid medications) • Accumulation of gas • Distension and nausea • Loss of sphincter control, which produces incontinence • Bowel movement before imminent death or at time of death
Musculoskeletal system	<ul style="list-style-type: none"> • Increasing weakness • A gradual loss of ability to move • Sagging of jaw as a result of the loss of facial muscle tone • Difficulty speaking • Possibly more difficulty with swallowing • Difficulty maintaining body posture and alignment • Loss of gag reflex • Jerking (myoclonus), seen in patients receiving large amounts of opioids
Integumentary system	<ul style="list-style-type: none"> • Mottling on hands, feet, arms, and legs • Cold, clammy skin • Cyanosis of nose, nail beds, and knees • "Wax like" skin when death is very near

(Table 2-2) the physical manifestations at the EOL- adapted from (Mariann, 2020)

2. 7. Psychosocial Manifestations at the End-of-Life

At the End-of-Life, the dying patient and their family may experience a range of emotions and feelings. (Figure 2-3). The news of a terminal diagnosis and the knowledge that there is no cure is difficult for most patients and their families to accept. Overwhelmed, powerless, scared, and exhausted may be felt by the patient and their family. The family’s reaction is influenced by the nature and duration of the disease and their relationship with the sufferer (Li, 2021).



(Figure 2-3) Psychosocial manifestations of approaching death- adapted from (Mariann, 2020)

Patients' wishes and requirements should be respected. They want the period to express their feelings and think. Time response to demands may be slow because of weakness, confusion, and exhaustion (Lin, 2020).

2. 8. Palliative care as a concept

In 2014, The World Health Organization defined palliative care for adults: "Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with a life-threatening illness through the prevention and relief of suffering through early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual" (Radbruch et al., 2020).

2. 8.1. Principles of Palliative Care

In 2014, World Health Organization proclaimed the Principles for Palliative Care. The opinions were included: removal of pain and other symptoms associated with serious life-limiting diseases, focus on the spiritual and psychological aspects of patients, Live as lively and active as possible until death, supporting the family to cope with the disease and the loss of the patient, considering death and life as a natural condition that all human beings go through; also, palliative care does not mean to expedite, postpone or postpone death, and that what is alleviating suffering is the main goal (WHO, 2014).

2. 8.2. Types of palliative care

2. 8.2.A. Specialist palliative care

To ensure the best possible care for patients and their families, it was imperative to draw a clear variance between palliative care and palliative care that offers the most palliative support. Most patients with complex

conditions need direct or indirect intervention from the specialized team, particularly those with palliative care as their essential specialty with a high level of professional skills from skilled staff (Ferrell et al., 2020) (WHO, 2016).

Specialist palliative care is care offered by specialist services with personnel educated in and committed only to palliative care – for patients with complicated issues not sufficiently handled by conventional treatment alternatives. Specialist palliative care is required when a patient's care has to extend beyond the primary care team (Allende-Perez et al., 2021).

2. 8.2.B. Supportive care

Supportive care is the whole range of treatments offered to patients, friends, and family throughout their disease, even when patients undergo multiple examinations before diagnosis. Supportive care is aimed at supporting the conditions and treatment of patients and families. It enables the patient to optimize therapy, life, and possible impacts of the condition (Odukwe, 2020).

2. 8.2.C. Hospice care

In the United Kingdom, hospice usually refers to inpatient palliative care units dedicated to advanced illnesses. They also deliver complex symptom control and psychosocial care and care in the last days of life and (sometimes) respite care (Friedrichsdorf & Bruera, 2018) (Donna Seton & Rich Lamkin, 2020).



(Figure 2-4) Relationship of palliative care and EOL care/hospice, - adapted from (Rosenberg et al., 2013)

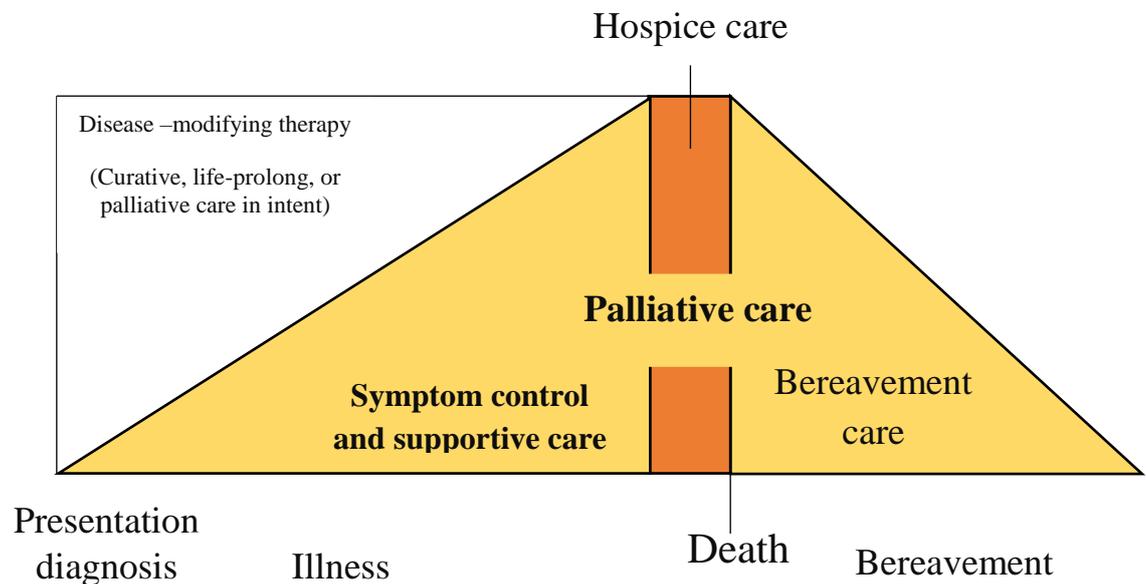
2. 8.2.D. End-of-Life Care

End-of-life care is a global concern. It is the expression used for the problems and services of death and dying. It focuses on the physical and emotional needs of families and patients. The goals of EOL care are to provide comfort and support throughout death, improve the patient's quality of life, help ensure an adequate death, and support the family emotionally (Kim et al., 2021).

Care provided for dying people should describe with a new definition. EOL care is defined as care that helps all those with an advanced, progressive, incurable illness to live as well as possible until they die. It enables both patient and family's supportive and palliative care to be identified and met throughout the last phase of life and into bereavement. The specific application of palliative care interventions in the last hours /days/weeks of Life (Zambrano et al., 2020).

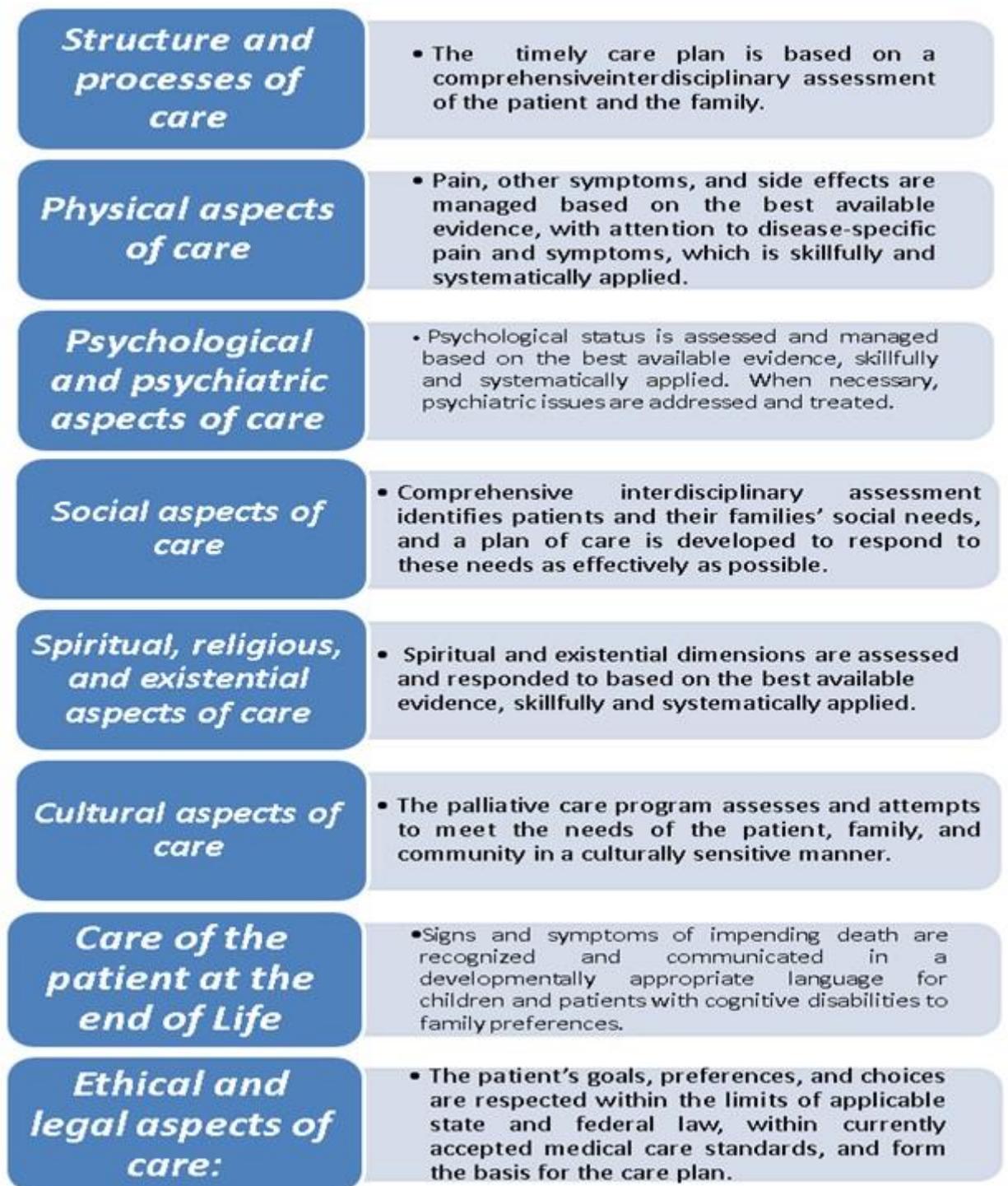
Palliative care should be provided to all patients receiving curative or restorative health treatment at the same time. Palliative care includes patient

and family assistance throughout the EOL care phase and preparing for EOL requirements (figure 2-5) (Cleary, 2016).



(Figure 2-5) the Continuity of integration of curative care, palliative, EOL/hospice care, and bereavement care model (Gardiner et al., 2015).

The National Consensus Project for Quality Palliative Care highlighted the following eight important categories in 2004 to develop a more comprehensive and compassionate approach to the care of the dying. The demonstration of these domains is depicted in the diagram below (figure 2-6) (Ahluwalia et al., 2018).



(Figure 2-6) eight key domains to care of the dying, adapted from (Ahluwalia et al., 2018)

2. 9. End-Of-Life in the Critical Care Units

The Critical Care Unit provides the best possible medical care to help critically ill patients survive acute threats to their lives. At the same time, the

CCU is also the most common place to die. Thus the CCU clinicians should be competent in all aspects of EOLC (Jeon & Park, 2019).

Admission to CCU portends high risks for death, reduced physical and cognitive functioning among survivors, and substantial burdens for family members, including increased rates of depression, posttraumatic stress disorder, and complicated grief (Barg et al., 2021).

Critical care units aim to maintain vital functions to avoid morbidity among patients and decrease mortality with a severe critical illness. Despite the development of new technologies and improved care, the death rate in the CCU remains high (Angus & Truog, 2016).

Although the preferred place of death for most terminally ill patients is home, the place of death for most of these patients is the CCU (Unger, 2016).

Admission to the CCU is a significant event in a patient's life and family members. Every CCU admission aims to do well and to cure the underlying illness. However, during CCU treatment, a situation may evolve wherein the prospect of a reasonable recovery with expected well-being is no longer achievable. Then the aim of doing good changes from cure to care (Gerritsen et al., 2013).

End-of-Life care focuses on alleviating symptom distress, precise and sensitive communication, and treatment alignment with patient preferences, family support, and continuity across clinical settings for critically ill patients. It is a core component of comprehensive critical care for CCU patients, regardless of prognosis or treatment goals (Nelson et al., 2013).

Moreover, End-of-Life care problems are common in the CCU, and the decision making process requires knowledge and management of patients' wishes, past and projected future quality of Life, severity, and

prognosis of illness, patients' age, regarding withholding and withdrawing of ineffective treatments in anticipation of death, or relieving symptoms close to death (Mercadante & Giarratano, 2012).

This concept (EOL) care is an approach that progresses the quality of life of patients facing life-threatening illness, emphasizing complex pain and other symptom management, communication about care goals, alignment of treatments with patient values and preferences, transitional planning, and support the family. This type of care is increasingly seen as an essential component of comprehensive care for patients with a critical illness, including those receiving aggressive intensive care therapies (Odejide, 2020).

Nurses are expected to have adequate knowledge to care for patients during all life stages, including dying. Although professional nurses, and ultimately their patients, would benefit from nurses' participation in explicit coursework about care at the EOL, attention to this topic appears to vary substantially across nursing schools (Winters, 2020).

2. 10. Caregivers Perception toward End-of-Life Care

Even caregivers who routinely care for critically ill or dying patients may have difficulty accepting death. Many healthcare professionals have become so focused on preventing disease or treating illnesses that they are more likely to view death as an individual or professional failure than an inevitable end to the human experience (Thatte & Natu, 2020).

All caregivers, including nurses, physicians, social workers, family members, and others playing a role in EOL care, need to learn to recognize their attitudes, feelings, values, and expectations about death. They need to explore the professional literature discussing legal, ethical, financial, and health issues of EOLC (Saini et al., 2016).

Everybody involved in a dying process's care should collaborate to provide the dying process with holistic care that meets the clients' body, mind, spirit, extended to cultural needs. Besides, they need to address the family, friends, and essential others' needs as they face loss, grief, and bereavement at the EOL (Cordella & Poiani, 2021).

Any sentiments of irritation or ineffectiveness among caregivers must be overcome. They must understand when and how to transition from aggressive therapies to curing or prolonging life to more palliative and holistic interventions to ensure that the dying process and their loved ones have a good death marked by comfort, serenity, dignity, and compassion (Shinefeld, 2020).

Beliefs, attitudes, perceptions, and values regarding the experience of death and EOLC vary widely. Individuals' responses are influenced by their age, gender, culture, religious background, and life experiences. Caregivers should reflect on their values related to the EOL to identify those likely to affect their decision-making processes and behavior when caring for dying patients (Lalani & Ali, 2020).

The caregiver's and patient value methods vary significantly and are more likely to occur the ethical dilemmas relating to EOL care. Understanding others' value systems can help nurses provide quality EOL care, even when they do not share the same values (Kim et al., 2021).

2. 11. The strategy of EOL care

In 2008 a strategy was launched to increase accessibility to high-quality care for all people approaching the end of their life. Achieve EOL care strategy need to main goals were set as follows (Gray, 2011)

Enlarged public discussion and awareness of dying and death; persons should be careful with respect and dignity at the EOL care; to confirm

suffering and pain are optimal, and minimalized quality of life continued; all person to have admission to psychological, social, physical, and spiritual care; patient needs, preferences, and priorities, for EOL care to be documented and recognized, studied, acted upon and respected, anywhere likely; facilities well-coordinated to guarantee continuous service; high-quality of care to be provided in the previous times of life and death, in all locations; professions to be sustained during a patient's illness and after their death; social care professionals and health obtain the essential training and teaching to allow them to offer high-quality of care (Evans et al., 2019).

2. 12. Teamwork

Teamwork is one of the central tenets of palliative care principles; palliative care uses a team approach to address the needs of patients and their families. A team comprises people with diverse knowledge, skills, and personalities, working together towards a common goal. In EOL care, an effective team's goal would be to promote good quality of life for patients and their relatives. (figure 2-7) shows the prominent people involved in providing palliative care (Klarare et al., 2013).

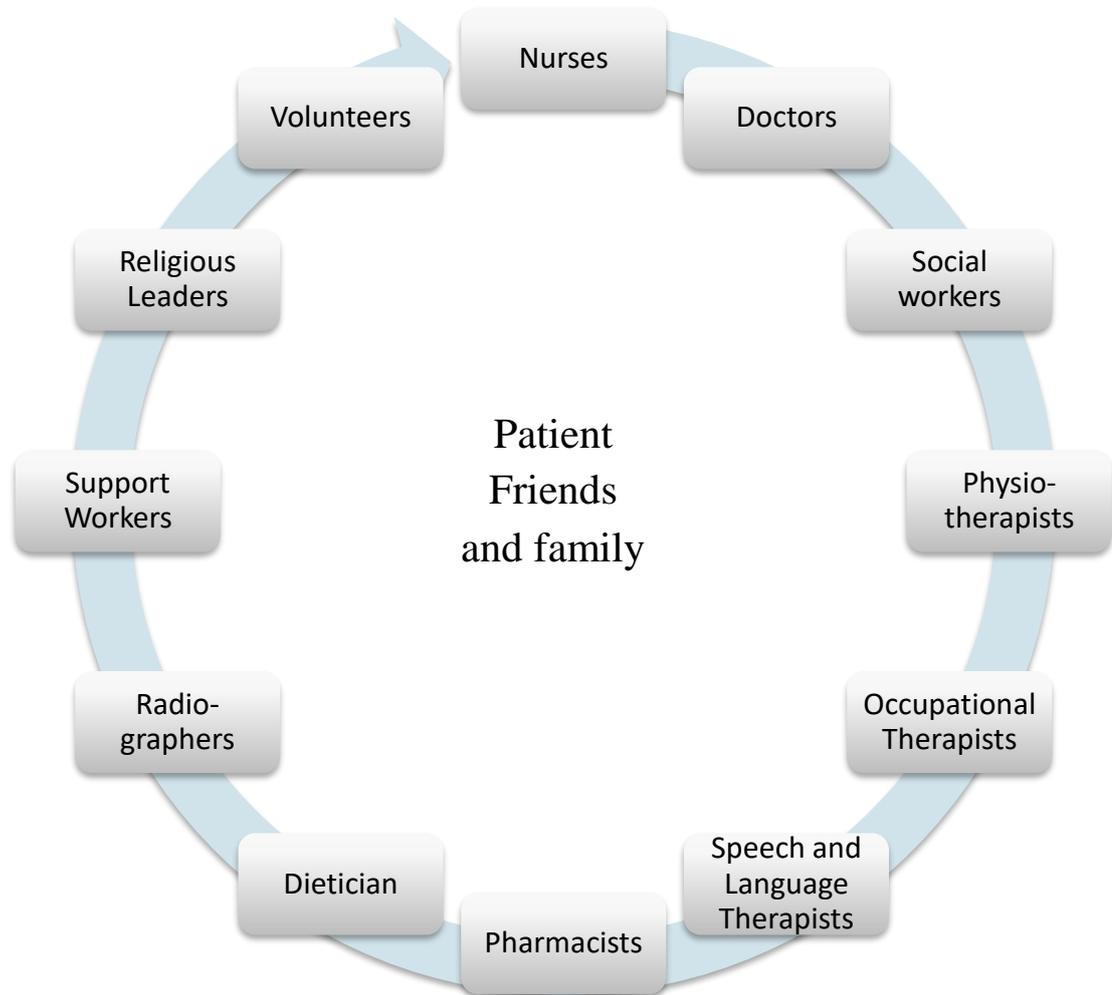
2. 12. A. Multi-disciplinary team:

People from many different professions may include care of patients, but they often act alone and do not collaborate with others(Blomqvist & Engstrom, 2012).

2. 12. B. Interprofessional team:

carry out professionals' responsibilities for the patient's care collaborate effectively to improve the quality of care (Klarare et al., 2013). The critical difference between multi-disciplinary and interprofessional teamwork is seen as the feature of collaboration (Morgan et al., 2015). When numerous health practitioners from various backgrounds collaborate with

patients, families, careers, and communities to provide the greatest quality of care, it is called collaborative practice (Brandt, 2015).



(Figure 2-7) the prominent people involved in providing palliative care, adapted from(Klarare et al., 2013).

Palliative care principles must return to team composition - that is, people with different skills and knowledge to achieve the highest QOC defined through the WHO aimed at collaborative practice. A team approach to a patient's problems is likely to lead to a better solution to physical, psychological, social, or financial problems (Flores-Sandoval et al., 2020).

2. 13. A good death

A good death is devoid of needless anguish and suffering for patients, their families, and caregivers; one that is generally by the patients' and families' desires; and is relatively compatible with clinical, cultural, and ethical norms (Haefner, 2021).

Most people want to be treated with respect and dignity and die with important people nearby quietly and peacefully. Numerous groups in the United States and abroad have conducted research to determine specific EOL findings, the most respected and wanted by those close to EOL and our relatives (Meier et al., 2016). Studies have sought to identify what needs to be present for death to be good (Megan Rosser, 2014).

Nurses need to assess a dying process's needs and plan the care accordingly to facilitate the healthy experience of death and dying. Human needs at the EOL follow the universal pattern of human needs. (figure 2-10) summarizes the dying process's needs using Maslow's Hierarchy of Needs (Williams, 2016). Studies have sought to identify what needs to be present for death to be good (Megan Rosser, 2014).



(Figure 2-8) Hierarchy of the dying process's needs, based on Maslow, adapted from (Williams, 2016)

Patient Perspectives of good death definitions are: diverse and specific, dying in sleep, dying quietly, dying without pain, and dying suddenly (Touhy & Jett, 2019).

Pain-free, peaceful, anxiety-free, comfortable, and family acceptance and cultural considerations are included in multiple answers in Health Care Professionals Perspectives of a Good Death (Cipolletta & Oprandi, 2014).

2. 14. Legal Issues

Nursing practice is underpinned by law. It is imperative to provide EOLC according to the legal and professional obligations as dictated by the state. The inexperience of the law is no defense, and therefore, cannot provide care in ignorance of the law (Willmott et al., 2016).

Patient Perspectives of good death definitions are: diverse and specific, dying in sleep, dying quietly, dying without pain, dying suddenly (Semino et al., 2014)

In short, whatever do for the patient will be underpinned by both professional and legal obligations. A nurse will find that the law is based on general principles, which must be applied to the relevant context. Consequently, the nurse needs to understand these general legal principles as applicable to palliative care. The nature of palliative care entails a discussion around issues focusing on the EOL, what can be done to support the patient in a dignified manner while respecting the patient's wishes pre- and post-death (Colon & Wladkowski, 2019).

Legal and ethical aspects play a fundamental role in palliative care. The limitation of therapeutic effort, palliative sedation, euthanasia, assisted suicide, and diagnostic and therapeutic processes adequacy are daily scenarios for palliative care. Identifying and managing these clinical situations requires in-depth ethical and legal knowledge (Coyle, 2016).

2. 14. A. Legal issues surrounding the providing of EOL care

Physicians and nurses are under public scrutiny for the ethical and legal dilemmas they face in EOLC (Huang et al., 2018).

The main issues focused on: approaches to decision-making at the EOL; the role of consent; withholding and withdrawing of treatment; helped hydration and nutrition; cardiopulmonary resuscitation; the validity of an advance directive; the role of an enduring power of attorney; The role of the independent mental capacity advocate; the use of opiates to control pain; and the donation of organs post-death (Spiess, 2020).

2. 14. B. Consent

The law provides that adults have a right to determine what happens to their bodies. Therefore, nurses must seek appropriate patient permission to provide any care (Munoz Terron, 2021).

However, this seemingly inalienable right is predicated on the capacity of the patient; that is, the patient needs to demonstrate that they have an understanding of the nature of the treatment that is being proposed, including any consequences that may ensue, should they refuse (Bovero et al., 2020).

The issue of capacity is an essential aspect of consent. The law provides that where the patient appears not to have the relevant capacity, any interventions should be carried out in the patient's best interests (Fernandez-Sola et al., 2017).

2. 14. C. Best interests

Any decision made on behalf of the patient who lacks capacity needs to be made in their best interests. The concept of best interests is

more comprehensive than just medical best interests(Taylor, 2016). Here is a detailed framework for assessing best interests (Lou et al., 2020):

- All relevant circumstances must be taken into account, and these may include, for example, religious beliefs and known wishes.
- Reasonable steps to be taken to ensure that the person to whom the decision applies is encouraged and enabled to participate. This may involve providing treatment or therapies to encourage communication.
- Previously held beliefs and feelings. The family and close friends may be a source of those views and opinions.
- Not to be motivated to bring about the death of the person.
- Consider alternative options for treatment.

2. 14. D. Withholding and withdrawal treatment

There is a preliminary examination duty to take reasonable steps to keep the patient alive, but only if it is clinically indicated. The withdrawal or withholding of treatment is an issue that confronts healthcare professionals in a palliative setting (Gonta & Turliuc, 2018).

As palliative care is aimed at preventing or minimizing distressing symptoms, at some point, a decision will be made as to whether treatment should be withheld or withdrawn. The difficulty lies in the prediction of death and the intention to cause death. The law is clear that it is illegal to intentionally cause a person's death but recognizes the situation where treatment is proper and a sufficient balance of good over potential harmful effects(Kim et al., 2021).

2. 14. E. Do not resuscitate orders (DNR)

Hospitals, general practices, residential care homes, and ambulance services are required to have policies regarding cardiopulmonary

resuscitation (CPR) that respect patients' rights. CPR could be applied to anyone before death, but clearly, it is essential to identify those patients in whom death is imminent and for whom CPR would be inappropriate (Tiscar-Gonzalez et al. 2020).

However, decisions not to resuscitate are an emotive issue, which will require careful and sensitive handling with relatives and next-of-kins. If possible, the patient must be consulted and the family (Giannitrapani et al., 2021).

2. 14. F. Euthanasia:

Euthanasia is defined as the painless murdering of a patient experiencing an incurable and painful disease or an irreversible coma (Davis, 2020). The advent of technological advances has increased our capability to long life where it would not be possible during the past. This ability to prolong life has meant that some have questioned whether it is good to prolong life, mainly if life's quality is likely to be low (Cipriani & Di Fiorino, 2019).

The legal position relevant to EOL decisions in a clinical context is set out in the following: Active euthanasia is unlawful, whether voluntary or not—any steps are taken to shorten a patient's life amounts to murder actively. On the other hand, passive euthanasia is not necessarily unlawful if the reasons for withdrawing treatment are made on sound clinical reasoning and in the patient's best interests (Pesut et al., 2020).

Islam sanctifies life and portrays it as a gift from God (Allah). It consistently emphasizes the importance of preserving life and well-being. All Islamic doctrines consider euthanasia to be prohibited. However, if the patient has an inescapably deadly ailment, withholding or withdrawing an ineffective clinical treatment is viewed as admissible (Madadin et al., 2020).

2. 14. G. Verification of death

Verification of death is defined as determining whether a patient is dead. Nurses are now permitted to verify that the patient has died but are not permitted legally to certify death(Churcher & Dowie, 2020).

2. 15. Ethical principles at the EOL care

Ethics is a division of philosophy concerned with determining whether an action towards a person is right or wrong (De Panfilis et al., 2019). Nurses caring for patients with palliative care needs will undoubtedly be confronted with situations where no firm conclusion can be reached regarding what should or ought to be done (Taylor, 2015).

Our moral compass is influenced by the law and culture, religion, beliefs, values, personal conscience, personal convictions, and experience. When confronted with moral issues in the clinical context, the issues must be explored to ascertain what should be done(Ferrell et al., 2015).

Furthermore, in palliative care, nurse needs to consider their responsibilities when caring for patients. Ethical principles must be applied to an ethical problem to determine whether the activity was correct or wrong (Hemberg & Bergdahl, 2020).

There are four main approaches to resolving moral dilemmas in health care. They are thus: justice, beneficence, non-maleficence, and respect for autonomy. These principles address most of the moral issues encountered in health care. (Hillman, 2019).

2. 15. A. Autonomy

Autonomy can be defined as self-rule, that is, the ability for an adult of sound mind to make decisions concerning their own lives. Respect for autonomy is the moral obligation to respect others' autonomy so far as such

respect is compatible with equal respect for the autonomy of all potentially affected (Gomez-Virseda et al., 2020).

2. 15. B. Beneficence and non-maleficence

Beneficence and non-maleficence usually are considered together as they are often seen as two sides of the same coin. Beneficence is the duty to do good, while non-maleficence is the duty not to harm (Bryant, 2020).

When providing medical treatment, there is always a potential risk of harming the patient. So, it is essential to assess whether any treatment provided will bring some benefit to the patient. In a non-curative arena, it is often difficult to measure what benefits treatment may bring, mainly if the treatment is likely to be palliative (Carolan, 2018).

2. 15. C. Justice

The duty of justice is defined as an obligation to act based on fair adjudication between competing claims (Knight & Albertsen, 2015). This duty is subdivided into three categories:

Distributive justice involves the allocation of resources on a fair basis. Therefore, it is imperative to have a strong rationale for supporting treatment in a palliative environment. The best we can do is manage each patient based on their clinical needs and their next kin/career support. Here, healthcare professionals need to be careful not to impose their own personal or professional views about others' justice (Hadler & Rosa, 2018).

Rights-based justice concerns the individual's rights with equal right to be treated equally, while those who do not have those rights should be treated unequally (Rosser & Walsh, 2014).

Legal justice requires that nurses obey morally acceptable laws (Pesut et al., 2020).

2. 15. D. Tissue and Organ Donation

Legally capable people can select organ and tissue donations. Some bodily components or the whole body can be donated. People might choose to donate their organs or offer anatomical gifts before or after death. Family permission must be acquired before donating (Chandler et al., 2017).

Critical care unit staff play an essential role in educating deceased donation, yet personal attitudes toward the process are now down to impact donation rates. International research suggests that approaching organ donation with critically ill families can be challenging for the healthcare professionals involved. Specific legal guidelines should follow when tissue and organ donations (Machin et al., 2021).

After brain death, it may be possible for the person's organs to be used in transplants, often saving others' lives. In cases where a deceased person has not made their wishes clear, deciding whether to donate their organs can be difficult for partners and relatives. Hospital staff are aware of these difficulties and will try to ensure the issue is handled sensitively and thoughtfully (Parsa et al., 2019).

2. 16. Communication at the End-of-Life care

Palliative care delivery has come to be recognized as reliant on communication. (Henry, 2019).

In EOL care, communication considers as an important issue of care. Some individuals feel uncomfortable regarding death, yet it becomes essential and valuable to effectively communicate when they look after a dying patient, and these discussions must be opened. (RCN, 2021).

Quality EOL care depends on the nurse learning about each patient and family as individuals, identifying their own unique needs, goals, and

expectations. Unless nurses use practical communication skills, they are unlikely to deliver effective patient-centered quality care to this vulnerable group of patients (Marie Curie, 2019).

Communication among the interprofessional group member, patients, and their families. The initial aspects of careful communication are empathy and active hearing. Empathy is identifying and comprehending the circumstances, emotions, or intentions of another. Active listening takes care of what is stated and does not interrupt the patient's nonverbal indications (Pfaff & Markaki, 2017).

Silence might exist. Silence is often associated with the EOL overpowering emotions. Silence may also offer time for ideas to be collected, the message of acceptance and comfort that listen to stillness (Simoës, 2018).

Prepare members of the family for cognitive and emotional changes that may place as death approaches. Speaking about the patient might become confused, puzzled, or bewildered. Patients may talk or talk to family members or those that have died or offer instructions to the survivors. Active and attentive hearing enables strong motifs in the communication of the dying process to be identified and the danger of improper labeling behavior to be reduced (Nussbaum et al., 2016).

Continued polite and courteous dialogue with the dead should continue even if the individual is unconscious since their hearing sensation may still be maintained to death (Soderman et al., 2020).

2. 16. 1. Goals of Communication at the EOL

1. Convey respect and understanding for the patient as a person first, patient second.
2. Convey information about the illness, its likely course, and treatment options (including resuscitation, life support, and artificial nutrition).

3. Communicate empathy and support.
4. Convey appropriate hope.
5. Develop a treatment plan according to the values, goals of patients, and notions of quality of life.
6. Arrange for follow-up meetings to offer continued treatment and assistance (Coyle et al., 2015).

2. 16. 2. Communicating with a seriously ill patient

Complex therapy and terrible news for patients and their family on the disease during a severe sickness. They may be required to make tough choices when nurses are diagnosed, fail to provide a disease-centered therapy, debate the success of a specific procedure and take hospice options. These critical stages on the continuum of therapy need tolerance, empathy, and honesty from nurses. It is never simple to discuss delicate matters such as severe disease, expectations of survival, and death-related worries (Bullington et al., 2019).

The art of therapeutic communication may nonetheless be acquired and practiced to achieve mastery, like other abilities (Pehrson et al., 2016).

2. 16. 3. Starting up the conversation

The nurse should ensure enough time to talk and listen and react appropriately with the patient. The core of good communication skills is to be led via the patient. (Kourkouta & Papathanasiou, 2014).

Skillful delivery of bad news can provide comfort for the patient and family through think privacy, the right time, looking for prompts, do not use euphemisms, use open questions, like What ... or How ..., summarize, do not be afraid of silence, read up, and please write it down (Berkey et al., 2018).

2. 16. 4. Talking about spirituality

Spirituality conversations will not necessarily be religion. Themes may include religious ideals, burial arrangements, anxieties about people left behind, and what death will feel like (Choudry et al., 2018).

Too many patients are challenging to talk to and must be treated with care and understanding. These discussions with the professionals they know and trust often occur to patients. By learning more about a patient and family and building confidence, the nurse frequently understands what is vital for the patient from a spiritual viewpoint (Ortega-Galan et al., 2020).

2. 16. 5. Using body language

Empathy is essential, whether vocally or not. Non-verbal communication is essential since the way we engage affects our patients' relationships since we always transmit messages throughout our bodies as we sit and behave (Ruben et al., 2020).

Maintain open arms, keep an eye in contact, avoid any obstacles, sit at a reasonable distance so that the person with whom chat doesn't feel overwhelmed, and lean forward may assist in showing that you are listening attentively(Nichols & Straus, 2021).

2. 16. 6. Barriers to Communication

Most nurses find advising patients and their families about EOL choices stressful because of challenges, including lack of information, practical experience, and emotional anguish from the patients and families. (Wittenberg et al., 2018).

Finally, speaking with the patient, family members, and friends and allowing them to know how the designs have altered, and agreeing to say

goodbye for their loved ones is a very important role that is frequently ignored (Goman, 2018).

2. 17. Nursing care at the time of death

Management near the EOL must attention to the patient's comfort, attending to physical, psychologic, social, and spiritual care domains. EOLC services will commonly involve becoming involved at this point to help obtain these care goals. There is an expectancy on dying patients and their family members that medical needs will be well(Batstone et al., 2020).

Providing care to patients close to death and being present at the time of death can be one of the most rewarding experiences a nurse can have (Fristedt et al., 2021). Patients and their families are understandably terrified of the unexpected, and the path to death can give rise to new worries or trigger past fears or problems to resurface(Evans & Eunice, 2017).

Regardless of the setting, professional practitioners make dying patients feel more comfortable and allow their loved ones or family members to grow and heal. Similarly, patients and their family members might be fewer concerned when they know what to anticipate and how to react when they die (Kentish-Barnes et al., 2019).

2. 18. Expected physiologic changes

It is essential to determine when patients are imminent in the terminal part of their lives to offer proper care for a dieting patient (Sedhom et al., 2021). Common indicators of profound weakness, gaunt, somnolence, disorientation, reduced oral intake, trouble in oral medicines, a decreased concentration, changes in skin color, and temperature variations including dying patients (Alsu hail et al., 2020).

Predictable changes in the body may be recognized when death approaches and organ systems fail. Patient comfort care measures should be maintained, such as pain medicines, turning, mouth treatment, eye care, sectional drainage posture, and skin protection measures from urine or feces (Rattani, 2020).

When patients die, all unavoidable therapies must cease to ensure that patients have a minimum burden, and the nurse should discuss the interprofessional team for abandoning measures, such as taking blood, tube feed, suction, and intrusive surveillance, which no longer provide patiently to comfort (Long, 2020).

Nurses should prepare the family members for the expected outcome, which may occur following the pre-death time. If family members are prepared for death, they are less worried and maybe more suited to their loved ones (Alftberg et al., 2018).

2. 19. Bronchial secretions

Terminal respiratory secretions, popularly called death rattles, occur if a patient's throat contains mucus and saliva. This leads to a moist, rattling sound as the patient breaths in and out. The capacity to clean their throat or swallow might be lost if the patient grows weaker or loses consciousness (MacLeod & Macfarlane, 2019).

A murmur happens when a person is in or out of consciousness in a weakened condition. It may not be physically solid enough to cough or swallow the fluids out of the throat. These secretions include the typical production of saliva and mucus that is usually swallowed and removed easily (Lokker et al., 2014).

While death rattle is a common symptom at the EOL stage, standardized therapies and no study on the effectiveness of these antisecretory medicines have been undertaken. (Arcuri et al., 2016).

The sound (terminal bubbling) and the secretions' appearance are often more distressing to family members than the patient's secretions. Supportive nursing care may alleviate family anxiety about the patient's changing condition (Van Esch et al., 2020).

2. 20. The death vigil

While each death is unique, competent clinicians typically assess that the patient is dying imminently or actively in the final hours or days. When death approaches, the patient may walk away, sleep longer or become drowsy (Borin, 2016).

Death is often preceded by phasing-out of body functions, increasing breathing intervals, weakening, irregular pulses, decreasing blood pressure, changing, or mottled skin color (Paris & January, 2018).

Family members should be encouraged, where families are comfortable and can do so without the patient being in a state of distress and are urged to stand with the patient, chat, reassure and be in contact with the patient, or linger with the patient (Gilad et al., 2020).

The family may take great care not to die their beloved alone. Notwithstanding the family and professional's best efforts and intentions, the patient may die when no one is present. It is not realistic for family members to be at the patient's bedside twenty-four hours a day (Stiefel et al., 2017).

Experienced physicians remark and corroborate that some individuals prefer to wait for family members to go to death in their beds, maybe to save the agony of their love when they die (Aoun et al., 2015).

Throughout the death vigil, the healthcare provider may comfort family members by constant or intermittent presentation, modeling behavior, promoting the care of family members, insuring natural physiological changes, and fostering familial rest intervals. If it is time for the patient to die, whereas friends and family members were gone off the bed, they may voice their sentiments of the fault and deep regret (Thompson et al., 2019).

2. 21. Physical nursing care for the dying patient

Good nursing care at this point will include close observation of the patient, both for the efficacy of pain or symptom management interventions and the gradual changes which herald the approach of death. While EOL care often includes supporting family and friends, all nursing care aims to promote comfort for the patient. The nursing priorities for dying patients include mouth care, pressure area care, personal hygiene, and elimination needs (Canadian Nurses Association, 2015).

2. 22. After-death care

The real dead time is quiet and occurs without conflict in patients who have got proper symptom treatment and families with enough preparation and support (Willmott et al., 2020).

At the moment of death of the patient, nurses may or may not be present. Nurses are permitted in several places to declare death and then sign the death certificate if death is foreseeable (Beuthin et al., 2018).

Death is defined as permanent respiratory and circulatory function stoppage. Death is determined by a physical examination that includes an analysis of the lack of respiration and heart sounds (Merlane & Armstrong, 2019).

The body starts to alter immediately after the termination of essential processes. Blood darkens and ponds with independent body regions; urine and feces may be discharged; waxes become dusky or blue, waxes appear and cool, blood dark and pools if the body is in a supine posture emptied (NICE, 2021).

Families should be permitted and encouraged to spend time with the dead immediately following their death. At the moment of death, the normal emotions of family members vary considerably, from soothing professions of sadness to open statements of mourning and prostitution (Segev et al., 2021).

During their time with the dead, family members' demands for privacy should be respected. The family members may want to administer or help the corpse after death (Yeh et al., 2021).

Honoring the spiritual and cultural needs of the dead and the family, preparing the corpse for transfer, keeping the privacy and dignity of the dead, and returning the property of the patient to family, are the essential elements in the care of nurses after death (Miodownik, 2020).

After death, the care of the individual consists of preparing the corpse to transfer it from death to the funeral director and preparing the individual to say farewell to the family. The objective should be to make the patient as enjoyable as possible since this image can remain lengthy in people's memory; it may assist families with their deprivation by seeming tranquil and pain-free (Bamford et al., 2018).

Most nurses believe that the last thing that can happen to the patient is to lay someone out. The patient should be washed, the eyes are closed, and the mouth are closed and the skins brushed, the patient's hair is blown off, the pad can absorb leakage; any lines of IV and spigot catheters are removed

from the mortuary; a patient identification marker should be placed as per local regulations; a patient should be wrapped onto a sheet of paper; the person is placed in the bodybag if leakage is present (Greenway & Johnson, 2016).

Some people may choose to give tissue for transplants, such as corneas, bones, veins, and heart valves. In general, the care team would be aware of this information before the patient dies (Chaskar et al., 2016).

End-of-Life care comprises giving patients and their families compassionate, adequate, high-quality care both before and after their death. Knowledge of death must be combined with basic nursing abilities (Edo-Gual et al., 2014).

Patients who are dying may be educated and directed by national and local rules, but nothing promotes dignity, choice, and comfort for people without true compassion and attention. It is a great advantage and many rewards for the dying, but not without the expense of nursing (Stensland & Sanders, 2016).

2. 23. End of life and COVID-19

Because of the COVID-19 pandemic, healthcare delivery has altered dramatically. Visitor rules are one of the most important changes. Except in compassionate care settings, most health care institutions have made in-person visits by family members strictly prohibited. These restrictions exacerbate a family's sense of isolation and suffering, resulting in intense grief for patients' relatives (Ersek et al., 2021).

Nursing homes and hospitals should only allow one or two no infected families to see the dying. Elsewhere, there will be even fewer visitors permitted (Wakam et al., 2020).

More individuals are dying from the coronavirus sickness of 2019. Family members are not permitted to say farewell. A negative impact on social distance and visiting limitations is associated with dying from COVID-19. This effect is amplified when someone is present. It has significant social and existential ramifications for patients' grief journey (Strang et al., 2020).

2. 24. Coping with death and dying

Special Needs of Nurses

The nurses are directly related to the complicated and emotionally loaded concerns of life loss practices in the CCU or other acute care facilities or at various sites where patients and their families are given ambulatory services (Edo-Gual et al., 2014).

The nurse and patient or family may build a relationship or relationship. Know how complaints impact nurses personally. When nurses take care of terminally ill patients or dead, nurses are not immune to losing sentiments. When coping with death, it is typical to feel helpless and powerless. Speak of sadness, remorse, and frustration. Beliefs, attitudes, and emotions regarding dying are vital to understanding (Browall et al., 2014).

To make their emotional reaction to losses that they experience every day more effective and happy with their care (Zheng et al., 2018).

Before showing signs of stress or burnout, caregivers should recognize the difficulties of living with the suffering of others every day and develop good routines to protect themselves from emotional stress (Nwozichi et al., 2020).

Interdisciplinary colleagues use meeting time to express frustrations, tranquility, coldness, and other movements to learn how they deal and to talk

about how they were affected by the lives of those patients who died since the recent meeting, where death, sorrow, and loss are expected to produce results from the patient care system (Nichols, 2017)

Taking on others' pain, emotions, anxieties, and fears while working with patients and their families coping with a terminal illness is a significant part of being a nurse or working in a palliative care facility (Tornoe et al., 2015). Supporting others is costly for us, and we require and deserve support (Dobson, 2017).

Long-term unmanaged stress is harmful, both for the individual and also potentially for the patient. Each of us has coping strategies. Good adaptive coping strategies are helpful and have no long-term side effects, and while others are immediately effective, they may be associated with long-term risks. We need to identify what stresses us and how we cope with it, making appropriate changes to ensure we receive safe, effective support (Golfenshtein et al., 2017).

Focus on treatments that assist lower stress to satisfy personal requirements. Take part in hobbies, arrange nurses' time to sleep, maintain a peer support system, and create a structure of support outside the workplace (Ironside et al., 2019).

Finally, good personal habits such as nutrition, exercise, stress reduction, and sleep help protect against the harmful consequences of stress (Haarde, 2017).

2. 25. Nursing Diagnosis

Nursing Diagnoses for EOL according to NANDA

Nursing primarily assists individuals (sick or healthy) with those activities contributing to health or its recovery (or to peaceful death) that are

performed unaided when they have the necessary strength, will, or knowledge. Nursing also helps individuals carry out prescribed therapy and to be independent of assistance as soon as possible (Alghamdi, 2016).

The nursing diagnosis is built on the patient's current condition and health assessment, permitting nurses and other healthcare workers to see a patient from a holistic view. NANDA diagnoses assist a nurse's awareness, professional role, and professional abilities. In 1982, NANDA was a specialized organization that develops, researches, disseminates, and refined (Rubensson & Salzman-Erikson, 2019).

The North American Nursing Diagnosis Association revealed that nursing diagnosis is a judgment based on a complete nursing assessment (Park, 2010).

2. 25.1. Death anxiety related to the dying process

Death anxiety is not characterized as a distinct disorder, but it may be linked to other depression or anxiety disorders. In simple words, death anxiety is a universal fear of death or stress taken on by persistent feelings of death. They may also experience three types of fear (fear of separation, fear of dealing with a loss, worry about leaving loved ones behind) (Jacobson & Newman, 2017).

The three main types of death anxiety are predatory death anxiety, predation death anxiety, and existential death anxiety (du Toit, 2017)(Austin, 2009). Anxiety includes moderate to severe cognitive, emotional, behavioral, and physical aspects (Zhang et al., 2019).

Cognitive symptoms may include hyper-alert have narrowed focus, difficulty concentrating, being easily distracted, not focusing even when clear directions are given, and a disconnected state (Iverach et al., 2014).

Symptoms of emotional and behavioral irritability or distress are short-term or easily annoyed, restless, tearful and expressing sensation of worry or unrest, crying without control and even screaming and shouting, expressing feelings of doom, dread or terror, or displaying irrational or repetitive behaviors (Iverach et al., 2014)

Insomnia, trouble sleeping, heart rate increases or palpitations and respiratory symptoms may be quicker and may complain of feelings of nausea or diarrhea, vomiting or even soiling alone, chest pains, dilated pupils, and abundant perspiration. Other physical anxiety symptoms include dry mouth, tweaking or shaking muscle, and stomach aches (Titov et al., 2009).

2. 25.2. The risk for aspiration related to the dying process

Difficulty in swallowing is a disturbing symptom that happens in most patients with a severe life-limiting illness. Swallowing illnesses, distinct from diminished appetite, are part of the natural process at the EOL, irrespective of the etiology (Pace et al., 2017).

Difficulty in swallowing can impact the patient's quality of life, whose instinct to nurture and comfort food is curtailed. The inability to swallow may represent a pivotal symptom that prompts the decision to consider EOL (Picot et al., 2015).

Dysphagia can be a cause of and result of dying. Muscle wasting, cachexia, and asthenia affect the coordination and muscle strength needed for swallowing, leading to poor appetite and inadequate oral intake. In addition to inefficient swallowing, dysphagia is a necessary predisposing condition for aspiration, which can lead to pneumonia and can contribute to malnutrition, dehydration, and, in some cases, death (Cindy, 2010).

2. 25.3. Shortness of breath or dyspnea related to the dying process

Dyspnea is a perception of difficulty in breathing which increases or reduces the activity of a person. It is not tied to exercise necessarily. Dyspnea may occur as abundant secretions, cough, chest discomfort, tiredness, and thirst for air: its causes are complicated and diverse (Singh, 2016).

Neuromuscular illness or general weakness leads to restrictive airways diseases, with a consequent increase in secretions resulting in obstructive lung disorder. The head and neck cancer of the head and neck may cause partial blockage of the upper airways and typically include profuse secretions. Cardiac insufficiency may produce exercise dyspnea, tachypnea, orthopnea, and cough. If left untreated, heart failure causes lung edema that frequently gives a feeling of drowning. Renal impairment may lead to excess fluid and heart failure (Andersson & Busch Paulsson, 2017).

Mediastinal diseases such as swollen lymph nodes may affect heart and lung function and contribute to dyspnea. Intra-abdominal illness exposure to mass or ascites intrusts lung volumes and capacity to keep tachypnea, a typical cause of perceived air hunger, at least to sustain minute ventilation. Primary disturbance of pulmonary activity may result in various forms of dyspnea: chest wall, pleural, airway or parenchymal tumor, pneumonitis infectious or aspirating, lung embolus, pleural fistula bronchoid, irradiation of fibrous chemotherapy, chronic obstructive pulmonary diseases, etc. Inhalation may proceed slowly over a lengthy disease or occur quickly with severe decompensation and immediate mortality. It is a frequent trait in life's dying days (Whellan et al., 2014)(Nava et al., 2013).

2. 25.4. The risk for imbalanced body temperature related to the dying process

Hyperthermia is break-in thermoregulation when the body generates or absorbs more heat than it dissipates, increasing body temperature. It's a core temperature that stays over the average variance for an extended period, generally more than 39°C. Body temperatures exceeding 40 °C can be life-threatening; such increases range from moderate to severe (Tattersall et al., 2012).

Hypothermia is defined as a body core temperature below 35.0 °C in humans. Indications depend on the temp. In mild hypothermia, there is shivering and mental confusion. In moderate hypothermia, shivering stops, and confusion increases. In severe hypothermia, there may be paradoxical undressing, in which a person removes their clothing, as well as an increased risk of heart-stopping (Leikin et al., 2012).

Hypothermia is classically caused by exposure to extreme cold. It may also occur from any condition that reduces heat production or increases heat loss. It may include low blood sugar, loss of appetite, and aging. The body temperature is usually maintained near 36.5-37.5 °C through thermoregulation. Efforts to increase body temperature include shivering, increased voluntary activity, and wearing warmer clothing. Hypothermia can be diagnosed based on a person's symptoms in the presence of risk factors or by measuring a person's basal temperature (Meiman et al., 2015).

2. 25.5. Nausea and vomiting related to the dying process

Nausea & vomiting, as well as therapy for illness (medication, anticancer therapy) and coexistence of illnesses, are prevalent in patients undergoing palliative care (and their treatments). Because one-third of hospital patients were hospitalized last year, doctors should understand

evaluating and handling symptoms common to palliative patients (Singh et al., 2016).

2. 25.6. Bowel incontinence related to the dying process

Bowel incontinence is the loss of bowel control, causing you to pass stool unexpectedly. This can range from sometimes leaking a small amount of stool and passing gas to not controlling bowel movements. The symptoms of bowel incontinence differ from one person to the next. Some people suddenly need to go to the toilet but are unable to reach a toilet in time. This is known as urge bowel incontinence. Other patients experience no sensation before soiling themselves, known as passive incontinence or passive soiling, or there might be slight soiling when passing wind (Sharma et al., 2011)

2. 25.7. Decreased cardiac output related to the dying process

Cardiac Output is the quantity of blood pumped by the heart in one minute. The heart rate product (the number of heartbeats per minute) and stroke volume (the quantity of blood pumped each beat) are commonly calculated in liters/minute. Reduced cardiac output often leads to a COP of between 4 and 8 liters per minute. Cardiac output depends primarily on four factors:

- Heart rate: How fast the heartbeats
- Contractility: How much the heart muscle can contract
- Preload: How much the ventricles stretch when the heart muscle relaxes and allows the chambers to fill with blood
- Afterload: The force the ventricles must act against to pump blood(Cholley et al., 2017)(Bronzwaer et al., 2017)

2. 25.8. Impaired verbal communication related to the dying process

Verbal communication (VC) is any modality that uses words, such as spoken, written, or signed. People communicate vocally using a codified set of sounds to construct a language, and being able to communicate via a structured system of words rather than just sounds differentiates humans from other creatures. It illustrates the transmission and receiving of information (Soto-Rubio et al., 2018).

Clarity is a key factor in verbal communication. Effective communication involves communicating information, explaining ideas, and exploring elements out of the initial notions. Difficulties may develop while utilizing verbal communication to explain oneself. Problems might occur due to poor communication. They detect when communication has become poor and then use techniques to increase information delivery (Barwise et al., 2019).

2. 25.9. Urinary incontinence related to the dying process

It is a reasonably prevalent condition in EOL patients, although its precise incidence is not apparent. Sign studies and prevalence of symptoms after urinary incontinence are typically not mentioned in life. Most of the patients receiving palliative care are also older, and urine incontinence typically affects this demographic. Incontinence affects 15 to 35% of older individuals living in the community and over 50% in nursing homes. Patients and families are often reluctant to speak about urinary incontinence. Caregivers may presume that urine incontinence is not a prevalent symptom but a frequent issue at EOL, albeit less severe. (Cruz-Oliver, 2017)(Davies, 2004).

A. Neurological problems of the bladder

In people with neurological issues, the bladder has a convoluted neural supply, and bladder dysfunction often occurs. Any injury that affects the neurological regulation of the lower urinary tract will disrupt the bladder function, causing issues both with voiding and storage. Bladder storage or defective removal, or both, is likely to occur in patients with spinal cord compression. Cerebral cortex inflammation may cause urgent incontinence and impetus. There are only several scenarios: pelvic or spinal metastatic diseases, gynecologic malignancies, bladder neoplasms, and cerebral bleeding that may lead to bladder dysfunction (Soto-Rubio et al., 2017).

B. Cognitive impairment

Cognitive impairment in urinary incontinence when cognitive impairment occurs at the EOL, caregivers & health professionals had enormous obstacles in controlling urine incontinence. Incontinence has been identified as a contributing factor in the admission of cognitively challenged people to long-term care facilities (Nazarko, 2019).

Full bladders (or bowels) during the last stages of a terminal disease may produce agitation and restlessness. The trigger for agitation must be recognized carefully. For example, a urinary catheter may alleviate agitation in specific individuals, whereas others may experience difficulty with a catheter (Smith et al., 2020).

2. 25.10. Impaired bed mobility

A NANDA-approved nursing diagnostic classifies physically disabled people. Mobility is the condition in which the movement of the body, or one or more extremities, is restricted by one person independently. Related variables in the individual include pain or worry for discomfort, anxiety or depression, and neuromuscular or musculoskeletal impaired physical limits. Forced rest, like when immobilizing a shattered leg, and is included for

therapeutic reasons. Every mobility limitation of the human body is intended to affect every key anatomical system (Baird, 2015).

2. 25.11. Impaired oral mucous membrane related to the dying process

This nursing care plan is for patients who have impaired oral mucous membranes. According to NANDA, the definition for impaired oral mucous membranes is the state in which individual experiences or is at risk for experiencing disruptions in the oral cavity. Patients must have or be at risk for disrupted oral mucous membranes to qualify for this nursing diagnosis. The patient may or may not present with a coated tongue, xerostomia, stomatitis, leukoplakia, edema, gingivitis, purulent drainage, or taste changes (de Carvalho et al., 2018).

2. 25.12. Chronic pain related to the dying process

End of life pain is usually linked with the medical repercussions of serious illnesses, such as cancer, late HIV, degenerative illnesses, but it does not come only because of the diagnosis at the root but also because of the underlying sickness. Many people assume that severe discomfort in the latter stages of life always accompanies cancer. Hospice or palliative care studies estimate that between 50% to 90% of cancer patients experience pain (Taylor, 2019) (Su et al., 2018)(Cagle et al., 2017).

2. 25.13. Powerlessness related to the dying process

This nursing diagnosis is for patients who are experiencing powerlessness. According to NANDA, the definition of powerlessness is a state in which an individual or group perceives a lack of personal control over certain events or situations, affecting outlook, goals, and lifestyles. Patients experiencing powerlessness may feel like they have no control (da Rosa Silva et al., 2017)(Nascimento de Morais et al., 2018).

2. 25.14. Self-care deficit (specify) related to the dying process

Feeding, bathing/hygiene, dressing/grooming, and toileting
 Maintaining good overall health and well-being is important to fighting illness. If a nurse has a nursing diagnosis, the ability to feed is compromised. (This is a specific kind of diagnosis called decreased capacity to do vital self-care). They decreased capacity to undertake or finish bathing/hygiene tasks to have a diminished capacity to undertake or finish dressing and grooming duties for themselves (Silva et al., 2019).

2. 25.15. Impaired skin integrity related to the dying process

The essential characteristic of excellent treatment is maintaining the integrity of the skin and preventing pressure ulcers. An issue with the skin's integrity may suggest that the skin is damaged, injured, or ineffective for natural healing and recovery. Thus, the nurse must recognize the risky people and the various elements that put patients in danger of skin damage (Payne, 2020).

Pressure, shaving, and immobile friction put a person in danger of changing the completeness of his skin. The largest risk for changed skin integrity is those overweight, disabled, injured in the spinal cord, bedridden, and limited to sleeves and edema. Age, average elasticity loss, poor nutrition, ambient humidity, and vascular insufficiency are other variables that speed up skin collapse. One bed, colors, and other necessary equipment give pressure alleviation and redistribution of the pressure (Tottoli et al., 2020).

2. 25.16. Impaired social interaction related to the dying process

Persistent difficulties in the social uses of verbal and nonverbal communications. (DSM-V) impaired social interaction is a nursing diagnosis accepted by the NANDA, defined as a state in which an individual participates in either an insufficient or an excessive quantity

of social exchange or an ineffective quality of social exchange (Colombo-Dougovito & Lee, 2020).

2. 25.17. Readiness for enhanced spiritual well-being related to the dying process

A person's capacity to experience and integrate meaning and purpose in life through a person's connectivity with themselves, others, art, music, literature, nature, or power larger than oneself is characterized as a nursing diagnosis ready for increased spiritual well-being. NANDA gave their approval (Pereira et al., 2020). A person with this diagnosis may have an enhanced desire for hope and feel there are (Martins et al., 2020).

2. 26. Nursing care of EOL patient

Providing care to patients at the EOL and those with serious illnesses who may be nearing the EOL is a frequent source of ethical problems. While everyone can agree that a peaceful death is desirable, there are various opinions about what a peaceful death looks like. Besides, patients and families may have goals for the EOL, such as adequate pain control or being with family, but expect that this will happen much later and not now (DuBenske et al., 2016).

Nurses' professional responsibilities to provide EOL care are grounded in the essence of nursing practice and supported by the American Nursing Association's code of ethics. Both EOL and nursing care emphasize comprehensive care supporting patients and their caregivers' holistic needs, including assessing and treating physical, emotional, and spiritual health. Providing EOL care encompasses several nursing care competencies; all nurses are mainly in EOL care's primary aspects, including symptom management (Kavalieratos et al., 2016).

Family, and where possible, patients' involvement is central to improved shared decision-making and improved delivery of EOL care. Direct involvement in all aspects of care (particularly in comfort care, such as hygiene, eye, and mouth care) can help them reach awareness and accept dying (Virdun et al., 2015).

2. 26.1. Nursing care for the patient with anxiety, distress, agitation, and delirium

These symptoms appear for patients close to death; reassurance, knowledge, diversion, and family presence may help calm the individual. When unresponsive patients and non-surgical interventions have been ruled out, administration of anxiolytic and sedative medicines may be appropriate (Barr et al., 2013).

Delirium is predicted at the EOL, especially if the patient is ventilated. Additionally, sedation is seldom helpful by itself, and antipsychotic drugs may be required if patients are upset (Gaertner et al., 2019)(Devlin et al., 2018).

Among other interventions, including deep breathing, patients can see around their room, feel, and hear (Atif et al., 2020).

Usually, people are given two lines: benzodiazepines and antidepressants for drugs for anxiety (Starcevic, 2014).

For intermittent anxiety, benzodiazepines may be used to decrease the severity of the episode, interrupting the patient's day-to-day life when he didn't respond to relaxation methods. (Yatham et al., 2018)

Antidepressants: These medications can have a powerful effect on chronic anxiety. By regulating brain chemistry, antidepressants like fluoxetine, Mirtazapine, Venlafaxine, and many others can be used when patients have recurrent episodes of anxiety (Edwards, 2019).

Treating Underlying Causes is very important; two of the most common causes of anxiety are pain and shortness of breath dyspnea. If a loved one is experiencing one of these symptoms, it must be treated, and the anxiety (Schmelzer, 2021).

2. 26.2. Nursing care of a patient has difficulty in swallowing in EOL Care

Dysphagia is a common prognostic sign in patients nearing the EOL, and for many patients with a life-limiting illness, the inability to swallow may represent a pivotal symptom that prompts the decision to consider EOL or hospice care (Pace et al., 2017).

Nursing care for dysphagia patients at EOL requires a particular emphasis on education and training to give families the confidence to provide comfort care. The health team should know their state's laws regarding EOL care and provide complete information to the patient/family regarding options, including hospice (Levy et al., 2004).

Management strategies may consist of (Hammond, 2020):

- Thickening liquids to make swallowing easier.
- Diets with different textures.
- Positions, methods, and special tools for self-feeding.
- Being reliant on others for feeding is a major risk factor for aspiration pneumonia.
- Muscle-strengthening exercises and swallowing techniques
- Nutritional supplements are given daily.
- Nutrition and hydration with assistance.

2. 26.3. Nursing Care of patients has shortness of breath and dyspnea; among dying patient

It is difficult to breathe, which causes a person to improve ventilation or decrease activity. It is not tied to exercise necessarily. The causes of

dyspnea might include abundant secretions, cough, chest discomfort, weariness, and hunger (Andersson & Busch Paulsson, 2017).

Nursing interventions are critical managing dyspnea consists: keeping the room cold, making sure that the patient wears lightweight clothes, keeping the humidity at a normal level, the fan may use to blow air directly on a patient, open window to maintain fresh air, put the patient into upright position and encourage them to take a deep breathing relaxation technique, using massage or relaxation music to maintain comfortability, emotional support, effective listening may be useful to provide reassurance (Whellan et al., 2014)(Nava et al., 2013).

Because the goal of palliative care and EOL care for terminally ill patients is to provide comfort, in these situations, if patient experiences dyspnea, should contact their treatment immediately. Nursing interventions for dyspnea generally focus on relieving the patient's feeling of breathlessness (Zeng et al., 2018):

- Administering oxygen is usually the first line of treatment.
- If the cause of dyspnea is a chronic illness, such as COPD, medications in use for that illness might be re-evaluated and adjusted, if necessary (Maddocks et al., 2017).
- Morphine is commonly used to relieve breathlessness because it dilates blood vessels in the lungs, reduces the respiration rate, and increases breathing depth, lowering the patient's anxiety level(Aragon, 2020).
- While anti-anxiety medications can reduce a patient's feelings of anxiousness and increase their comfort level, they can also make dyspnea worse (Wittry et al., 2018).

2. 26.4. Nursing care of chronic pain at EOL care

End of Life pain treatment gives patients and doctors a unique range of options. Pain and other symptoms are predicted in the terminal stages of cancer, heart disease, COPD, and renal failure. The disorders and the methods employed to cure them are caused by pain. In all situations, healthcare providers play an essential role in managing pain as specialists in evaluation, medication use, and patient learning (Gibson, 2018).

2. 26.4. A. Pharmacological management

Analgesic medications are the mainstay of pain therapy in dying patients. Both non-opioid and opioid medications are proper (Seth, 2019).

According to the kind of pain stated by the person, analgesia should be prescribed and provided. However, there is not enough information on the safety and effectiveness of pain management analgesics in elderly persons, especially on a long-term basis (Husebo et al., 2016).

According to the World Health Organization's analgesic ladder, the primary premise of EOL pain treatment is regular analgesia. Where possible, the WHO advises oral management. If oral analgesics are no longer tolerated, transdermal, subcutaneous, intramuscular, and intravenous routes (and doses) must be changed (WHO, 2018).

Nociceptive pain: For somatic pain, NSAIDs may be beneficial. Older individuals are sensitive to long-term toxicity and adverse effects. Old individuals, under the prescription of physicians and the administration of nurses, are underusing opioid analgesics. All these things may help prevent EOL pain ineffectively. Exaggerated concerns about detrimental consequences in patients and nurses are obvious (Nalamachu, 2014).

Neuropathic pain: The central or peripheral nervous system's entire lesion or malfunction. Tricyclic antidepressants, local systemic anesthetics, and anticonvulsants may contain adjuvant medications (Cumenal et al., 2021).

Breakthrough pain occurs when new, acute pain or abrupt increase of existing pain, routine sustained-release (SR) analgesics become less effective. SR analgesia should be provided for an immediate release (IR) analgesic. A parenteral (transdermal, subcutaneous, intramuscular, and intravenous) approach may be essential if not successful (Stanos et al., 2021).

Procedural pain: Actions like washing may cause this. Before doing the action preventively, IR analgesia should be done (Ripamonti et al., 2014).

2. 26.4. B. Non-pharmacological interventions

When both pharmaceutical and non-pharmacological techniques are used, pain management is usually more successful. Simple procedures like swimming, showering, heating, and usage of single beds and mattresses might alleviate discomfort (Gibbons et al., 2017).

Encouraging older people to take an active role in pain management is beneficial. This can include gentle exercise or distraction activities. Other interventions include relaxation, hypnosis, massage, aromatherapy, and electrical nerve stimulation. However, these require knowledge and skill; however, the evidence base for their use in EOL pain management in aging people is not well established (Singh & Chaturvedi, 2015).

2. 26.5. Nursing care of impaired oral mucosa in EOL care

Mouth (oral) problems are common in EOL care. Mouth problems can hurt someone's quality of life, both physically and emotionally. Mouth

care should be part of daily routine care for all patients. Common mouth problems in palliative care include dry mouth, painful mouth, infections, bad breath (halitosis), changes in taste, drooling (Soileau & Elster, 2018).

Dry mouth (xerostomia) is the subjective feeling of a dry mouth. It is often associated with difficulties with speech, chewing, swallowing, the need to keep drinking, and changes in taste. There are lots of things a nurse can do to help someone with a dry or coated mouth (Haslam, 2020):

- Sucking on sweets or eating sugar-free chewing gum can increase saliva production. Patients who have trouble swallowing may find it simpler to eat ice chips.
- Motivate you to drink plenty of water. During the day, serve cool, unsweetened beverages.
- Remove layers of covers and debris from the lips, tongue, and lining of the mouth with a soft toothbrush.
- To keep the lips moist, use saliva substitutes or oral gel.

In the case of a sore mouth, the following can help soothe a sore mouth: Painkillers, including lozenges containing lidocaine; Saline mouthwash; Chlorhexidine mouthwash; Topical corticosteroids and occasionally a low dose doxycycline mouthwash can be used for ulcers; Avoiding alcohol and scorching drinks; Avoiding dry foods like crisps and biscuits; Trying softer, cold foods such as yogurts, custards, chilled soups; Using a straw or teaspoon to eat and drink can avoid irritating the sorest parts of the mouth, Having a drink or rinsing after eating can help make sure there is no food debris which might agitate the mouth; and Avoiding acidic foods if the patient has mouth ulcers (Villa et al., 2017).

Oral thrush (candidiasis) is a fungal infection that is common in people who are terminally ill. It should be treated with antifungal tablets, liquids, or topical mouth sprays (Sawant & Khan, 2017). Cold sores (herpes simplex)

are also common when someone is unwell. Anti-viral treatment; support the patient by encouraging good fluid intake, changing the toothbrush regularly, keeping the mouth moist, and giving painkillers if appropriate is very important (Badawy et al., 2021).

If the patient has bad-smelling breath, approach the topic sensitively as it can feel embarrassing. Foul-smelling breath can be caused by infections, including abscesses, local tumors, and poor oral hygiene. Providing good mouth care should improve bad breath, but antibiotics may be required to treat local infections and abscesses (Bayraktar & Bahadir, 2021).

Patients might experience changes in taste. Making sure they still eat and drink enough is essential. Please encourage them to eat what they enjoy and offer fresh foods and drinks appealing to them (Beacher & Sweeney, 2018).

Drooling (excess saliva) is usually caused by difficulty swallowing saliva. Speech and language therapists can advise on safe swallowing techniques. Specialists' help from physiotherapy on positioning and suctioning may also be helpful (MNDA, 2014).

2. 26.6. Nursing care of imbalanced body temperature in EOL patient

The dying process's temperature may be uncomfortable due to concomitant tachycardia and tachypnea, the underlying illness (tumor fevers). Symptomatic therapy with rectal antipyretics, cold sponges, and fans might help the sufferer feel more comfortable. Family and other caregivers need education and comfort (Strickland & Stovsky, 2018).

Keep an eye on the room temperature and bed linens. Generally speaking, room temperature is comparable to body temperature, and bedding is fine-tuned to manage the patient's temperature. Let things air out. Air

exposure lessens warmth and enhances evaporative cooling (Skoch & Sinclair, 2020)

Inject normal intravenous saline rehydrates fluid victims. Metabolic demand is also satisfied by a suitable diet (Zharkikh et al., 2020). The current research informs the patient and family members about the signs and symptoms of hyperthermia and the significance of increased fluid intake to prevent dehydration. Family and patients dealing with illness also help avoid additional hyperthermia episodes (O'Connor, 2017) (Faulds & Meekings, 2013).

2. 26.7. Nursing care of the patient has nausea and vomiting in EOL care

Nausea and vomiting can be frequent and unwanted companions of a dying patient. It is essential to attempt to discover the etiology of nausea and vomiting to improve symptoms. The most common causes of nausea and vomiting include autonomic dysfunction, gastroparesis, and opioid analgesics (Keeley, 2020).

Nausea and vomiting may be secondary to the effects of medications, including opioids, antibiotics, anticonvulsants, and nonsteroidal anti-inflammatory agents, on intracranial receptors (Keeley, 2020).

Many drug treatments for nausea and vomiting exist. Metoclopramide is beneficial because it acts centrally and aids in gastric emptying. Haloperidol and prochlorperazine act centrally to decrease nausea and are frequently used. Ondansetron is recommended for nausea prophylaxis locally in the GI tract due to cancer therapy. The anxiolytic lorazepam and the corticosteroid dexamethasone can be used independently or combined with others listed previously (Moorthy & Letizia, 2018)(Glare et al., 2011).

Some non-pharmacological interventions may help alleviate this symptom. For example, if certain sounds, smells, sights, foods, and motions exacerbate nausea, these should be avoided (Moorthy & Letizia, 2018).

Effective EOL care relies on an individualized approach to patients and families. It is intended to provide a respectful and dignified natural death encompassing a series of domains that meet patients' physical, holistic, spiritual, and religious needs (Jiao et al., 2021).

2. 26.8. Nursing care of the patient has urinary incontinence in EOL care

In the last days of life, urinary incontinence is expected, which many consider a normal dying process, bladder outflow obstruction, infections, decreased bladder capacity, and irritation (Zeng et al., 2020).

Using skincare products or adhesive barriers, stoma appliances for fistula, incontinence pads, uridine, and urinary catheterization may be used to manage incontinence (Newman, 2004).

2. 26.9. Nursing care of the patient has bowel incontinence in EOL care

In the last days of life, fecal incontinence and diarrhea should be managed by attending to their hygiene needs and optimizing their comfort and dignity. Use soft, moist wipes for cleaning the perianal area and barrier creams to prevent excoriation (Smith et al., 2020).

Constipation is prevalent in the last days of life due to reduced peristalsis. It can lead to abdominal pain, nausea, vomiting, overflow incontinence, fecal impaction, urinary retention, and occasionally bowel obstruction and colonic perforation. Constipation can also contribute to delirium, agitated behavior, and anxiety (Smith et al., 2019).

Hydrating and eating high-fiber fruits, vegetables, and whole grains can regulate defecation and prevent diarrhea and constipation (Smith et al., 2020).

Rectal laxatives can be administered to relieve constipation, and gentle abdominal massage is used as a potentially effective non-pharmacological and non-invasive treatment option (Butna et al., 2021).

2. 26.10. Nursing care of decreased cardiac in EOL care

The apical pulse is a nursing procedure, evaluating heart rate and rhythm in this circumstance. Suppose the telemetry is accessible, dysrhythmia document. It sounds no heart. Due to the reduced pumping activity, S1 and S2 may be feeble. Every day, gallops are created in non-compliant rooms (S3 and S4) as flows of blood. Valve incompetence may represent murmurs. Palpate pulses peripheral (Iannicelli et al., 2019).

Evaluation of abnormal cardiac and lung sounds allows the diagnosis of left-hand heart failure in chronic patients with renal failure because of high fluid volume since the ill kidney cannot eliminate water. (Cholley et al., 2017).

Blood and pulses are monitored. The skin temperature and peripheral pulses of the patient are evaluated. Provide patient symptoms, oxygen saturation, and ABGs with oxygen. Encourage relaxation times and support every activity. Administration of cardiovascular glycosides is indicated for symptoms of the left fault and toxicity monitoring. The isotropic effects of digitalis on the myocardium increase contractility to improve cardiac output. Reduces heart workload and reduces the consumption of myocardial oxygen (Alves Silva et al., 2017).

Physical rest should be maintained via transient or refractory declines in cardiac output to increase cardiac contractual efficiency and reduce the

consumption and burden of myocardial oxygen. Patients reposition every 2 hours to avoid bedsores. They provide a peaceful environment: explaining therapy management, helping a patient avoid stressful circumstances, listening, and responding to emotions. Psychological rest lessens emotional stress, causes blood pressure, raises BP, and increases heart rate. (Crespo-Leiro et al., 2018).

2. 26.11. Nursing interventions for impaired physical mobility

This condition's intervention includes preventing dependent disabilities, restoring mobility when possible, and maintaining or preserving the existing mobility. Exceptional patient care involves changing position, exercises, diet, and providing a safe environment. The nursing care plan for impaired physical mobility is constructed to assist the patient in performing muscle exercises to help them be out the bed, such as abdominal-tightening exercises, knee bends, hop on foot, and standing on toes (Wilby, 2019).

A safe environment: bed rails up, bed in a down position, essential items close. Enhanced feel of balance and improves compensatory body parts. These actions promote a safe, secure environment and reduce fall risk (Sartika et al., 2017).

Keep limbs in practical alignment with one or more of the following: pillows, sandbags, wedges, or prefabricated splints. Set goals with the patient or family members for cooperation in activities or exercise and position changes; progressive exercise may be performed to maintain joints move without pain (Holloway et al., 2014).

Encourage effective coughing and deep breathing exercises, using suction on need, encouraged to use an incentive spirometer, diversional activities, observing emotional or behavioral reactions to immobility, ask for

help if needed by using said Bell or call lights. (Falvey et al., 2019)(Peng et al., 2019).

2. 26.12. Nursing interventions for impaired skin integrity

Friction, which entails scraping elbows or heels to bed linen and bringing the patient up into the bed without a lift sheet, is often caused by compromised skin integrity. The patient's head will be raised as a frequent shear source (Lee et al., 2019).

Encourage the use of stress relief devices proportional to the degree of danger to low-risk patients from skin impairment (Avsar & Karadag, 2018).

Encourage the implementation of the rotation, limiting duration to two hours or less in one position if the patient is only allowed to bed. The secret to avoiding breakdown is to switch every 2 hours. To prevent slipping on the bed with proper pillows or foam wedges, the top of the bed should be maintained at 30 degrees or smaller to protect the bony edges from direct contact. Keep cushions underneath the skirts to get out of bed (da Rosa Silva et al., 2017).

Part II: Theoretical Framework.

One of the most important and necessary research issues is the theoretical framework; it considers the knowledge buildup's base aims to clarify the study's vision and structure and increase its power (Grant & Osanloo, 2014).

The recent nursing profession is directed toward nursing theories as a base in practices that make the profession more meaningful and remarkable and transfer nursing from vocation to best organized profession (Smriti, 2015).

Work in health institutions in palliative care must provide quality educational programs related to EOL care for nursing staff. It helps engage nurses through upskilling, and it creates the foundation upon which all nurses will interact with the organization's knowledge base (Vallath et al., 2021).

Learn the educational program's effectiveness for EOL care; it is essential to know, understand, and apply adult learning theories. Understanding adult education theories and implementing adult education principles will enable creating programs involving all trainees, saving time, and leading to better performance for nurses (Goode et al., 2019).

Nursing care at the EOL is concerned with assisting those dying through comfort measures on all levels body, mind, and spirit to allow them to gain a sense of peace and pass into the next realm with as much grace and dignity as possible. Nursing as a profession has focused holistically on the dying process's experience. Nurses seek to promote a sense of well-being through environmental influences and social and spiritual support. Nursing theories help clarify nursing practice and guide nursing interventions in meeting patients' needs (Blanchard, 2010). Two theoretical frameworks guided this project. They included Ausubel's Theory of Adult Learning. Ruland and Moore's proposed Theory of the Peaceful EOL guided EOL care.

2.1. Adult learning theory

Adult learning theories play a vital role in designing and implementing education programs, including healthcare professional programs, and lay the foundations for a career of life-long development (Taylor & Hamdy, 2013).

Educational philosophy and learning theory underpin all educational practices because they provide the conceptual frameworks describing an individual's acquisition of knowledge, skills, and attitudes to achieve changes in behavior, performance, or potential (Mukhalalati & Taylor, 2019).

Nursing teachers can use these theories' general principles more effectively according to various learning situations (Sousa et al., 2015).

Adult learning theories include andrology, self-directing learning, transformational learning, experiential learning, project-based learning, action learning, behaviorism, cognitivism, constructivism, and social learning theory (Kemple, 2000).

Cognitivism: this theory states that the learner acquires knowledge by holistically combining old and new information. Receives information, processes it, and organizes it according to existing knowledge to better recall it later (Ertmer & Newby, 2013).

To use cognitivism in training, trainers must ensure that the information is presented to make it meaningful to the learner. The more information is related to the learner's current knowledge, the easier it is to remember it. Successful teachers construct new information in a way that clearly articulates how it relates to existing knowledge (Chen & Macredie, 2004).

If using this theory in a workplace training program, be cautious of overburdening learners with information. Cognitive overload can happen when a learner has been given too much information without enough time to process it (Kirschner, 2002).

The learning theory of David Ausubel (1963, 1968) is one of the well-known theories of cognition. Learning is the relationship between new content and the learner's cognitive structure. Thus, the learner's cognitive structure during the learning time has the most important influence on learning and retention of new material, and one of the educational strategies for doing this is using the pre-organizers in training (Bahn, 2001).

The Ausubel theory should arrange clean and consistent materials with the students' past knowledge to make it more efficient to study. This is the foundation of the theory of reception. He claimed that learning is an inductive process, beginning with grasping broad ideas and the specifics. The teaching style proposed by Ausubel is explanatory (Safdar et al., 2012)(Ausubel, 1960).

The viewpoint of Ausubel is beneficial, particularly in teaching the connection of ideas or introduction of new or complex subject matter. In adult education, greater information is also helpful and can alter concepts for nursing education (Candela, 2013).

In this mechanism, the stimulus impacts the recipient's surroundings and then codes the information into the nervous system via a sensory register. The knowledge stays there for a split second and is then lost or moved to a short memory (Zhang, 2019).

It codes in idea and stays for a few seconds. Short-term memory can hold roughly seven objects with a limited capability. Rehearsals and reproductions of the knowledge may even retain it in long-term memory and prepare to remain there in the future. This knowledge is categorized, and its basic notion is stored when entered into long-term memory (not the exact details). The knowledge related to a suitable cognitive or conceptual framework is better remembered (Patterson et al., 2002).

Teachers should pay attention to indicators of tiredness, limiting the length of attention and the quantity of material that has recently been provided to avoid information overload for pupils. Teachers may enable students to remember earlier knowledge of their topic by adding current expertise to essential new information (Aliakbari et al., 2015)

The principles of adult learners are an essential aspect of our initiative. In this project, completing the EOL concept tuition is based on the concepts stated for adult learning. This scientist must communicate the gap in EOL knowledge, and the nurse must study the subject. The experience of nurses with EOL care could impact the amount of knowledge and conduct. In addition, participants will be responsible for measuring their knowledge and attitude to EOL if they finish the course (Satryan, 2017).

2. 2. Theory of the peaceful End-of-Life

The nursing care At the EOL is based on assisting those dying by providing comfortable measures on all levels body, mind, and spirit to allow them to gain a sense of peace and pass into the next realm with as much grace and dignity as possible. Nursing as a profession has focused holistically on the dying process's experience. Nurses seek to promote a sense of well-being through environmental influences and social and spiritual support. Nursing theories help clarify nursing practice and guide nursing interventions in meeting patients' needs (Blanchard, 2010).

A nurse increases professional power while using theoretical research as systematic evidence for critical thinking and decision-making. When nurses use theory and theory-based evidence to structure their practice, it improves care quality (Ahtisham & Jacoline, 2015).

Theory of Peaceful EOL was developed by Dr. Cornelia Ruland and Dr. Shirley Moore in 1998, while Ruland was a doctoral student and Moore was a faculty at Case Western Reserve University (Stetzner, 2016)(Ruland & Moore, 1998).

Ruland chooses peaceful ending of life as her topic, so she just completed a significant project in Norway with a group of nurses who had at least five years of experience in the surgical gastroenterological unit, where

half of their subjects were cancer patients to develop a clinical practice standard of care and Moore resisted in redefining the theory This theory is an example of the Middle Range Theory. Using the standard of practice as a source in development by the doctoral nursing student studied knowledge in ethics (Ruland & Moore, 1998).

Ruland and Moore stated, “The main focus for standard development is not on the final instance of dying itself, but on contributing to peaceful and meaningful living in the time that remained for the patients and their significant others” (p. 171) (Murrish, 2010)

The main assumptions in the Theory of the Peaceful EOL include a) personal and personal events and sentiments in EOL, b) health care are vital to generating an EOL experience, c) health care providers must be able to identify the signs that the patient is in a peaceful condition or not. EOL Care is not intended to optimize care but to maximize care, where optimum care is given through efforts to improve quality of life and bring about a peaceful death (Ruland & Moore, 1998).

Ruland and Moore (1998) identified five conceptual definitions or outcome standards of the theory. The first is not being in pain. That includes any pain. Nurses need to be able to assess and intervene appropriately for a patient in pain correctly. The second concept is the experience of comfort. Comfort is considered “relief from discomfort, the state of ease and peaceful contentment, and whatever makes life easy or pleasurable.” Nursing interventions include preventing, monitoring, and relieving physical discomfort. The third conceptual definition is the experience of dignity and respect for the terminally ill patient. This concept is based upon the ethical principle of autonomy. For the terminally ill patient, it means the patient will be acknowledged and respected as an equal. They should be involved in decision-making and be treated with empathy and respect (Kaiyare, 2014).

The fourth conceptual definition of Peaceful EOL Theory is peacefulness. This results in a sensation of peace, peace, and satisfaction for the dead patient (Ruland & Moore, 1998). Caregivers can take measures to alleviate anxiety and fear (Bailey, 2010).

The last notion is proximity to others. Ruland and Moore (1998) characterize this closeness as "a sense of connection with other people who care" (p. 172).

For dead men and their families, the final minute of life was most crucial. The family members are glad to observe that the latter is dying at the very end; the dead man is dying quietly and near the loved ones dying at death (Kongsuwan et al., 2012).

Ruland and Moore's (1998) theory of peaceful EOL gives guidance for qualified healthcare workers to pick suitable procedures that may reduce pain and assist patients to have a meaningful experience at this last stage of their lifetime. The theoretical ideas provide a foundation for the content of educational intervention in this project. The educational program encompassing pain, symptom management, communication, legal, and ethical problems will introduce or examine dying patients' care ideas (Zaccara et al., 2017).

Two theories that give a project conceptual framework have been evaluated. The notion of adult theory drove the educational intervention in this project since the participants would be adults working at the Acute Care Centre. In addition, throughout the EOL teaching program, the peaceful EOL idea theory may be discovered.

Part III: Previous Studies.

Frommelt (1991) carried out research aimed to establish how successful a nursing educational program is for caregivers and their families.

The program consisted of an educational area based on the phases of death and death of Kubler-Ross and a role-playing model developed by the researcher based on the hospice idea of care. Data have been obtained in the Midwest of the USA from 34 registered nurses between 18 and 65 years old. In arrange to assess the behavior of the nurses, the researcher has established the Frommelt Attitude for Dying Scale (FATCOD). A legitimate and trustworthy tool was determined to be the FATCOD. All nurses completed the training program before and after the (pretest, post-test). Compared to a t-test, following participation in the education program, the results for the nurses were much higher. The value of t was 2.97, significant at < 0.01 , and the probability of 2-tailed was 0.006. This was discovered. These results confirm that following participation in the program, the nurses had a more positive attitude about the care of terminally ill people and their families than the nurses before they took part in the program. Demographic information such as age, years of experience in nursing, top-level, basic kind of nursing training, and prior death and dying education were evaluated to assess the association between them. The only evidence of a major association with the attitude of the nurses was prior death-and-die teaching. These were calculated by a variance analysis (ANOVA), $F = 3.22$, $F \text{ prob} = 0.04$, which was meaningful at < 0.05 . 76.5 percent of the studying nurses reported being disappointed with their instruction when they died before (Frommelt, 1991).

Kim et al. (2011) studied the effects on the understanding of Korean nurses in hospice and palliative care of the EOL nursing consortium course. This study aimed to study how Korean nurses taking a palliative treatment course showed improved standards of knowledge. The study has been designed using a pretest/post-test. 111 Korean nurses made the palliative care quiz for nursing. To analyze the data, repeated variance analysis was utilized. The average degree of knowledge on palliative and hospice care of Korean nurses at the beginning of training was 12.5/20. Hospice qualified

nurses outscored non-licensed nurses. Masters and Ph.D. graduates performed worst individually. All participants were better aware of hospice and palliative care after the training. Overall, training in hospice and palliative care was beneficial for Korean nurses. A continuous course evaluation utilizing a culturally appropriate technique in Korea is recommended (Kim et al., 2011).

This research aims to assess the efficacy of the Continuing Education Program for EOL Caregivers. The research performed the title 'Effectiveness of EOL Care Nursing Continuing Education in General Wards in Japan, Yoshioka, and others. A pre-after non-randomized experiment was carried out. The program for 25 nurses has been executed. The program's curriculum included a family evaluation, the general treatment of symptoms, and the practical application of EOL care theory and models. Following the program, the major result, implementing the ability to provide care for patients with the last two months, was much enhanced. Similar findings have been observed for trust and knowledge of nursing care towards the EOL. Regarding the attitude to EOL care, the results of the participants were further increased after the program. The program's utility was assessed as excellent by the participants. These findings have shown the usefulness of the program. The application should be utilized extensively for in-service training in the future (Yoshioka et al., 2014).

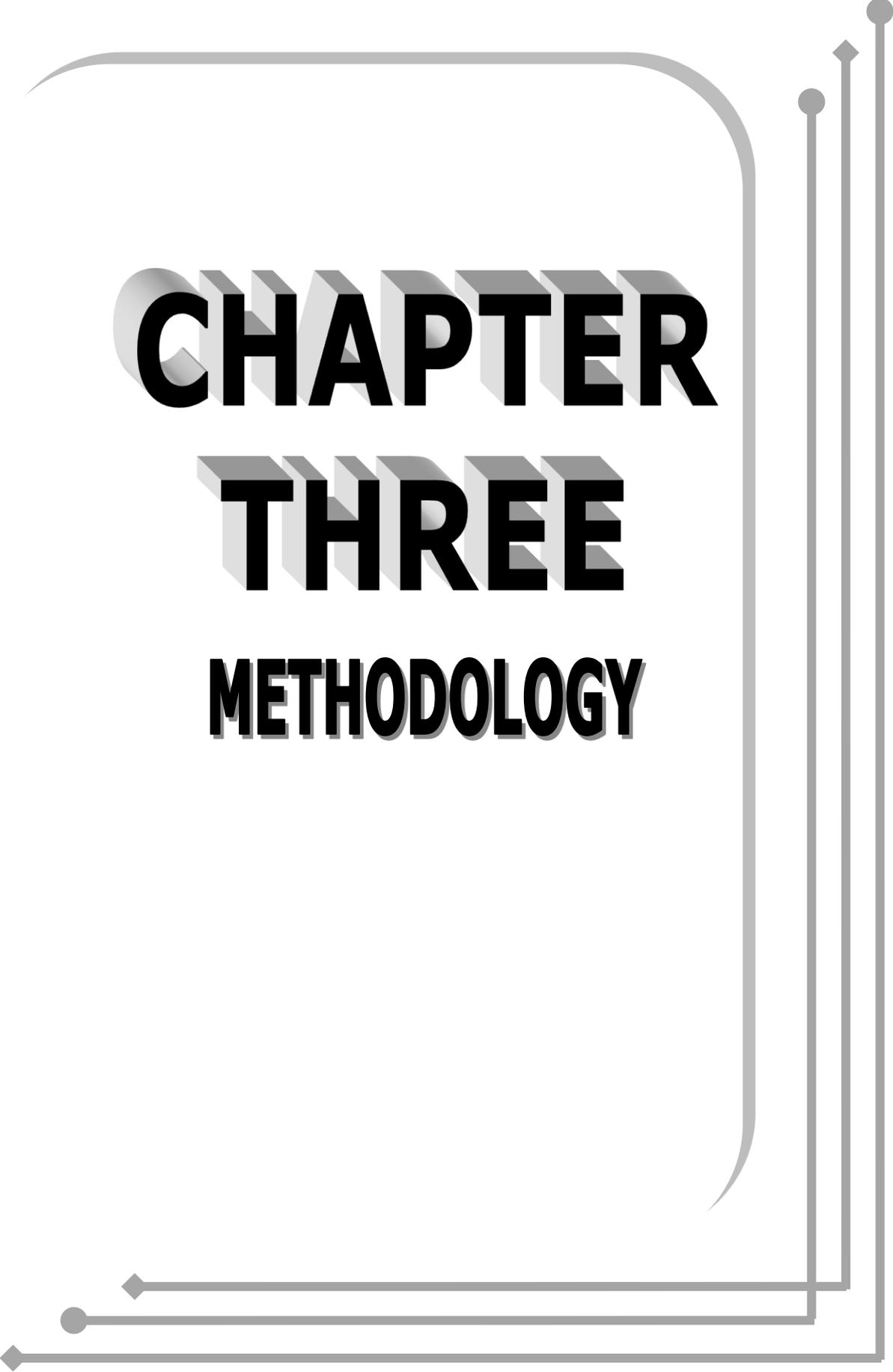
After attending the EOL Nursing Education Consortium (ELNEC) core course, Glover and others have undertaken a descriptive before and post-assessment research assessing senior nursing students' knowledge of EOL care. This descriptive cross-sectional investigation was carried out at a university in the south of the US. Qualitative remarks were incorporated in the course assessment. ELNEC had taken care of a dying patient one-third before the clinical rotation of ELNEC, although 85% claimed that they had not been sufficiently trained towards the EOL. Post-test issues linked to

palliative treatment, the management of symptoms, communication, and grieving showed that students gained considerable knowledge after ELNEC ($P < 0,05$). They found that the core ELNEC course is an efficient strategy to increase the understanding of palliative and life-sustaining care of nursing students (Glover et al., 2017).

Balicas (2018) assessed the effectiveness of a brief palliative care curriculum to improve palliative care knowledge in nursing hospitals. **Form:** Formula: The test comprised a convenience sample of 73 infants in a big city in the northeast of the United States, consisting of oncology ($n=26$), geriatric ($n=24$), and medical-surgical ($n=23$). Data were acquired through the paper and pencil survey. For pretest and post-test comparisons for improvement study, the palliative nursing education intervention was created. To quantify palliative care knowledge, a palliative care test has been designed. Excel and SPSS 24 were used to enter and analyze data. Of the 73 nurses, 61 were eligible (83.5% of them). A paired t-test was used to compare pre-test and post-test results. The research revealed a brief training in palliative care improves the knowledge of palliative care among nurses. The comprehension of the nurses increased dramatically after palliative nursing education. As part of continuing training for nurses, palliative nursing education was recommended (Balicas, 2018).

Agrawal et al. (2019) conducted their study to evaluate the awareness and knowledge of doctors working in critical care units toward EOLC. **Materials and methods:** Doctors working in critical care units were invited to fill the paper-based questionnaire. The validated questionnaire was constructed based on the existing literature on EOLC and expert opinion. The questionnaire comprised four sections: demographic details, experience with EOLC situations, general awareness of EOLC, and specific awareness of EOLC in clinical practice. The collected data were analyzed by descriptive analysis. They found most respondents had not counseled

more than five families regarding EOLC over one month. The majority of the respondents (81.7%) had heard of EOLC; the primary source of information is their work in the concerned specialty. Only 29.2% of the respondents applied EOLC principles in their clinical practice. The main barriers were lack of information and training. Only 20.3% of the respondents were aware of Indian guidelines about EOLC. The majority of the respondents disagreed regarding the usage of critical care units and resuscitation of terminally ill patients and favored home care. One-third of respondents felt uncomfortable discussing EOLC issues with the families. Half of the respondents felt that they were only somewhat competent in managing EOLC issues. Most respondents opined that training and education in the medical curriculum for terminally ill patients lack and strongly favor the inclusion of specific training. The researchers concluded the EOLC needs to be an integral part of the critical care management and teaching curriculum. An integral referral system may also be an option for various advanced disease patients getting treatment from critical care specialists for EOLC decisions.



CHAPTER
THREE
METHODOLOGY

Chapter Three

Methodology

This chapter introduces the methods used to measure and determine the educational program's effectiveness in enhancing the nurses' knowledge in CCU and their perception of the EOL concept in Mosul hospitals. It was organized to provide a comprehensive description of how the study was systematically carried out. This chapter was offering the study design used in this research. It also comprises the formal arrangement, locale of the study, the subject of the research, criteria of the subject, the research tools, the validity of the questionnaire, a pilot study, data analysis, reliability of instruments, data gathering, and limitations of the study.

3.1. Study Design:

A quantitative, quasi-experimental design was carried out through the test-retest method of a pretest and post-test I, then post-test II; application for both experimental group and control group of critical care units nurses to determine the effectiveness of an educational program of EOL concept in CCU nurses' from the period between 1st October 2019 to 4th July 2021 at Mosul Teaching Hospitals.

3.2. Administrative Permissions:

A- Formal Permission:

Initially, the proposal was approved by the Scientific Postgraduate Committee, University of Babylon/ College of Nursing. Throughout a seminar presentation, the researcher explained the study's statement of problem, objectives, and importance of the study. After the Research Ethics Committee reviewed the dissertation proposal, ethical approval was issued (Appendix A1). The authorized permission was gained from the College of

Nursing at University of Babylon to conduct the study (Appendix: A2). An official permit was also obtained from the Nineveh Health Directorate on 11/10/2020 (Appendix: A3).

B- Ethical consideration:

Both groups of participants received informed consent, which was distributed to them to guarantee their permission and agreement to enroll in the present study. They were also told that they might leave the research at any moment and that their participation was entirely optional. Emphasis was made to create an appropriate and healthy environment using good communication skills with participants (Appendix B).

3.3. Setting of the Study:

The study was conducted in the City of Mosul, Republic of Iraq. Mosul is the second-largest city, It is considered one of the most important Iraqi cities for its vital location and population diversity. It is located in the Northwest region of Iraq. The Tigris River divides the city into two sides: right and left sides.

The data were collected from Mosul Teaching Hospitals, Critical Care Units department, which includes:

1. Ibn Sina Teaching Hospital CCUs department, which includes: (Coronary Care Unit), (Respiratory Care Unit), (Neuro Intensive Care Unit) the capacity of these CCUs (24beds) and the nurses' number is (36 nurse).
2. Al-Salam Teaching Hospital CCU department, which includes: (Intensive Care Unit), the capacity of this CCU (12beds) and the nurses' number is (18 nurse).

3. Al-Jumhuri Teaching Hospital CCU department, which includes: (Intensive Care Unit) the capacity of this CCU (9beds) and the nurses' number is (16 nurse).

4. Al-Mosul General Hospital CCUs department, which includes: (Coronary Care Unit), (Intensive Care Unit) the capacity of this CCU (13beds) and the nurses' number is (10 nurse).

5. Al- Batool Teaching Hospital CCU department, which includes: (Intensive Care Unit) the capacity of this CCU (5beds) and the nurses' number is (10 nurses).

3.4. The Sample of the Study:

A non - probability purposive sample was selected from nurses working in CCUs at a Teaching Hospitals in Mosul city. The sample consist of (60) nurses, which are divided into two groups (30) nurses considered as an experimental group, and (30) nurses are considered as a (control group). The education program was introduced to the experimental group, whereas not exposed to the control group.

Table (3.1): Distribution of (30) nurses who participated in the experimental group:

Directorate	Site of sample	N.	P.
Ibn Sina Teaching Hospital	Coronary Care Unit	9	30%
	Respiratory Care Unit	12	40%
	Neuro Intensive Care Unit	9	30%
Total of sample		30	100%

N. = Number, P= Percentage

Table (3.2): Distribution of (30) nurses who participated in the control group:

Directorate	Site of sample	N.	P.
Al-Salam Teaching Hospital	Intensive Care Unit	18	60
Al-Jumhuri Teaching Hospital	Intensive Care Unit	12	40
Total of sample		30	100%

N. = Number, P= Percentage

3.5. The research sample collection criteria:

3.5. A. Inclusion Criteria

1. Nurses who work in critical care units in Mosul teaching hospitals.
2. Nurses who have one year or more of experience in critical care units.
3. Male and female nurses.
4. Nurses with different educational levels.
5. Nurses who agree to participate in this study.
6. Nurses with different age groups.

3.5. B. Exclusion Criteria

1. Critical Care nurses who were working in private hospitals or those located outside Mosul city.
2. Critical Care nurses who have experience of less than one year.
3. Preliminary study sample
4. Pilot study sample.
5. Nurses who refused to participate in the study.

3.6. Target population

In Mosul's Teaching Hospitals, a total of (90) nurses work in the CCUs. (10) nurses who shared in the preliminary assessment need were excluded from the study, (10) CCN who participated in the pilot study also were excluded from the study, and (10) CCN did not meet an inclusion criterion; the remaining study subjects were divided into two groups, each of with (30) CCN.

3.7. The Phases of Study Conducting:

The research is carried out through five main phases as follow:

3.7. Phase One: Preliminary Assessment of the nurse's knowledge and Perception Regarding End of Life Concept:

Data were collected from (10) nurses who work at CCUs at Al-Batool Teaching Hospital. The preliminary study included (10) open-ended questions (Appendix C) based on related literature. These open-ended questions were administered to know nurses' information about EOL concepts and help construct the program and the questionnaire. The format contents reviewed relevant literature and subjective experiences, such as the nurses' knowledge. The study objectives were to assess nurses' knowledge regarding the EOL concept before the study. The assessment was applied from 14th - 30th April 2020.

Under the researcher's supervision, 40 to 60 minutes were given to each nurse to respond to the questions. The assessment findings revealed that the knowledge deficit was in the majority of the nurses; these findings have revealed the requirement for educational program construct in this nursing population to knowledge enhancement, which contributes to their practices and patients outcomes that it is an essential and severe health issue.

3.8. Phase Two: Educational Program Construction Phase:

The researcher depended on a nurses' needs (preliminary assessment) and the knowledge obtained from reviewing the related scientific literature, WHO reports, and previous studies to construct the education program. It comprised of sessions that aimed to achieve the following objectives: -

1. To promote nurses' knowledge about the EOL concept.
2. To enhance nurses' perception toward the EOL concept.
3. To improve the quality of EOL care for inpatients in the CCU and provide psychological, spiritual, and social support to their families.

The program was created from 3rd May to 1st September 2020 (Appendix D).

3.9. Phase Three: Research Methods Phase:

3.9.1. Study Instrument:

The researcher constructed a special questionnaire for the present study through an extensive review of related literature, books, previous studies, and the information gained by assessing nurses' needs and based on the study objectives. For the collection of data, a questionnaire was utilized; it was composed of four main parts:

3.9.1. A. Part-1: This part included a covering letter to obtain the nurses' agreements (written consents) to participate in this study (Appendix B).

3.9.1. B. Part-2: Socio-Demographic Data Sheet:

This part dealt with socio-demographic nurses' characteristics (age, gender, educational level, employment setting, years of nursing experience, years of CCU experience, and participation in EOL educational course) (Appendix-E).

3.9.1. C. Part-3: Questionnaire to assess nurses' knowledge about the care of end of life:

The multiple-choice questions about nurses' knowledge of the EOL concept were used in this part. The knowledge assessment test consists of (30) multiple-choice questions MCQs. (4) options to answer each question (Appendix-E).

All items were designed by using MCQs with one correct answer. In addition, the tool is designed using (2) level type Likert Scale (right and wrong) to evaluate nurses' knowledge about the EOL concept. The scoring system of the scale consists of (2) types of a score; (2) for the correct answer and (1) for the wrong answer. So that the cutoff point was according to the following: (1-1.49) = Low ; (1.5-1.74) = Moderate; (1.75-2.00) = High. Cut off points for nurses' scores for total knowledge: Low = (30-39), Intermediate = (40-49), Good = (50-60).

3.9.1.D. Part-4: Questionnaire to Assess Nurses' Perception regarding End-of-Life concept

In 1988 Katherine H. Murray developed a scale to evaluate attitudes of nurses about the EOL concept for the patient and their families members under the title "Frommelt Attitude Toward Care of the Dying Scale (FATCOD)" (Frommelt, 1991).

The Attitude Toward Care of the Dying Scale, developed by Frommelt, is a 30-item questionnaire that employs a 5-point Likert scale to assess nurses' attitudes toward the EOL concept for dying patients (Cevik & Kav, 2013).

For positive items, one point is awarded for the response (strongly disagree), and five points are awarded (strongly agree). As for the negative elements, the scores are reversed so that it becomes one point for the answer (strongly agree) and five points for the answer (strongly disagree) (Al Qadire, 2020).

Positive things (e.g., Giving nursing care to the dying person is a worthwhile learning experience), and negative things (e.g., I would not want to be assigned to care for a dying person). Scores might vary from 30 to 150. A better score appears a more positive view toward these patients' care.

The cutoff point was the following: (1-2.32) = Low; (2.33-3.65) = Moderate; (3.66-5) = High. Cut off points for nurses' scores for total perception: Low = (30-69.9), Intermediate = (70-109.9), Good = (110-150).

This (FATCOD) scale has been used in 400 colleges, universities, and healthcare facilities worldwide (Hagelin et al., 2016). The researcher utilized the English version, which he then translated into Arabic.

3.9.2. Validity of the Educational Program and the questionnaire:

Validity is frequently defined as how well a tool measures what it measures claims, e.g., the validity of a investigate instrument evaluates the degree to which the instrument measures what it is planned to measure (Bolarinwa, 2015). However, there are no statistical approaches for determining content validity, just by experts' decisions in the field area (Mohajan, 2017).

A panel of (16) experts in nursing, education, and medicine determined the program's content validity and the study instrument.

A copy of the study instruments and the program were provided to experts members to assess the program and instrument to adequacy and

content clarity. Some items were added after, and some were excluded; all the recommendations and comments were considered. The questionnaire was considered valid after performing the adjustments depending on the experts' responses (Appendix-F).

3.9.3. Pilot Study:

A pilot study is conducted AL-Mosul General Hospital; it has a 231-bed and a 13-bed in the intensive care unit, after the approval of the National Center for Training and Human Development in Ninevah Health Directorate, concerning deciding the study instrument reliability, which was utilized to assess nurses' knowledge and perception about EOL concept. The pilot study was conducted from 12th October to 10th November 2020. The pilot study enlisted the help of ten nurses. Those individuals were not included in the research. The subjects possessed the same characteristics as that of the sample for the final study. The researcher explains through an interview. A post-test was conducted using the same questionnaire after (14) days of the pretest, and information was collected.

The purposes of the Pilot Study are:

1. To evaluate the instrument contents, adequacy, relevancy, and clarity.
2. To identify the availability of the study subjects.
3. To check the cooperation of the study subjects with the researcher.
4. To clarify the obstacles that may be met through the study process.
5. To calculate the reliability of the study instruments.
6. To assess the time required for data collection.

3.9.4. Reliability of the study Instrument:

Nonprobability sampling was selected purposively of the ten (10) nurses from AL-Mosul General Hospital throughout the interviewing to

ensure the instrument's reliability from 12th October to 10th November 2020. This sample was excluded from the final sample. The use of test-retest reliability for the questionnaire was calculated. A nurse administered the questionnaire. After Fifteen days, the same tool was administered without any manipulation to the same nurses. The researcher finds out the stability by computing the instrument's Pearson coefficient by using SPSS version 21. The results found that the coefficient of correlation was ($r = 0.87\%$) at the level ($p \leq 0.05$) for nurses' knowledge and ($r = 0.79\%$) at the level ($p \leq 0.05$) for nurses' perception; such estimations have been statistically adequate and significant. This is statistically acceptable compared with the standard lower bound of the reliability coefficient, so the questionnaire was considered reliable (Gu et al., 2021).

3.10. Phase Four: The Educational Program Implementation

The researcher prepared nurses for this educational program by separating the sample into experimental and control groups. The educational program intervention was introduced to the experimental group only. The program was composed of three significant sessions; it has been implemented upon (30) nurses. The pretest was conducted before implementing the educational program by the final drafts of the data collection instrument. Each session was designed and scheduled for at least (90-120) minutes, with one session between day and another day, which deals with the EOL concept-related knowledge and perception. All sessions were presented in a unique hall far from the Nineveh Health Directorate due to the lack of approval for hospital gatherings due to the COVID19 pandemic. The work started implementing an educational program from 3rd January 2021 until 7th January 2021.

All nurses (experimental and control groups) who were included in the criteria study selection consented to discuss implementing the educational program and ensure agreement to engage in the study.

All the participating subjects in the study were informed about the steps for program implementation, which are as follows:

- 1- Demographical data were obtained from both the experimental and control groups.
- 2- The pre-knowledge and perception test was conducted at the same time for the two groups.
- 3- Implementation of the educational program was designed and presented in three sessions in one week.

Each lecture was introduced as follow:

- A. Topic of the session.
- B. Teaching objectives.
- C. Content.
- D. Evaluation for each session (feedback).

The researcher used audio-visuals related to PowerPoint presentations, specific session techniques, and plans in a particular combination of brainstorming and audience feedback discussed by the participant (nurse) in each session.

The classroom method during this session includes introducing and discussing a case study applied in each session (Appendix I). The nurses were also involved in solving the problem presented to them. The details and content of each session consist of the following:

1-First session:

Title: Palliative and End-of-Life Care

Session duration: 90minutes

Session period: 3:00 – 4:30 P.M, on 3rd January 2021

Place: The program was implemented in a private hall

Topics:

- Introduction.
- Objectives.
- Palliative, Hospice, and End of Life Care Definitions and Goals.
- Life-threatening diseases
- Anticipatory Grief and Mourning.
- Kubler-Ross Model of Grief

The lecture aims to:

- Building the relationship between the researcher and the group members.
- To provide the participants with information about palliative care, hospice care, and EOL care.
- To distinguish the purpose of palliative care at the EOL and hospice care.
- To explain the process of grief and bereavement at the EOL.

Methods of presentation: Lectures, discussion, computer, and data show (PowerPoint).

2-Second session:

Title: Managing Physiologic Responses to Terminal Illness

Session duration: 2 hours

Session period: 3:00 – 5:00 P.M, on 5th January 2021

Place: The program was implemented in a distinctive banquet hall.

Topics:

- Pain and Management of Pain
- Manage other Symptoms

The lecture aims to:

- Identify pain and additional signs symptoms accompanying a fatal disease at the EOL.
- Identify how to deal with pain and additional signs and symptoms accompanying a fatal disease at the EOL.

Methods of presentation: Lectures, discussion, computer, and data show (PowerPoint).

3- Third session:

Title: Nurses Role in End of Life Care

Session duration: 2 hours

Session period: 3:00 – 5:00 P.M, on 7th January 2021

Place: The program was implemented in a distinctive banquet hall.

Topics:

- Preventive Interventions
- Nurses Role in EOL Care
- Barriers to EOL care
- Signs of imminent death
- Bereavement counseling

- Postmortem Care
- Special Needs of Nurses

The lecture aims to:

- Identify prevention intervention, nurse's role in EOL Care, a sign of death, bereavement counseling, and Postmortem Care.
- Identify the nurse's special needs who care for dying patients and their families members.

Methods of presentation: Lectures, discussion, computer, and data show (PowerPoint).

This session was also concerned with the assessment of all previous sessions:

- Listening to each participant's experiences.
- Asking the participants about what they have achieved in the period of the program.
- Furthermore, lastly, the researcher asked the participants their opinion about the whole program sessions.

3.11. Phase Five: Evaluation and investigation the effectiveness of the Educational Program

The evaluation of the acquisition of nurses' knowledge and perception was the last step of the study. This process is done by the implantation of a posttest-I immediately after finishing the educational program. Then, investigate the effectiveness of the educational program by applying a posttest-II one months after posttest-I. The effectiveness and repeated measure framework are illustrated in figure (3-1).

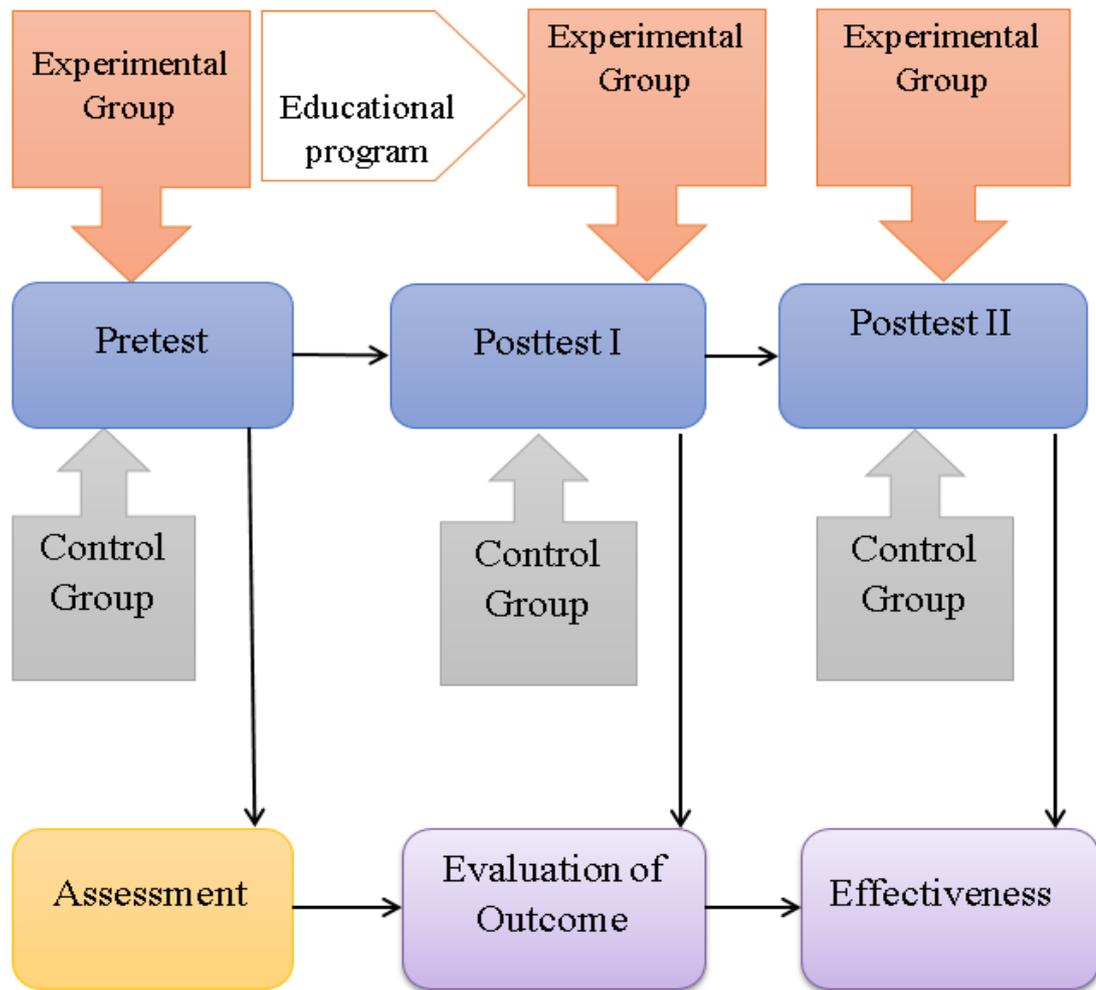


Figure (3-1) [The Effectiveness and Repeated Measure Framework]

3.12. Data Collection process:

The study's data collection was carried out from 14th April 2020 to 16th February 2021.

1. Baseline data collection was meeting each nurse staff member to explain the program's objectives for both groups (experimental and control).
2. The subjects filled a consent form to engage in the study. Moreover, study participants were told that they had the right to withdraw from the study at any time, even after they consent to participate in the study,

3. All the study participants, experimental group (30) and control group (30), were submitted to pretest to identify their knowledge and perception about the EOL concept.
4. All experimental groups participated in the educational program implemented in a unique hall for events.
5. All the nursing staff (participants) of both groups (Experimental and control) are submitted to the post-test immediately after implementing the educational program session to find out the improvement in their knowledge and perception toward the EOL concept.
6. All the nursing staff (participants) of both groups (Experimental and control) are submitted to post-test II after one month of post-test I to calculate the stability in their knowledge and perception toward the EOL concept.

The nurses have received the questionnaire in hospitals after a simple explanation about the experimental and the goals. How the nurses answered the questionnaire and kept it on a closed envelope and just the researcher can see the questionnaire to keep the anonymity so that no names would be revealed in the study's writing up for anyone except the researcher.

3.13. Research Framework:

According to the process and recruitment steps, and based upon the research program, the following research framework was formulated in figure (3-2).

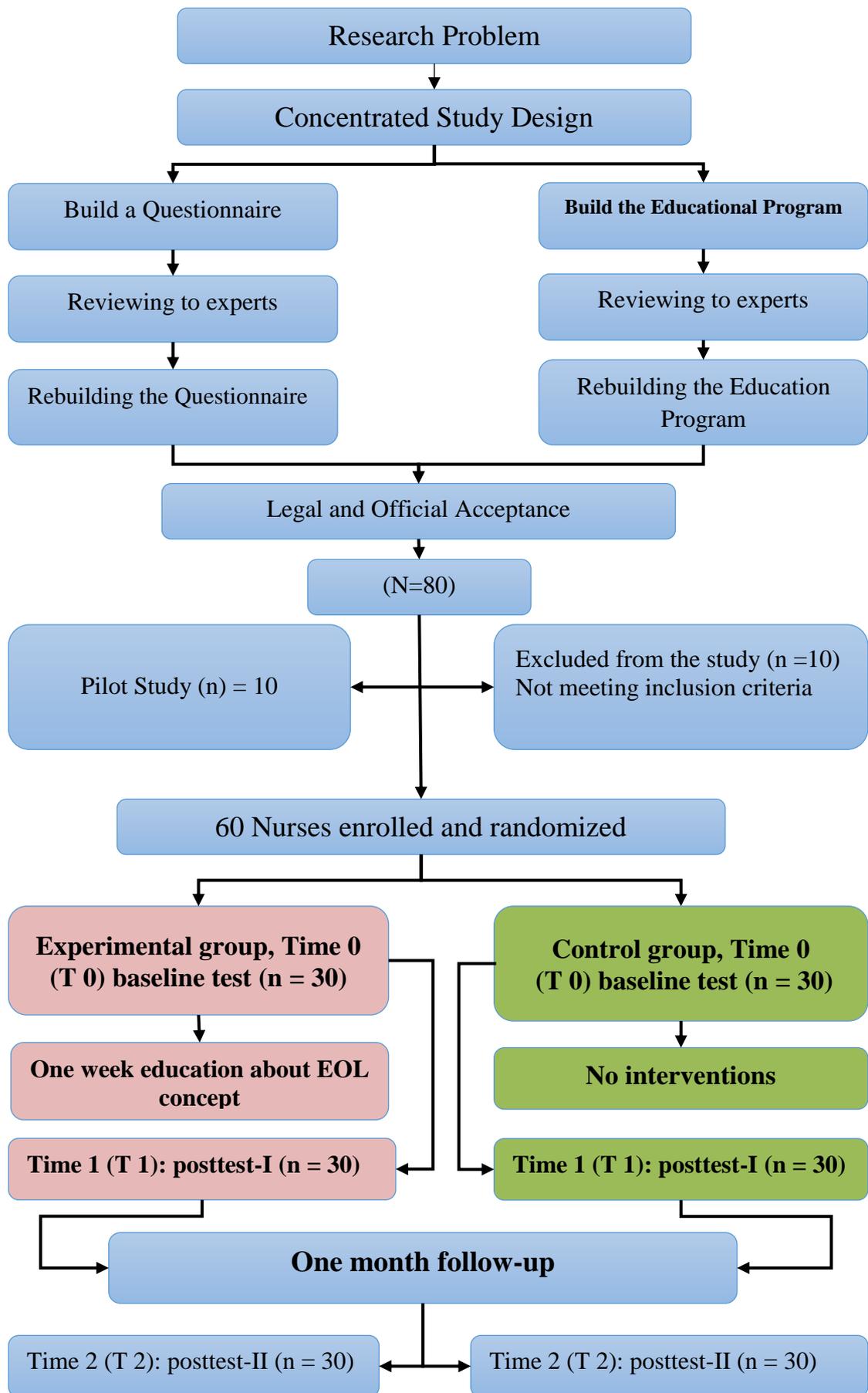


Figure (3-2) [The Research Processes]

3.14. Statistical data examination:

Data were investigated using Statistical Package for Social Science (SPSS) software designed for Windows Version 21. We calculated the mean, standard deviation, frequency, and percentage to describe the study participants. *T-test* and Pearson chi-square were utilized to explore the homogeneity of characteristics between experimental and control groups at the baseline pretest. The significant differences are divided into high significant differences ($P < 0.01$), significant differences ($0.01 > P > 0.05$), and non-significant differences ($P > 0.05$) (Greenland et al., 2016).

3.14. A. Descriptive Statistical Data Analysis

This approach was applied through the measurement of the following:

3.14. A.1. Frequencies and percentage

It is used to calculate the description of demographic characteristics.

$$\text{Percent (\%)} = \frac{F}{n}$$

Where:

% = percent.

F = frequency. (Healey, 2014)

3.14. A.2. Mean:

It is used to estimate the value of the data. [Mean (\bar{X}) = $\frac{\sum Xi}{n}$]

Where:

3.14. A.3. Mean of scores

It is used to compute the items of nurses' performance of the educational program.

$$MS = \frac{\sum_{i=1} Fi X Si}{\sum_{i=1} Fi}$$

3.14. A.4. Standard deviation

The standard deviation (SD) is calculated according to the following formula

$$S.D = \sqrt{\frac{\sum (X_i - \bar{X})^2 f_i}{\sum f_i}}$$

3.14. B. Inferential Statistical Data Analysis

Such analysis was used to indicate a significant association. This approach is performed through the application of the following:

3.14. B.1. The Pearson chi-square

The Pearson chi-square is computed through the following formula:

$$\text{Chi-square } \chi^2 = \frac{\Sigma(O - E)^2}{E}$$

Where:

χ^2 = Chi-square.

Σ = Sigma, the statistical symbol for summation.

O = Observed frequencies.

E = Expected frequencies (De Muth, 2014)

3.14. B.2. The t-test

It is utilized to determine differences and compare (2) means (x a and x b) of the two groups, experimental and control groups. The independent sample t-test has been used for demographic characteristics: age, gender, years of experience in nursing, and years of experience in CCU. Furthermore, for the level of education and rank, Mann-Whitney was used to show the

differences between the two characteristics. The t-test computed according to the following formula:

$$t\text{-test } (t) = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Whereas:

\bar{X}_1 = the experimental group mean.

\bar{X}_2 = the control group mean.

S^2_1 = the experimental group variance.

S^2_2 = the control group variance.

n_1 = the experimental group sample.

n_2 = the control group sample (De Muth, 2014).

3.14. B.3. Mixed Design Analysis of Variance (ANOVA)

A mixed-design analysis of variance (ANOVA) was used to measure the alterations of the nurses' knowledge over three times (pretest, post-test I, and post-test- II) (throughout the educational program) among groups. It was applied to determine the effect of nurses' educational program: Main time effect, between the groups' effect, and groups' interaction overtime for the nurses' knowledge. This type of ANOVA is the only statistical option when a design includes some independent variables measured using various entities, and others used repeated measures (Field, 2013). For this analysis, there was one between-subjects factor (groups with two levels: experimental and control) and one within-subject factor (time of measurement with three levels: baseline pretest, post-test I, and post-test- II).

3.14. B.4. Correlation Coefficient procedures

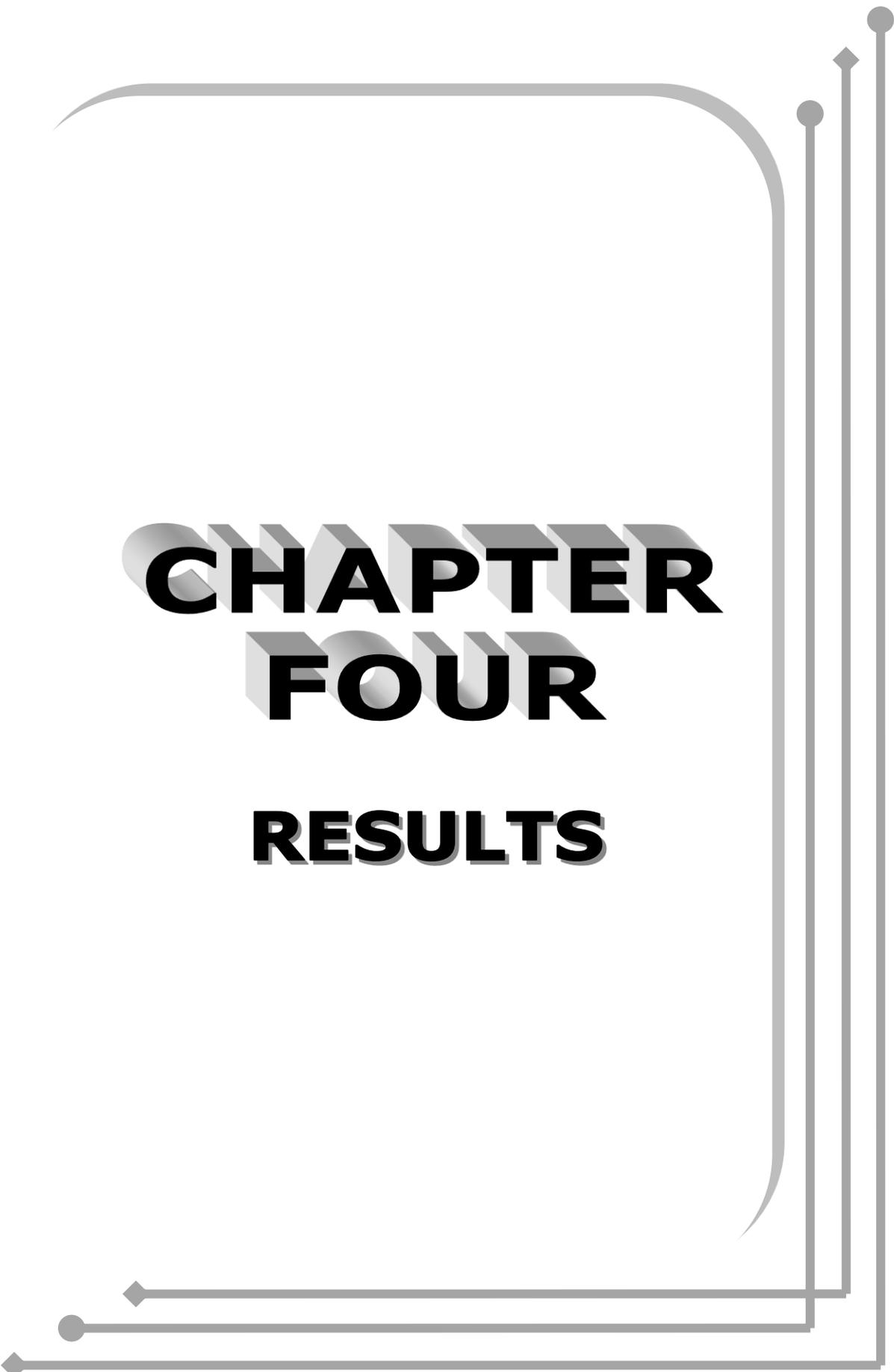
It was used to determine the association between socio-demographic characteristics and the nurses' knowledge. The correlation coefficient was computed according to the following formula (De Muth, 2014) :

$$r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][\sum y^2 - (\sum y)^2]}}$$

3.15. Limitations of the Study:

The study was handled with the following limitations:

1. Different working hours and days for some CCNs, which made it difficult to interview them simultaneously.
2. Transferring some CCNs and health institutions to another place to confront the pandemic or reconstruct other health institutions.
3. Some CCNs refused to participate in this study for special reasons.
4. The workload and shortage of the CCNs make sample collection difficult for lectures especially coinciding with the spread of the COVID-19 pandemic.
5. Difficult to implement the educational program in the lectures room of continuing education in Nineveh health institutions due to COVID-19 outbreak pandemic and to ensure social distancing.
6. Lack of national and international literature and studies related to this study.



**CHAPTER
FOUR
RESULTS**

Chapter Four

Results

Table (4-1) Demographic study sample characteristics

Variables	Experimental group		Control group	
	No	%	No	%
(A) Age group				
21-25 years	4	13.3	4	13.3
26-30 years	5	16.7	6	20.0
31-35 years	5	16.7	5	16.7
36-40 years	7	23.3	7	23.3
41-45 years	9	30.0	8	26.7
Total	30	100	30	100
(B) Gender				
Male	26	86.7	26	86.7
Female	4	13.3	4	13.3
Total	30	100	30	100
(C) Educational level				
Secondary school of Nursing	15	50.0	12	40.0
Nursing Institute graduate	10	33.3	11	36.7
Nursing college graduate	5	16.7	7	23.3
Total	30	100	30	100
(D) Experience in the Nursing field				
1-5 years	5	16.7	3	10.0
6-10 years	2	6.6	2	6.6
11-15 years	5	16.7	8	26.8
16-20 years	6	20.0	2	6.6
>20 years	12	40.0	15	50.0
Total	30	100	30	100
(E) Nursing experience in CCU				
1-5 years	5	16.7	4	13.3
6-10 years	7	23.3	5	16.7
11-15 years	5	16.7	9	30.0
16-20 years	10	33.3	7	23.3
>20 years	3	10.0	5	16.7
Total	30	100	30	100

This table demonstrates the demographic characteristics of the study sample. The high percentage (n = 9; 30.0%) (n = 8; 26.7%) was between the age group (41-45) years old in the experimental group and control group.

Most of the participants in both groups, according to their gender, are male (n= 26; 86.7 %) in the experimental and control groups.

Nurses' level of education, the highest percentages (n= 15; 50.0%) (n= 12; 40.0%) of experimental and control groups, respectively, were secondary nursing school graduates.

Regarding the years of experience in nursing, many nurses (n= 12; 40%) (n= 15; 50%) respectively in the experimental and control groups were more than 20 years in nursing services.

In respect to the years of nursing experiences in the CCU, the highest percentage (n= 10; 33.3%) of the participants in the experimental group their duration of the nursing experience was from (16-20) years, while the highest percentage (n= 9; 30%) of participants in the control group, their duration of the nursing experience was between (11-15) years' work in CCU.

Table (4-2) Distribution of the study sample in both groups (experimental and control group) according to training courses.

Attending training courses	experimental group		Control group	
	No	%	No	%
Enrolled	0	0	0	0
Not enrolled	30	100%	30	100%
Total	30	100%	30	100%

This table elucidates that all CCN (100%) of both experimental and control groups were not previously enrolled in EoL training courses.

Table (4-3) Comparative between the experimental and control groups relative to the CCN knowledge and perception regarding the EOL concept at the pre-test.

Variables	experimental group		control group		t-value	SIG
	X	SD	X	SD		
Knowledge	41.1	5.9	41.8	5.6	1.28	NS
Perception	78.2	6.9	80.9	7.6	1.44	NS
t-critical=1.671		DF= 58		p<0.05		

This table demonstrates no significant differences between the experimental and control groups regarding the CCN knowledge and perception in all the program items' pre-test.

Table (4-4) Comparative between the experimental and control groups relative to the CCN knowledge and perception regarding the EOL concept in the post-test.

Variables	experimental group		control group		t-value	SIG
	X	SD	X	SD		
Knowledge	55.4	1.15	41.93	5.9	29.7	S
Perception	121.23	0.4	81.9	7.37	21.45	S
t-critical= 1.671		DF=58		P<0.05		

This table exhibits significant differences between the experimental and control groups regarding the CCN knowledge and perception regarding the EOL concept in the post-test.

Table (4-5) Comparative between the pre-test and post-test related to the CCN knowledge and perception regarding the EOL concept in the experimental group.

	Pre-test		Post-test		<i>t-value</i>	SIG
	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>		
Knowledge	41.1	5.9	55.4	1.15	27.9	S
Perception	78.2	6.9	121.23	0.4	24.43	S
t-critical= 1.699		DF=29	P< 0.05			

This table indicates that significant differences between pre-test and post-test regarding the CCN knowledge and perception in the experimental group.

Table (4-6) Comparative between the pre-test and post-test, related to the CCN knowledge and perception regarding EOL concepts in the control group.

Variables	Pre-test		Post-test		<i>t-value</i>	SIG
	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>		
Knowledge	41.8	5.6	41.93	5.9	1.11	NS
Perception	80.9	7.67	81.9	7.37	1.36	NS
t-critical=1.699		DF=29	P<0.05			

This table demonstrates that no significant difference between the pre-test and post-test regarding the CCN knowledge and perception in the control group.

Table (4-7) Comparison knowledge toward EOL concept among three phases (pre, post-tests I, and post-test II) for CCN of the experimental.

No.	Items Related To Nurses' knowledge	Pre-test			Post-test I			Post-test II		
		<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>
1	Question 1 #	1.23	0.30	L	1.76	0.44	H	1.73	0.52	M
2	Question 2 #	1.4	0.50	L	1.76	0.37	H	1.7	0.48	M
3	Question 3 #	1.03	0.43	L	1.8	0.18	H	1.8	0.16	H
4	Question 4 #	1.23	0.46	L	1.8	0.00	H	1.8	0.00	H
5	Question 5 #	1.26	0.47	L	1.96	0.37	H	1.96	0.52	H
6	Question 6 #	1.36	0.49	L	1.76	0.34	H	1.7	0.44	M
7	Question 7 #	1.33	0.49	L	1.76	0.18	H	1.66	0.12	M
8	Question 8 #	1.66	0.55	M	2	0.34	H	1.96	0.51	H
9	Question 9 #	1.36	0.43	L	1.66	0.46	M	1.66	0.44	M
10	Question 10 #	1.33	0.46	L	1.7	0.44	M	1.66	0.49	M
11	Question 11 #	1.5	0.49	M	1.76	0.18	H	1.7	0.22	M
12	Question 12 #	1.4	0.50	L	1.9	0.18	H	1.9	0.15	H
13	Question 13 #	1.43	0.50	L	1.9	0.30	H	1.9	0.31	H
14	Question 14 #	1.4	0.49	L	1.76	0.30	H	1.73	0.40	M
15	Question 15 #	1.43	0.46	L	1.83	0.49	H	1.83	0.48	H
16	Question 16 #	1.33	0.37	L	1.76	0.50	H	1.6	0.47	M
17	Question 17 #	1.6	0.49	M	1.83	0.37	H	1.83	0.48	H
18	Question 18 #	1.43	0.30	L	1.76	0.43	H	1.7	0.51	M
19	Question 19 #	1.3	0.50	L	1.53	0.25	H	1.53	0.25	M
20	Question 20 #	1.36	0.43	L	1.8	0.49	H	1.8	0.48	H
21	Question2 1 #	1.4	0.50	L	1.73	0.25	H	1.6	0.41	M
22	Question 22 #	1.4	0.30	L	1.9	0.49	H	1.63	0.52	M

23	Question 23 #	1.46	0.49	L	2	0.00	H	2	0.00	H
24	Question 24 #	1.43	0.37	L	1.93	0.18	H	1.93	0.22	H
25	Question 25 #	1.6	0.49	M	1.76	0.34	H	1.73	0.33	M
26	Question 26 #	1.46	0.46	L	1.86	0.40	H	1.86	0.45	H
27	Question 27 #	1.33	0.40	L	1.93	0.18	H	1.93	0.24	H
28	Question 28 #	1.53	0.49	M	1.86	0.25	H	1.86	0.30	H
29	Question 29 #	1.43	0.47	L	1.96	0.47	H	1.93	0.45	H
30	Question 30 #	1.3	0.46	L	1.6	0.40	M	1.66	0.33	M

MS = Mean of score, SD = Standard, No. = Number of domain, Level of Evaluation : (1-1.49) = Low ; (1.5-1.74) = Moderate; (1.75-2.00) = High.

This table shows that the information of the experimental sample was presented at a moderate level of knowledge and presented a low level of knowledge at all items of the pre-test for the experimental group. While presents a high level of knowledge except (9, 10, and 30) presented moderate level of knowledge at post-test for the experimental group.

Table (4-8) Comparison knowledge toward EOL concept among three phases (pre, post-tests I, and post-test II) for CCN of the control group.

No.	Items Related To Nurses' knowledge	Pre-test			Post-test I			Posttest II		
		<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>
1	Question 1 #	1.43	0.5	L	1.43	0.43	L	1.46	0.03	L
2	Question 2 #	1.63	0.5	M	1.63	0.4	M	1.66	0.45	M
3	Question 3 #	1.33	0.44	L	1.3	0.18	L	1.33	0.07	L
4	Question 4 #	1.66	0.49	M	1.66	0.37	M	1.66	0.24	M
5	Question 5 #	1.36	0.49	L	1.36	0.5	L	1.4	0.36	L
6	Question 6 #	1.56	0.49	M	1.56	0.3	M	1.63	0.46	M
7	Question 7 #	1.6	0.51	M	1.6	0.45	M	1.66	0.46	M
8	Question 8 #	1.6	0.49	M	1.6	0.34	M	1.63	0.47	M
9	Question 9 #	1.43	0.49	L	1.4	0.3	L	1.46	0.58	L
10	Question 10 #	1.6	0.45	M	1.7	0.46	M	1.73	0.45	M
11	Question 11 #	1.56	0.5	M	1.56	0.37	M	1.6	0.00	M
12	Question 12 #	1.66	0.51	M	1.63	0.34	M	1.66	0.39	M
13	Question 13 #	1.7	0.5	M	1.6	0.47	M	1.66	0.44	M
14	Question 14 #	1.63	0.5	M	1.6	0.3	M	1.63	0.37	M
15	Question 15 #	1.6	0.47	M	1.66	0.34	M	1.63	0.43	M
16	Question 16 #	1.36	0.45	L	1.3	0.43	L	1.3	0.44	L
17	Question 17 #	1.73	0.5	M	1.73	0.4	M	1.73	0.03	M
18	Question 18 #	1.6	0.48	M	1.66	0.18	M	1.73	0.45	M
19	Question 19 #	1.56	0.49	M	1.56	0.37	M	1.56	0.47	M
20	Question 20 #	1.73	0.48	M	1.73	0.5	M	1.73	0.25	M
21	Question2 1 #	1.5	0.49	M	1.5	0.3	M	1.53	0.34	M

22	Question 22 #	1.53	0.5	M	1.5	0.45	M	1.53	0.41	M
23	Question 23 #	1.63	0.48	M	1.66	0.34	M	1.66	0.46	M
24	Question 24 #	1.6	0.48	M	1.6	0.3	M	1.63	0.47	M
25	Question 25 #	1.56	0.51	M	1.6	0.46	M	1.6	0.50	M
26	Question 26 #	1.63	0.51	M	1.63	0.37	M	1.66	0.45	M
27	Question 27 #	1.7	0.51	M	1.7	0.34	M	1.73	0.00	M
28	Question 28 #	1.66	0.51	M	1.56	0.47	M	1.6	0.3	M
29	Question 29 #	1.63	0.41	M	1.66	0.3	M	1.66	0.40	M
30	Question 30 #	1.66	0.51	M	1.63	0.34	M	1.7	0.37	M

MS = Mean of score, SD = Standard, No. = Number of domain, Level of Evaluation : (1-1.49) = Low ; (1.5-1.74) = Moderate; (1.75-2.00) = High.

This table illustrates that the control group presented a low level of knowledge at (1, 3, 5, 9, and 6) items and presented a moderate level of education in all items of pre-test and post-test for the control group.

Table (4-9) Comparison perception toward the EOL concept among three phases (pre, post-tests I, and post-test II) for CCN of the experimental group.

No.	Items Related To Nurses' perception	Pre-test			Post-test I			Post-test II		
		<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>
1	Statement 1 ###	2.73	0.7	M	4.7	0.4	H	4.66	0.4	H
2	Statement 2 ###	2.53	1.2	M	4	0.7	H	4	0.6	H
3	Statement 3 ###	2.26	1.2	L	3.8	0.6	H	3.76	0.6	H
4	Statement 4 ###	2.96	0.8	M	4.16	0.7	H	4.06	0.7	H
5	Statement 5 ###	2.73	1.1	M	3.96	0.6	H	3.73	0.6	H
6	Statement 6 ###	2.5	1.1	M	4.03	0.6	H	4	0.6	H
7	Statement 7 ###	2.63	1.1	M	3.73	0.4	H	3.7	0.4	H
8	Statement 8 ###	1.53	1.2	L	3.7	0.7	H	3.66	0.6	H
9	Statement 9 ###	2.66	0.9	M	3.96	0.5	H	3.96	0.6	H
10	Statement 10 ###	2.93	0.9	M	3.83	0.6	H	3.76	0.6	H
11	Statement 11###	1.93	1.1	L	3.73	0.5	H	3.66	0.5	H
12	Statement 12 ###	2.76	0.5	M	4.36	0.7	H	4.23	0.7	H
13	Statement 13 ###	2.73	1.1	M	3.8	0.6	H	3.8	0.6	H
14	Statement 14 ###	2.46	1.0	M	3.76	0.6	H	3.73	0.6	H
15	Statement 15 ###	2.83	1.2	M	3.8	0.5	H	3.8	0.6	H
16	Statement 16 ###	2.9	1.3	M	4.33	0.5	H	4.2	0.5	H
17	Statement 17 ###	2.76	1.0	M	4.16	0.6	H	4.16	0.5	H
18	Statement 18 ###	2.6	1.0	M	4.46	0.6	H	4.43	0.5	H
19	Statement 19 ###	2.16	0.7	L	3.86	0.6	H	3.8	0.5	H
20	Statement 20 ###	2.73	1.4	M	4.36	0.6	H	4.23	0.6	H
21	Statement 21 ###	2.9	0.8	M	4.53	0.5	H	4.43	0.6	H

22	Statement 22###	2.96	0.6	M	4.33	0.5	H	4.2	0.5	H
23	Statement 23 ###	2.93	0.9	M	4.2	0.6	H	4.13	0.6	H
24	Statement 24 ###	2.86	1.2	M	4.1	0.6	H	3.86	0.6	H
25	Statement 25 ###	2.96	1.0	M	3.8	0.4	H	3.7	0.5	H
26	Statement 26 ###	2.03	1.0	L	3.8	0.5	H	3.73	0.5	H
27	Statement 27 ###	2.93	0.9	M	3.93	0.6	H	3.76	0.5	H
28	Statement 28 ###	2.96	0.9	M	4.1	0.6	H	4.06	0.6	H
29	Statement 29 ###	2	1.0	L	3.86	0.8	H	3.76	0.7	H
30	Statement 30 ###	2.3	1.1	L	4	0.7	H	3.96	0.6	H

MS = Mean of score, SD = Standard, No. = Number of item, Level of Evaluation: (1-2.32) = Low; (2.33-3.65) = Moderate; (3.66-5) = High.

This table shows that most of the answers to the questionnaire items tend to a moderate level of perception in the pre-test of the experimental group except (3, 8, 11, 19, 26, 29, and 30). While all the answers tended to a high level of perception in post-test I, they remained at the same level in post-test II.

Table (4-10) Comparison knowledge toward EOL concept among three phases (pre, post-test I, and post-test II) for CCN of the control group.

No.	Items Related To Nurses' perception	Pre-test			Post-test I			Post-test II		
		<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>	<i>MS</i>	<i>SD</i>	<i>Level</i>
1	Statement 1 ###	2.96	1.0	M	3.03	0.8	M	3.06	0.8	M
2	Statement 2 ###	2.86	1.2	M	2.73	1.1	M	2.8	1.1	M
3	Statement 3 ###	2.1	0.6	L	2.2	0.7	L	2.2	0.7	L
4	Statement 4 ###	3.2	1.0	M	3.26	0.9	M	3.3	1.0	M
5	Statement 5 ###	3.13	1.0	M	3.2	0.8	M	3.2	0.8	M
6	Statement 6 ###	2.46	1.2	M	2.43	0.9	M	2.5	0.9	M
7	Statement 7 ###	2.9	1.0	M	2.93	0.9	M	2.93	0.8	M
8	Statement 8 ###	1.7	1.2	L	1.86	0.9	L	2	1.0	L
9	Statement 9 ###	2.8	1.0	M	2.96	1.0	M	2.96	0.9	M
10	Statement 10 ###	3.13	1.2	M	3.06	1.0	M	3.1	1.0	M
11	Statement 11###	2.1	0.9	L	2.23	0.8	L	2.3	0.8	L
12	Statement 12 ###	3.16	0.9	M	3.2	0.7	M	3.2	0.7	M
13	Statement 13 ###	3.03	1.3	M	3.13	1.0	M	3.13	1.0	M
14	Statement 14 ###	2.9	1.1	M	3.03	0.9	M	3.06	0.9	M
15	Statement 15 ###	3.33	0.9	M	3.36	0.9	M	3.36	0.9	M
16	Statement 16 ###	3.4	0.9	M	3.46	0.8	M	3.5	0.8	M
17	Statement 17 ###	3.3	1.0	M	3.36	0.9	M	3.36	0.9	M
18	Statement 18 ###	3.1	1.3	M	3.3	0.9	M	3.4	0.9	M
19	Statement 19 ###	2.9	0.9	M	2.9	1.1	M	2.96	1.1	M
20	Statement 20 ###	3.26	1.2	M	3.36	1.0	M	3.36	1.0	M
21	Statement 21 ###	3.16	1.0	M	3.26	1.0	M	3.33	1.0	M

22	Statement 22###	2.83	1.0	M	2.9	1.0	M	2.96	1.0	M
23	Statement 23 ###	3.26	0.9	M	3.36	0.7	M	3.43	0.7	M
24	Statement 24 ###	3.3	1.0	M	3.3	0.8	M	3.4	0.8	M
25	Statement 25 ###	3.1	1.2	M	3.26	1.0	M	3.23	1.0	M
26	Statement 26 ###	2.1	1.0	L	2.26	0.8	L	2.33	0.8	L
27	Statement 27 ###	2.8	0.8	M	2.83	0.7	M	2.8	0.7	M
28	Statement 28 ###	2.33	1.0	M	2.4	0.8	M	2.53	0.8	M
29	Statement 29 ###	2	1.1	L	2.2	0.8	L	2.3	0.8	L
30	Statement 30 ###	2.43	1.1	M	2.63	1.0	M	2.53	1.0	M

MS = Mean of score, *SD* = Standard, *No.* = Number of item, *Level of Evaluation* : (1-2.32) = Low; (2.33-3.65) = Moderate; (3.66-5) = High.

This table shows that most of the answers to the questionnaire items tend to a moderate level of perception in the pre-test of the control group except (3, 8, 11, 26, and 29), and they remained at the same level in post-test I and post-test II.

Table (4-11) Distribution of experimental group according to their knowledge levels through educational program phases.

Variables	knowledge levels about EOL concept							
	Low		Intermediate		Good		Total	
	F	%	F	%	F	%	F	%
Pre-test	18	60	9	30	3	10	30	100
Post-test I	0	0	3	10	27	90	30	100
Post-test II	0	0	3	10	27	90	30	100

F: Frequency, %: Percent; Cut off Points: Low= (30-39.9), Intermediate= (40-49.9), Good= (50-60).

This table shows the level of CCN knowledge among the experimental group over three tests. The level of knowledge about the EOL concept at pre-test is low among (60%) of nurses from the experimental group. Regarding post-test I, the table reveals that (90%) of experimental group participants have a good level of knowledge. Finally, post-test II indicates the stability of nurses’ knowledge about the EOL concept among the experimental group after one month of education.

Table (4-12) Distribution of control group according to their knowledge levels through educational program phases.

Variables	knowledge levels about EOL concept							
	Low		Intermediate		Good		Total	
	F	%	F	%	F	%	F	%
Pre-test	14	46.7	11	36.7	5	16.6	30	100
Post-test I	15	50	8	26.7	7	23.3	30	100
Post-test II	14	46.7	10	33.3	6	20	30	100

F; Frequency, %: Percent; Cut off Points: Low= (30-39.9), Intermediate= (40-49.9), Good= (50-60).

This table shows no significant changes in three tests (pre, Post-test I, and Post-test II). This means that the CCN in the control group didn’t have any information regarding the EOL concept via their colleagues in the experimental group or any other sources.

Table (4-13) Distribution of experimental group according to their perception levels through educational program phases.

Variables	Perception levels about EOL concept							
	Low		Intermediate		Good		Total	
	F	%	F	%	F	%	F	%
Pretest	7	23.3	23	76.7	0	0	30	100
Posttest one	0	0	0	0	30	100	30	100
Posttest two	0	0	0	0	30	100	30	100

F: Frequency, %: Percent; Cut off Points: Low= (30-69.9), Intermediate= (70-109.9), Good= (110-150).

This table shows the level of perception toward the EOL concept among the experimental group over three tests. The level of perception was low among (23.3%) and intermediate among (76.7%) of the nurses in the experimental group. Regarding post-test I, the table reveals that (100%) of the experimental group has a good level of perception. Finally, post-test II indicates the stability of nurses’ perception of the EOL concept among the experimental group after one month of education.

Table (4-14) Distribution of control group according to their perception levels through educational program phases.

Variables	Perception levels about EOL concept							
	Low		Intermediate		Good		Total	
	F	%	F	%	F	%	F	%
Pre-test	0	0	30	100	0	0	30	100
Post-test I	0	0	30	100	0	0	30	100
Post-test II	0	0	30	100	0	0	30	100

F: Frequency, %: Percent; Cut off Points: Low= (30-69.9), Intermediate= (70-109.9), Good= (110-150).

This table shows the level of perception among the control group over three tests. The table reveals that (100%) of control group participants have an intermediate level of perception regarding pre-test, post-test I, and post-test II.

Table (4-15) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their age relative to the pre and post-test in the experimental.

Groups	Pre-test				Post-test			
	experimental group				experimental group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	13.30	3.33		4	332.12	83.03	
Within groups	25	34.86	1.39	2.4	25	375.6	15.024	5.52
Total	29	48.16		N.S	29	707.72		S
	F critical=2.76				F critical=2.76			
	Post hoc test (age 41-45) year				Mean 1.87			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table demonstrates no significant differences between CCN knowledge regarding EOL concepts and age at pre-test, but there are significant differences between CCN knowledge and age in post-test P-value <0.05.

Table (4-16) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their age relative to the pre and post-test in the control group.

Groups	Pre-test				Post-test			
	control group				control group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	5.65	1.41		4	16.82	4.21	
Within groups	25	109.60	4.38	0.32	25	125.29	5.01	0.84
Total	29	115.25		NS	29	142.11		NS
	F critical=2.76				F critical=2.76			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table determines no significant differences between CCNs knowledge and age at the pre and post-test in the control group at P-value <0.05.

Table (4-17) Analysis of variance for the differences between nurses’ perception regarding EOL concepts and their age relative to pre and post-tests in the experimental group.

Groups	Pre-test experimental group				Post-test experimental group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	97.8	24.45		4	421.12	105.28	
Within groups	25	880.1	35.20	0.69	25	826.7	33.07	3.18
Total	29	977.9		NS	29	1047.82		S
	F critical=2.76				F critical=2.76			
Post hoc test (age 41-45) year					Mean 3.77			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table indicates no significant differences between CCN perception regarding the EOL concept and their age at the pre-test. However, there are significant differences between CCN age and perception at the post-test in the experimental group at P value<0.05.

Table (4-18) Analysis of variance for the differences between nurses’ perception regarding EOL concepts and their age relative to pre and post-tests in the control group

Groups	Pre-test control group				Post-test Control group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	1.330	.333		4	1.179	0.295	
Within groups	25	4.089	0.163	2.04	25	5.917	0.237	1.25
Total	29	5.419		NS	29	7.096		NS
	F critical=2.76				F critical=2.76			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table reveals no significant differences between CCN perception and age at the pre and post-test in the control group at P value<0.05.

Table (4-19) Compare between the pre-test and post-test relative to the CCN knowledge regarding the EOL concept in the experimental group according to their gender.

Variables	Pre-test		Post-test		<i>t-value</i>	<i>Sig</i>
	<i>x</i>	<i>SD</i>	<i>x</i>	<i>SD</i>		
Male	42.6	0.7	56.4	0.15	8.14	S
Female	43.5	0.4	51.3	0.2	11.6	S
		t-critical=1.699		DF=29	P< 0.05	

This table indicates statistically significant differences between the pre-test and post-test regarding the CCN knowledge in the experimental group according to their gender.

Table (4-20) A compare between the pre-test and post-test, relative to the CCN knowledge regarding EOL concept the control group according to their gender.

	Pre-test		Posttest		<i>t-value</i>	<i>SIG</i>
	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>		
Male	43.6	0.5	43.1	0.4	1.470	NS
Female	43.5	0.33	43.4	1.2	0.951	NS
		t-critical=1.699		DF=29	P<0.05	

This table indicates no statistically significant differences between the pre-test and post-test regarding the CCN knowledge in the control group according to their gender.

Table (4-21) Compare between pre-test and post-test relative to the CCN perception regarding the EOL concept in the experimental group according to their gender.

	Pre-test		Posttest		<i>t-value</i>	<i>SIG</i>
	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>		
Male	79.5	7.8	126.5	0.43	11.6	S
Female	78	8.2	122.23	0.56	8.14	S
t-critical=1.699		DF=29	P< 0.05			

This table indicates there are significant variances between pre-test and post-test regarding the CCN perception in the experimental group according to their gender.

Table (4-22) Compare between pre-test and post-test, relative to the CCN perception regarding EOL concept among the control group according to their gender.

	Pre-test		Posttest		<i>t-value</i>	<i>SIG</i>
	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>		
Male	82	7.5	82.5	7.88	1.470	NS
Female	80.5	8.1	81.7	7.9	0.951	NS
t-critical=1.699		DF=29	P<0.05			

This table shows no significant differences between the pre-test and post-test regarding the CCN perception in the control group according to their gender.

Table (4-23) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their educational level relative to the pre and post-test in the experimental group.

Groups	Pre-test				Post-test			
	experimental group				experimental group			
	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	2	0.829	0.415		2	123.1	61.6	
Within groups	27	5.037	0.187	2.22	27	390.3	14.5	4.25
Total	29	5.866		NS	29	513.4		S
	F critical=3.35				F critical=3.35			
	Post hoc test (Nursing college graduate)				Mean 1.89			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table demonstrates no significant differences between CCN knowledge and level of education at the pre-test. But, there are significant differences between CCN knowledge and level of education at the post-test in the experimental group at P-value <0.05.

Table (4-24) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their educational level relative to the pre and post-test in the control group.

Groups	Pre-test				Post-test			
	control group				Control group			
	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	2	0.407	0.204		2	1.978	0.989	
Within groups	27	13.059	0.484	0.42	27	16.022	0.593	1.67
Total	29	13.466		NS	29	18.000		NS
	F critical=3.35				F critical=3.35			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table shows no significant differences between CCN knowledge and their educational level at the pre and post-test in the control group at P-value <0.05.

Table (4-25) Analysis of variance for the differences between Nurses’ perception regarding EOL and their educational level relative to the pre and post-test in the experimental group.

Groups	Pre-test experimental group				Post-test experimental group			
	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	2	1.488	0.744		2	5329	2664.5	
Within groups	27	30.36	1.12	0.67	27	2713	100.5	26.5
Total	29	31.848		NS	29	8042		S
	F critical=3.35				F critical=3.35			
	Post hoc test (Nursing college graduate)				Mean 3.73			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table indicates no significant differences between CCN perception and educational level at the pre-test. However, there are significant differences between CCN perception and educational level at the post-test in the experimental group at P-value <0.05.

Table (4-26) Analysis of variance for the differences between Nurses’ perception regarding EOL and their educational level relative to the pre and post-test in the control group.

Groups	Pre-test control group				Post-test control group			
	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	2	505.4	252.7		2	551.8	275.9	
Within groups	27	2550.9	94.5	2.7	27	4470.1	165.5	1.66
Total	29	3056.3		NS	29	5021.9		NS
	F critical=3.35				F critical=3.35			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table exhibits no significant differences between CCN perception and educational level at the pre and post-test in the control group at P-value <0.05.

Table (4-27) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their nursing experiences relative to the pre and post-test in the experimental group.

Groups	Pre-test				Post-test			
	Experimental group				Experimental group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	175.4	43.9		4	1650.3	412.6	
Within Groups	25	450.4	18.0	2.43	25	1171.5	46.9	8.8
Total	29	625.8		NS	29	2821.8		S
	F critical=2.76				F critical=2.76			
	Post hoc test (>20 years)				Mean 1.84			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table demonstrates no significant differences between CCN knowledge and their nursing experiences in the pre-test. However, there are significant differences between CCN knowledge and their nursing experience post-test in the experimental group at P-value <0.05.

Table (4-28) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their nursing experiences relative to the pre and post-test in the control group.

Groups	Pre-test				Post-test			
	control group				control group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	5.75	1.44		4	8.94	2.24	
Within groups	25	46.55	1.86	0.77	25	65.72	2.63	0.85
Total	29	52.30		NS	29	74.67		NS
	F critical=2.76				F critical=2.76			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table determines no significant differences between CCN knowledge and their nursing experiences in pre-test and post-test to the control group at P-value <0.05.

Table (4-29) Analysis of variance for the differences between Nurses’ perception regarding EOL and their nursing experiences relative to the pre and post-test in the experimental group.

Groups	Pre-test experimental group				Posttest experimental group			
	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	4	233.4	58.35		4	351.4	87.85	
Within groups	25	558.6	22.34	2.6	25	452.9	18.116	4.85
Total	29	792		NS	29	804.3		S
F critical=2.76				F critical=2.76				
Post hoc test (>20 years)				Mean 3.76				

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table reveals no significant differences between CCN perception and their nursing experience in the pre-test. However, there are significant differences between CNN perception and their nursing experience in the experimental group post-test at a p-value of $P < 0.05$.

Table (4-30) Analysis of variance for the differences between Nurses’ perception regarding EOL and their nursing experiences relative to the pre and post-test in the control group.

Groups	Pre-test control group				Post-test control group			
	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	4	2.310	0.578		4	1612	403	
Within groups	25	5.857	0.234	2.5	25	5015	200.6	2.01
Total	29	8.167		NS	29	6627		NS
F critical=2.76				F critical=2.76				

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table exhibits no significant differences between CCN perception and nursing experiences in pre and post-test to the control group at P-value < 0.05

Table (4-31) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their experience at the CCU relative to the pre and post-test in the experimental group.

Groups	Pre-test experimental group				Post-test experimental group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	209.4	52.25		4	1679.4	419.85	
Within groups	25	571.6	22.86	2.28	25	774.8	30.99	13.55
Total	29	781		NS	29	2454.2		S
	F critical=2.76				F critical=2.76			
	Post hoc test (>20 years)				Mean 1.82			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table illustrates no significant differences between CCN knowledge and nursing experiences at CCU at the pre-test. However, there is a significant difference between CCN knowledge and CCU nursing experiences at the post-test in the experimental group at P-value <0.05.

Table (4-32) Analysis of variance for the differences between Nurses’ knowledge regarding EOL and their experience at the CCU relative to the pre and post-test in the control group.

Groups	Pre-test control group				Post-test control group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	2.228	0.557		4	2.418	0.605	
Within groups	25	5.777	0.231	2.41	25	6.897	0.275	2.2
Total	29	8.005		N.S	29	9.315		NS
	F critical=2.76				F critical=2.76			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table indicates no significant differences between CCN knowledge and nursing experience at the CCU at the pre and post-test in the control group at P-value <0.05

Table (4-33) Analysis of variance for the differences between Nurses’ perception regarding EOL and their experience at the CCU relative to the pre and post-test in the experimental group.

Groups	Pre-test experimental group				Post-test experimental group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	221.8	55.45		4	271.2	67.8	
Within groups	25	598.2	23.93	2.3	25	521.6	20.9	3.24
Total	29	820		NS	29	792.8		S
	F critical=2.76				F critical=2.76			
	Post hoc test (>20 years)				Mean 3.74			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table shows no significant differences between CCN perceptions and nursing experiences at the CCU at the pre-test. However, there is a significant difference between CCN perception and nursing experience at the CCU at post-test in the experimental group at P-value <0.05.

Table (4-34) Analysis of variance for the differences between Nurses’ perception regarding EOL and their experience at the CCU relative to the pre and post-test in the control group.

Groups	Pre-test control group				Post-test Control group			
	DF	SS	MS	F	DF	SS	MS	F
Between groups	4	491.70	122.925		4	595.26	148.815	
Within groups	25	2219.08	88.7632	1.4	25	2018.56	80.7424	1.84
Total	29	2710.78		NS	29	2613.82		NS
	F critical=2.76				F critical=2.76			

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table Indicates no significant differences between CCN perception and their nursing experiences at CCU at the pre and post-test in the control group at P-value <0.05.

Table (4-35) Analysis of variance for the differences between pre, post-test I, and post-test II relatives to the CCN knowledge regarding the EOL concept in the experimental group.

	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>SIG</i>
Between Groups	2	215	107.5		
Within groups	27	697	25.8	4.2	S
Total	29	912			
		F critical=3.35	p<0.05		

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table demonstrates significant differences between the pre-test, post-test one, and post-test two, and within the groups and relative to CCN knowledge in the experimental group.

Table (4-36) Analysis of variance for the differences between pre, post-test one, and post-test two relatives to the CCN knowledge regarding the EOL concept in the control group.

	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>SIG</i>
Between groups	2	38.2	19.1		
Within groups	27	818.6	30.3	0.63	NS
Total	29	856.8			
		F critical=3.35	p<0.05		

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table exhibits no significant differences between pre-test, post-test I, and post-test II within the groups and regarding CCN knowledge in the control group.

Table (4-37) Analysis of variance for the differences between pre, post-test one, and post-test two relatives to the CCN perception regarding the EOL concept in the experimental group.

	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>SIG</i>
Between groups	2	495.4	247.7		
Within groups	27	1090.5	40.4	6.13	S
Total	29	1585.9			
		F critical=3.35	p<0.05		

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table demonstrates significant differences between the pre-test, post-test one, and post-test two, and within the groups and regarding CCN perception in the experimental group.

Table (4-38) Analysis of variance for the differences between pre, post-test one, and post-test two relatives to the CCN perception regarding the EOL concept in the control group.

	<i>DF</i>	<i>SS</i>	<i>M. S</i>	<i>F</i>	<i>SIG</i>
Between groups	2	6.5	3.25		
Within groups	27	855.4	31.7	0.103	NS
Total	29	861.9			
		F critical=3.35	p<0.05		

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table exhibits no significant differences between pre-test, post-test I, and post-test II within the groups and CCN perception in the control group.

Table (4-39) Compare between CCN in the experimental and control groups with knowledge regarding EOL concepts immediately after the sessions and after one month.

Groups	DF	Immediately				one month			
		<i>x</i>	<i>SD</i>	<i>t-value</i>	<i>SIG</i>	<i>x</i>	<i>SD</i>	<i>t-value</i>	<i>SIG</i>
experimental group	29	55.4	1.1			55.1	1.2		
control group	29	41.9	5.9	8.3	S	42	5.8	8.4	S
t-critical= 1.699					P<0.05				

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

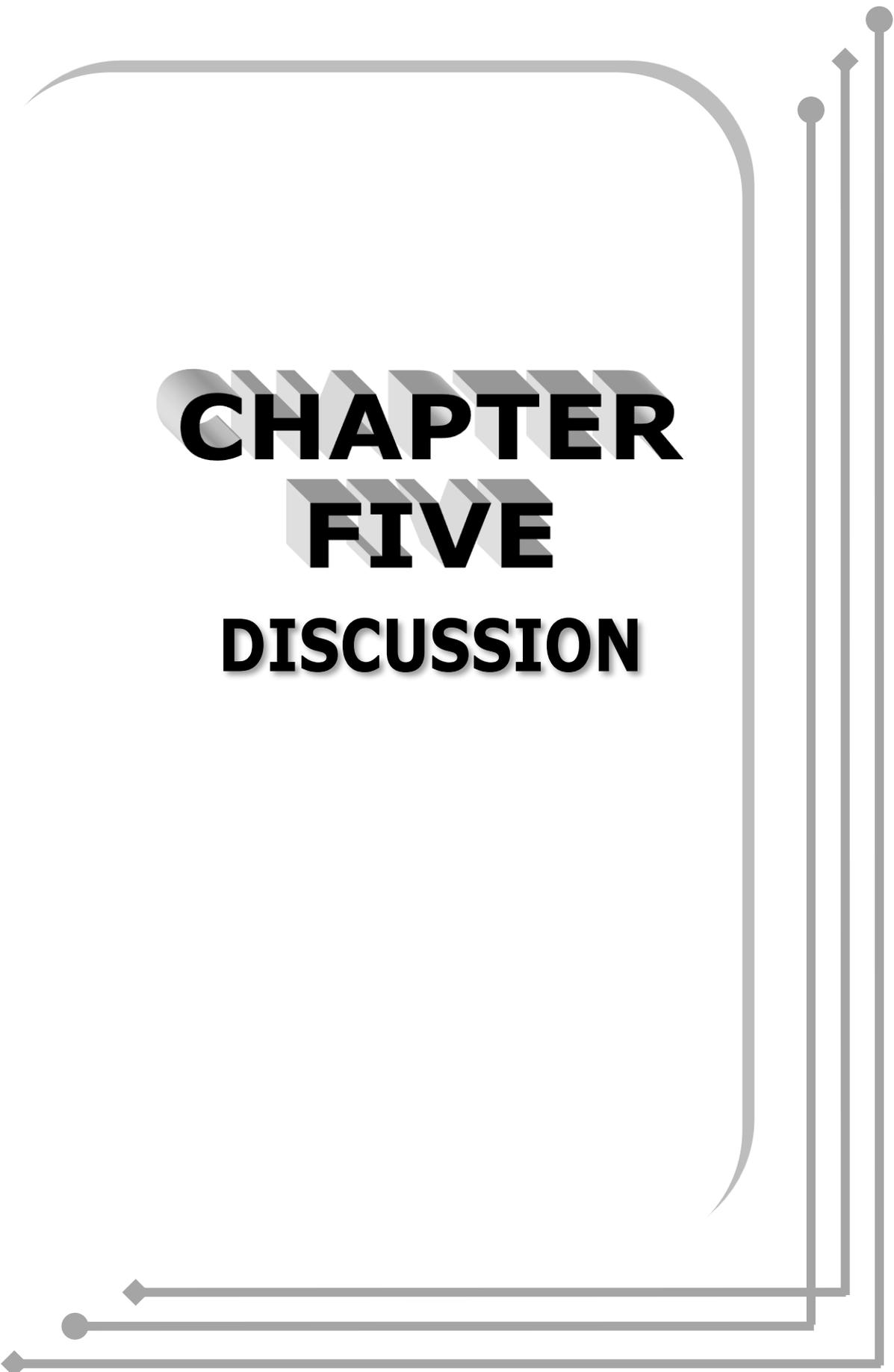
This table shows a statistically significant difference between the experimental and control groups concerning improving the CCN knowledge regarding the EOL concept immediately and after one month after the program’s last sessions.

Table (4-40) Compare between the CCN in the experimental and control groups with perception regarding the EOL concept immediately after the sessions and after one month.

Groups	DF	Immediately				one month			
		<i>x</i>	<i>SD</i>	<i>t-value</i>	<i>SIG</i>	<i>x</i>	<i>SD</i>	<i>t-value</i>	<i>SIG</i>
experimental group	29	121.2	0.4			121.3	0.5		
control group	29	81.9	7.37	6.3	S	82.1	7.31	11.8	S
t-critical= 1.699					P<0.05				

DF: degree of freedom, SS: sum of squares, MS: mean of score, F: Fisher

This table shows a statistically significant difference between the experimental and control groups concerning improving the CCN perception regarding the EOL concept immediately and after one month after the program’s last sessions.

A decorative graphic consisting of a large rounded rectangle on the left and three vertical lines on the right. The lines are of varying heights and end in diamond or circle shapes. The text is centered within the rounded rectangle.

CHAPTER
FIVE
DISCUSSION

CHAPTER FIVE

Discussion

This evidence-based practice EBP initiative looked at the value of present nurses' education in terms of knowledge the EOL concept. The goal of this educational intervention was to improve nurses' knowledge and perceptions of EOL. Education was chosen when health specialists discovered a lack of knowledge of the EOL concept. The evidence backs up the idea of continued practice training to improve patient outcomes.

Following current tactics in implementing educational and training programs, participating in interactive courses, and utilizing sophisticated technology are some of the essential components that contribute to successful continuing education.

In addition, practice-based learning, increasing the quantity and duration of interventions, and frequent assessment of original requirements are important for effective continuing education.

The outcomes of this study support the notion that continuing education, educational and training courses, and programs, particularly evidence-based and specific information about the concept of hospice care, might help people better appreciate the future consequences.

Part I: Nurses' knowledge toward End-of-Life Concept Educational Program items pre and post-test in the experimental group.

A pre-test was used to measure nurses' knowledge of patient care towards the EOL. The failure to hold continuing education courses in the last six years as a result of what happened to Mosul from ISIS terrorist gangs occupying the city and destroying the city's hospitals, as well as the subsequent liberation operations at the hands of the military.

When the pre-test and post-test scores were compared immediately after implementing the educational program, the mean scores showed a considerable improvement. The scores of all of the participants ($n=30$) were enhanced. Later intervention by the educational program improved from (41.1 ± 5.9) 68.5 % on the pre-test to (55.4 ± 1.15) 92.3 % on the post-test, suggesting a gain of 14.3 degrees. (23.8% of the total). Consequently, the rise in the overall score of the mean from the pre-test to the post-test one given just after the session revealed that nurses who participated in the educational intervention had a greater comprehension of the EOL concept table (4-5).

An overall comparison of the pre-test and post-test has been carried out about 30 days following the program. All individuals who completed the second exam one month after the educational intervention got better results, indicating that they could retain knowledge one month after the educational intervention. The mean score rose from (41.1 ± 5.9) 68.5 % on the pre-test to (55.1 ± 1.2) 91.8% on the post-test II, while it was (55.4 ± 1.15) 92.3 % on the post-test I, which was administered roughly one month following the educational intervention.

In general, scores dropped between post-test I and post-test II after the educational intervention; the score dropped from (55.4 ± 1.15) to (55.1 ± 1.2) , indicating a 0.5% drop. To match the outcomes of the pre-test and post-test I (directly following the educational intervention), a t-test was used, table (4-5). This showed low knowledge loss and high information retention among participants one month following the educational intervention, indicating that the educational program was effective.

When comparing the pre-test and post-test-I after the educational intervention, there was a substantial improvement in nurse knowledge of the EOL concept. Specifically, the results showed that 90% of questions

improved in response from a low level (1-1.49) to a high level (1.75-2) following the educational intervention, as measured by the pre-test and post-test-I, while the questions improved in response from a low level (1-1.49) to a high level (1.75-2). (9, 10, 30) The change in level was 10% to a medium level, table (4-7).

In this study, nurses gained basic knowledge about the EOL concept through an educational program. A lack of an improvement for these questions implied that the aspects of EOL concept education that these questions aimed at assessing should be more thoroughly addressed within the educational intervention in the future.

When the findings of this study are compared to those of other research, the following conclusion is reached:

According to a recent study, training had a favorable influence on fourth-year nursing students' knowledge of the EOL concept (Robinson & Epps, 2017). Detering et al. (2014) in their study showed a high positivity towards EOL care and an increase in knowledge about patient care, especially in the ethical aspects, pain relief, and the rest of the symptoms associated with death (Detering et al., 2014).

In their study on medical Students, Anderson and his colleagues suggested that their past experiences in caring for the dying or watching dying people were correlated with their levels of knowledge about managing pain and its symptoms, ethics, appropriate treatment, and elderly care (Anderson et al., 2008).

EOL Perceptions Survey to determine palliative and EOL care knowledge change perceived effectiveness in palliative care skills. Callahan et al. (2011) conducted a pretest-posttest study utilizing palliative concept questions. Sixty-two nursing students registered in the study. In a paired

comparison of means, the Palliative Care Knowledge Examination revealed an overall increase in palliative care knowledge and perceptions (Callahan et al., 2011).

A quasi-experimental study was based on the pre and post-test strategy in 2016 by Saylor and others; the study was conducted on 34 nurses working in adult medical and surgical units. The study showed that nursing knowledge and skills were significantly enhanced through EOL care education using a simulation approach (Saylor et al., 2016)

A study by Kim and colleagues (2020) stated that nurses' knowledge, behavior, confidence, and educational needs for the care of patients with cancer were acceptable and could be improved by including them in specialized programs in the field of palliative care (Kim et al., 2020).

In Saudi Arabia, to evaluate nurses' knowledge about EOL care and the most important factors associated with it, 365 nurses from different hospitals in the Kingdom were tested. The study results were disappointing, and that the levels of knowledge are insufficient, especially concerning spiritual and psychological aspects (Aboshaiqah, 2019).

In a Korean study of 368 nurses working in cancer wards who answered a 20-question questionnaire about palliative care at the EOL, averages, and percentages of outcomes were good, especially in terms of the role of family members(Choi et al., 2012).

Another study conducted in Korea State by Kim and others in 2012 showed a significant improvement over the pre-test in nurses' knowledge in about 89% of the sample size after conducting an educational program (Kim et al., 2012).

Grant and others conducted a study at the University of California to train about 400 CCU nurses upon EOL care as the rate of knowledge and

perception increased (5.9-6.9) from what it indicates to EOL educational intervention was very effective for CCU nurses (Grant et al., 2013).

From the preceding, all previous studies confirmed the improvement of nurses' knowledge about the EOL concept after they were exposed to End of Life nursing educational programs (ELNEP). Any deficiency in aspects of care at this stage would create a gap in the nursing process, as this gap must be bridged to increase the nursing care quality and correct some misconceptions about the concept of care in the EOL stage (He et al., 2021).

Part II: Nurses Perception (pre-test and post-test) in the experimental group concerning items of the program.

At Mosul teaching hospitals, this preliminary survey was utilized to gather and improve nurses' perceptions of the EOL concept. EOL care is an essential element of nursing when the patient's goals are comfort and QOL. The ELNEP was designed to provide a complete education curriculum for nurses who work with the dying. The effects of the current program on CCN perception toward dying patients were investigated in this pretest-posttest research. Before and after exposure to an ELNEP, CCU nurses were given the Frommelt Perceptions Toward Care of the Dying Scale for Nurses (FATCOD).

Due to the absence of EOL care education in most nursing curriculum and continuing education programs and a shortage of palliative care specialists, evidence-based practices currently show a deficit in knowledge, perception, and communication skills of care providers in critical care units regarding EOL care.

Despite the need for high-class EOL care, nurses and other health workers expression challenges in providing it, particularly in CCUs where compound and conflicting care requirements coexist

End-of-Life care is generally offered in the CCU in Iraq rather than in other hospital settings. However, nothing is known about CCN perceptions of EOL therapy.

According to the data analysis, there was a substantial alteration in the score of nurses' impressions of EOL between pre, post, and follow-up. The Nurses' perceptions were significantly enhanced by the Education program (mean FATCOD score before the study was (78.2 ± 6.9) and after the intervention was (121.23 ± 0.4) ($P < 0.05$).

Nurses' views on death and care for dying patients are shaped by their education, which begins while they are still in nursing school. Early and ongoing engagement in EOL educational experiences has been found to help students obtain the knowledge, perceptions, and abilities needed to perform supportive ELNEP (Ek et al., 2014).

Students' and professionals' perceptions on death and hospice care are influenced by education on death and dying subjects, which may help new nurses. It also helps with therapeutic dialogue (Nicol & Pocock, 2020).

In a Hungarian study of 127 healthcare employees, Hegedus et al. (2008) demonstrated that semester-long training lowered overall fear of death ratings (Hegedus et al., 2008). Other research has indicated that participants' confidence in their capacity to give EOL care improves (Otis-Green et al., 2013). Death anxiety and terror decreased after education, whereas positive perception and confidence improved (McClatchey & King, 2015).

A qualitative phenomenological research study intends to prepare student nurses to care for patients and families at the end of life (EOL). The analysis yielded six major themes: (1) fear of witnessing death, (2) contrasting care priorities in a hospice-dedicated versus acute care setting, (3) value of

storytelling from hospice team members, (4) unprepared for EOL conversations, (5) guidance and support, and (6) benefit of hospice-dedicated experiential learning. The findings of this study support the use of expert hospice team members to guide and mentor students. Didactic and video-enhanced education, storytelling, preparation in EOL conversations, and experiential learning seem essential for familiarizing students with EOL care and improving perceptions about caring for patients and their families (Dorney & Pierangeli, 2021).

Additionally, EOL education prevents maladaptive coping strategies and alleviates nurses' anxiety (Bovero et al., 2018) (Khader et al., 2010).

Other nursing studies supported these outcomes of education. Most studies conducted on nurses to measure the effect of palliative and EOL education on nurses' attitudes reported positive effects of education on attitudes toward care of the dying (Getie et al., 2021).

Education about caring for dying patients could change nursing students' perceptions toward caring for dying patients. A 2015 study was examined the nursing students' perceptions toward caring for dying patients and the effects of education on their perception. The result of this demonstrated that students showed moderate negative to neutral perceptions toward caring for dying patients. Education had improved students' perception significantly (mean score of FATCOD before the study was 3.5 ± 0.43 and after intervention were 4.7 ± 0.33) ($P < 0.001$) (Jafari et al., 2015).

In another study carried out by Cevik and Kav (2013) about the attitudes of Turkish nurses toward death and caring for dying patients is less positive than the reported attitudes of nurses in other studies. Although most nurses stated that they had received education on the end of life, most were not comfortable talking about death

Only a few studies (Wessel & Rutledge, 2005) revealed inconsistent or no effects of education, which might be due to the sampling procedure or the length of the education program. The bulk of student perceptions studies was done by adding EOL courses into nursing curricula or looking at the impacts of current nursing curricula on death and dying perceptions.

Part III: Discussion association between nurses' knowledge and perception and their demographic and employment characteristics (experimental and control groups).

5.3.1. Nurse's age: -

The participants in this study were sixty Iraqi nurses who worked at Mosul teaching hospitals. Their ages varied from 21 to 45 years old. The data revealed that the experimental group (30%) and the control group (26.7%) had the largest percentage of people in their 40s and 50s, respectively, while the lowest proportion (13.3%) included people in their 20s and 30s in both groups. According to the findings of this study, the [mean (STD)] age of nurses in the experimental group was [35.66 (6.66)] and in the control group was [35.36 (6.79)], table (4-1).

These findings demonstrated that both the experimental and control groups are of similar age. This is a good result because the age of peak production for this sample group is [35.51] years old, which is better than other age groups for a nurse to have good experience and patience, and nurses' age is more suitable for work in CCU because they can pay close attention and provide adequate care for their patients.

This finding aligns with Satryan's study (2017), which reported that most nurses were over 36 years old in their study. Another research by Kurnia and colleagues about Palliative Care in the CCU and factors associated with EOL nursing care found that all the research participants were between the ages of 26 and 45 (Kurnia et al., 2019).

5.3.1. A. Nursing knowledge related to age

Through an analysis of variance, age was compared with the nurses' knowledge regarding end-of-life concepts. Their age relative to the pre and post-in-the-study group (Table 4.15) shows no statistically significant difference between nurses' knowledge regarding end-of-life concepts and their age at pretest. There is a statistically significant difference between Nurses, knowledge, and age in the post-test at f calculated was 5.52 while f tabulated was 2.76 and P -value <0.05 . however, the differences between nurses' knowledge regarding end-of-life concepts and their age relative to the pre and post-test in the control group illustrated in Table (4.16) no statistically significant difference between nurses' knowledge and age pre and post-test in the control group at P -value <0.05 .

Lange et al., 2019 also achieved similar results to the current study result in that they found those older nurses and more experience caring for dying patients were more knowledgeable about concepts of pain management, spiritual support for patients, and assessment of stages of grief (Lange et al., 2009).

The findings of Kim and others contradict those of the current study, which revealed no statistical associations between participants' expertise and age (Kim et al., 2011).

The present study confirmed the study's findings included youth and middle ages and absences of the elderly nurses. Nursing involves shift work, physical care, and interaction with very ill patients, notwithstanding the need for critical thinking skills and technical skills to care for complex patient populations. Aging is related to decreased aerobic power, muscular endurance and strength, response speed, acuity of the senses, sleep disturbance, and increased risk of chronic disease. More significantly, older

healthcare workers suffer from back pain, other musculoskeletal disorders, and stress-related mood disorders.

5.3.1. B. Nursing Perception related to age

Positive perception towards the EOL concept is essential among nurses to adequately support terminally ill patients and enable nurses to feel confident about providing the EOL concept.

Caring for dying patients is especially challenging for nurses because it triggers negative cognitive bias, such as emotional anguish, and may induce them to avoid dealing with dying patients entirely (Ceyhan et al., 2018). Consequently, it is essential to describe how the perceptions of nurses influence their administration of EOL care.

Table (4-17) illustrated no significant difference between nurses' perception of the EOL concept and their age at the pre-test when the results of this analysis were compared to the variance differences between nurses' perception of the EOL concept and their age relative to the post and pre in the experimental group. In the post-test, a significant difference in CCN perception and their age, with f computed at 3.18 and f tabulated at 2.76. However, there was no significant variance between CCN perception of EOL concepts and their age pre and post-test in the control group, as shown in table (4-18)

According to the current study, younger nurses showed substantially lower impressions of the EOL concept than their older counterparts. This study validated previous research results that younger nurses may have a larger fear of death or the dying process and have more negative feelings towards the EOL concept (Becker et al., 2017).

Age has a significant influence on nurses' perception of dying. It was found that younger adults tend to report higher death anxiety levels than

middle-aged adults and older nurses feel more comfortable talking about EOL concepts than younger nurses. This becomes clear if young healthcare providers had not seen someone die before they became a nurse. This will reflect on their perception toward caring for dying patients, as revealed by the previous studies' findings. Also, it is found that younger age was more conducive to perception change after an educational intervention (Khader et al., 2010).

In a study to evaluate Nursing students' perception toward the care of dying patients: A pre-and post-palliative course study, the age group (28–59 years) had slightly more positive perception both pre-and post-course, albeit the difference is slight in absolute numbers. When examining the mean change of the possible change in FATCOD scores, no difference between the quartiles can be seen; that is, we found no correlation for change in FATCOD scores with the participant's age (Berndtsson et al., 2019).

5.3.2. Nurse's gender

The findings revealed that the research group's male members account for 86.7% of the total, while female participants account for 13.3%.

Both male and female nurses at the CCU were interested in participating in the study based on observations made during the execution of the educational program. However, because working in the CCU involves physical exertion and the Shift system in place, the number of female nurses was lower, and it was reported that there is a serious shortage of female nurses in most teaching hospitals in Mosul city, particularly in the CCU.

The present findings are consistent with those of research released on nurses working in Baghdad's critical care units, which found that most of the research group is male (64.3%). While females made up the majority (35.7%) (Abed & Kadhim, 2014).

These findings, according to Abdulrdha and Mansour (2019), indicated that the bulk of the research sample was female (79.3%), whereas the minority was male (20.7 %). In addition, Hare (2020) researched in the Southeast United States and expressed dissatisfaction with the findings, confirming that the majority of the research population was female (75 %).

5.3.2. A. Nursing knowledge related to gender

According to the gender of CCN in the experimental group, statistically, significant disparities exist between the pre and post-test in terms of their knowledge, table (4-19). Meanwhile, there were no significant variations in CCN knowledge in the control group based on their gender between the pre-test and post-test, table (4-20).

Hakimzadeh and colleagues (2013) found a substantial relationship between gender and the dependent variable, supporting our findings. Gender has a substantial impact on competency. Males had a considerably higher average score than females.

However, this finding conflicts with the outcomes of Etafa and colleagues (2020). They reported that the presence of hospitals, respondents' ages, and genders, education levels, and experience in the nursing field, training, view research, studies, and publications about EOL all influenced the health team's knowledge and perception of EOL care (Etafa et al., 2020).

5.3.2. B. Nursing perception related to gender:

The study found statistically significant changes in nurses' perceptions in the experimental group based on their gender between the post-test and pre-test, table (4-21). Meanwhile, no significant variations between the post-test and pre-test in the control group perceptions based on gender, table (4-22).

Washington and colleagues studied (289) hospice health workers (76.1% of whom were women). This accounted for 56.2 % of the overall health workers who took part in the initial survey, as previously stated. Females exhibited poor self-esteem and had a worse impact on their health and family support than males did (Washington et al., 2015)

This conclusion is in line with what Barrere and colleagues (2008) discovered in their study. Even though female students were more likely to show positive attitude changes in dying care before and after completing the BSN curriculum, when gender was taken into account, male students were more likely to show positive attitude changes in dying care before and after completing the BSN curriculum (Barrere et al., 2008).

The connection between nurses' perception of dying and death and the gender variable in the target Sample was measured using mean scores with standard deviations. The findings of the death scale show no important differences in total scores across gender groups (Abu Hasheesh et al., 2013)

In another study, there is no significant variance between males and females on the care of the dying scale. On the other hand, females had the highest mean, indicating positive perceptions toward treating dying patients (Berndtsson et al., 2019).

The absence of any substantial correlations between nurses' perception of dying and death and the gender component was one of the study's notable and diverse findings. Meanwhile, a significant difference ($p=.037$) favors females on the dread of dying subscale, showing that females are more afraid of death when caring for dying patients (Abu Hasheesh et al., 2013).

Some results agreed with this study and contradict other studies, and this can be explained by the close link between feminine personality qualities

and anxiety, so death fear. However, these findings should be taken with caution due to the small number of females in the study.

5.3.3. Nurse's Educational level

The majority of the experimental participants (n=15; 50.0%) graduated from a secondary school of nursing, followed by those with a diploma in nursing (n=10; 33.3%) and those who graduated from nursing college (n=5; 16.7%). While the control group has the nearly same percentage of nurses, the majority of them have graduated from a secondary school of nursing (n=12; 40.0%), followed by those with a diploma in nursing (n=11; 36.7%), and those who have graduated from nursing college (n=7; 23.3%).

Atiyah and colleagues (2012) concur completely with the current study's findings, which revealed that the majority of participants (52.7%) were secondary nursing school graduates (Atiyah et al., 2012).

Fashakh and Kadhem (2016) backed up these findings, revealing that the majority of the participants were nursing high school graduates (18; 36.0%) rather than nursing college graduates (15; 28.0%), which matched the current study results in the experimental and control groups (Fashakh & Kadhem, 2016).

Price and others (2017) found that 75% of nurses had a baccalaureate degree and 25% had a postgraduate nursing degree in their study, which found that 75% of nurses had a baccalaureate degree and 25% had a postgraduate nursing degree (Price et al., 2017).

In response to the significant demand for skilled nursing personnel, particularly in critical care units, there was a shortage of nurses who graduated from nursing school, resulting in a disparity in nursing care and evidence-based practice across the board.

5.3.3. A. Nursing knowledge related to educational level:

The current study finds significant variances between the post-test and pre-test regarding the CCN knowledge in the experimental group based on their educational level, table (4-23). Meanwhile, there were no significant variations in the CCN knowledge in the control group based on their educational level between the pre-test and post-test, table (4-24).

The effectiveness of educational intervention programs for CCN concerning care for critically ill patients was to assess nurses' practices and knowledge regarding nursing care to patients with severe disease at CCUs and develop an educational program. According to the findings, the majority of nurses in both the experimental group and control group had moderate level knowledge and practices in regards to nursing care for critically ill patients in the pre-test, with significant variances between the post-test and pre-test in comparison to the CCN knowledge in the experimental group based on their educational achievement (Abed & Kadhim, 2014).

Another research looked at the knowledge and perceptions of community health care professionals in China. According to a cross-sectional study, there were no important differences in nursing knowledge upon EOL care based on educational degree. These findings might be due to a lack of integration of EOL care topics into the curricula (Shi et al., 2019).

5.3.3. B. Nursing perception related to educational level:

The study found significant variations between the post-test and pre-test in experimental group perceptions based on level of education, table (4-25). Meanwhile, there were no significant variations between the post-test and pre-test in the control group perceptions based on level of education, table (4-26).

Another research found a similar pattern of results. The mean total score for EOLC perceptions was (60.19±12.85), with a maximum score of 120, though there were differences among demographic categories. The mean total score of perceptions and educational level had a statistically significant relationship (Hussin et al., 2018).

5.3.4. Years of experience in the nursing field

According to the findings, the majority of the experimental and control groups (40.0% and 50.0%, respectively) worked for more than 20 years, while the experimental group's lowest percentage (6.6%) had been working for 6 to 10 years. In addition, the control group had the lowest percentage (6.6%) of employees who had worked in the hospital for six to ten years and sixteen to twenty years.

These findings are consistent with those of research conducted in Turkey by Odabasoglu and colleagues on years of experience; the majority of nurses in the research (39.3%) had 21 or more years of experience, making them the most active group when compared to the other categories (Odabasoglu et al., 2021). Nonetheless, these findings contradict the research finding by Ay and Oz, which found that 43% of the nurses in the research had less than five years of experience (Ay & Oz, 2019).

According to the previous studies, nurses with more work experience showed stronger EBP knowledge, practice, and perception (Heydari et al., 2014). These findings recommend that nurses with more exceptional experience in nursing were more expected to feel self-assured in applying EBP, presumably due to increased contact with EBP methodology and enrollment in continuing nursing education (Griffiths et al., 2001). Ferguson and Day's findings back up, this finding demonstrating they novice nurses lacked confidence in applying EBP in clinical practice due to a lack of expertise (Ferguson & Day, 2007).

5.3.4. A Nursing knowledge related to Years of experience in the nursing Field

The current study showed significant variances between the pre and post-test about the nurses' knowledge in the experimental group, based on years of nursing experience, table (4-27). Meanwhile, no significant variation between post-test and pre in terms of CCN knowledge in the control group based on their years of nursing experience, table (4-28).

When comparing current results with those of older studies, reference should be made to the study by Rink and colleagues where nurses with the highest number of years of professional experience were statistically significant (Reinke et al., 2010).

Choi and colleagues discovered that nurses' mean scores and percentages of knowledge of EOL care on the PCQN were (8.94±2.34) out of a possible 20. the PCQN score was connected with nursing age ($r = .11$, $p = .037$) but not with years of overall experience or experience in the present clinical context, according to Pearson correlation analysis, (Choi et al., 2012).

5.3.4. B. Nursing perception related to years of experience in the nursing field

The study found significant variation between the post and pre in experimental group perception based on their experience years in the nursing field, table (4-29).

The results of the present study also came with another study conducted by Bond and others, in which they found that nurses who worked

for more than 11 years in the field of dying patient care had high positive perceptions compared to other nurses who did not have the same experience in this field (Boyd et al., 2011).

Hussin and colleagues did not uncover anything that resembled the current findings. Though there were disparities based on demographic characteristics, the mean overall score for the perception of EOLC was (60.19 ± 12.85) out of a maximum score of 120. Nurses over the age of 40 had a significantly higher mean total score for perception than younger nurses (Hussin et al., 2018).

5.3.5. Years of experience in the critical care unit

The majority (33.3 %) of the experimental groups had worked in CCU between (16-20) years of nursing experience, whereas approximately the same number (30.0 %) of the control groups had worked in CCU between (11-15) years of nursing experience.

This finding is in line with Mwirigi's paper under the title, "Doctors' and Nurses' Experiences of Ethical Challenges in End-of-Life Decisions in Critical Care Unit at Kenyatta National Hospital," which found, the mean years of experience in CCU was about (10) years (Mwirigi, 2020).

The experience of unpredictable and stressful environments might be more uncomfortable to novice nurses who have relatively insufficient education in the area of EOLC (Park et al., 2020). While Nurses with more experience are more likely to speak with dying patients (Hussin et al., 2018). Nurses with little experience may be ill-equipped to handle emotional stress (Park et al., 2020).

5.3.5. A. Nursing knowledge related to years of experience in the critical care unit

The current study demonstrates significant variances between the pre and post-test related to CCN knowledge in the experimental group, based on years of experience in CCU, table (4-31).

When comparing the present findings to earlier research, Moir and colleagues conducted that the level of palliative care, hospice care, and EOL care was affected by their years of service in intensive care, which leads to providing quality care for patients and their families. This service's effectiveness and long-term viability are contingent on healthcare provider education (Moir et al., 2015).

5.3.5. B. Nursing perception related to years of experience in the critical care unit

The study found significant variances between post-test and pre-test in the experimental group perception based on their experience years in the CCU, table (4-33). Meanwhile, no significant variances between post-test and pre-test in terms of the perceptions for CCN in the control group based on their experience years in CCU, table (4-34).

Years of CCU experience are a significant predictor of a positive evaluation of the EOL concept in the current study. Lange and colleagues, who studied a similar but larger sample of nurses in a comprehensive cancer hospital in New York, came to the same conclusion. According to the researchers, nurses with more CCU experience had a more positive attitude about hospice patients (Lange et al., 2008).

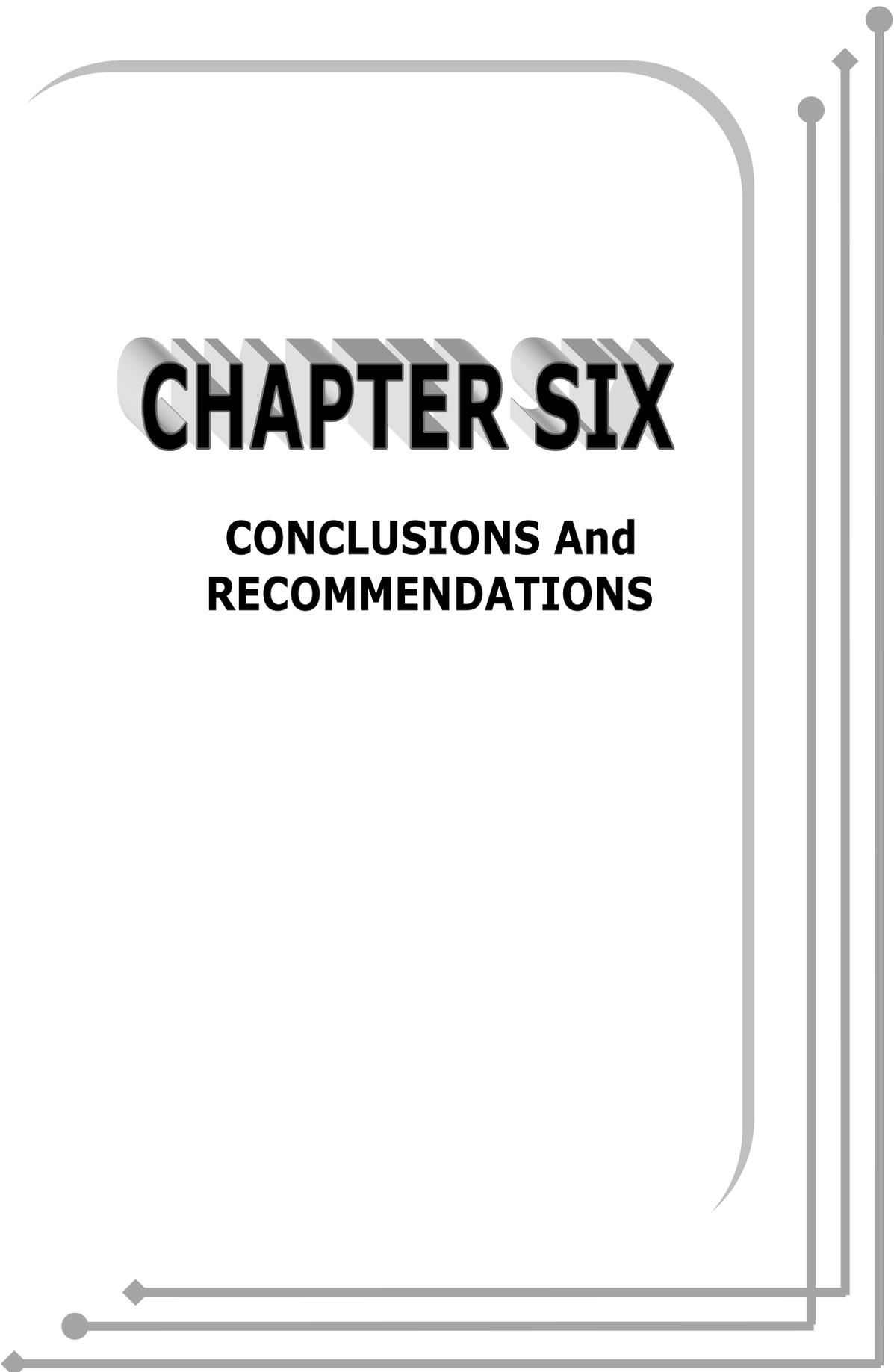
The outcomes of this study, which concentration on the relationship between perception and the EOL concept, agree with other

studies that showed a high positive perception of CCU nurses, especially those whose nursing services were longer and who were exposed to an educational program on the EOL concept (Feudtner et al., 2007). This means that increased perception of hospice care is dependent on increased exposure to death situations.

5.4. Participation in training courses regarding End-of-Life care

Regarding items related to attending training courses related to EOL care, all the nurses were in both groups; No one participated in the courses related to EOL care despite the nurses' lack of knowledge and practice about this concept. Despite the importance, sensitivity, and excessive need of the EOL care, the Iraqi Ministry of Health has ignored, as the most countries of the world and international curriculum, for many reasons, including a focus on healthy patients more than patients in the end-stage.

The findings of this study were compatible with another finding done by Shi and others. All CCU nurses (100%) did not receive any previous training sessions about EOL care (Shi et al., 2019).



CHAPTER SIX

CONCLUSIONS And RECOMMENDATIONS

CHAPTER SIX

Conclusions and Recommendations

6.1 Conclusions:

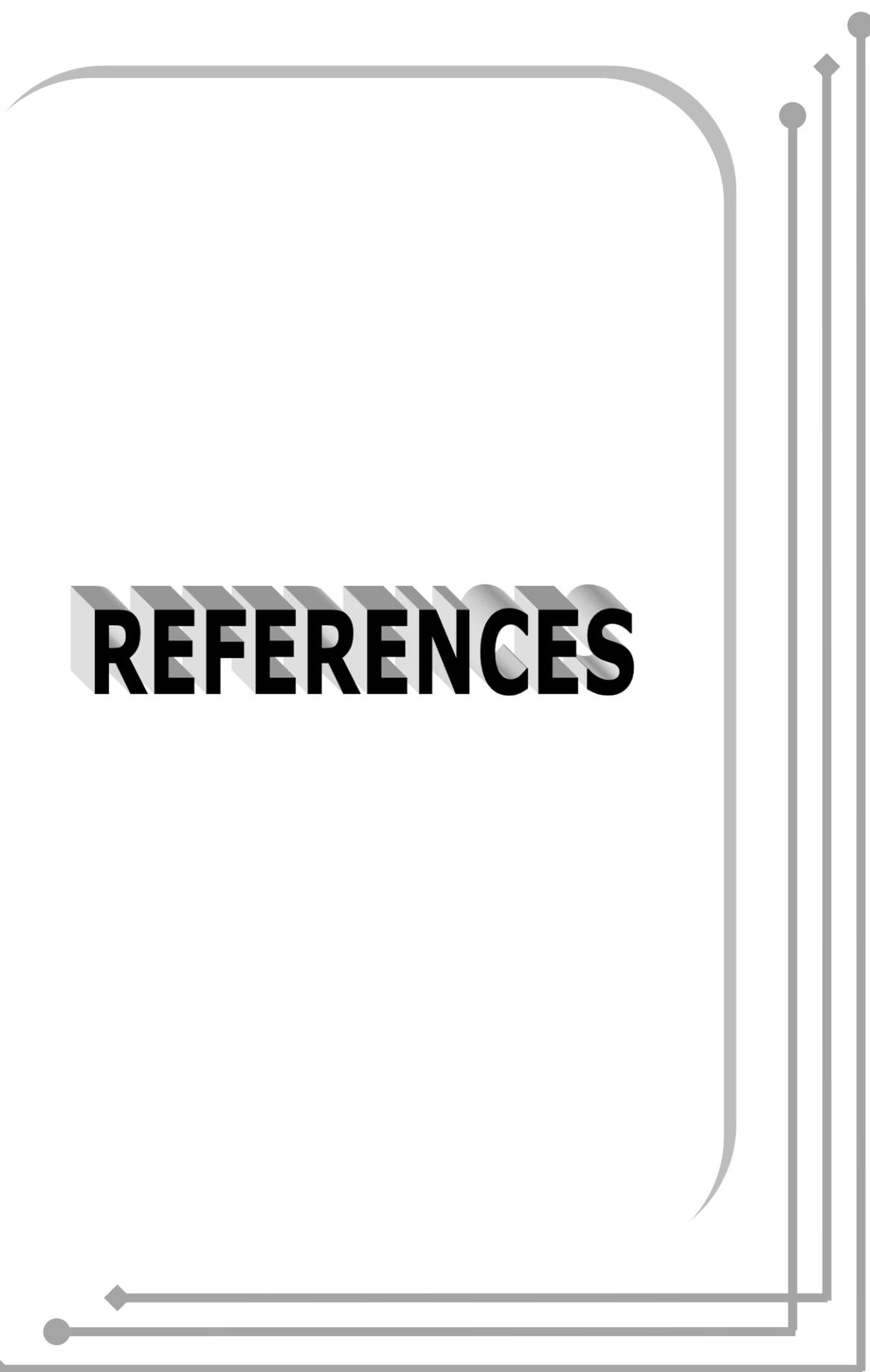
The finding is based on the outcomes of the information analysis according to the objective of this study; the conclusions are:

1. The knowledge deficiency is mainly found in all nurses toward the EOL concept among both groups; therefore, after implementing the educational program, there is highly modification and improved nurse's knowledge and perception related to the EOL concept.
2. There are no statistically significant differences between CCU nurses in the experimental and control groups of pre-test knowledge and perception regarding the EOL concept.
3. There are statistically significant differences in post-test-I and post-test-II of the knowledge and perception between experimental and control groups after implementing the educational program to the nurse regarding the EOL concept in CCU.
4. The study revealed that the educational program could be an effective strategy to improve the knowledge and perception of nursing staff regarding the EOL concept.
5. It has been found that there is a relationship between nurses concerning the improvement of their information about EOL concept and development of the better perception after the implementation of the educational program associated with their demographic characteristics that include; nurses age, nurses' gender level of education, years of nursing experiences, and years of nursing experiences at the CCU.

6.2. Recommendations:

Based on the results of the study and the conclusions it reached, the study recommends the following:

1. It is time to improve the nurses' knowledge related to EOL in the CCUs by an education program carried out in the Health Organization.
2. The special manual should be published and distributed among units, which consider as a reference to depend on when need to reinforce nurses' knowledge and enhance their perception.
3. Further studies are needed in large samples and different dialysis and oncology centers in health institutions.
4. Further study is needed on EOL and palliative care concepts such as communication skills and pain management.



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A decorative graphic consisting of a large rounded rectangle on the left and three vertical lines on the right. The vertical lines are of varying heights and end with diamond or circle markers. The word 'APPENDICES' is centered in the middle of the page.

APPENDICES

1. The official Ethical approval from the College of Nursing/ University of Babylon:

University of Babylon
College of Nursing
Research Ethics Committee



جامعة بابل
كلية التمريض
لجنة اخلاقيات البحث العلمي

Issue No: 65

Date: 05/07/2021

Approval Letter

To,
Mohammed Zuhair Thanoon

The Research Ethics committee at the University of Babylon, College of Nursing has reviewed and discussed your application to conduct the research study entitled " Effectiveness of End of Life Concept Educational Program on Critical Care Units Nurses' Knowledge and Perception in Mosul Teaching Hospitals."

The Following documents have been reviewed and approved:

1. Research protocol
2. Research instrument/s
3. Participant informed consent

Committee Decision.

The committee approves the study to be conducted in the presented form. The Research Ethics committee expects to be informed about any changes occurring during the study, any revision in the protocol and participant informed consent.

Dr

Prof. Dr. Salma K. Jehad
Chair Committee
College of Nursing
Research Ethical Committee

5 / 7 / 2021

University of Babylon
College of Nursing
Research Ethics Committee



جامعة بابل
كلية التمريض
لجنة أخلاقيات البحث العلمي
العدد والتاريخ: 17/5/2021 - 6

محضر الجلسة الحادي عشر للعام الدراسي 2020-2021

- عقدت لجنة أخلاقيات البحث العلمي المشكلة بالامر الإداري ذي العدد 222 في 2020/1/21 اجتماعها الحادي عشر في تمام الساعة الثانية عشر نهاراً من يوم الاثنين المصادف 2021-7-5 بحضور جميع أعضاء اللجنة.
- 1- قامت اللجنة بمراجعة أطلبيات وخطة الدراسة واستمارات أخلاقيات البحث المقدمة من قبل طلبة الدراسات العليا وبينت اللجنة الملاحظات التالية:
1. طلبة الدراسات العليا المدرجة اسماؤهم وعناوين بحوثهم قد استكملوا جميع متطلبات أخلاقيات البحث العلمي الخاصة بحوثهم الحالية.
2. الاستمارات البحثية الحالية خالية من أي معوقات أخلاقية، لذلك وافقت اللجنة على إجراء الدراسات المدرجة بصيغتها الحالية.
3. في حالة إجراء أي تعديلات أو تغييرات في استمارات البحث أو عنوان الدراسة يتم عرضه على اللجنة لغرض مراجعته قبل الشروع بالدراسة.

اسم الطالب	اسم المشرف	العنوان العربي	العنوان انكليزي
محمد زهير ذنون	ا.م.د. سحر أدهم علي	فاعلية البرنامج التعليمي لمفهوم مرحلة الاحتضار على معارف وادراك التمريضيين في وحدة العناية الحرجة في مستشفيات الموصل التعليمية	Effectiveness of End of Life Concept Educational Program on Critical Care Units Nurses' Knowledge and Perception in Mosul Teaching Hospitals

ا.م.د. حيدر حمزة علي

عضواً

ا.م.د. سحر أدهم علي

عضواً

ا.د. ندى خزعل كاظم

عضواً

د. حسين جاسم محمد

عضواً

ا.د. سلمى كاظم جهاد

رئيس اللجنة

نسخة منه الى السيد معاون العميد للشؤون العلمية والدراسات العليا

1. College Approval from College of Nursing/ University of Babylon:

Ministry of Higher Education
and Scientific Research

وزارة التعليم العالي والبحث العلمي

University of Babylon
College of Nursing

جامعة بابل
كلية التمريض

لجنة الدراسات العليا

Ref. No. :

Date: /



(العمل الطوعي مسؤولية الجميع لبناء العراق)

الى / دائرة صحة نينوى - مركز التدريب والتطوير والتنمية البشرية
م/ تسهيل مهمة

العدد : ١٦٨٧

التاريخ : ٢٠٢٠ / ٩ / ٢٧



يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالب الدكتوراه (محمد زهير ذنون
يونس) لغرض جمع عينة دراسة الدكتوراه والخاصة بالبحث الموسوم :

فاعلية برنامج تعليمي لمفهوم مرحلة الاحتضار على معارف وادراك التمريضيين في وحدات العناية
الحرية في مستشفيات الموصل التعليمية.

Effectiveness of End of Life Concept Educational Program on Critical care Units
Nurses' Knowledge and Perception in Mosul Teaching Hospitals

مع الاحترام ..

الدكتور
حسام عباس داود
معاون العميد للشؤون العلمية والدراسات العليا
٢٠٢٠ / ٩ / ٢٧

تسليمه الى السيد الاستاذ

الدكتور
دا احمد الجبالي
معاون العميد
لشؤون الفتيان

صورة عنه الى // معاذ
مكتب السيد العميد للتفضل بالاطلاع مع الاحترام .
لجنة الدراسات العليا مع الاوليات .
الصادرة .

Elaf

E-mail:nursing@uobabylon.edu.iq

07711632208
009647711632208وطني
المكتب

www.uobabylon.edu.iq

Official Approval from the Nineveh Health Directorate to the teaching hospitals.

Ministry Of Health
Ninavah Health Directorate
National Center for Training
And Human Development



وزارة الصحة
دائرة صحة نينوى
مركز التدريب والتنمية البشرية
العدد: ٤٧٧٦٢
التاريخ: ٢٠٢٠/٨/١١

إلى /مستشفى الجمهوري التعليمي/ مستشفى ابن سينا التعليمي/ مستشفى البتول التعليمي
مستشفى السلام التعليمي / مستشفى الموصل العام
م / تسهيل مهمة

تحية طبية

استناداً الى موافقة لجنة البحوث العلمية والأخلاقية بجلستها المرقمة (٢٠٣) والمنعقدة في دائرتنا بتاريخ ٢٠٢٠/١٠/١ على مشروع البحث المرقم (٨٨/٢٠) حصلت الموافقة على تسهيل مهمة البحث ضمن الخطة المقدمة لمشروع البحث المدرج تفاصيله فيما يأتي:

عنوان البحث:

Effectiveness of End of Life Concept Educational Program on Critical Care Units
Nurses' Knowledge and Perception in Mosul Teaching Hospitals

اسم الباحث: محمد زهير ذنون.

مدة البحث: ٢٠٢٠/١١/١ الى ٢٠٢١/٢/١

يرجى تزويده بالمعلومات والعينات المطلوبة من الإمكانيات المتاحة على أن لا تتحمل وزارة الصحة والمؤسسات التابعة لها أي تبعات مادية وعلى الباحث تقديم نسخة من البحث بعد الانتهاء منه الى لجنة البحوث.

للتفضل بالاطلاع... مع الاحترام

الدكتور
فلاح حسن عيسى الطائي
المدير العام
٢٠٢٠/٨/١١



المستشار
م. هادي محمد هادي
م. هادي محمد هادي
م. هادي محمد هادي

نسخة منه الى:

- مكتب المدير العام / للعلم مع الاحترام.
- جامعة بابل، عمادة كلية التمريض، لجنة الدراسات العليا، كتابكم ذي العدد ١٦٨٧ في ٢٠٢٠/٩/٢٧ يرجى تبليغ الباحث والمشرف بتسليمنا نسخة من الأطروحة أو البحث بعد طبعها وقرارها مع التقدير.
- التدريب والتنمية البشرية - شعبة ادارة المعرفة . مع الاوليات.

موصول / حي الوحدة Ministry NINEVEH@gmail.com
mshlrtdc@gmail.com

نموذج موافقة للمشاركة في دراسة (بحث) لكلية التمريض / جامعة بابل

عنوان الدراسة : فاعلية البرنامج التعليمي لمفهوم مرحلة الاحتضار على معارف وادراك التمريضييين في وحدة العناية الحرجة في مستشفيات الموصل التعليمية

❖ وصف البحث وكيفية المشاركة:

ندعوك للمشاركة في هذه الدراسة البحثية، والغرض من هذا البحث هو (للوصول الى مدى فاعلية البرنامج التعليمي لمفهوم مرحلة الاحتضار على معارف وادراك التمريضييين في وحدة العناية الحرجة). ومشارككنم ستتضمن مايلي:

أ. **الفحص القبلي:** والذي يتضمن جمع البيانات المتعلقة بمفهوم مرحلة الاحتضار من خلال استمارة اعدت لهذا الغرض وعن طرق المقابلة من اجل جمع البيانات عن (الخصائص الديموغرافية، معارف وإدراك التمريضييين حول مفهوم مرحلة الاحتضار).

ب. **الجلسات التعليمية:** والتي تشمل الحضور الى جلسات تعليمية بمدة زمنية 30 دقيقة تقريبا لكل جلسة والغرض منها لعرض محتويات البرنامج التعليمي.

ج. **الفحص البعدي:** بعد الانتهاء من الجلسات التعليمية مباشرة يتم الفحص البعدي الاول وبنفس الاستمارة وبنفس الطرق المذكورة لجمع البيانات.

د. **الفحص البعدي الثاني:** بعد شهرين من الفحص القبلي وشهر من الفحص البعدي يتم الفحص البعدي الثاني.

❖ المخاطر والمضايقات:

ليس هناك مخاطر حقيقية او معروفة لها علاقة بهذا البحث أو بتطبيق محتويات البرنامج التعليمي.

❖ الفوائد المحتمل الحصول عليها:

هذا البحث ربما يساعدنا على معرفة (مدى فاعلية البرنامج التعليمي لمفهوم مرحلة الاحتضار).

❖ حفظ الخصوصية:

نحن سوف نعمل كل ما بوسعنا لحماية خصوصية التمريضييين، وبياناتهم سستخدم لأغراض البحث فقط ، هوية التمريضيي سوف لن تكشف لأي منشور من هذا لالبحث.

❖ طوعية المشاركة:

مشارككنك في هذا البحث طوعية. انت ربما تختار عدم المشاركة وربما تسحب موافقتك في اي وقت. انت لا تتعرض لأي عقوبة بأي طريقة تقرر بها عدم المشاركة أو الانسحاب من هذه الدراسة.

❖ معلومات للتواصل:

إذا كان لديك أي اسئلة أو استفسارات عن هذه الدراسة، رجاءا اتصل بالباحث (محمد زهير دنون) على الرقم (07701618877).

الموافقة:

انا قرأت نموذج الموافقة هذا وأعطيت الفرصة للأسئلة . وقد اعطيت موافقتي للمشاركة بهذا البحث.

رمز المشارك:----- توقيع المشارك:-----.

التاريخ:-----/-----/-----.

End-of-Life Care

Introduction of the program

Knowledge of nurses in end-of-life care is essential to provide good care to patients living with a serious illness or injury. A nurse cannot provide adequate end-of-life care if they do not understand what end-of-life care entails. So, in addition to the specialized knowledge, skills, and experience a nurse will acquire in a specialized unit or setting, each nurse must also have a basic understanding of the principles of end-of-life care. Therefore, this educational program has been prepared to increase nurses' knowledge in critical care units and improve their attitudes about the concept of end-of-life care. This program contains a review of the end-of-life concept, the nurse's role in pain and other symptom management, nursing care at the end of life, and preparation and care.



General Objectives:

After the End-of-Life care educational program, the learners will be able to:

1. Provide information to critical care unit nurses about palliative care, hospice care, and end of life care
2. Distinguish the purpose of palliative care at the end of life and hospice care.
3. Explain the process of grief and bereavement at the end of life.
4. Implement nursing measures to manage physiologic responses to terminal illness.
5. Implement nursing measures to preventive intervention.
6. Describe the nurses' role in End of Life Care
7. Identify barriers to improving care at the End-of-Life.
8. Identify the signs of imminent death and death.
9. Provide information Postmortem Care
10. Discuss the special needs of the nurse who cares for dying patients and their families.

First session**Title: Palliative and End-of-Life Care****- Introduction**

Nurses can have a significant and lasting effect on the way patients live until they die, how the death occurs, and the enduring memories of that death for the families. The contemporary definition of nursing includes "...the diagnosis and treatment of human responses, and advocacy in the care of individuals, families, groups, communities, and populations" (American Nurses Association, 2015). There may be no group more important than seriously ill and dying patients.

Nurses have an opportunity to bring research, education, and practice together to impact the culture of dying, bringing much-needed improvement to care that is relevant across practice settings, age groups, cultural backgrounds, and illnesses.

Providing end-of-life care to patients and their families in the curative context of critical care presents unique challenges and important opportunities for nurses engaged in this work.

- Objectives:

- To provide the participants with information about palliative care, hospice care, and end-of-life care.
- To distinguish the purpose of palliative care at the end of life and hospice care.
- To explain the process of grief and bereavement at the end of life.

- Palliative Care Definition

Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness through the prevention and relief of suffering utilizing early identification and impeccable assessment and treatment of pain and other problems physical, psychosocial, and spiritual.

- Goals of Palliative Care

- Regard dying as a normal process
- Provide relief from symptoms, including pain
- Affirm life and neither hasten nor postpone death
- Support holistic patient care and enhance the quality of life
- Offer support to patients to live as actively as possible until death
- Offer support to the family during the patient's illness and in their bereavement



- Hospice Care

Hospice is a concept of care that provides compassion, concern, and support for persons in the last phases of a terminal disease. The main goals of hospice care are to assist the patient to live as fully and comfortably as possible while dying with dignity. Hospice programs provide care with symptom management, advance care planning, spiritual care, and family support.

- Definition of Death

Death occurs when all vital organs and body systems cease to function. It is the irreversible cessation of cardiovascular, respiratory, and brain function.

People should not fear death, nor should they ignore it. Unfortunately, the issue of death has been denied, hidden, and thus feared by our current society. Nurses look at death as failure and therefore shy away from those dying patients whom they believe they have “failed.”

- End-of-Life Definition

End of life generally refers to the final phase of a patient's illness when death is imminent. The time from diagnosis of a terminal illness to a death varies depending on the patient's diagnosis and extent of disease.

End-of-life (EOL) care is an active, compassionate approach that treats, comforts, and supports persons living with or dying from progressive or chronic life-threatening conditions. EOL care focuses on physical and psychosocial needs for the patient and family.

- Goals of EOL care:

- Provide comfort and supportive care during the dying process.
- Improve the quality of the patient's remaining life.
- Help ensure a dignified death.
- Provide emotional support to the family.

End-of-life care is a critical aspect of nursing responsibility, and nursing educators have been trying to find the most effective approach in preparing a nursing student to care for a dying patient.



- Life-threatening diseases

A life-threatening disease is a disease that can lead to the death of the patient. These diseases are very dangerous diseases such as cancer, HIV, heart diseases, etc. Most chronic diseases are life-threatening diseases.

Patients suffering from life-threatening diseases such as cancer, heart disease, stroke, and chronic respiratory diseases are admitted to the ICU of hospitals.

- Grief, Mourning, and Bereavement

Grief is a normal reaction to loss. Grief occurs in response to the real loss of a loved one and the loss of what might have been. Grief is dynamic and includes both psychological and physiological responses after a loss. Psychological responses include anger, guilt, anxiety, sadness, depression, and despair. Physiologic reactions include sleeping problems, changes in appetite, physical problems, and illness. Everybody grieves in their unique way.

Mourning refers to an individual, family, group, and cultural expressions of grief and associated behaviors. Both grief reactions and mourning behaviors change over time as people learn to live with the loss.

Bereavement is the period after the death of a loved one during which we experience grief and mourning occurs. The time spent in bereavement depends on several factors, including how attached one was to the person who died and how much time one spent expecting the loss.

- Anticipatory Grief and Mourning

Denial, sadness, anger, fear, and anxiety are normal grief reactions in people with a life-threatening illness and those close to them. Kübler-Ross (1969) described five common emotional reactions to death that apply to the experience of any loss. Not every patient or family member experiences every stage; many patients never reach a stage of acceptance, and patients and families sometimes fluctuate daily in their emotional responses.

Kübler-Ross Model of Grief		
Stage	What Person May Say	Characteristics
Denial	No, not me. It cannot be true.	Denies the loss has taken place and may withdraw. This response may last minutes to months
Anger	Why me?	May be angry at the person who inflicted the hurt (even after death) or at the world for letting it happen. May be angry with self for letting an event (e.g., car accident) take place, even if nothing could have stopped it
Bargaining	Yes, me, but . . .	May make bargains with God, asking, "If I do this, will you take away the loss?"
Depression	Yes, me, and I am sad.	Feels numb, although anger and sadness may remain underneath
Acceptance	Yes, me, but it is OK.	Anger, sadness, and mourning have tapered off. Accepts the reality of the loss
Adapted from Kübler-Ross E: <i>On death and dying</i> , New York, 1969, Macmillan.		

Teaching strategies:

1. Time and date: 3:00 pm 3 / 1 /2021
2. Duration: 90 minutes
3. Place: The program was implemented in a distinctive banquet hall.
4. Simplification means presentation, images, and videos.

Second session**- Title:** Managing Physiologic Responses to Terminal Illness

Patients were approaching the end of life experienced many of the same symptoms, regardless of their underlying disease processes. Symptoms in a terminal illness may be caused by the disease, either directly (e.g., dyspnea owing to chronic obstructive lung disease) or indirectly (e.g., nausea and vomiting related to pressure in the gastric area), by the treatment for the disease, or by a coexisting disorder that is unrelated to the disease. Symptoms should be carefully and systematically assessed and managed.

- Objectives:

- The participant will identify pain and other symptoms associated with a terminal illness at the end of life.
- The participant will identify how to manage pain and other symptoms associated with a terminal illness at the end of life.

- Pain

In the final stages of illnesses such as cancer, heart disease, COPD, and renal disease, pain and other symptoms are common. Pain results from the diseases as well as the modalities used to treat them. Nurses in all settings play a key role in pain management as experts in assessment, drug administration, and patient education.

- Definition of pain

The American Pain Society (2008) defines pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.”

Pain is a frequent companion of people receiving palliative care or at the end of life, and symptoms often occur simultaneously with pain in

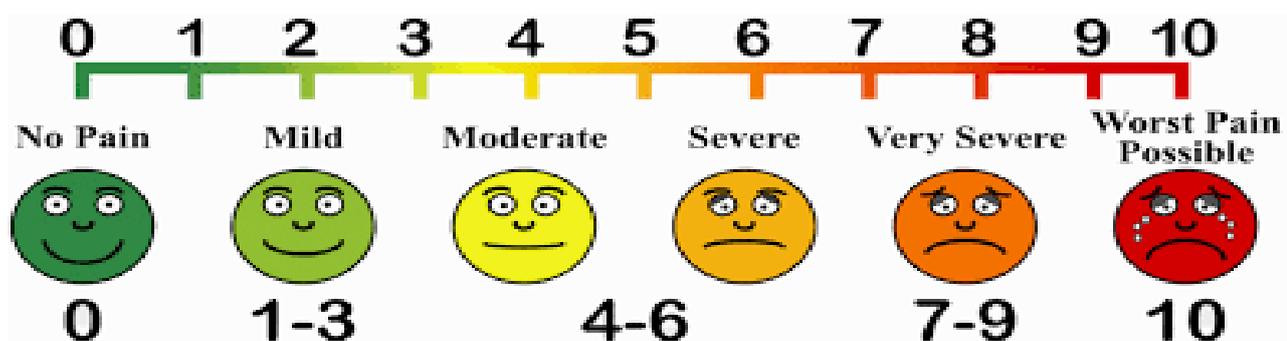
many disease conditions, including cancer, heart disease, COPD, and renal disease.

- Management of Pain

1. Assess the patient for pain

- a. Determine the cause of the pain by history and examination
 - Where is the pain? What makes it better/worse? Describe it. What type of pain is it? What are you taking now for the pain?
 - Determine if there is an infection or other problem with specific treatment. Prompt diagnosis and treatment of infection are important for pain control.
- b. Determine the type of pain: is it common pain (such as bone or mouth pain) or special pains (such as shooting nerve pain, zoster, colic, or muscle spasms)?
- c. Grade the pain with the FACES or your hand (with 0 being no pain, two fingers very mild, and ten fingers the worst possible pain).

Record your findings.



2. Treat pain, according to whether it is a common or a special pain problem or both:

Reassess the need for pain medication, and other interventions frequently repeat grading of the pain.

A. With medical treatments

➤ **Treat Chronic Pain**

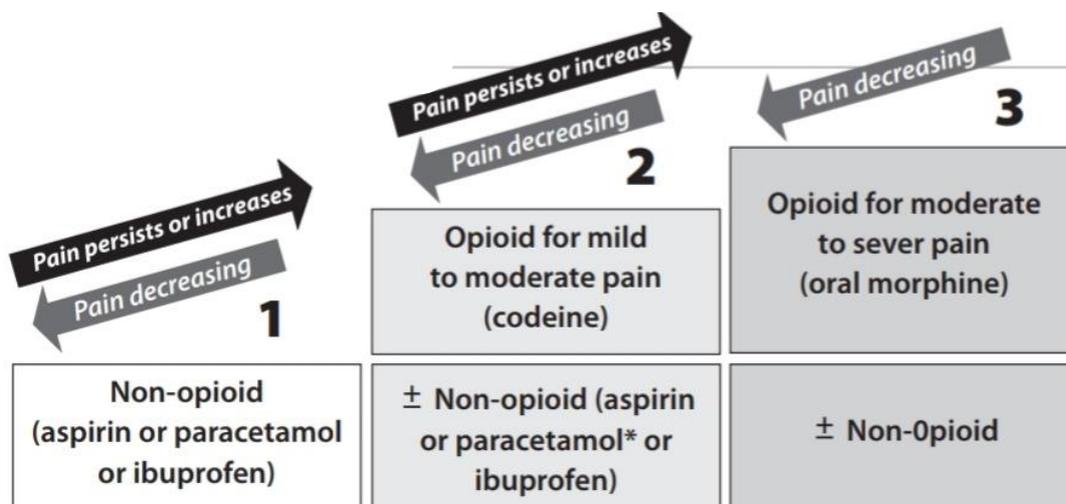
❖ **By mouth**

- If possible, given by mouth (rectal is an alternative—avoid intramuscularly).

❖ **By the clock**

- Give pain killers at fixed time intervals (by clock or sun).
- Start with a small dose, then titrate the dose against the patient's pain, until the patient is comfortable.
- The next dose should happen **before** the effect of the previous dose wears off.
- For breakthrough pain, give an extra dose in addition to the regular schedule.

❖ **With analgesics, according to the analgesic ladder.**



B. With non-medical treatments: Combine these with pain medications if the patient agrees and it helps

➤ **Emotional support.**

➤ **Physical methods:**

- Touch (stroking, massage, rocking, vibration).
- Ice or heat.
- Deep breathing

- **Cognitive methods:**
 - Distraction such as radio.
 - Music.
 - Imagine a pleasant scene.
- **Prayer (respect patient's practice).**
- **Traditional practices are helpful and not harmful.**

- Manage other Symptoms

1. Dyspnea



Terminally ill patients in CCU might experience dyspnea as they near the end of their lives. Dyspnea may be related to an underlying disease, such as lung cancer or chronic obstructive pulmonary disease (COPD), or a secondary cause such as pneumonia.

Dyspnea is a shortness of breath or difficult or labored breathing that can sometimes occur suddenly.

- Nursing Interventions for Dyspnea

Decrease Anxiety

- Administer prescribed anxiolytic medications as indicated for anxiety or panic associated with dyspnea.
- Assist with relaxation techniques, guided imagery.
- Provide the patient with a means to call for assistance (call bell)

Treat Underlying Pathology

- Administer prescribed bronchodilators and corticosteroids.
- Administer blood products, erythropoietin as prescribed.
- Administer prescribed diuretics and monitor fluid balance.

Alter Perception of Breathlessness

- Administer prescribed oxygen therapy via nasal cannula, if tolerated; masks may not be well tolerated.
- Administer prescribed low-dose opioids via the oral route (morphine sulfate is used most commonly).
- Provide air movement in the patient's environment with a portable fan.

Reduce Respiratory Demand

- Educate patient and family to implement energy conservation measures.
- The place needed equipment, supplies, and nourishment within reach.

2. Treat weight loss

- Treat nausea and vomiting.
- Treat diarrhea.
- Treat thrush or mouth ulcers.

- Exclude other causes of weight loss as TB.
- Prednisone 5-15 mg daily in the morning can stimulate appetite; stop if no effect after 2 weeks.

3. Control nausea and vomiting

- Give antiemetic: metoclopramide (10 mg every 8 hours).
- Ondansetron is recommended for nausea prophylaxis locally in the GI tract due to cancer therapy.
- Give only for a day at a time or haloperidol (1-2 mg once daily) or chlorpromazine (25-50mg every 6- 2 hours).
- If certain sounds, smells, sights, foods, and motion exacerbate nausea, these should be avoided.

4. If painful mouth ulcers or pain on swallowing

- If candida: give fluconazole, nystatin or miconazole gum patch.
- Topical anesthetics can provide some relief.
- Pain medication may be required according to the analgesic ladder.
- For aphthous ulcers: crush one 5 mg prednisone tablet and apply a few grains.
- Smelly mouth from oral cancer or other lesions: metronidazole or tetracycline mouthwash (crush 2 tablets in juice and rinse in mouth).
- For herpes simplex: 5 ml nystatin solution (500,000 U) + 2 tablets metronidazole + 1 capsule acyclovir (if available)—paint on lesions.

5. Treat dry mouth

- Review medications—dry mouth can be a side effect (hyoscine, morphine, atropine, amitriptyline, and furosemide).
- Breathing through the mouth can also contribute.
- If the persistent problem with lack of saliva, pay close attention to preventive oral care/mouth hygiene.
- If candida, treat as above.

6. Prevent/treat constipation

Ask patient about normal bowel habits, If the stool is less frequent or more painful to pass then:

- Do rectal exam for impaction.
- Give laxative. Options:
 - bisacodyl 5-15 mg at night, depending on response.
 - senna—start at 2 tablets (7.5 mg) twice daily (up to 2 tablets every 4 hours)

Note: Always give laxatives with morphine or codeine.

7. Incontinence of urine

- Men: plastic drink bottle over the penis.
- Women: cotton cloth pads and plastic pants.

8. Manage diarrhea

- Drink extra fluids frequently.
- Use ORS if large volume diarrhea or persistent diarrhea.
- Advise continuing eating.
- Give constipating drug unless blood in stool or fever: loperamide 4 mg once, then 2mg per loose stool to maximum 16 mg/day.

9. Help with anxiety and agitation

- Make sure the patient has good care and psychosocial support.
- Listen carefully and provide emotional support.
- Although rarely required, low-dose diazepam (2.5-5 mg at night or twice daily) can be used if necessary, not for more than 2 weeks. Usually not needed if care is good.
- For severe anxiety/agitation/ delirium—give haloperidol.

10. Care for a patient with confusion (dementia or delirium)

- Explain to the family if it is delirium (acute problem) that may improve or dementia (chronic problem) that progressively worsens.
- If paranoia or getting up at night purposefully: haloperidol 5-10 mg (2.5 mg in the elderly).

11. Detect and treat depression

- Consider depression if abnormally sad, insomnia, and loss of interest.
- Give amitriptyline if indicated (limit the tablets to one week's supply).
- Assess and respond to suicide risk.

12. Treat bedsores

All patients need skincare to avoid pressure problems

- Check for signs of infection. Make sure it is not another problem.
- For smelly tumors or ulcers, sprinkle crushed metronidazole—enough to cover the area.

13. Treat fever

- If new fever, consider cause and whether antibiotics are necessary.
- Give paracetamol or aspirin every 4 hours (no more than 8 tablets paracetamol in 24 hours).
- Make sure the patient stays hydrated.

Teaching strategies:

1. Time and date: 3:00 am 5/1/2021
2. Duration: 2 hours
3. Place: The program was implemented in a distinctive banquet hall
4. Simplification means presentation, images, and videos.

Third session

- Title: Nurses Role in End of Life Care

Nurses spend more time with patients near the EOL than any other health care professionals. Nursing care of terminally ill and dying patients is holistic and encompasses all psychosocial and physical needs.

Recognizing and acknowledging imminent death leads to two main goals of care that should be aimed at maximizing comfort for the patient ensuring that the patient is pain-free and that other symptoms are assessed and managed appropriately.

- Objectives:

- The participant will identify prevention intervention, nurse's role in EOL Care, a sign of death, bereavement counseling, and Postmortem Care.
- The participant will identify the special needs of the nurse who cares for dying patients and their families.

Preventive Interventions

1. Preventive oral care for all patients



- Use a soft toothbrush to gently brush teeth, tongue, palate, and gums to remove debris.
- Use diluted sodium bicarbonate (baking soda) or toothpaste.
- Rinse mouth with diluted salt water after eating and at bedtime (usually 3-4 times daily).

2. Prevent bedsores

❖ **Remember that prevention of bedsores is better than cure, therefore:**

- Help the bedridden patient to sit out in a chair from time to time if possible.
- Lift the sick person the bed—do not drag as it breaks the skin.
- Encourage the sick person to move his or her body in bed if able.
- Change the sick person's position on the bed often, if possible every one or two hours—use pillows or cushions to keep the position.
- Keep the beddings clean and dry.
- Look for damaged skin (change of color) on the back, shoulders, and hips every day.
- Put extra soft material such as a soft cotton towel under the sick person.

3. Instructions for bathing

- Provide privacy during bathing.
- Dry the skin after bath gently with a soft towel.
- Oil the skin with cream, body oil, lanolin, or vegetable oil.
- Use plastic sheets under the bed sheets to keep the bed dry when one cannot control urine or feces.
- Massage the back and hips, elbows, ankles with petroleum jelly.
- If there is leakage of urine or stool, protect skin with petroleum jelly applied around private parts, back, hips, ankles, and elbows.

- Support the sick person over the container when passing urine or stool, to avoid wetting the bed and injury.

4. To prevent pain, stiffness, and contractures in muscles and joints

❖ Medication/clinical care

- Check the range of motion (ROM)—move limbs gently.
- Give diazepam if spasms or very spastic.
- Check ROM in the key 7 joints on both sides :(**wrist, knee, elbow, ankle, shoulder, hip, neck**).

- Nurses Role in End of Life Care



A nurse's responsibilities in EOL care go far beyond medical and hygiene tasks. Part of EOL care for a nurse is communication, whether with the patient directly or with family members seeking the best care possible. Nurses who take on the care for a terminal patient must show compassion and support for the dying patient and those close to them.

While this role can be challenging and emotionally draining, it is one of the most important capacities of caring a nurse can take on.

Caring for those who have only a short period to live be very different from assisting recovering patients. Listening to the desires of patients is the top priority, as your job is to help them enjoy life in the last months, weeks, and days. Your work as an end of life nurse requires specific skills:

- Compassion
- Active listening
- Clear, gentle communication
- Ability to handle varying emotions of patient and family
- Recognize pain and distress and take action
- Recognize when someone is in the final days and hours of life
- Be an active communicator with the family, especially with changes in health
- Document health changes, conversations, and decisions
- Seek help as needed
- Ask for support for yourself from colleagues as needed
- Thorough nursing care

- Barriers to end-of-life care

1. Poor nurse-patient communication

Communication is crucial to helping patients prepare to die well. Researchers have found that end-of-life discussions between patients and nurses can result in fewer aggressive interventions and better quality of life near death. These discussions did not increase emotional distress and were associated with lower rates of ventilation, resuscitation, and intensive care unit admissions. End-of-life discussions between nurses and patients also lead to improving the quality of EOL care.

2. Lack of palliative care specialists.

The Iraqi population is aging, and more people are living longer with chronic illness. Although palliative care is important, most of our hospitals lack palliative care programs, lack nurses' education in end-of-life care and there is a shortage of palliative care nurses.

3. Physicians and nurses may also be uncomfortable with delivering bad news and facing the imminent death of their patients.**4. Elements related to family and patient**

- Family members or the patient's difficulty accepting a poor prognosis.
- Family members or the patient's difficulty understanding the limitations and complications of life-sustaining treatments.
- Disagreement among family members about the goals of care.
- Patients' incapacity to make decisions on the goals of care

- End-of-Life Care**1. Help provide psychosocial and spiritual support**

❖ Offer patients active listening, counseling, and social/emotional support.

❖ Spiritual support is very important:

Be prepared to discuss spiritual matters if the patient would like to.

- Learn to listen with empathy.
- Understand reactions to the losses in their life (the different stages of grief).
- Be prepared to "absorb" some reactions, for example, anger projected onto the health worker.
- Connect with a spiritual counselor or pastoral care according to the patient's religion and wishes.
- Do not impose your views. If you share religious beliefs, praying together may be appropriate.
- Protect your patient from overenthusiastic evangelists.

- For some patients, it is better to talk about the meaning of their life, rather than directly about spirituality or religion.

❖ **Empower the family to provide care:**

- As human beings, we know how to care for each other. Reassure the family caregivers that they already have much of the capacity needed.
- Give information and skills.

2. Special advice for end-of-life care

❖ **Preparing for death**

- Encourage communication within the family.
- Discuss worrying issues such as custody of children, family support, future school fees, old quarrels, funeral costs.
- Tell the patient that they are loved and will be remembered.
- Talk about death if the person wishes to (keep in mind cultural taboos if not in a close relationship).
- Make sure the patient gets help with feelings of guilt or regret.
- Connect with a spiritual counselor or pastoral care as the patient wishes.
- Informing and educating family members about signs and symptoms.

❖ **Presence**

- Approach, be present with compassion.
- Visit regularly.
- Someone needs to hold a hand, listen, and converse.
- Move slowly.

❖ **Caring**

- Comfort.
- Provide physical contact by light touch, holding hand.

❖ **Comfort measures near the end of life**

- Moisten lips, mouth, eyes.
- Keep the patient clean and dry and prepare for incontinence of bowel and bladder.
- Only give essential medications: pain relief, antidiarrheal, treat fever (paracetamol round-the-clock), etc.

- Control symptoms with medical treatment as needed to relieve suffering (including antibiotics and antifungals, especially in HIV/AIDS and covid-19).
- Eating less is OK.
- Skincare/turning every 2 hours or more frequently.
- Make sure pain is controlled.

- Signs of imminent death



- Decreased social interaction—sleeps more, acts confused, coma.
- Decreased food and fluid intake—no hunger or thirst.
- Changes in elimination—reduced urine and bowel movements, incontinence.
- Respiratory changes—irregular breathing, “death rattle”.
- Circulatory changes—cold and grayish or purple extremities, decreased heart rate, and blood pressure.

- Signs of death

- Breathing stops completely.
- Heartbeat and pulse stop.
- Unresponsive to shaking, shouting.
- Eyes fixed in one direction, eyelids open or closed.
- Changes in skin tone—white to gray.

- Bereavement counseling:

❖ For patient

- Look and respond to grief reaction—denial, disbelief, confusion, shock, sadness, bargaining, yearning, anger, humiliation, despair, guilt, acceptance.
- Keep communication open—if the patient does not want to talk, ask, “Would you like to talk now or later?”

- Help the patient accept his/her death.
- Offer practical support—help patient makes a will, help in solving old quarrels, plan for children’s custody.
- Ask them how they wish to die: with pastoral care, with family only.
- Make sure that what the patient wants is respected.

❖ For family

- Look for and respond to grief reactions: denial, disbelief, confusion, shock, sadness, bargaining, yearning, anger, humiliation, despair, guilt, and acceptance.
- Help the family accept the death of the loved one.
- Share the sorrow—encourage them to talk and share the memories.
- Do not offer false comfort—offer simple expressions and take time to listen.
- Try to see if a friend/neighbor can offer practical help—cooking, running errands can help while grieving.
- Ask if they can afford funeral costs and future school fees, and help to find a solution if possible.
- Encourage patience—it can take a long time to recover from a major loss.
- Say that they will never stop missing loved ones, but the pain will ease and allow them to go on with life.

- Postmortem Care

- Close the patient’s eyes and jaw.
- Replace dentures; remove jewelry and eyeglasses.

- Wash the body as needed then apply a clean gown and bed linen.
- Place a waterproof pad or incontinence brief to absorb urine and feces.
- Comb and arrange the hair neatly.
- Remove tubes and dressings (if appropriate).
- Straighten the body, placing the arms at their sides or across the abdomen with palms down.
- Place a pillow under the head.

- Special Needs of Nurses



Many nurses who care for dying patients do so because they are passionate about providing high-quality EOL care. Caring for patients and their families at the EOL is challenging and rewarding but also intense and emotionally charged. A bond or connection may develop between you and the patient or family. Be aware of how grief personally affects you. When you provide care for terminally ill or dying patients, you are not immune to feelings of loss. It is common to feel helpless and powerless when dealing with death. Express feelings of sorrow, guilt, and frustration. It is important to recognize your values, attitudes, and feelings about death. Common ethical concerns include lack of adequate communication, lack of effective

decision making, when to stop life-prolonging interventions, and concerns with symptom treatment, especially with the use of opioids.

To meet your personal needs, focus on interventions that will help decrease your stress. Get involved in hobbies or other interests, schedule time for yourself, ensure time for sleep, maintain a peer support system, and develop a support system beyond the workplace.

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رعاية المحتضر

مقدمة البرنامج

معرفة التمريضيين في رعاية المريض المحتضر أمر أساسي لتوفير رعاية جيدة للمرضى الذين يعانون من مرض أو إصابة خطيرة. لا يمكن للتمريض تقديم رعاية كافية في نهاية الحياة إذا لم يفهم ما تستلزمه رعاية نهاية الحياة. لذلك بالإضافة إلى المعرفة والمهارات والخبرة المتخصصة التي سيكتسبها التمريض في وحدة أو مكان متخصص ، يجب أن يكون لدى كل تمريض أيضاً فهم أساسي لمبادئ رعاية نهاية الحياة. لذلك، تم إعداد هذا البرنامج التعليمي لزيادة معرفة التمريضيين في وحدات العناية المركزة بالإضافة إلى تحسين سلوكياتهم حول مفهوم الرعاية في نهاية الحياة. يحتوي هذا البرنامج على مراجعة لمفهوم نهاية الحياة ، ودور التمريض في إدارة الألم والأعراض الأخرى، والرعاية التمريضية في نهاية الحياة، والإعداد والعناية.



الأهداف العامة:

عند الانتهاء من البرنامج التعليمي لرعاية المحتضر، سيتمكن المتعلمون من:

1. حصول الممرضين في وحدة العناية المركزة على معلومات حول الرعاية التلطيفية، رعاية المحتضرين و رعاية نهاية الحياة.
2. تمييز الفرق بين كل من الرعاية التلطيفية ، رعاية نهاية الحياة، ورعاية المحتضرين.
3. شرح مرحلة الحزن والفاجمة في نهاية الحياة.
4. القيام ببعض الاجراءات التمريضية للتعامل مع الاستجابات الفسيولوجية للأمراض القاتلة.
5. تنفيذ تدابير التمريض للتدخل الوقائي.
6. وصف الدور التمريضي في رعاية المحتضر.
7. تحديد العوائق التي تحول دون تحسين الرعاية في مرحلة الاحتضار.
8. التعرف على علامات الاحتضار والموت.
9. توفير المعلومات حول رعاية ما بعد الوفاة.
10. مناقشة الاحتياجات الخاصة للتمريض الذي يهتم بالمرضى المحتضرين وأسرهم.

الجلسة الأولى

- العنوان: تعريف الرعاية التلطيفية ورعاية مرحلة الاحتضار

المقدمة

يمكن أن يكون للممرض أثر كبير ودائم على حياة المرضى لحين وفاتهم، وعلى طريقة حدوث الوفاة، وكذلك الذكريات المصاحبة لذلك الموت بالنسبة لعوائل المرضى. يشمل التعريف المعاصر للتمريض "... تشخيص وعلاج الاستجابات البشرية ، والدعم في رعاية الأفراد والأسر والمجموعات والمجتمعات والسكان" (الجمعية الأمريكية للتمريض ، 2015). قد لا تكون هناك مجموعة أكثر أهمية من المرضى المصابين بأمراض خطيرة والمحتضرين.

يتاح للتمريزيين فرصة الجمع بين البحث والتعليم والممارسة للتأثير على ثقافة الموت ، وتحقيق التحسين المطلوب بشدة للرعاية ذات الصلة عبر إعدادات الممارسة والفئات العمرية والخلفيات الثقافية والأمراض.

يقدم توفير الرعاية في فترة الاحتضار للمرضى وأسرهم في السياق العلاجي للعناية المركزة تحديات فريدة وفرصًا مهمة للتمريزيين المنخرطين في هذا العمل.

- الأهداف:

- تزويد المشاركين بمعلومات حول الرعاية التلطيفية ورعاية المحتضرين ورعاية نهاية الحياة.
- تسليط الضوء على الفرق بين كل من الرعاية التلطيفية ورعاية المحتضرين.
- شرح مرحلة الحزن والفاجعة في نهاية الحياة.

- تعريف الرعاية التلطيفية

الرعاية التلطيفية هي نهج يحسن نوعية حياة المرضى وأسرهم الذين يواجهون المشكلة المرتبطة بالمرض الذي يهدد الحياة، وذلك من خلال إيقاف المعاناة وتخفيفها عن طريق الكشف المبكر والتقييم الخالي من العيوب وعلاج الألم والمشاكل الأخرى منها الجسدية والنفسية والروحية.

- أهداف الرعاية التلطيفية

- اعتبار الموت عملية طبيعية.
- توفير الراحة من تأثير الأعراض ، بما في ذلك الألم.
- التركيز على الحياة وعدم تسريع او ابطاء الموت.
- دعم رعاية المرضى الشاملة وتحسين نوعية الحياة.
- تقديم الدعم للمرضى للعيش بحيوية قدر الإمكان حتى الموت.
- تقديم الدعم للأسرة أثناء مرض المريض وحتى فقدانهم له.



- الرعاية في مرحلة الاحتضار

رعاية الاحتضار هو مفهوم الرعاية الذي يوفر العطف والاهتمام والدعم للأشخاص في المراحل الأخيرة من المرض النهائي. تتمثل الأهداف الرئيسية لرعاية المرضى في مساعدة المريض على العيش بشكل كامل ومريح قدر الإمكان أثناء الاحتضار والموت بكرامة. توفر برامج رعاية الاحتضار العناية مع التركيز على إدارة الأعراض ، وتخطيط الرعاية المتقدمة ، والرعاية الروحية، ودعم الأسرة.

- تعريف الموت

يحدث الموت عندما تتوقف جميع الأجهزة الحيوية وأجهزة الجسم عن العمل. إنه توقف لا رجعة فيه لوظائف القلب والأوعية الدموية والجهاز التنفسي والدماغ.

يجب ألا يخاف الناس من الموت ، ولا يجب أن يتجاهلوه. لسوء الحظ ، غالباً ما يتم إنكار قضية الموت وإخفائها، وبالتالي تسبب الخوف في مجتمعنا الحالي. التمريضيين ينظرون إلى الموت على أنه فشل، وبالتالي يتجنبون المحتضرين الذين يعتقدون أنهم "قد فشلوا".

- تعريف نهاية الحياة

تشير نهاية الحياة بشكل عام إلى المرحلة النهائية من المريض عندما يكون الموت وشيكاً. يختلف الوقت من تشخيص المرض النهائي إلى الوفاة اعتماداً على تشخيص المريض ومدى انتشار المرض.

تُعرّف الرعاية في نهاية الحياة على أنها نهج نشط ورؤوف يعالج ويريح ويدعم الأشخاص الذين يعيشون مع أو يموتون من ظروف تقدمية أو مزمنة تهدد الحياة. تركز رعاية الحياة على الاحتياجات الجسدية والنفسية والاجتماعية للمريض والأسرة.

- أهداف رعاية المحتضر:

- توفير الراحة والرعاية الداعمة أثناء عملية الموت.
- تحسين نوعية الحياة المتبقية للمريض.
- المساعدة في ضمان وفاة كريمة.
- تقديم الدعم العاطفي للأسرة.

تعتبر الرعاية في نهاية الحياة جانبًا حاسمًا من مسؤولية التمريض ، ويحاول مدربي التمريض العثور على النهج الأكثر فعالية في إعداد طالب التمريض لرعاية مريض يحتضر.

**- الأمراض المهددة للحياة**

الأمراض التي تهدد الحياة هي الأمراض التي يمكن أن تؤدي إلى وفاة المريض. هذه الأمراض هي أمراض خطيرة للغاية مثل السرطان وفيروس نقص المناعة البشرية وأمراض القلب وما إلى ذلك. معظم الأمراض المزمنة هي أمراض تهدد الحياة. يتم قبول المرضى الذين يعانون من أمراض مهددة للحياة مثل السرطان وأمراض القلب والسكتة الدماغية وأمراض الجهاز التنفسي المزمنة في وحدة العناية المركزة في المستشفيات.

- الحزن والحداد والفاجعة

الحزن هو رد فعل طبيعي على الخسارة. يحدث الحزن استجابة للخسارة الحقيقية لأحد الأحباء وفقدان ما قد يكون. الحزن ديناميكي ويتضمن ردودًا نفسية وفسولوجية بعد الخسارة. تشمل الاستجابات النفسية كالغضب والذنب والقلق والحزن والاكتئاب واليأس. تشمل ردود الفعل الفسيولوجية مشاكل النوم والتغيرات في الشهية والمشاكل الجسدية والمرضى. وتجدر الإشارة إلى انه كل شخص يحزن بطريقته المميزة والخاصة.

يشير **الحداد** إلى التعبيرات الفردية والعائلية والجماعية والثقافية عن الحزن والسلوكيات المرتبطة به. تتغير ردود فعل الحزن وسلوكيات الحداد بمرور الوقت حيث يتعلم الناس التعايش مع الخسارة.

الفاجعة هي الفترة التي تلي وفاة شخص عزيز نعيش فيه الحزن والحداد. يعتمد الوقت الذي يقضى في الفاجعة على عدة عوامل ، بما في ذلك مدى ارتباط الشخص الحي بالشخص المتوفى وكم من الوقت أمضى في توقع الخسارة.

- توقع الحزن والحداد

الإنكار والحزن والغضب والخوف والقلق هي ردود فعل حزينة طبيعية لدى الأشخاص الذين يعانون من أمراض تهدد الحياة والمقربين منهم. وصفت كوبلر-روس (1969) خمسة ردود فعل عاطفية شائعة للوفاة تنطبق على تجربة أي خسارة. ليس كل مريض أو فرد من العائلة يعاني من كل مرحلة ؛ لا يصل العديد من المرضى إلى مرحلة القبول ، ويتقلب المرضى والعائلات أحيانًا بشكل يومي في ردود أفعالهم العاطفية.

نموذج كوبلر-روس للحزن		
المرحلة	ماذا يمكن ان يقول الشخص	الخصائص
الإنكار	لا ليس انا، لا يمكن ان يكون صحيحا.	انكار ان الخسارة قد حدثت وانه يمكن استردادها. هذه الاستجابة ممكن ان تستغرق من عدة دقائق الى اشهر.
الغضب	لماذا انا؟	يمكن ان يكون غاضبا من الشخص الذي سبب الازى (حتى بعد الوفاة) او من العالم الذي سمح بهذا الشيء. ربما يكون غاضبا من نفسه للسماح بحادث (حادث سيارة مثلا) ان يحصل حتى وان كان لا بد من وقوعه.
المساومة	نعم، انه انا ولكن ..	ربما يناجي ربه داعيا "اذا فعلت كذا وكذا هل يمكن ان ترد لي كذا؟"
الاكتئاب	نعم انه بسببي وانا اشعر بالحزن	شعور اللااحساس، مع ان الغضب والحزن يمكن ان يبقى كامنا.
القبول	نعم انه انا وهذا يشعرنى بالحزن.	الغضب والحزن والحداد قد تلاشى ومرحلة تقبل واقع الخسارة قد بدأت.
مقتبسة من كوبلر-روس: عن الموت والاحتضار، نيويورك 1969. دار نشر مكميلان		

استراتيجيات التعليم:

1. الوقت والتاريخ: 3:00 مساء 2021/1/3
2. المدة: 90 دقيقة
3. المكان: قاعة خاصة.
4. وسائل الايضاح: عرض تقديمي باستخدام الصور ومقاطع الفيديو.

الجلسة الثانية

- العنوان: إدارة الاستجابات الفسيولوجية للأمراض العضال.

المقدمة

يعاني المرضى الذين يقتربون من نهاية العمر العديد من الأعراض نفسها ، بغض النظر عن عملياتهم المرضية الكامنة. قد تكون الأعراض في المرض النهائي ناتجة عن المرض ، إما بشكل مباشر (مثل ضيق التنفس بسبب مرض الانسداد الرئوي المزمن) أو بشكل غير مباشر (مثل العثيان والقيء المرتبط بالضغط في منطقة المعدة) ، أو عن طريق علاج المرض ، أو عن طريق اضطراب تعایش لا علاقة له بالمرض. يجب تقييم الأعراض وإدارتها بعناية ومنهجية.

- الأهداف:

- سيكون للمشارك القدرة على تحديد الألم والأعراض الأخرى المرتبطة بمرض عضال في نهاية العمر.
- سيحدد المشارك كيفية التعامل مع الألم والأعراض الأخرى المرتبطة بمرض عضال في نهاية العمر.

- الألم

في المراحل النهائية من الأمراض مثل السرطان وأمراض القلب ومرض الانسداد الرئوي المزمن وأمراض الكلى، الألم والأعراض الأخرى تكون شائعة. ينتج الألم عن الأمراض والطرق المستخدمة في علاجها. يلعب الممرضين في مختلف الأماكن دورًا رئيسيًا في إدارة الألم كخبراء في التقييم وإدارة الدواء وتعليم المرضى.

- تعريف الألم

تُعرّف جمعية الألم الأمريكية (2008) الألم بأنه "تجربة حسية وعاطفية غير سارة مرتبطة بتلف الأنسجة الفعلي أو المحتمل ، أو يتم وصفها من حيث هذا الضرر".

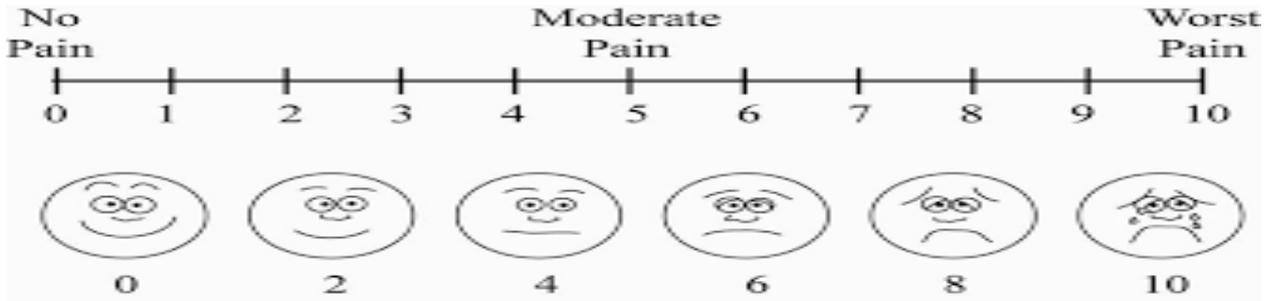
الألم هو رفيق متكرر للأشخاص الذين يتلقون الرعاية التلطيفية أو في نهاية العمر ، وغالبًا ما تحدث الأعراض في وقت واحد مع الألم في العديد من حالات المرض ، بما في ذلك السرطان وأمراض القلب ومرض الانسداد الرئوي المزمن وأمراض الكلى.

- علاج الألم

1. تقييم حالة المريض بحثاً عن الألم

أ. تحديد سبب الألم بالتاريخ والفحص

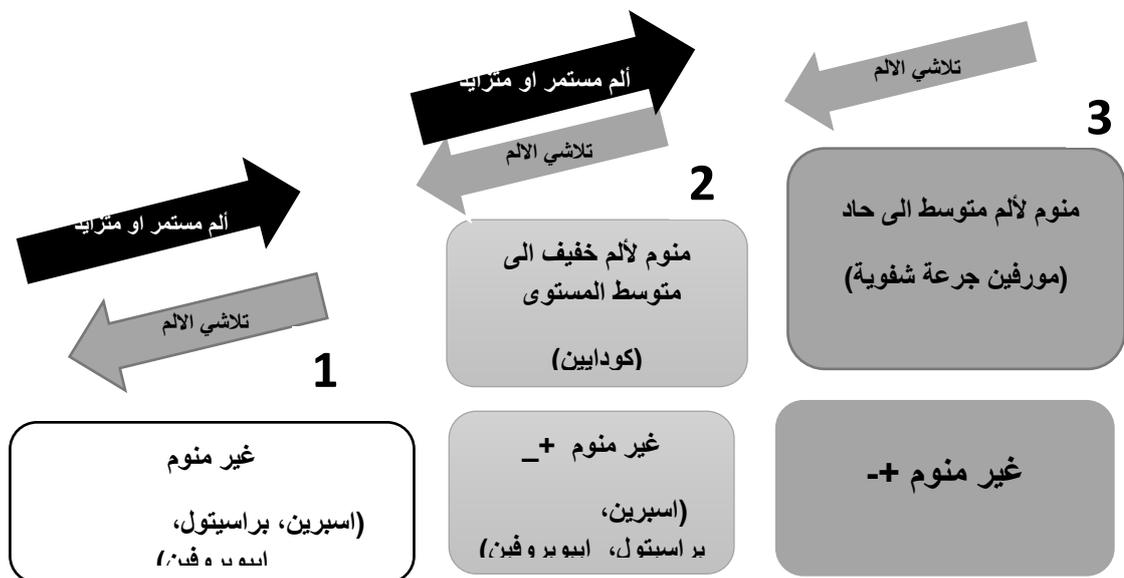
- اين الألم؟ ما الذي يجعله أخف / أسوأ؟ صفه. ما هو نوع الألم؟ ماذا تأخذ الآن لمعالجة الألم؟
- تحديد ما إذا كانت هناك عدوى أو مشكلة أخرى مع علاج محدد. التشخيص والعلاج الفوري للعدوى مهم للسيطرة على الألم.
- ب. حدد نوع الألم: هل هو ألم شائع (مثل آلام العظام أو الفم) أو آلام خاصة (مثل آلام الأعصاب، أو نزيف، أو مغص، أو تقلصات عضلية)؟
- ج. قم بتقدير الألم من خلال الوجوه أو بيدك (اعط 0 لعدم وجود أي ألم، إصبع واحد لألم خفيف للغاية و 5 أصابع لأسوأ ألم ممكن). سجل نتائجك.



2. علاج الألم، حسب ما إذا كان الألم شائعاً أم خاصاً أو كليهما:

تقييم الحاجة إلى مسكنات الألم والتدخلات الأخرى بشكل متكرر.

أ. بالمسكنات، حسب سلم المسكنات.



ب- مع العلاجات غير الطبية: يتم دمجها مع مسكنات الألم إذا وافق المريض وسوف تساعد

- ❖ الدعم العاطفي.
- ❖ الطرق الفيزيائية:
- اللمس (التمسيد ، التدليك ، الهددة ، الاهتزاز).
- ثلج أو حرارة.
- التنفس العميق.
- ❖ الأساليب المعرفية:
- إلهاء مثل الراديو.
- موسيقى.
- تخيل مشهد لطيف.
- ❖ الصلاة (احترام ممارسة المريض).
- ❖ الممارسات التقليدية المفيدة وغير الضارة.

ملاحظات

1. اعطاء العلاج عن طريق الفم إذا أمكن وخصوصا في الامراض المزمنة .
2. بالساعة
- أعط مسكنات الألم على فترات زمنية محددة (بالساعة أو الشمس).
- ابدأ بجرعة صغيرة ، ثم عاير الجرعة حسب ألم المريض ، حتى يشعر المريض بالراحة.
- يجب أن اعطاء الجرعة التالية قبل أن يتلاشى تأثير الجرعة السابقة.
- للألم الخارق ، أعط جرعة إضافية إضافة إلى الجدول العادي.

إدارة الأعراض الأخرى

1. ضيق التنفس



قد يعاني المرضى المصابون بأمراض خطيرة في وحدة العناية المركزة من ضيق التنفس مع اقتراب نهاية حياتهم. قد يرتبط ضيق التنفس بمرض ضمني ، مثل سرطان الرئة أو مرض الانسداد الرئوي المزمن (COPD)، أو سبب ثانوي مثل الالتهاب الرئوي.

ضيق التنفس هو صعوبة في التنفس أو تنفس بطريقة شاقة الذي يمكن أن يحدث فجأة في بعض الأحيان.

- التدخلات التمريضية لعلاج ضيق التنفس

تقليل القلق

- إعطاء أدوية القلق الموصوفة كما هو موضح للقلق أو الهلع المرتبط بضيق التنفس.
- المساعدة في تقنيات الاسترخاء.
- تزويد المريض بوسيلة لطلب المساعدة (جرس الاستدعاء)

علاج الأمراض الباطنة

- إعطاء موسعات الشعب الهوائية والكورتيكوستيرويدات الموصوفة.
- إعطاء منتجات الدم ، إريثروبويتين على النحو المنصوص عليه.
- إعطاء مدرات البول الموصوفة ومراقبة توازن السوائل.

تغيير إدراك ضيق التنفس

- إعطاء العلاج بالأكسجين الموصوف عن طريق قنية الأنف ، إذا تم تحملها ؛ قد لا يتم تحمل الأقنعة بشكل جيد.
- إعطاء المواد الأفيونية بجرعات منخفضة عن طريق الفم (تستخدم كبريتات المورفين في الغالب).
- توفير حركة الهواء في بيئة المريض بمروحة محمولة.

تقليل الطلب على الجهاز التنفسي (طلب الاوكسجين)

- تثقيف المريض والأسرة لتنفيذ تدابير الحفاظ على الطاقة.
- وضع المعدات واللوازم والتغذية اللازمة في متناول اليد.

2. علاج فقدان الوزن

- علاج الغثيان والقيء.
- علاج الإسهال.
- علاج قرح الفم أو القلاع.
- استبعاد الأسباب الأخرى التي تؤدي الى فقدان الوزن مثل السل.

- برينديزون 5-15 ملغ يوميا في الصباح يمكن أن يحفز الشهية. توقف إذا لم يكن هناك تأثير بعد أسبوعين.

3. السيطرة على الغثيان والقيء

- يعطى مضاد للقيء: ميتوكلوبراميد (10 مجم كل 8 ساعات).
- يوصى باستخدام أوندانسيترون للوقاية من الغثيان محليًا في الجهاز الهضمي بسبب علاج السرطان.
- يعطى ليوم واحد فقط في كل مرة أو هالوبيريدول (1-2 مجم مرة واحدة يوميًا) أو الكلوربرومازين (25-50 مجم كل 6 ساعات).
- تجنب الأصوات والروائح والمشاهد والأطعمة والحركة التي تسبب الغثيان.

4. إذا كانت قرح الفم مؤلمة أو آلام في البلع

- إذا كان المبيضات: إعطاء فلوكونازول أو نيسيتاتين أو ميكونازول اللثة.
- يمكن أن يوفر التخدير الموضعي بعض الراحة.
- قد تكون هناك حاجة إلى مسكنات الألم وفقًا لسلم المسكنات.
- للقرحة القلاعية: سحق قرص برينديزون 5 ملغ وضع بعض الحبوب.
- رائحة الفم الكريهة من سرطان الفم أو الآفات الأخرى: ميترونيدازول أو غسل الفم التتراسيكلين (سحق قرصين في العصير و غسل الفم).
- للهربس البسيط: 5 مل من محلول نيسيتاتين (500.000 وحدة) + قرصين ميترونيدازول + 1 كبسولة أسيكلوفير (إن وجدت) - تدهن مواضع الإصابة.

5. علاج جفاف الفم

- مراجعة الأدوية - قد يكون جفاف الفم من الآثار الجانبية (الهايوسين والمورفين والأترابين والأميتريبتيلين والفوروسيميد).
- يمكن أن يسهم التنفس عن طريق الفم أيضا.
- إذا استمرت المشكلة مع نقص اللعاب ، انتبه جيدًا للعناية الوقائية بالفم / نظافة الفم.
- في حال المبيضات ، تعامل على النحو الوارد أعلاه.

6. منع / علاج الإمساك

- اسأل المريض عن عادات الأمعاء الطبيعية ، إذا كان البراز أقل تكرارًا أو أكثر إيلامًا ، إذاً:
- قم بإجراء فحص المستقيم (انحشار الغائط).

• إعطاء ملين. الخيارات:

- بيساكوديل 5-15 ملغ ليلاً حسب الاستجابة.
- سينا - ابدأ من قرصين (7.5 مجم) مرتين يوميًا (حتى قرصين كل 4 ساعات) ملحوظة: اعط ملين دائمًا مع المورفين أو الكودايين.

7. سلس البول

- الرجال: زجاجة مشروب بلاستيكي قرب المريض.
- النساء: وسادات قطنية وسراويل بلاستيكية.

8. إدارة الإسهال

- اشرب سوائل زائدة بشكل متكرر.
- استخدم أملاح الإرواء الفموية إذا كان الإسهال كثير الكمية أو في حالة الإسهال المستمر.
- تقديم المشورة للتشجيع على تناول الطعام.
- إعطاء دواء الإمساك إلا إذا كان هناك دم في البراز أو في حالة الحمى: لوبيراميد 4 ملغ مرة واحدة ، ثم 2 ملغ لكل براز رخو بحد أقصى 16 ملغ / يوم.

9. المساعدة في حال القلق والهياج

- تأكد من حصول المريض على رعاية جيدة ودعم نفسي واجتماعي.
- استمع بعناية وقدم الدعم العاطفي.
- على الرغم من أنه نادرًا ما يكون مطلوبًا ، يمكن استخدام جرعة منخفضة من الديازيبام (2.5-5 مجم ليلاً أو مرتين يوميًا) إذا لزم الأمر ، وليس لأكثر من أسبوعين. عادة لا تكون هناك حاجة إذا كانت الرعاية جيدة.
- للقلق الشديد / الهياج / الهذيان - إعطاء هالوبيريدول.

10. رعاية المرضى الذين يعانون من الارتباك (الخرف أو الهذيان)

- اشرح للعائلة ما إذا كان الهذيان (مشكلة حادة) والتي قد تتحسن أو خرف (مشكلة مزمنة) التي تزداد سوءًا بشكل تدريجي.
- في حالة البارانونيا أو الاستيقاظ ليلا عن قصد: هالوبيريدول 5-10 ملغ (2.5 ملغ عند كبار السن).

11. كشف وعلاج الاكتئاب

- ضع في اعتبارك الاكتئاب في حالة الحزن غير الطبيعي والأرق وفقدان الاهتمام.
- أعط أميتريبتيلين إذا لزم الأمر

• تقييم والاستجابة لمخاطر الانتحار.

12. علاج تقرحات الفراش

يحتاج جميع المرضى للعناية بالبشرة لتجنب مشاكل الضغط

• تحقق من وجود علامات الالتهاب. تأكد من أنها ليست مشكلة أخرى.

• بالنسبة للأورام أو القرحة ذات الرائحة الكريهة ، قم برش ميترونيدازول المسحوق - بما يكفي لتغطية المنطقة.

13. علاج الحمى

• إذا كانت الحمى جديدة ، فكر في السبب وما إذا كانت المضادات الحيوية ضرورية.

• يعطى الباراسيتامول أو الأسبرين كل 4 ساعات (لا يزيد عن 8 أقراص الباراسيتامول في 24 ساعة).

• تأكد من إعطاء الماء الكافي للمريض.

استراتيجيات التعليم:

1. الوقت والتاريخ: 3:00 مساء 2021/1/5

2. المدة: ساعة واحدة

3. المكان: قاعة خاصة.

4. وسائل الايضاح: عرض تقديمي باستخدام الصور ومقاطع الفيديو.

الجلسة الثالثة

- العنوان: دور التمريض في رعاية مرحلة الاحتضار

المقدمة

يقضي التمريضون وقتاً أطول مع المرضى مع اقتراب نهاية الحياة أكثر من أي اختصاصي رعاية صحية آخر. الرعاية التمريضية لمرضى العضال والمرضى المحتضرين هي شاملة وتشتمل على جميع الاحتياجات النفسية والاجتماعية والبدنية.

يؤدي التعرف على علامات الوفاة الوشيكة والاعتراف بها إلى هدفين رئيسيين للرعاية ، اذ يجب أن يهدف إلى زيادة الراحة للمريض إلى أقصى حد لضمان أن يكون المريض خاليًا من الألم وأن الأعراض الأخرى يتم تقييمها وإدارتها بشكل مناسب.

- الأهداف:

• سيتعرف المشاركون على اهم التدخلات الوقائية ، ودور الممرض في رعاية نهاية الحياة ، وعلامة الوفاة ، التوعية وقت الفاجعة ، ورعاية ما بعد الوفاة.

• يحدد المشاركون الاحتياجات الخاصة للممرض او الممرضة التي تهتم بالمرضى وأسرههم ..

التدخلات الوقائية

1. العناية الوقائية بالفم لجميع المرضى



- استخدم فرشاة أسنان ناعمة لتنظيف الأسنان واللسان وسقف الحلق واللثة برفق لإزالة العوالق .
- استخدم بيكربونات الصوديوم المخففة أو معجون الأسنان.
- غسل الفم بالماء المالح المخفف بعد الأكل وعند النوم (عادة 3-4 مرات يوميا).

2. منع التقرحات

- تذكر أن الوقاية من التقرحات أفضل من العلاج ، لذلك:
- ساعد المريض طريح الفراش على الجلوس على كرسي من وقت لآخر إن أمكن.
- ارفع المريض إلى السرير - لا تسحب لأنه يؤدي الجلد.
- شجع المريض على تحريك جسده في السرير إذا استطاع.
- قم بتغيير وضع المريض على السرير كثيرًا ، إن أمكن كل ساعة أو ساعتين - استخدم الوسائد أو المخدات للحفاظ على الوضع.
- حافظ على الفراش نظيفة وجافة.
- ابحث عن الجلد التالف (متغير اللون) على الظهر والكتفين والوركين كل يوم.
- ضع مواد ناعمة إضافية مثل منشفة قطنية ناعمة تحت المريض.

3. تعليمات الاستحمام.

- توفير الخصوصية أثناء الاستحمام.
- جفف البشرة بعد الاستحمام بلطف بمنشفة ناعمة.

- دهن البشرة بالكريم أو زيت الجسم أو اللانولين أو الزيوت النباتية.
- استخدم الأغذية البلاستيكية تحت أغطية السرير لإبقاء السرير جافاً عندما لا يستطيع المرء التحكم في البول أو البراز.
- تدليك الظهر والوركين والمرفقين والكاحلين بالفازلين.
- إذا كان هناك تسرب للبول أو البراز ، فاحم الجلد باستخدام الفازلين الذي يوضع حول الأجزاء الخاصة والظهر والوركين والكاحلين والمرفقين.
- تقديم المساعدة للمريض عند التبول أو التغوط لتجنب التبول في الفراش او على الإصابة.

4. لمنع الألم وتيبس وتقلص العضلات والمفاصل

الأدوية / الرعاية السريرية

- افحص مدى الحركة حرك الأطراف برفق.
- أعط الديازيبام عند تقلصات الاعصاب أو التشنجات الشديدة.
- افحص مدى الحركة في المفاصل السبعة الرئيسية على كلا الجانبين (الرسغ والركبة والكوع والكاحل والكتف والورك والرقبة).

- دور التمريض في رعاية مرحلة الاحتضار



تتجاوز مسؤوليات التمريض في رعاية مرحلة الاحتضار المهام الطبية والنظافة. تواصل التمريض مع المريض جزء من رعاية مرحلة الاحتضار، سواء مع المريض مباشرة أو أفراد الأسرة الذين يبحثون عن أفضل رعاية ممكنة. يجب على التمريضيين الذين يتولون رعاية مريض عضال أن يظهروا التعاطف والدعم للمريض المحتضر والمقربين منه. في حين أن هذا الدور يمكن أن يكون تحدياً واستنزافاً عاطفياً ، إلا أنه أحد أهم قدرات الرعاية التي يتبناها التمريضيون.

إن رعاية أولئك الذين لديهم فترة قصيرة فقط للعيش تختلف تمامًا عن مساعدة المرضى الذين يتعافون. الاستماع إلى رغبات المرضى هو أولوية قصوى ، لأن عملك هو مساعدتهم على الاستمتاع بالحياة في الأشهر والأسابيع والأيام الأخيرة. عملك كممرضة في نهاية العمر يتطلب مهارات محددة:

- التعاطف
- الاستماع الفعال
- تواصل واضح ولطيف
- القدرة على التعامل مع المشاعر المختلفة للمريض والأسرة
- التعرف على الألم والضيق واتخاذ الإجراءات اللازمة
- اعرف متى يكون الشخص في الأيام وساعات الحياة الأخيرة
- كن متواصلًا نشطًا مع العائلة ، خاصةً مع التغييرات الصحية
- توثيق التغييرات الصحية والمحادثات والقرارات
- اطلب المساعدة عند الحاجة
- اطلب الدعم لنفسك من الزملاء حسب الحاجة
- رعاية تمريضية شاملة

- معوقات رعاية نهاية الحياة

1. ضعف الاتصال بين الممرض والمريض:

التواصل أمر حاسم لمساعدة المرضى على الاستعداد للموت بشكل جيد. وقد وجد الباحثون أن مناقشات نهاية الحياة بين المرضى والتمريضيين يمكن أن تؤدي إلى تدخلات عدوانية أقل وتحسين نوعية الحياة عند اقتراب الموت. هذه المناقشات ستقلل من الضيق العاطفي وارتبطت بانخفاض معدلات الحاجة الى التهوية والإنعاش والدخول في وحدة العناية المركزة. تؤدي مناقشات نهاية العمر بين التمريضيين والمرضى أيضًا إلى تحسين جودة رعاية مرحلة الاحتضار.

2. عدم وجود أخصائيي الرعاية التلطيفية:

السكان العراقيون يتقدمون في السن ، واصبح كثير من الناس يعيشون لفترة أطول مع مرض مزمن. على الرغم من أن الرعاية التلطيفية مهمة ، إلا أن معظم مستشفياتنا تفتقر إلى برامج الرعاية التلطيفية ، ونقص تعليم التمريضيين في رعاية مرحلة الاحتضار، وهناك نقص في تمريضيي الرعاية التلطيفية.

3. قد يكون الأطباء والممرضات او الممرضين غير مرتاحين أيضًا من نشر الأخبار السيئة ومواجهة الموت الوشيك لمرضاهم.

4. العناصر المتعلقة بالأسرة والمريض

- صعوبة أفراد الأسرة أو المريض في تقبل التشخيص السيئ.
- صعوبة فهم أفراد الأسرة أو المريض لقيود ومضاعفات العلاجات التي تدعم الحياة.

- خلاف بين أفراد الأسرة حول أهداف الرعاية.
- عدم قدرة المرضى على اتخاذ قرارات بشأن أهداف الرعاية.

- نهاية رعاية الحياة

1. المساعدة في توفير الدعم النفسي والاجتماعي والروحي

- ❖ قدم للمرضى الاستماع الفعال والمشورة والدعم الاجتماعي / العاطفي.
- ❖ الدعم الروحي مهم جداً:
- كن مستعداً لمناقشة الأمور الروحية إذا رغب المريض في ذلك.
- تعلم الاستماع بتعاطف.
- فهم ردود الفعل على الخسائر في حياتهم (مراحل الحزن المختلفة).
- كن على استعداد "لامتصاص" بعض ردود الفعل ، على سبيل المثال الغضب المتوقع على العامل الصحي.
- تواصل مع المرشد الروحي وفقاً لدين المريض ورغباته.
- لا تفرض وجهات نظرك. إذا كنت تشارك المعتقدات الدينية ، فقد تكون الصلاة معاً مناسبة.
- ❖ تمكين الأسرة من تقديم الرعاية:
- كبشر، نحن نعرف كيف نعنتي ببعضنا البعض. يجب على مقدمي الرعاية التمريضية للعائلة طمئننتهم بأن لديهم بالفعل الكثير من القدرات المطلوبة.
- إعطاء المعلومات والمهارات.

2. نصائح خاصة لرعاية نهاية الحياة

- ❖ الاستعداد للموت
- تشجيع التواصل داخل الأسرة.
- أخبر المريض أنه محبوب وسوف يتم تذكره.
- تحدث عن الموت إذا رغب الشخص في ذلك (ضع في اعتبارك المحرمات الثقافية إن لم تكن على علاقة وثيقة).
- تأكد من حصول المريض على مساعدة عند الشعور بالذنب أو الندم.
- تواصل مع المرشد الروحي أو رجل الدين حسب رغبة المريض.
- إعلام وتنقيف أفراد الأسرة حول العلامات والأعراض.
- ❖ الحضور
- اقترب ، كن حاضراً برأفة.
- قم بزيارة المريض بانتظام.
- يحتاج شخص ما إلى الإمساك باليد والاستماع والتحدث.

• تحرك ببطء.

❖ الرعاية

• الراحة.

• توفير الاتصال الجسدي عن طريق اللمس الخفيف ، ومسك اليد.

❖ تدابير الراحة قرب نهاية الحياة

• ترطيب الشفاه والقم والعينين.

• حافظ على نظافة وجفاف المريض والاستعداد لسلس الأمعاء والمثانة.

• إعطاء الأدوية الأساسية فقط: مسكنات الألم ، مضاد للإسهال ، علاج الحمى (الباراسيتامول على مدار الساعة) إلخ.

• السيطرة على الأعراض مع العلاج الطبي حسب الحاجة لتخفيف المعاناة (بما في ذلك المضادات الحيوية ومضادات الفطريات ، وخاصة في فيروس نقص المناعة البشرية / الإيدز وفيروس كورونا).

• لا بأس بتقليل تناول الطعام.

• العناية بالبشرة / التقلبات كل ساعتين أو أكثر.

• تأكد من السيطرة على الألم.

- علامات الموت الوشيك



• انخفاض التفاعل الاجتماعي - ينام أكثر ، يشعر بالارباك ، الغيبوبة.

• انخفاض تناول الطعام والسوائل - لا يوجد جوع أو عطش.

• تغيرات في الإفراغ - انخفاض حركة البول والأمعاء ، وسلس البول.

• تغيرات في الجهاز التنفسي - تنفس غير منتظم ، "حشرجة الموت".

• تغيرات الدورة الدموية - الأطراف الباردة والرمادية أو البنفسجية ، وانخفاض معدل ضربات القلب وضغط الدم.

- علامات الموت

- توقف التنفس تمامًا.
- توقف ضربات القلب و النبض.
- لا يستجيب تماما للاهتزاز والصراخ.
- عيون ثابتة في اتجاه واحد ، الجفون مفتوحة أو مغلقة.
- تغيرات في لون البشرة - من الأبيض إلى الرمادي.

- استشارات الفاجعة:**❖ للمريض**

- انظر واستجب لرد فعل الحزن - الإنكار ، عدم الاعتقاد ، الارتباك ، الصدمة ، الحزن ، المساومة ، الحسرة ، الغضب ، الذل ، اليأس ، الذنب ، القبول.
- حافظ على استمرار التواصل - إذا كان المريض لا يريد التحدث ، اسأل "هل ترغب في التحدث الآن أو لاحقاً؟"
- مساعدة المريض على تقبل وفاته.
- تقديم الدعم العملي - مساعدة المريض على صياغة الوصية ، والمساعدة في حل النزاعات القديمة ، والتخطيط لحضانة الأطفال.
- تأكد من احترام ما يريده المريض.

❖ للعائلة

- ابحث عن ردود فعل الحزن واستجب لها: الإنكار ، عدم الاعتقاد ، الارتباك ، الصدمة ، الحزن ، المساومة ، الحسرة ، الغضب ، الإذلال ، اليأس ، الذنب ، والقبول.
- مساعدة الأسرة على تقبل وفاة من تحب.
- شارك الحزن - شجعهم على التحدث ومشاركة الذكريات.
- لا تقم بالابتذال - قدم تعابير بسيطة واعط وقتاً للاستماع.
- حاول أن ترى ما إذا كان الصديق / الجار يمكن أن يقدم مساعدة عملية - يمكن أن يساعد في الطهي وقضاء المهمات في خضم الحزن.
- اسأل عما إذا كان بإمكانهم تحمل تكاليف الجنازة والرسوم المدرسية المستقبلية ، والمساعدة في إيجاد حل إن أمكن.
- انصح بالتحلي بالصبر — قد يستغرق الأمر وقتاً طويلاً للتعافي من خسارة كبيرة.
- قل لهم بأن مشاعر الاشتياق والفقْدان ربما سوف تستمر ، لكن الألم سيخف ويسمح لهم بالاستمرار في الحياة.

- العناية بعد الوفاة

- أغمض عيني المريض واغلق فكه.
- إزالة المجوهرات والنظارات.
- اغسل الجسم حسب الحاجة ثم ضع ثوب نظيف وشراشف السرير.
- ضع ضمادات مقاومة للماء أو لسلس البول لامتصاص البول والبراز.
- مشط ورتب الشعر بعناية.
- أزل الأنابيب والضمادات.
- تعديل الجسم ، ووضع الذراعين على جانبيها أو عبر البطن مع راحة اليدين.
- ضع وسادة تحت الرأس.

- الاحتياجات الخاصة للتمريض والتمريضات

العديد من الممرضين الذين يهتمون بالمرضى المحتضرين يفعلون ذلك لأنهم متحمسون لتوفير رعاية مرحلة الاحتضار EOL عالية الجودة. إن رعاية المرضى وعائلاتهم في نهاية الحياة أمر صعب ومجزٍ ولكنه مكثف ومشحون عاطفياً. قد تنشأ رابطة أو اتصال بينك وبين المريض أو الأسرة. كن على دراية بإمكانية تأثير الحزن عليك شخصياً. عندما تقدم الرعاية للمرضى المصابين بأمراض خطيرة أو مرضى العضال ، فأنت لست محصناً ضد مشاعر الفقد. من الشائع أن تشعر بالعجز والضعف عند التعامل مع الموت. عبّر عن مشاعر الحزن والذنب والإحباط. من المهم التعرف على قيمك ومواقفك ومشاعرك تجاه الموت. تشمل المخاوف الأخلاقية الشائعة الافتقار إلى التواصل الكافي ، والافتقار إلى اتخاذ القرار الفعال ، ومتى يتم إيقاف التدخلات التي تطيل العمر ، والمخاوف بشأن علاج الأعراض ، خاصةً باستخدام المواد الأفيونية.

لتلبية احتياجاتك الشخصية ، ركز على التدخلات التي ستساعدك على تقليل التوتر. انخرط في الهوايات أو الاهتمامات الأخرى ، وحدد موعداً لنفسك ، وضمن وقتاً للنوم ، والحفاظ على نظام دعم الأقران ، وتطوير نظام دعم خارج مكان العمل.

استراتيجيات التعليم:

1. الوقت والتاريخ: 3:00 مساءً 2021/1/7
2. المدة: ساعتان
3. المكان: قاعة خاصة.
4. وسائل الايضاح: عرض تقديمي باستخدام الصور ومقاطع الفيديو.

English version of the questionnaire**Effectiveness of End of Life Concept Educational Program on Critical Care Units Nurses' Knowledge and Perception in Mosul Teaching Hospitals****Part I: Demographical data:****1- Age: (in years):**21 – 25 26 – 30 31 – 35 36 – 40 41 – 45 **2. Gender:** Male Female **3. Select the highest nursing degree currently held:**Secondary school of Nursing Nursing Institute graduate Nursing college graduate Master's Degree **4. Years of Experience in Nursing:**1 – 5 6 – 10 11 – 15 16 – 20 More than 20

5. Employment setting:

Intensive Care Unit (ICU)	<input type="text"/>
Coronary Care Unit (CCU)	<input type="text"/>
Respiratory Care Unit (RCU)	<input type="text"/>
Neuro Intensive Care Unit (NICU)	<input type="text"/>
Surgical Intensive care Unit	<input type="text"/>

6. Years of experience in CCU:

1 – 5	<input type="text"/>
6 – 10	<input type="text"/>
11 – 15	<input type="text"/>
16 – 20	<input type="text"/>
More than 20	<input type="text"/>

7. Participate in end of life educational course

Yes	<input type="text"/>	
No	<input type="text"/>	
If yes	Number of courses	<input type="text"/>

Part II: Knowledge of nurses regarding the end-of-life:

Session one questions

1. Contemporary Definition of Nursing for the American Nurses Association, 2015 confirmed:

- There is a more important group of patients with serious diseases and death.
- There may be no group more important than seriously ill and dying patients.
- They are giving priority only to the prevention of suffering when providing nursing care.
- Prioritize healthy people.

2. A female patient is receiving palliative care for heart failure. The primary purpose of her receiving palliative care is to:

- Assess her coping ability with the disease.
- Have time to teach patients and families about the disease.
- Focus on reducing the severity of disease symptoms.
- Provide care that the family is unwilling or unable to give.

3. The focus of palliative care includes:

- a. Control of physical symptoms.
- b. Psycho-social support of the patient and family.
- c. Psychological and financial support for the patient's family.
- d. Training family members to take care of the patient.

4. Hospice is a concept in which care referred to

- a. Compassion, concern, and support for persons in the last phases of a terminal disease.
- b. A lifelong type of care.
- c. Nursed within acute care settings
- d. A model of care rather than a place of care.

5. The goals of end of life care include all except:

- a. Halting the progress of the disease.
- b. Provide comfort and supportive care during the dying process.
- c. Improve the quality of the patient's remaining life.
- d. Provide emotional support to the family.

6. Which of the following statements is false of life-threatening disease?

- a. A life-threatening disease is a disease that can lead to the death of the patient.
- b. Most chronic diseases are life-threatening diseases.
- c. Patients suffering from life-threatening diseases are admitted to the ICU of hospitals.
- d. Life-threatening diseases are very safe diseases.

7. Are there predictable patterns in the way people grieve?

- a. Yes. Everybody goes through the stages of grief, and it takes about a year
- b. Time is a great healer
- c. Everybody grieves in their unique way.
- d. Everyone goes through the stages of grief for a period not exceeding (3-6) months.

8. Denial, sadness, anger, fear, and anxiety are:

- a. Abnormal grief reactions in people with a life-threatening illness and those close to them.
- b. Normal grief reactions in people with a life-threatening illness and those close to them.
- c. Odd grief reaction in people with a life-threatening illness and those close to them.
- d. Rare grief reaction in people with a life-threatening illness and those close to them.

9. The theory described five common emotional reactions to death applied to the experience of any loss:

- a. Bowlby (1973, 1980): protest, despair, and detachment.
- b. Engel (1964): acute grief, restitution, and long-term grief.
- c. Kubler-Ross (1969): stages of coping with loss.

- d. Caplan (1990): stress and loss.

10. Kubler-Ross believed that one usually first responds to a situation of loss with:

- a. Anger
- b. Bargaining
- c. Depression
- d. Denial

Second session MCQs

1. The critical care unit nurse visits a 40-year-old patient with metastatic breast cancer receiving end-of-life care. The patient has pain at a level of 8 (0–10 scale). In prioritizing activities for a visit, what should the nurse do first?

- a. Auscultate for breath sounds.
- b. Give as-needed pain medication.
- c. Check pressure points for skin breakdown.
- d. Ask family about the patient's food and fluid intake.

2. Analgesia for chronic pain should be given

- a. Around the clock on a fixed schedule
- b. Only when the patient asks for the medication
- c. Only when the nurse determines that the patient has moderate or severe discomfort
- d. Only when the patient's family requests pain medication to be given

3. The recommended method for administering analgesics to patients with continuous pain associated with the end-of-life stage is:

- a. Intravenous.
- b. Intramuscular.
- c. Oral.
- d. Rectal.

4. The most likely explanation for why a patient with pain would request increased doses of pain medication is

- a. The patient is experiencing increased pain.
- b. The patient is experiencing increased anxiety or depression.
- c. The patient is trying to become more sedated.
- d. The patient's requests are related to addiction.

5. All of the following are interventions to relieve dyspnea at the end of life except:

- a. Administering oxygen.
- b. Discontinue oxygen to hasten death.
- c. Reduce anxiety.
- d. Administering morphine.

6. Signs and symptoms of progressive delirium to NOT include

- a. Agitation.
- b. Withdrawal.
- c. Hallucinations.
- d. Delusions.

7. All of the following interventions help to relieve nausea EXCEPT:

- a. Medicating with an antiemetic only when vomiting is experienced.
- b. Avoiding fatty or spicy foods.
- c. Medicating with an antiemetic on a round-the-clock basis until nausea subsides.
- d. Avoid sounds, smells, scenes, foods, and movements that aggravate nausea.

8. Interventions for “terminal agitation” include all the following except:

- a. Assessing medications that may be causing agitation.
- b. Increasing stimulus.
- c. Decreasing stimulus.
- d. Administering anxiolytics.

9. Fatigue at the end of life can be a result of

- a. Pain.
- b. Anemia.
- c. Dehydration.
- d. Low level of electrolytes in the blood.

10. Management of other Symptoms such as (nausea and vomiting, dry mouth, bedsores, fever.....) at the end of life focuses on:

- a. Symptom management and comfort.
- b. Treatment for curing a disease or disorder.
- c. Prolong life
- d. Accelerating the death of the patient

Third session MCQs

1. One of statement true:

-
- a. Physicians spend more time with patients near the EOL than any other health care professionals.
 - b. Nurses spend more time with patients near the EOL than any other health care professionals.
 - c. Relative patients spend more time with patients near the EOL than any other health care professionals.
 - d. Psychologists spend more time with patients near the EOL than any other health care professionals.
2. Prevention interventions at the end of life focus on patient needs and should include:
- a. Oral care and bathing
 - b. Prevent bedsores
 - c. Prevent pain
 - d. All above
3. Clinical interventions to manage complex symptoms should:
- a. Focus towards an individual need
 - b. Be dictated by protocol
 - c. Be led by the senior clinician in the team
 - d. Only be advised if evidence-based.
4. One of the barriers to end-of-life care that can result in fewer aggressive interventions and better quality of life near death is:
- a. Poor nurse-patient communication
 - b. Lack of palliative care specialists
 - c. Physicians and nurses may also be uncomfortable with delivering bad news and facing the imminent death of their patients.
 - d. Elements related to family and patient
5. Provide psychosocial and spiritual support are as important as physiological concerns of:
- a. Physicians
 - b. Psychologists
 - c. Nurses
 - d. Patients and their families.
6. A key component of improving care at the time of death is
- a. Informing and educating family members about signs and symptoms.
 - b. Since each case is different, treat symptoms only as the symptoms appear.
 - c. Avoid bothering the family with information about what might happen at the end of life.

- d. Minimize family involvement when the patient is dying.

7. It is important to remember

- a. Death is a physical, psychological, social, and spiritual event.
- b. Each death is unique.
- c. To allow the family time with the body after the death to say goodbye.
- d. All of the above.

8. Signs and symptoms of impending death include all EXCEPT

- a. Pupils reactive to light.
- b. Bowel incontinence.
- c. Unresponsive to stimulus.
- d. Decreased pulse and respiration.

9. A post-mortem care is carried out by:

- a. A coroner
- b. A police officer
- c. A nurse
- d. Physician

10. A nurse has been working long-time with terminally ill patients for six months. He has been experiencing irritability and mixed emotions when expressing sadness since 4 of his patients died on the same day. To optimize the quality of his nursing care, he should examine his own

- a. Full-time work schedule.
- b. Past feelings toward death.
- c. Patterns for dealing with grief.
- d. Demands for involvement in inpatient care.

Part III: Perception of nurses regarding the end-of-life:

In these items, the purpose is to learn how nurses feel about certain situations in which they are involved with patients. All statements concern the giving of nursing care to the dying person and their family. There is a reference to a dying patient, assuming it to refer to a person who is considered terminally ill and has six months or less to live.

Please circle the letter following each statement that corresponds to your personal feelings about the attitude or situation presented. Please respond to all 30 statements on the scale.

The meaning of the letter is:

Appendix E: The Questionnaire of The Study

E

SD = Strongly Disagree , D = Disagree, U = Uncertain, A= Agree, SA = Strongly Agree

No.	Statements	SD	D	U	A	SA
1	Giving nursing care to the dying person is a worthwhile learning experience.					
2	Death is not the worst thing that can happen to a person.					
3	I would be uncomfortable talking about impending death with the dying person.					
4	Nursing care for the patient's family should continue throughout the period of grief and bereavement.					
5	I would not want to be assigned to care for a dying person.					
6	The nurse should not be the one to talk about death with the dying person.					
7	The length of time required to give nursing care to a dying person would frustrate me.					
8	I would be upset when the dying person I was caring for forgave up hope of getting better.					
9	It is difficult to form a close relationship with the family of a dying person.					
10	There are times when death is welcomed by the dying person.					
11	When a patient asks, "Nurse, am I dying?" I think it is best to change the subject to something cheerful.					
12	The family should be involved in the physical care of the dying person.					
13	I would hope the person I'm caring for dies when I am not present.					
14	I am afraid to become friends with a dying person.					
15	I would feel like running away when the person actually died.					
16	Families need emotional support to accept the behavior changes of the dying person.					
17	As a patient nears death, the nurse should withdraw from their involvement with the patient.					
18	Families should be concerned about helping their dying members make the best of their remaining life					
19	The dying person should not be allowed to make decisions about their physical care.					
20	Families should maintain as normal an environment as possible for their dying member.					
21	It is beneficial for the dying person to verbalize his/or feelings.					

22	Nursing care should extend to the family of the dying person.					
23	Nurses should permit dying persons to have flexible visiting schedules.					
24	The dying person and their family should be the in-charge decision-makers.					
25	Addiction to pain-relieving medication should not be a nursing concern when dealing with a dying person.					
26	I would be uncomfortable if I entered the room of a terminally ill person and found them crying.					
27	Dying persons should be given honest answers about their condition.					
28	Educating families about death and dying is not a nursing responsibility.					
29	Family members who stay close to a dying person often interfere with the professionals' job with the patient.					
30	It is possible for nurses to help patients prepare for death.					

Arabic version of the questionnaire:

فاعلية البرنامج التعليمي لمفهوم مرحلة الاحتضار على معارف وادراك التمريضيين

في وحدة العناية الحرجة في مستشفيات الموصل التعليمية

الجزء الأول: المعلومات الديموغرافية

1. العمر:

- من 20 – 26 سنة
- من 27 – 33 سنة
- من 34 – 40 سنة
- من 41 – 47 سنة
- أكثر من 47 سنة

2. الجنس:

- ذكر
- انثى

3. المستوى التعليمي:

- شهادة اعدادية التمريض
- شهادة الدبلوم
- شهادة البكالوريوس
- شهادة الماجستير

4. سنوات الخدمة:

- من 1 – 5 سنوات
- من 6 – 10 سنوات
- من 11 – 15 سنوات
- من 16 – 20 سنوات
-

21 سنة فما فوق

5. موقع عملك الحالي:

- وحدة العناية المشددة (ICU)
- وحدة العناية القلبية (CCU)
- وحدة العناية التنفسية (RCU)
- وحدة عناية الجملة العصبية الحرجة (NICU)
- وحدة العناية الجراحية الحرجة

6. سنوات العمل في وحدة العناية الحرجة:

- من 1 – 5 سنوات
- من 6 – 10 سنوات
- من 11 – 15 سنوات
- 16 سنة فما فوق

7. هل سبق وان شاركت في دورة تعليمية حول العناية في مرحلة الاحتضار ؟

- نعم
- لا

عدد الدورات إذا كانت الاجابة نعم

الجزء الثاني: معرفة التمريض بشأن مرحلة الاحتضار**أسئلة الجلسة الأولى**

1. أكدت الجمعية الأمريكية للتمريض في تعريفها المعاصر عام 2015 على انه:
 - أ. يوجد مجموعة أكثر أهمية من المرضى الذين يعانون من أمراض خطيرة والوفاة.
 - ب. قد لا تكون هناك مجموعة أكثر أهمية من المرضى المصابين بأمراض خطيرة والمحتضرين.
 - ج. إعطاء الأولوية فقط لتقليل المعاناة عند تقديم الرعاية التمريضية.
 - د. إعطاء الأولوية للأشخاص الأصحاء.
2. مريض يعاني من عجز القلب و يتلقى الرعاية التلطيفية. ان الغرض الاساسي من تلقي الرعاية التلطيفية هي:

أ. تقييم قدرته على التأقلم مع المرض.

ب. يمنحك الوقت لتعليم المريض والأسرة عن المرض.

ج. يركز على تقليل حدة أعراض المرض وتحسين نوعية حياته.

د. توفير الرعاية التي تكون الأسرة غير راغبة أو غير قادرة على تقديمها.

3. يتضمن تركيز الرعاية التلطيفية على:

أ. معالجة على الأعراض الجسدية.

ب. الدعم النفسي والاجتماعي للمريض والأسرة.

ج. الدعم النفسي والمالي للأسرة المريض.

د. تدريب افراد الاسرة للعناية بالمريض.

4. أي من العبارات التالية صحيحة بخصوص عناية المحتضرين؟

أ. توفير العطف والاهتمام والدعم للأشخاص في المراحل الأخيرة من المرض النهائي.

ب. نوع من الرعاية مدى الحياة.

ج. أماكن لرعاية الحالات الحادة.

د. تعتبر انموذج للرعاية وليس مكان تقديم الرعاية.

5. تتضمن أهداف الرعاية في نهاية الحياة كل ما ذكر ما عدا:

أ. إيقاف تقدم المرض.

ب. توفير الراحة والرعاية الداعمة أثناء مراحل الموت.

ج. تحسين جودة الحياة المتبقية للمريض.

د. تقديم الدعم العاطفي للعائلة.

6. أي من العبارات التالية خاطئة للأمراض المهددة للحياة؟

أ. الأمراض التي تهدد الحياة هي الأمراض التي يمكن أن تؤدي إلى وفاة المريض.

ب. معظم الأمراض المزمنة هي أمراض مهددة للحياة.

ج. يتم رقود المرضى الذين يعانون من أمراض مهددة للحياة في وحدة العناية المركزة في المستشفيات.

د. الأمراض التي تهدد الحياة هي أمراض آمنة للعناية.

7. هل هناك أنماط يمكن التنبؤ بها في أسلوب حزن الناس؟

أ. نعم. الجميع يمر بمراحل الحزن ويستغرق حوالي عام.

ب. مرور الوقت هو الكفيل بانهاء الحزن.

ج. كل شخص يحزن بطريقته المميزة والخاصة.

د. الجميع يمر بمراحل الحزن لمدة لا تتجاوز (3-6) اشهر.

8. الإنكار والحزن والغضب والخوف والقلق هي:

أ. ردود فعل الحزن غير الطبيعية في الأشخاص الذين يعانون من مرض يهدد الحياة والمقربين منهم.

ب. ردود فعل الحزن الطبيعية في الأشخاص الذين يعانون من مرض يهدد الحياة والمقربين منهم.

ج. ردود فعل الحزن الغريبة في الأشخاص الذين يعانون من مرض يهدد الحياة والمقربين منهم.

د. ردود فعل نادرة الحدوث في الأشخاص الذين يعانون من مرض يهدد الحياة والمقربين منهم.

9. النظرية التي وصفت خمسة ردود فعل عاطفية شائعة للموت وتم تطبيقها على تجربة أي خسارة هي:

أ. بولبي (1973 ، 1980): الاحتجاج واليأس والانفصال.

ب. إنجل (1964): الحزن الحاد والرد والحزن على المدى الطويل.

ج. كوبلر روس (1969): مراحل التأقلم مع الخسارة.

د. كابلان (1990): الإجهاد والخسارة.

10. الاستجابة الاولى لأي حالة فقدان هي:

أ. الغضب.

ب. المساومة.

ج. الكآبة.

د. الإنكار.

أسئلة الجلسة الثانية

1. يقوم ممرض وحدة الرعاية الحرجة بزيارة مريضة عمرها 40 عامًا مصابة بسرطان الثدي بمرحلته الاخيرة التي تتلقى رعاية الاحتضار. تعاني المريضة من ألم عند مستوى 8 (مقياس من 0 إلى 10). ما الذي يجب أن يفعله الممرض أولاً عند تحديد أولويات أنشطة الزيارة؟

أ. يسمع أصوات التنفس.

ب. يعطي مسكنات الألم حسب الحاجة.

ج. يفحص نقاط الضغط في الجلد المتشق.

د. يسأل العائلة عن طعام وشراب المريض.

2. يجب إعطاء العقاقير المسكنة للمرضى الذين يعانون من الألم المزمن:

أ. على مدار الساعة وفقاً لجدول زمني محدد.

- ب. فقط عندما يطلب المريض الدواء.
- ج. فقط عندما تقرر الممرضة أن المريض يعاني من اضطراب معتدل أو شديد.
- د. فقط عندما تطلب أسرة المريض إعطاء مسكنات الألم.
3. الطريقة المفضلة لإعطاء المسكنات للمرضى الذين يعانون من آلام مستمرة مرتبطة بمرحلة الاحتضار هي عن طريق:
- أ. الوريد.
- ب. حقن عضلي.
- ج. الفم.
- د. المستقيم.
4. التفسير الأكثر احتمالاً لسبب طلب مريض يعاني من الألم جرعات متزايدة من مسكنات الألم هو:
- أ. احساس المريض بألم شديد.
- ب. القلق أو الاكتئاب.
- ج. وصوله الى نشوة التخدير.
- د. ترتبط طلبات المريض بالإدمان.
5. كل ما يلي تدخلات لتخفيف ضيق التنفس في مرحلة الاحتضار باستثناء:
- أ. إعطاء الأوكسجين.
- ب. إيقاف الأوكسجين للتعجيل بالوفاة.
- ج. تقليل القلق.
- د. إعطاء المورفين.
6. علامات وأعراض الهذيان لا تتضمن الآتي:
- أ. الانفعالات او الهيجان.
- ب. انسحاب او الانطواء.
- ج. الهلوسة او الهذيان.
- د. الأوهام.
7. جميع التدخلات التالية تساعد في تخفيف الغثيان باستثناء:
- أ. العلاج بمضاد للقيء فقط عند الشعور بالقيء.
- ب. تجنب الأطعمة الدهنية أو الحارة (المتبلّة).
- ج. التداوي باستخدام مضاد للقيء على مدار الساعة حتى يهدأ الغثيان.

د. تجنب الأصوات والروائح والمشاهد والأطعمة والحركة التي تؤدي إلى تفاقم الغثيان.

8 - تشمل تدخلات "الهيجان أو الانفعال النهائي" جميع ما يلي باستثناء:

أ. تقييم الأدوية التي قد تسبب الهيجان.

ب. زيادة الاثارة.

ج. تقليل الاثارة.

د. إعطاء مضادات القلق.

9. يمكن أن يكون الأحساس بالتعب أو الارهاق في مرحلة الاحتضار نتيجة ل:

أ. ألم.

ب. فقر دم.

ج. جفاف.

د. انخفاض مستوى الشوارد في الدم.

10. العناية بالأعراض الأخرى مثل (الغثيان والقيء ، جفاف الفم ، التقرحات ، الحمى) في مرحلة الاحتضار تركز على:

أ. تقليل الأعراض وتوفير الراحة.

ب. علاج لشفاء مرض أو اضطراب.

ج. إطالة الحياة.

د. الإسراع بوفاة المريض.

أسئلة الجلسة الثالثة

1. أحد العبارات التالية صحيحة:

أ. يقضي الاطباء وقتا أطول مع المرضى مع اقتراب نهاية الحياة أكثر من أي اختصاصي رعاية صحية آخر.

ب. يقضي التمريض وقتا أطول مع المرضى مع اقتراب نهاية الحياة أكثر من أي اختصاصي رعاية صحية آخر.

ج. يقضي اقرباء المريض وقتا أطول مع المرضى مع اقتراب نهاية الحياة أكثر من أي شخص آخر.

د. يقضي علماء النفس وقتا أطول مع المرضى مع اقتراب نهاية الحياة أكثر من أي شخص آخر.

2. تتركز التدخلات الوقائية في مرحلة نهاية الحياة على حاجات المريض وينبغي أن تشمل:

أ. العناية بالفم والاستحمام.

ب. منع تقرحات الفراش.

ج. منع الألم.

د. كل ما سبق.

3. التدخلات السريرية لإدارة الأعراض المعقدة يجب أن:

أ. تتركز على حاجات الفرد.

ب. تحدد بروتوكول

ج. يقودها طبيب كبير في الفريق

د. ينصح فقط إذا كان مبنياً على الأدلة.

4- يمكن أن يؤدي اجتياز إحدى العوائق التي تعترض الرعاية في مرحلة الاحتضار إلى تدخلات أقل عدوانية وتحسين نوعية الحياة بالقرب من الموت ، وهي:

أ. ضعف الاتصال بين الممرض والمريض.

ب. عدم وجود أخصائي الرعاية التلطيفية.

ج. قد يكون الأطباء والممرضات او الممرضين غير مرتاحين أيضاً من نشر الأخبار السيئة ومواجهة الموت الوشيك لمرضاهم:

د. العناصر المتعلقة بالأسرة والمريض.

5. تقديم الدعم النفسي والاجتماعي والروحي لا يقل أهمية عن الاهتمامات الفسيولوجية لل:

أ. الأطباء

ب. علماء النفس

ج. الممرضين

د. المرضى وأسرهم.

6. أحد المكونات الرئيسية لتحسين الرعاية وقت الوفاة هو

أ. إعلام وتثقيف أفراد الأسرة بالعلامات والأعراض.

ب. بما أن كل حالة مختلفة ، معالجة الأعراض فقط عند ظهورها.

ج. تجنب إزعاج الأسرة بمعلومات حول ما قد يحدث في نهاية الحياة.

د. قلة من مشاركة الأسرة عندما يموت المريض.

7. من المهم أن نتذكر

أ. الموت هو حدث بدني ونفسي واجتماعي وروحي.

ب. تعتبر كل وفاة حالة فريدة.

ج. السماح للعائلة بالبقاء مع الجسد بعد الوفاة لفترة من الوقت لتقول وداعا.

د. ما ورد سابقا.

8. علامات وأعراض الموت الوشيك تشمل جميع الحالات باستثناء:

أ. يتفاعل بؤبؤ العين مع الضوء.

ب. سلس البول.

ج. عدم الاستجابة للمؤثرات الخارجية.

د. انخفاض النبض والتنفس.

9- تتم رعاية ما بعد الوفاة بواسطة:

أ. الطب الشرعي

ب. ضابط شرطة

ج. الممرض

د. الطبيب المعالج

10. ممرض يعمل منذ فترة طويلة مع المرضى الذين يعانون من مرض عضال منذ 6 أشهر. كان يعاني من الانفعال والمشاعر المختلطة عند التعبير عن الحزن منذ وفاة أربعة من مرضاه في نفس اليوم. لتحسين جودة الرعاية التمريضية ، يجب عليه فحص:

أ. جدول عمله اليومي الكامل.

ب. مشاعره السابقة تجاه الموت.

ج. أنماط التعامل مع الحزن.

د. يطالب بالانخراط في رعاية المرضى.

الجزء الثالث: مقياس ادراك التمريض بشأن مرحلة الاحتضار

في هذه الفقرات الغرض هو معرفة كيف يشعر الممرضين تجاه مواقف معينة يشاركون فيها المرضى. تتعلق جميع البيانات بتقديم الرعاية التمريضية للشخص المحتضر / أو لعائلته. عندما تكون هناك إشارة إلى مريض يحتضر، نفترض أنه يشير إلى شخص يعتبر مريضاً بشكل نهائي ولديه ستة أشهر أو أقل للعيش.

يرجى قراءة الفقرات التالية بعناية ووضع علامة (√) في الحقل الذي يتوافق مع مشاعرك الشخصية أمام كل فقرة

ت	الفقرة	اتفق بشدة	اتفق	غير متأكد	لا أتفق	لا أتفق بشدة
1	يعد تقديم الرعاية التمريضية للشخص المحتضر تجربة تعليمية جديرة بالاهتمام.					
2	أعتقد أن الموت ليس أسوأ شيء يمكن أن يحدث لشخص ما.					
3	سأكون غير مرتاح في الحديث عن الموت الوشيك مع الشخص المحتضر.					
4	من الأفضل أن تستمر الرعاية التمريضية لأسرة المريض طوال فترة الحزن والفاوجة.					
5	لا أحبذ أن يتم تكليفي برعاية شخص يحتضر.					
6	ليس الحديث عن الموت مع الشخص المحتضر من الأعمال التي تناط بالتمريضيين.					
7	يحبطني طول الوقت المطلوب لتقديم الرعاية التمريضية لشخص يحتضر.					
8	سأشعر بالضيق عندما يفقد الشخص المحتضر الذي كنت أهتم به الأمل في التحسن.					
9	من الصعب تكوين علاقة وثيقة مع أسرة الشخص المحتضر.					
10	يرحب الشخص المحتضر بالموت في بعض الأحيان					
11	عندما يسأل المريض: هل أنا احتضر أيها الممرض؟ أعتقد انه من الأفضل تغيير الموضوع إلى أمر مفرح.					
12	أعتقد من الضروري مشاركة أفراد الأسرة في الرعاية الجسدية للمريض المحتضر.					
13	أأمل ألا أكون حاضرا عندما يموت الشخص الذي أقوم برعايته.					
14	أشعر بالخوف من أن أصبح صديقا لشخص يحتضر.					
15	أشعر بأنني أريد الهرب عندما يتوفى المريض.					

					16	تحتاج الأسر إلى دعم عاطفي لتقبل التغييرات السلوكية للشخص المحتضر.
					17	يجب على الممرض عندما يوشك المريض على الموت الانسحاب من التعامل معه
					18	يجب على أسر المرضى الاهتمام بمساعدة مرضاهم المحتضرين وجعل نهاية حياتهم أفضل ما يكون.
					19	يجب ألا يسمح للمريض المحتضر باتخاذ أية قرارات فيما يخص العناية بجسمه .
					20	يجب أن تحافظ الأسر على بيئة طبيعية لمرضهم المحتضر قدر الأماكن .
					21	اعتقد من المفيد للشخص المحتضر الإفصاح عن مشاعره.
					22	اعتقد بضرورة تقديم العناية والرعاية لأسرة المحتضر التي تعد من أساسيات الرعاية التمريضية
					23	يتوجب على الممرضين السماح بجدول زيارات مرن للأشخاص المحتضرين.
					24	يكون الشخص المحتضر وأسرته المسؤولين وأصحاب القرار.
					25	يجب ألا يكون الإدمان على مسكنات الألم مصدر قلق للممرض عندما يتم التعامل مع مريض محتضر.
					26	أشعر بعدم الارتياح عندما ادخل حجرة مريض محتضر وأجده يبكي.
					27	يجب إعطاء أجوبة صريحة للمريض المحتضر عن حالته.
					28	لا اعتقد أن تثقيف أفراد الأسرة عن الموت والاحتضار من ضمن واجبات التمريض.
					29	غالبا ما يتدخل أفراد أسرة المريض المحتضر المصاحبين له في مهنية العمل عند تقديم العناية والرعاية.
					30	يمكن للممرض أو الممرضة مساعدة المرضى لتحضيرهم للموت.

خبراء تحكيم استمارة الاستبيان

الاختصاص	الشهادة	مكان العمل	اللقب العلمي	اسم الخبير	ت
كلية التمريض / جامعة الكوفة	دكتوراه	تمريض صحة البالغين	استاذ	الدكتورة راجحة عبد الحسن حمزة	١
كلية التمريض / جامعة نينوى	دكتوراه	تمريض صحة مجتمع	استاذ	الدكتور رضوان حسين ابراهيم العكيدي	٢
كلية التمريض / جامعة بابل	دكتوراه	تمريض صحة مجتمع	استاذ	الدكتور امين عجيل الياسري	٣
كلية التمريض / جامعة الموصل	دكتوراه	تمريض صحة الام والطفل	استاذ	الدكتورة سلوى حازم المختار	٤
كلية التمريض / جامعة بابل	دكتوراه	تمريض صحة البالغين	استاذ	الدكتورة فخرية جبر محيبس الزبيدي	٥
كلية التمريض / جامعة بغداد	دكتوراه	تمريض صحة البالغين	استاذ	الدكتور حسين هادي عطية	٦
الجامعة التقنية الشمالية/ المعهد التقني الموصل	دكتوراه	تمريض صحة مجتمع	استاذ	الدكتور رفاعي ياسين حميد حسين	٧
كلية التمريض / جامعة بابل	دكتوراه	تمريض صحة البالغين	استاذ مساعد	الدكتورة شذى سعدي محمد	٨
كلية الطب / جامعة الموصل	دكتوراه	طب مجتمع	استاذ مساعد	الدكتور وليد غانم احمد ابراهيم الطائي	٩
كلية التمريض / جامعة الكوفة	دكتوراه	تمريض صحة البالغين	استاذ مساعد	الدكتور ضياء كريم عبد علي	١٠
كلية التمريض / جامعة بابل	دكتوراه	تمريض صحة البالغين	استاذ مساعد	الدكتور حسام عباس داوود	١١
كلية التربية الأساسية - جامعة الموصل	دكتوراه	اللغة العربية/ الادب العربي	استاذ مساعد	الدكتور نيهان حسون عبدالله السعدون	١٢
كلية التمريض / جامعة الموصل	دكتوراه	تمريض صحة البالغين	مدرس	الدكتور سعد حسين مراد الشمري	١٣
كلية التمريض / جامعة الموصل	دكتوراه	تمريض صحة البالغين	مدرس	الدكتور تحسين محسن حسين علي	١٤
كلية التمريض / جامعة الموصل	دكتوراه	طب مجتمع	مدرس	الدكتورة شذى عبدالرحمن حسو الغريزي	١٥
دائرة صحة نينوى / مستشفى ابن سينا التعليمي	دبلوم عالي	عناية تلطيفية	طبيب اختصاص	الدكتور رائد خالد الحموشي	١٦

Appendix G: Some photos which were taken during the implementation of the educational program

G

Some photos which were taken during the implementation of the educational program



Appendix G: Some photos which were taken during the implementation of the educational program

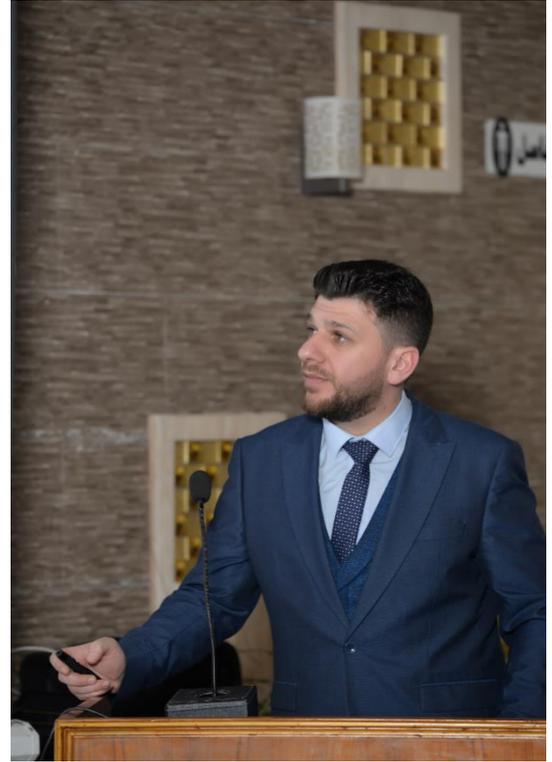


Appendix G: Some photos which were taken during the implementation of the educational program



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Appendix G: Some photos which were taken during the implementation of the educational program



الخلاصة

خلفية الدراسة: لكل شخص مصاب بمرض يهدد الحياة الحق في أن يعيش بدون ألم وضيق في الأيام الأخيرة من حياته ، وكذلك الحق في حياة كريمة وموت بسلام. تعتبر الرعاية في مرحلة الاحتضار مكون أساسي لرعاية المرضى في وحدة العناية الحرجة، وجميع التمريضيين مسؤولون عن توفير رعاية مرحلة الاحتضار، لذلك كانت برامج التعليم والتدريب في هذا المجال المحدد ضرورية للتمريضيين لاكتساب المعرفة الأساسية والكفاءات المهنية والقيم والأخلاق الخاصة برعاية مرحلة الاحتضار.

الاهداف: الهدف الأساسي من هذه الدراسة هو تقييم فاعلية البرنامج التعليمي لمفهوم رعاية مرحلة الاحتضار من خلال زيادة معرفة وإدراك تمريضيين العناية الحرجة في مستشفيات الموصل التعليمية.

منهجية الدراسة: أجريت دراسة شبه تجريبية لتقييم فاعلية البرنامج التعليمي لتمريضيين العناية الحرجة فيما يتعلق بالمعرفة والإدراك المتعلقين بمفهوم مرحلة الاحتضار في مستشفيات الموصل التعليمية للفترة من (١ تشرين الأول ٢٠١٩ حتى ٤ تموز ٢٠٢١). وتكونت العينة الغرضية من (٦٠) تمريضيين ، تم تقسيمهم إلى مجموعتين (٣٠) تمريضيين تعتبر مجموعة تجريبية ، و (٣٠) تمريضيين مجموعة ضابطة. البرنامج التعليمي والاستبيان تم بنائهم من قبل الباحث من خلال مراجعة شاملة للأدبيات والكتب والدراسات السابقة والمعلومات المكتسبة من خلال تقييم احتياجات التمريضيين وأهداف الدراسة. لجمع البيانات تم استخدام استبيان يتألف من ثلاثة أجزاء أساسية: (المعلومات الديموغرافية ، استبيان لتقييم معرفة التمريضيين ، واستبيان لتقييم تصوراتهم فيما يتعلق بمفهوم مرحلة الاحتضار). وتم تحديد صلاحية محتوى الاستبيان والبرنامج التعليمي من خلال لجنة مكونة من (١٦) خبيراً وقد تم اختبار الثبات لأداة الدراسة بواسطة عملية الاختبار وإعادة الاختبار بعد اجراء دراسة استطلاعية. تم إجراء اختبار قبلي واختبارين بعديين لتقييم فاعلية البرنامج التعليمي.

النتائج: أظهرت نتائج الدراسة أن معظم أفراد عينة الدراسة تتراوح أعمارهم بين (٣٦-٤٠) سنة وأن ٥٢٪ (٨٦٪) كانوا من الذكور في كلا المجموعتين. أظهرت نتائج الدراسة تحسناً ملحوظاً في معرفة التمريضيين حيث ارتفع متوسط الدرجة من (٤١,١) في الاختبار القبلي الى (٥٥,١) في الاختبار البعدي الثاني ، بينما كان (٥٥,٤) في الاختبار البعدي الاول، كما أدى برنامج التعليم إلى تحسين إدراك التمريضيين بشكل كبير من (٧٨,٢) في الاختبار القبلي الى (١٢١,٢٣) في للاختبار البعدي.

الاستنتاجات: هناك نقص واضح في معارف وادراك معظم التمريضيين تجاه مفهوم مرحلة الاحتضار في كلتا المجموعتين. وبعد تنفيذ البرنامج التعليمي كان هناك تحسن كبير في معارف

وإدراك التمريضيين مما يؤدي إلى توفير جودة عالية من الرعاية التمريضية في مرحلة الاحتضار في وحدات العناية الحرجة.

التوصيات: توصي الدراسة الحالية بتنفيذ البرنامج التعليمي لرعاية مرحلة الاحتضار بناءً على نتائج هذه الدراسة ، بالإضافة إلى إصدار الكتيبات والنشرات التعليمية المتعلقة برعاية مرحلة الاحتضار للتعليم المستمر للتمريضيين العاملين في وزارة الصحة والبيئة العراقية ووزارة التعليم العالي والبحث العلمي.



جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة بابل
كلية التمريض

فاعلية البرنامج التعليمي لمفهوم مرحلة الاحتضار على
معارف وادراك التمريضيين في وحدة العناية الحرجة في
مستشفيات الموصل التعليمية

اطروحة مقدمه إلى
مجلس كلية التمريض / جامعه بابل
كجزء من متطلبات نيل درجة الدكتوراه فلسفة علوم في
التمريض

من قبل
محمد زهير ذنون يونس الحيالي

بإشراف
أ.د. سحر ادهم علي