

Assessing the Effectiveness of Palliative Care Interventions for Advanced Critically Ill Patients at The End of Life

A Senior Honors Thesis

Submitted in Partial Fulfillment of the Requirements
for Graduation in the Honors College

By

Deborah A. K. Lavaud
Nursing Major

SUNY Brockport, State University of New York
April 27, 2021

Thesis Director: Dr. Susan Lowey

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Introduction

What is Palliative Care?

Palliative care (PC) is a broad philosophy of care that includes services focused on centering and optimizing the emotional, spiritual, and practical health care concerns of individuals battling severe illnesses. It is essential to relieving suffering brought on by these severe or life-threatening illnesses. This type of care offers a window of opportunity for both patients and families to improve their quality of life (QOL). This process can help patients live as actively as possible or comfortably until death. Palliative care does not aim to hasten or postpone death. This type of care can be received regardless of the patient's disease course. Palliative care can be supplied with curative and life-prolonging therapy. It can also be provided when a patient's condition is uncertain to improve and terminal. This is commonly referred to as End-of-life care (EOL). End-of-life care is a type of palliative care for patients in their final days, weeks, or months of life. It is considered when the condition of the patient is not expected to improve, and active treatment is not effective in controlling the disease progression (Cruz-Oliver, Little, Woo, & Morley, 2017). The delivery of palliative care services can occur in various settings. It can take place in the hospital, a care facility, outpatient, or daily care service, and the patient's own home.

Palliative care uses a team approach to address the complex needs of patients, along with their families. This team approach involves a range of professionals that all have important roles to play. This group includes physicians, nurse practitioners, nurses, social workers, chaplains, and other professional disciplines. These individuals work with patients and their families to form treatment goals and address issues beyond physical symptoms. According to the World Health Organization, PC involves "the prevention and relief of suffering by means of early identification, impeccable assessment, and treatment of pain and other problems, physical, psychosocial and

spiritual” (WHO, 2020). This definition points out the primary treatment objectives of palliative care. For instance, identifying individuals in need, centering patient goals, symptom assessment and management, communication between patients and all those involved in their care, psychosocial, spiritual, and practical support to both patients and caregivers, and the collaboration of other sites of care (Isaac & Curtis, 2020). These palliative care delivery objectives can be used in the intensive care unit (ICU) to provide the necessary support to patients and their families. This support involves setting a more comfortable environment for better healing or increased awareness of the end-of-life (Coelho & Yankaskas, 2017).

Prevalence of Palliative Care

The distribution of people worldwide in need of palliative services is increasing. It was estimated that each year 40 million people are in need of PC (WHO, 2020). Reports have also estimated that the number of people in need of palliative care at the end of life was 20.4 million (World Palliative Care Alliance & WHO, 2014). The age groups with the highest demand for palliative care services were adults over 60 years old (69%) and adults between ages 15 to 59 years old (25%) (World Palliative Care Alliance & WHO, 2014). Additionally, PC programs in hospitals have been steadily growing. A report stated that these programs are now available at more than 80% of large hospitals in the United States (Kelly & Meier, 2010). There have also been significant increases in hospital palliative care programs in many other parts of the world, like Europe (Cotogni, Saini & De Luca, 2018). The continued need and growth of PC services can be attributed to the idea that the number of individuals diagnosed with severe illnesses or diseases, like cancer, is projected to increase dramatically (Grant et al., 2010). One factor associated with this development is the growing number of people living past the age of 85 and the expectation that individuals within this age range will double to 10 million by 2030 (Grant et al., 2010). The aging

population continues to grow with chronic, progressive, life-limiting diseases due to medical advances and improvements made in public health initiatives. This phenomenon represents a significant challenge for the healthcare system, especially when those who would benefit from palliative care are not only cancer patients with advanced or metastatic diseases.

Palliative care is needed for a wide range of illnesses that are non-oncological. For example, in-hospital PC programs can also treat adult patients that have acute or chronic diseases such as “end-stage organ failure (heart failure, chronic obstructive pulmonary disease (COPD), liver cirrhosis, and severe renal dysfunction), as well as neurological illnesses (amyotrophic lateral sclerosis, Parkinson’s disease, multiple sclerosis, Alzheimer’s, and other dementias)” (Cotogni et al., 2018). It has been reported that these diseases demonstrated a similar spectrum of distressful symptoms and course during the last stages of their illness trajectories (Cotogni et al., 2018). These distressful symptoms include pain, thirst, stress, depression, anxiety, sleep disturbances, and dyspnea (Mercadante, Gregoretti & Cortegiani, 2018). Religion, spiritual, and existential distress are also commonly experienced by patients (Mercadante et al., 2018; Papadimos et al., 2011). These symptoms can often manifest in any area of an individual's experience, including physical, psychological, religious, or social areas (Smith & Jackson, 2013). Mercadante et al. estimated 14 to 20% of ICU patients met the “triggers” for palliative care consultation because of these symptoms (2018). The prevalence of these common distressful symptoms ranges from 27 to 75% in ICU patients, which places patients at a higher risk of dying (Mercadante et al., 2018). This risk may require patients to access the essential services provided within palliative care. Patients who receive palliative care often experience positive outcomes with treatment. Studies have shown that PC interventions were associated with improvements in QOL of patients and lower symptom burden (Kavalieratos et al., 2016).

What is Intensive Care?

Intensive care is a form of specialized treatment given to patients who have or at risk of developing acute, life-threatening injuries (e.g., organ dysfunctions) (Marshall, 2017). These treatments are provided in intensive care units (ICU), which are an important element of hospital-based health care (Marshall, 2017). The ICU environment is critical, so patient care will require constant monitoring and frequent interventions to maintain the stability of their conditions. This type of care involves more comprehensive management of illnesses by a skilled interprofessional team that includes physicians, nurse practitioners, nurses, respiratory therapists, physiotherapists, social workers, and many others (Marshall, 2017). These skilled professionals or clinicians use an array of technologies often not found in other hospital units to support the goals of care (Marshall, 2017). Mercadante, Gregoretti, and Cortegiani state that the ICU level of care is important for the “maintenance of vital functions to reduce mortality and prevent morbidity in patients with a severe critical illness” (2018). Based on this, the primary goal of intensive care units is to prevent further physiologic deterioration while the underlying illness is still being treated.

Unfortunately, the death rate in intensive care units remains high (20-35%), and “ICU admissions in the last month of life have been growing up to 30%” (Mercadante et al., 2018). These reports show that patients do not always respond to curative treatment, and in situations like these, the primary goals of care are no longer achievable with life-sustaining therapies. ICU clinicians are placed in a position to stop treatment aimed at curing an illness because the therapies may result to be more burdensome than beneficial to patients (Mercadante et al., 2018). This process does not mean that all treatments are discontinued when patients are at EOL.

Palliative Care Versus Curative Medical Care

Curative medical care refers to health care services that are used to treat patients with the intent of curing or aiding in recovery from an illness, injury, or impairment (Wheeler, 2018). These services include physician and nursing care, surgeries, medications, and other therapies. An example of this is intensive care, which is a form of curative medical care directed at patients who have severe, life-threatening illnesses and need aggressive treatments (Munro & Savel, 2018). Palliative care differs from curative care because it primarily focuses on bringing comfort and symptom alleviation associated with life-threatening illnesses (Wheeler, 2018). This process also involves the use of medications, physicians, and nursing care. However, PC services can be provided in conjunction with aggressive treatments (Munro & Savel, 2018). The World Health Organization has stated that PC services are applicable in earlier stages of a disease course and can be initiated along with therapies intended to prolong life (WHO, 2020). In intensive care units, there is a presence of both palliative and curative care (Munro & Savel, 2018). These two care services can be started early in the disease course, provide the needed support to patients and their families, and involve the engagement of an interprofessional team in the process.

As the condition of a patient worsens, the focus of care may shift to providing end-of-life care. In this situation, curative care is seen as more burdensome because the ICU team has decided that continued aggressive treatments no longer provide a “reasonable chance” of changing the patient’s outcome (Munro & Savel, 2018). With the support of the patient and family, the process of withdrawing life-sustaining therapies occurs and is replaced with palliative care (Truog et al., 2008). Truog et al. state this change “is one of the most difficult and important aspects of medical and nursing practice in the ICU” (2008). This is because patients and their families are often left without a precise indication of when death will come and their desire not to experience a “bad” death (Cook & Rocker, 2014; Truog et al., 2008). The concept of dying with dignity in the ICU

was then introduced to enhance care as death approaches (Cook & Rocker, 2014). At this time, patients are experiencing incomparable vulnerability related to their condition, so this concept was important in helping to maintain the dignity of patients by caring for them in a manner that was consistent with their values or treatment goals (Cook & Rocker, 2014). These patients at the EOL are cared for with extensive palliation. The presence of palliative care for patients in intensive care units at the EOL involve primary objectives centered on relief of distressing symptoms, effective communication about care goals, patient-focused decision-making, emotional and practical support to patients and families, spiritual support for patients and families, emotional and organizational support for ICU clinicians, and continuity of care across settings (Clarke et al., 2003; Edwards, Voigt & Nelson, 2017).

Integration of Palliative Care in Intensive Care Units (ICU)

Many large hospital systems have implemented the use of palliative care programs. However, the amount of intensive care units in the use of PC services remains unclear. Clinicians working in intensive care units are in contact with death and the dying process daily (Baker, Luce & Bosslet, 2015). Therefore, ICU clinicians are responsible for supporting patients and their families with illnesses that cannot be cured. In this process, three main models for ICU-palliative care integration were used to meet the increasing needs of patients admitted to intensive care units (Munro & Savel, 2018). The three main models were consultative, integrative, and mixed (Munro & Savel, 2018). The consultative model focuses on growing the involvement of an interprofessional group of healthcare providers in the care of ICU patients identified as at the “highest risk for poor outcomes” (Mercadante et al., 2018). This consultative care model allows for the ICU clinicians to reach out and acquire services provided by the palliative care specialist team. Their services are either initiated on a case-by-case basis or triggered by a narrow range of

issues associated with palliative care's primary objectives. The consultative approach in palliative care is now available at most hospitals in the United States (>75%) and worldwide (Nelson et al., 2010).

In contrast to the consultative model, the integrative model seeks to embed palliative care initiatives in the ICU. This process involves implementing and utilizing general palliative services associated with the primary objectives of care. According to Campbell, Weissman, and Nelson, the process ensures that the ICU clinicians are meeting the needs of all patients, which includes "screening all patients on admission and daily for unmet palliative care needs, early identification of a surrogate, timely symptom management, and routinely scheduled family meetings to discuss goals of care" (Campbell, Weissman & Nelson, 2012). The integrative model allows general PC services to be practiced daily by the ICU clinicians for all patients and families facing critical illnesses. It has been reported that these two models can be successful in delivering palliative care in the ICU (Aslakson et al., 2014; Nelson et al., 2010). However, the adoption of either approach to palliative care in intensive care units has proven to be complicated. Reports have pointed out that the excessive reliance on specialty palliative care services could fragment care, undermine therapeutic relationships between patients and primary care providers, and reduce the need for those providers to develop palliative care knowledge and skills (Aslakson, Curtis & Nelson, 2014). Reports have also stated that the additional task of providing palliative services may be "burdensome" for the intensive care clinicians because they are already balancing multiple imperative tasks to provide safe and effective care in the ICU (Aslakson et al., 2014). As a result, hospital leaders and policymakers have made efforts to resolve this issue by adopting characteristics from both approaches. The combination of these two approaches is commonly referred to as a 'mixed-model' of ICU palliative care (Aslakson, Curtis & Nelson, 2014).

Issues with Integration of Palliative Care for Patients at the EOL in ICU

As stated earlier, the use of palliative care services in intensive care units has been associated with improved quality of life and lower symptom burden for patients. Baker et al. details that palliative care brought a better understanding to patients and families about the clinical situation and disease course, increased emotional and spiritual support for patients and families, improved mental well-being and care, and improved family satisfaction with care (2015). Nevertheless, there appears to be a lack of sufficient research that shows how many ICUs are effectively using PC services for patients at the end-of-life. Reports have suggested deficiencies in care despite a series of initiatives to improve end-of-life care in intensive care units (Isaac & Curtis, 2020; Nelson, 2006). In fact, there is evidence that suggests challenges with the decision-making process in withdrawing medical treatments and patient care, not knowing the preferences or wishes of patients regarding their care, poor communication of ICU clinicians with patients and families, lack of satisfaction with symptom management, and the lack of knowledge on the importance of religion and spirituality at the end-of-life (Clarke et al., 2003; Crowe, 2017; Isaac & Curtis, 2020; Papadimos et al., 2011). Addressing these deficiencies in palliative care delivery to patients at EOL in the ICU is of paramount importance. This is because these patients are in their final hours or days of life, which requires interventions that provide peace and support to both patients and families. This process allows for patients to face death with dignity. Also, palliative care at the end-of-life in intensive care units can be improved by addressing these deficiencies.

There is space for improvements in palliative care delivery to patients in the ICU at EOL. This process starts by addressing these care deficiencies. In order to improve care, intensive care units must approach these issues with effective interventions and recommendations for the challenges facing ICU adult patients at the end-of-life.

Significance in Nursing

Nursing care at the end-of-life encompasses many aspects of palliative care that are necessary for improving the quality of life of patients in their final moments. The nursing care becomes more focused on forming experiences with the patient that is assistive in defining their individual needs, strengths, and beliefs. Nurses use this understanding to intervene on the patient's behalf. This understanding allows nurses to assess better and manage symptoms, provide competent, culturally sensitive care, and ensure that ethical decision-making is held throughout the death and dying process. Nurses take on the primary task of advocacy, a common factor of EOL nursing care (Herbert, Moore & Rooney, 2011). This is a common factor because patients will often start to exhibit the following traits when in need: helplessness, dependency, and vulnerability (Herbert et al., 2011). This common thread of emotions at the end-of-life requires the nurse's ability to act as a source of support, a communicator, and a translator of important information. Most palliative interventions at the EOL that will be discussed in this review are based in hospital adult intensive care units, so critical care nurses in the ICU will play an important role in supporting EOL care decisions and advocating for patients and families across all care objectives of palliation. According to Herbert, Moore, and Rooney, “nurses spend more time with patients who are facing death than any other member of the healthcare team and are the most trusted professionals” (2011). Although this is commonly viewed, it is still the nurse's responsibility to communicate with physicians involved with the patient's primary care and other disciplines concerned with the care of the patient. This communication creates “a holistic atmosphere of care, openness, and compassion” (Herbert et al., 2011). The delivery of palliative care often involves a group of people, or a team of professionals gathered around patients and their families (Spruyt, 2011). This level of teamwork in palliative care delivery is crucial to better assist

in enhancing the quality of care of patients at the EOL. If palliative care strategies can reach adult ICU patients approaching the end-of-life, then patients and their families can experience a more peaceful process of dying. Thus hopefully, patients and their families can find enough closure and time to say goodbye to their loved ones.

This literature review aims to summarize the current palliative approaches to treating care deficiencies in critically ill adult patients in the ICU nearing or at the end-of-life. Based on the most current evidence, this review will attempt to define what strategies are beneficial to improving intensive care patients and their families' EOL experiences.

Research questions that will be addressed in this literature review include the following: What are key areas within the ICU setting that warrant improvements for patients who are nearing or at the EOL? What are the most effective methods for ICU nurses and clinicians to help patients identify their goals of care? How should the withdrawal process of curative medical treatments be approached in an ICU setting? How are religion and spiritual care integrated into the ICU setting? And, what are the best strategies ICU clinicians can use to communicate effectively with both patients and families?

Background

Discussing Goals of Care

In the presence of life-limiting illnesses, patients and families are often seeking clarity, advice, or counsel regarding the available treatment options in care. Some situations occur in the care of critically ill patients that make care decisions increasingly complex, including unrealistic expectations and an environment with an overwhelming presence of advance technologies that have made the possibilities of extending life and postponing death seem endless (Berlin, 2017). Also, intensive care clinicians often have issues eliciting care discussions from patients who cannot

hold conversations. These patients face the progressive nature of their conditions, sedation, prolonged coma, or persistent vegetative states, which have prevented meaningful discussions from occurring (Cook & Rocker, 2014). Situations like these allow family members, friends, or other surrogates to speak on the patient's behalf (Cook & Rocker, 2014).

For patients nearing or at the end of life in intensive care units, treatment discussions can be challenging but are essential in allowing patients the opportunity to express their goals and values, which can guide decisions in care (Brandt, Shinkunas, Gehlbach, & Kaldjian, 2012). The term "goals of care" refers to the "outcomes that patients place the highest value on and would hope to achieve in regard to their illness" (Lowey, 2015, p.46). These outcomes of care involve decisions about the use of specific treatments, the intensity of care, and planning for future care needs (LeBlanc & Tulsky, 2020). For example, in the ICU setting, patients may or may not request to limit the use of cardiopulmonary resuscitation (CPR) and mechanical ventilation (pushes airflow into the patient's lungs) as they progress closer to the end of life. These requests will likely be listed by health care providers in the medical records of patients under their code status or orders. Intensive care clinicians are responsible for providing care concordant with those goals, since this process is based on the important aims of both palliative and intensive care. These important aims focus on improving identification and centering care objectives around the preferences of patients (Rome, Luminais, Bourgeois, & Blais, 2011). It is essential for the care being provided to match the preferences of patients because it contributes to patients experiencing a better quality of death, which may involve providing relief from the symptoms and stress of a severe illness (Berlin, 2017).

Currently, there is a lack of evidence-based standards of care for EOL goals of care discussions in adult ICUs (Orr, 2020). This discordance in care has contributed to patients experiencing issues in communicating their care goals. Research studies have suggested that the

goals and preferences of ICU patients nearing the end of life are not being elicited, poorly communicated and documented, and may change over time, which has created significant challenges in providing “goal-concordant care” (Brandt, Shinkunas, Gehlbach, & Kaldjian, 2012; Gehlbach et al., 2011; Orford et al., 2016; Orr, 2020; Anstey et al., 2019; Wessman, Sona, & Schallom, 2017). Also, there have been reports of patients receiving life-sustaining interventions that were non-beneficial and against the patient or surrogate preferences (Berlin, 2017). Strategies are needed to define potentially achievable goals to improve patient-clinician communication and end of life care.

Withdrawal of Curative Medical Treatment

The withdrawal of curative medical treatments occurs commonly in intensive care units worldwide (Efstathiou & Ives, 2018). This process refers to operational decisions and actions to stop life-sustaining treatments provided to terminally ill patients following expressed wishes of the patient or surrogate decision-maker (Connolly, Miskolci, Phelan, & Buggy, 2016). These treatments include mechanical ventilation for breathing, certain medications, artificial nutrition and hydration, diagnostic testing, and other medical interventions. For patients nearing or approaching the end of life, intensive care clinicians will often discuss forgoing these treatments with the patient or family. This is because it is perceived that these patients have no reasonable chance of recovering from their life-limiting illnesses. So, efforts to continue aggressive treatments are seen as non-beneficial. The acknowledgment of patient and family wishes is essential in this process. Patients and families are given the option to continue with curative medical treatments with the belief that the patient may recover or continue living in reasonable quality. However, when the patient is at a point where curative care is no longer effective, the quality of care given to the patient becomes inadequate in providing relief from symptoms of a severe illness. In these

circumstances, the patient or family often chooses to forgo the treatments and transition to end of life care.

The decision to end life-sustaining treatments is a process that typically involves “a gradual reduction” of curative treatments to mimic a “natural death” (Efstathiou & Ives, 2018). During this period, intensive care clinicians are responsible for following clinical guidelines in the context of treatment withdrawal. These guidelines advise for no restrictions to family visitation, privacy, removal of unnecessary monitoring and alarms, use of medications to relieve pain and distress after the withdrawal of treatments (Efstathiou & Ives, 2018; Peden-McAlpine, Liaschenko, Traudt, & Gilmore-Szott, 2015). These actions are performed to create and maintain a comfortable environment for the patient, allowing patients to die peacefully and naturally from the disease. Care becomes more tailored to the patient and their family by the ICU clinicians, but the process remains challenging.

Intensive care clinicians have struggled in finding suitable approaches to the withdrawal of curative medical treatments. They are often fraught with difficulties related to emotions, moral-distress, cultural implications, lack of communication skills, insufficient support and treatment protocols, and detachment from patient care that has limited their abilities in caring for the patient (Efstathiou & Ives, 2018; El Jawiche, Hallit, Tarabey, & Abou-Mrad, 2020; Epker, Bakker, Lingsma, & Kompanje, 2015; Lautrette et al., 2015; Taylor, Dihle, Hofso, & Steindal, 2020; Peden-McAlpine et al., 2015). The withdrawal process must be approached with supportive measures that assist in individualizing care to the patient’s illness status. This process involves understanding the medical, ethical, and cultural concerns surrounding the care of the patient.

Communication

Death is not a comfortable topic of conversation, but it becomes necessary to care for a dying patient. Families of patients facing life-limiting illnesses have rated effective communication with intensive care clinicians as one of their most important needs (Boyle, Miller, & Forbes Thompson, 2005). Communication is an action that is intended to provide information. The patient is experiencing the final stages of their lives. It is normal for the patient and family to want to be prepared for the events occurring during these stages. The patient and the family expect that ICU clinicians are willing to answer all their questions, available to communicate factual information about the patient's prognosis and condition, and other available supportive measures. The course and type of treatment alternatives are based on decisions made once all information is provided to the patient and family. Decisions regarding the withdrawal of life-sustaining treatment and advance care planning are made with communication. These conversations convey the seriousness of the patient's illness.

End-of-life decisions are viewed as a group of complex decisions involving multiple perspectives, including the patient, their family, and the ICU clinical team (Cook & Rocker, 2014). This process is often filled with difficult conversations. These conversations occur in the context of uncertain recovery, making an emotionally tense environment that requires effective communication skills of intensive care clinicians. For example, the families of the patients may have attitudes regarding the care that differs from the patient's wishes. Care decisions are derailed by these conflicts, contrasting opinions, or emotions. These situations can bring previous family issues to the surface, preventing the patient from accomplishing comfort with palliative interventions. The palliative care approach ensures that the dying patients expressed wishes are considered. This approach is vital to avoid misunderstandings and unnecessary distress.

Communicating with patients and families facing the EOL is challenging. There have been several initiatives to create structured communication tools in end-of-life conversations, increase the frequency and documentation of such discussions, and establish care concordance with the patient's communicated desires (Boyle, Miller, & Forbes Thompson, 2005). Research studies have also shown that training in EOL communication can potentially be beneficial for patient care (Boyle, Miller, & Forbes Thompson, 2005). Unfortunately, the information provided by recent studies shows that communication strategies with patients and families facing life-limiting illnesses require more improvement. Studies have discovered needed improvements in communication practices, expressions, perceptions about end-of-life care conversations, recognizing barriers, and unvoiced concerns of the patient and family (Adams et al., 2014; Bell et al., 2018; Bloomer, Lee, & O'Connor, 2010; Loghmani, Borhani, & Abbaszadeh, 2014; Popejoy, Brandt, Beck, & Antal, 2009; Seaman, Barnato, Sereika, Happ, & Erlen, 2017). Effective communication strategies are the groundwork for decisions about treatments and care, and approaches to improving these issues should be established.

Spiritual Care

Spiritual support is one of the end-of-life care objectives in intensive care units (Swinton et al.). It refers to ways patients may want to seek and express the meaning and purpose of their lives. With the heavy burden of a life-limiting illness, spiritual care provides the patient an environment that bridges connections with the self, others, the moment, nature of the disease, and the significant or sacred (Vigna, De Castro, & Fumis, 2020). Spirituality and religion are related but are separated in actions. Spirituality includes constructs such as existential meaning, faith, beliefs, and purpose of life given through appreciation and deep reflection outside of a particular belief system (Papadimos et al., 2011). Religion is a social institution that groups individuals who

share the same beliefs, traditions, and rituals (Edwards, Pang, Shiu, & Chan, 2010). Religion differs from spirituality because the patient's belief system is applying the coping mechanisms to deal with their distressful situation, involving the use of "prayer, meditations, and studies of their religion" (Papadimos et al., 2011).

Reports suggest that both religion and spirituality can play a role in providing peace to the patient or family facing heavy burdens of the illnesses (Vigna, De Castro, & Fumis, 2020). This experience is essential for them because it assists the patient and family through the dying process. Choi, Curlin, & Cox state that patients experience "less aggressive care, more hospice use, lower rates of ICU deaths, and lower health care cost at the end of life," improving patient and family satisfaction with care (2015). These events also mark the importance of religion and spirituality in end-of-life care decision making (Choi, Curlin, & Cox, 2015). Patients and their families often use them as guiding principles when making difficult decisions.

The practice of palliative care operates upon an understanding of the whole person. This process includes the spiritual dimension of health, which may sustain people at times of distress. Addressing the patients' spiritual needs is part of the national guidelines of palliative care and the joint commission (Choi et al., 2015). Similarly, in the ICU setting, spiritual care is viewed as a needed part of the overall maintenance of the patient (Isaac & Curtis, 2020). Yet, intensive care clinicians feel unprepared or uncomfortable in approaching patient spiritual care needs, understanding spiritual expressions, spiritual beliefs surrounding decisions, or addressing the patient and family's spiritual concerns (Abu-El-Noor, 2016; Choi et al., 2015; Johnson et al., 2014; Noome, Beneken Genaamd Kolmer, Leeuwen, Dijkstra, & Vloet, 2017; Swinton, 2017; Willemse, Smeets, Van Leeuwen, Janssen, & Foudraine, 2018). These issues arise because ICU clinicians

often leave the spiritual needs of the patient and family to in-hospital spiritual caregivers (e.g., chaplains) or the patient's parish leaders (Willemse et al., 2018).

Choi et al. state that "hospital chaplains are considered the spiritual professionals in the inpatient setting," and their involvement continues to grow (2015). Research has indicated that patients are satisfied and often welcome chaplain visits (Choi et al., 2015; Noome et al., 2017). However, there is limited research in efforts to understand the role of chaplains, specifically in the ICU setting surrounding the care of dying patients. Integrating the spiritual care services from chaplains and ICU clinicians provides a potentially significant opportunity to help address the patient and family spiritual crises. The care approaches of both groups need to be addressed.

Methods

To answer the proposed research questions, a literature review was performed. The review identified current palliative interventions used in the care of critically ill adult patients in the ICU nearing or at the end-of-life. It also evaluated the effectiveness of these interventions in treating care deficiencies. In identifying sources for this literature review, multiple databases were used. The databases used were CINAHL, PubMed, Google Scholar, and Science Direct. Databases were searched for research articles that were peer-reviewed and published between 2009 and 2020. The process of retrieving articles for this literature review involved the use of searched phrases, terms, or words to find relevant articles. The searched terms and phrases selected for this review consisted of *end-of-life care, quality of care, goals of care, intensive care, critical illness, goal-concordant care, patient-centered care, withdrawal of treatment, life-sustaining treatments, communication, family support, spirituality, spiritual care, death, and religion*. These terms and phrases were searched alone or combined in various ways with "AND" to connect them. This process was helpful in obtaining more focused or narrowly-defined articles. Each of the terms were selected

due to their appropriateness and relevance to the purpose of this literature review. A few phrases were generated from the results of various database searches.

Sources were assembled based on several criteria. The inclusion criteria for the articles that were included in this literature review were:

- Peer-reviewed articles
- Articles that were research studies
- Articles that have IRB approval or equivalent hospital administration
- Articles that focus on the use of palliative interventions in intensive care units
- Articles primarily focused on adult populations (18 years and older)
- Articles aimed at addressing care deficiencies at the end-of-life in ICUs
- Articles that include methods to improve palliative care in patients facing life-limiting illnesses in intensive care

The exclusion criteria were:

- Articles that include palliative care interventions focused on other health care settings
- Articles published before the year 2009
- Articles that primarily focus on palliative interventions for pediatric patients (0-17 years)
- Articles primarily focused on the physician's role in end-of-life care of patients facing life-limiting illnesses in intensive care

All articles retrieved from the databases were assessed for applicability. The abstracts of these articles helped to determine which articles were suitable to be reviewed. Articles that met the inclusion criteria and included practical methodological standards were used in the sample for this literature review. The search retrieval resulted in twenty-four articles to be reviewed. The

publication dates for these articles ranged from 2009 to 2020. Of these twenty-four articles, seventeen were published within the past six years.

The inclusion criterion mentions that the articles assembled must primarily focus on the adult population (18 years and older). This criterion was written because the adult population was considered a larger portion of patients in need of palliative services at the end-of-life (94%) globally (World Palliative Care Alliance & WHO, 2014). So, the central focus of this literature review was on palliative care interventions in adult populations nearing or at the end of life in intensive care units. All the articles in this review included data that was significant and can be readily applied to this population of patients.

It is also important to recognize the exclusion criterion on articles that primarily focus on the physician's role in end-of-life care of patients facing life-limiting illnesses in the ICU. This criterion was written as such because fifteen of the twenty-four articles included in this literature review evaluated the use of palliative interventions by a multidisciplinary team of health care providers. These interventions focused on care provided by intensive care clinicians, including care focused on the proper assessment of care goals, improving the withdrawal process of treatments, communication, and spiritual care. Some of the articles included in this literature review only evaluated the nurse's role in implementing PC interventions and the use of chaplain services. Additionally, it is important to note that there is no exclusion criterion listed for articles published outside of the United States. Many of the articles selected to be reviewed included studies performed in other countries. There was no justifiable reason to exclude these studies. It is essential to consider a variety of effective, up-to-date, evidence-based strategies to enhance the care of patients as they approach the end-of-life in intensive care.

Results

Sample of Articles Included in Review

In total, all of the 24 articles collected from search retrieval were included in the final review. Of the included studies, eleven of the studies were based in the United States (approximately 45.8%). The remaining thirteen studies were conducted in Australia (2.5), New Zealand (0.5), Canada (1), France (1), Iran (1), Lebanon (1), Norway (1), Netherlands (3), Palestine (1), and the United Kingdom (1), accounting for the remainder of 54.2%. Of the 24 articles, the sample sizes ranged from nine to 10,080 participants. The study participants included patients, patient family members, physicians, nurses, chaplains, and other intensive care clinicians. The majority of the research articles collected were qualitative studies (ten; approximately 41.7%). Of these ten studies, one had a prospective observational design, in which participants were observed over a period of time to assess the effectiveness of palliative care interventions. The other studies were quantitative (nine; approximately 37.5%) and mixed-methods (five; approximately 20.8%) studies. Of the nine quantitative research studies, three had prospective observational designs, one had a cross-sectional observational design, one had a retrospective observational design, one had retrospective cohort design, and one was a retrospective chart review. All of the studies were conducted in a hospital-based intensive care setting. Of the 24 articles, eleven studies described and outlined interventions to improve the care of patients approaching the end-of-life. The remaining articles discussed provisions that would aid in improving care at the EOL.

Data Analysis

The articles collected presented varying outcomes and themes in regard to the types of care that needed to be improved for patients who are nearing or at the end-of-life. The literature review identified four themes in the research data that impacted EOL experiences of adult intensive care patients, including (1) discussions of goals of care, (2) withdrawal process life-sustaining medical

treatments, (3) communication, and (4) religion and spiritual care. The 24 articles were separated into the four identified themes, six articles (25%) pertained to the identification of care goals, six articles (25%) pertained to the withdrawal process of treatments, six articles (25%) pertained to communication strategies in care, and six articles (25%) pertained to the religion and spiritual care for patients approaching the end-of-life. The purpose of this review was to identify the current interventions that were beneficial to improving the EOL experiences of patients and their families in intensive care units. The themes identified provided a useful method to analyze this purpose. Pertinent information from the articles collected were extracted and placed into tables for each theme. There were four tables in total representing each theme. Each of the tables included the following information: author(s), year of publication, the purpose of study, type of study, sample size, population and setting, research methods, and the study outcomes. This organization assisted in examining the effectiveness of the interventions investigated for each theme.

Results

Table 1. Summary of findings: Identifying and Eliciting Discussions of Goals of Care (GOC) for Critically Ill Adult Patients in Intensive Care Units

Article Name	Purpose	Type of study (e.g., research study)/ sample size	Methods	Main outcomes
“Understanding goals of care statements and preferences among patients and their surrogates in the medical ICU” (Brandt, Shinkunas, Gehlbach, & Kaldjian, 2012)	To explore how patients and surrogates communicate their care preferences and how responses are interpreted by ICU clinicians.	Research study 100 participants, consisting patients and surrogates in a medical ICU in the United States	Quantitative descriptive study Qualitative descriptive study	Research suggested that a mixed method of communication may be needed to obtain a more accurate assessment of a patient’s GOC. The use of open-ended and close-ended questions are proven to be effective.
“Code status orders and goals of care in the medical ICU” (Gehlbach et al., 2011)	To improve understanding of code status orders and patient or surrogate care preferences.	Research study 100 participants, consisting patients and surrogates in a medical ICU in the United States	Quantitative descriptive study Qualitative descriptive study Randomized design	Discussions concerning the code status of patients are effective in resolving care issues and guiding the transition from curative to palliative care.
“Prevalence, goals of care, and long-term outcomes of patients with life-limiting illness referred to a tertiary ICU” (Orford et al., 2016)	To assess evidence of GOC discussions with patients who had objective indicators of life-limiting illnesses and were referred to the ICU.	Research study 1024 patients referred to intensive care	Quantitative study Prospective	Patient centered approaches, including the discussion of goals and values, improved adherence to treatment

		in Australia	observational cohort study	management, quality of life and reduction of diagnostic tests.
“The acceptability and feasibility of using mortality prediction scores for initiating” (Orr, 2020)	To evaluate the effectiveness of using mortality risk prediction scores for patients with increased severity of illness (SOI) in effort to initiate EOL goals of care discussions in an adult ICU.	Research study 15 providers from an adult ICU unit in the United States	Quantitative study Qualitative study	Intervention showed potential in improving care of seriously ill patients by ensuring that care was aligned with the wishes of patients. It increased goals of care discussions.
“The prevalence of perceptions of mismatch between treatment intensity and achievable goals of care in the intensive care unit: A cross-sectional study” (Anstey et al., 2019)	To examine the prevalence of patients receiving mismatch treatment intensity and perceptions of providers.	Research study 407 nurses, 99 doctors, 48 allied health staff on 307 ICU inpatients in adult ICUs in Australia and New Zealand	A cross-sectional observational study	Patients were likely to have mismatch treatments if they were more severely unwell.
“Improving caregiver's perceptions regarding patient goals of care/end-of-life issues for the multidisciplinary critical care team” (Wessman, Sona, & Schallom, 2017)	To evaluate the effectiveness of an all-inclusive ICU program to improve communication of end of life and goals of care discussions.	Research study 280 providers from academic tertiary surgical burn trauma ICU in the United States	Quantitative descriptive study Experimental design	Program showed significant improvements in family and patient supportive care, communication of information, and a decrease in the work stress of ICU clinicians. Program's interventions, including communication tools for providers, patient, and family care pamphlets, standard computerized GOC and EOL care order sets, and formal educational sessions, are effective.

Table 2. Summary of findings: Approaches to the Withdrawal Process of Curative Medical Treatment for Critically Ill Adult Patients in Intensive Care Units

Article Name	Purpose	Type of study (e.g., research study)/ sample size	Methods	Main outcomes
“Compassionate care during withdrawal of treatment: A secondary analysis of ICU nurses' experiences” (Efsthathiou, & Ives, 2018)	To examine how ICU clinicians can deliver compassionate care in the context of treatment withdrawal.	Research study 13 nurses from three intensive care units from a large hospital in the United Kingdom	Qualitative secondary analysis study	Compassionate care during treatment withdrawal is effective.
“Withholding and withdrawal of life-sustaining treatments in intensive care units in Lebanon: A cross-sectional survey of intensivists and interviews of professional societies, legal and religious leaders” (El Jawiche, Hallit, Tarabey, & Abou-Mrad, 2020)	To explore possible religious and sociocultural influences over the withdrawal process of life-sustaining treatments.	Research study 229 intensive care clinicians working in adult ICUs in Lebanon	Qualitative cross-sectional study	Cultural thoughts and attitudes are potentially important implications in withdrawing life-sustaining treatments.

<p>“An observational study on a protocol for withdrawal of life-sustaining measures on two non-academic intensive care units in the Netherlands: Few signs of distress, no suffering” (Epker, Bakker, Lingsma, & Kompanje, 2015)</p>	<p>To evaluate treatment protocols for the withdrawal of life-sustaining measures.</p>	<p>Research study 450 patients in intensive care units in the Netherlands</p>	<p>Prospective observational study</p>	<p>Care focused on treating distressing signs and symptoms following the withdrawal of treatments are effective.</p>
<p>“Respective impact of no escalation of treatment, withholding, and withdrawal of life-sustaining treatment on ICU patients' prognosis: A multicenter study of the Outcomerea Research Group” (Lautrette et al., 2015)</p>	<p>To evaluate the various stages of deciding to forgo life-sustaining treatments (DFLST).</p>	<p>Research study 10,080 patients from 13 intensive care units in France</p>	<p>Prospective observational study</p>	<p>Staging the withdrawal process of care can potentially assist ICU clinicians in improving care outcomes for critically ill patients.</p>
<p>“Constructing the story: How nurses work with families regarding withdrawal of aggressive treatment in ICU – A narrative study” (Peden-McAlpine, Liaschenko, Traudt, & Gilmore-Szott, 2015)</p>	<p>To assess methods of communication by ICU clinicians with patients and families on withdrawal of aggressive treatments.</p>	<p>Research study 19 nurses from four adult intensive care units in midwestern United States</p>	<p>Qualitative narrative study</p>	<p>Narratives discussions on withdrawing aggressive treatments are effective.</p>
<p>“Intensive care nurses’ experiences of withdrawal of life-sustaining treatments in intensive care patients: A qualitative study” (Taylor, Dihle, Hofso, & Steindal, 2020)</p>	<p>To examine the experiences of intensive care clinicians involved in the withdrawal process of life-sustaining treatments.</p>	<p>Research study 9 nurses from four intensive care units from a university hospital in the south-east of Norway</p>	<p>Qualitative descriptive and explorative study</p>	<p>Participants stated that interdisciplinary support with the cooperation of crucial elements in achieving a dignified treatment withdrawal process are effective.</p>

Table 3. Summary of findings: Communication Strategies for Critically Ill Adult Patients and Families in Intensive Care Units

Article name	Purpose	Type of study (e.g., research study)/ sample size	Methods	Main outcomes
<p>“Nursing strategies to support family members of ICU patients at high risk of dying” (Adams et al., 2014)</p>	<p>To examine perceptions of family members of ICU patients at the highest risk of dying and their responses to communication support strategies.</p>	<p>Research study 17 patients and 32 family members receiving care in the ICU in United states</p>	<p>Prospective, qualitative descriptive study</p>	<p>Strategies focused on enhancing coping mechanisms, preparing for the impending loss and acceptance that their loved one is dying are effective.</p>
<p>“Speaking up about care concerns in the ICU: patient and family experiences, attitudes and perceived barriers” (Bell et al., 2018)</p>	<p>To assess the comfort of the patient and family in voicing their concerns regarding care received.</p>	<p>Research study 1050 internet panel participants and 125 patients and family members in intensive care units in an Urban academic medical center in the United States</p>	<p>Quantitative study</p>	<p>Report showed that patients and families experienced increased hesitation or reluctance in voicing concerns during end-of-life conversations.</p>
<p>“End of life clinician-family communication in ICU: A retrospective observational study - implications for nursing” (Bloomer, Lee, & O’Connor, 2010)</p>	<p>To identify conflicts in care that impact communication and end of life care.</p>	<p>Research study 97 patients from an Australian medical/surgical ICU</p>	<p>Retrospective observational study</p>	<p>Communication provided by the nurse to the patient and family is significantly overlooked and underrepresented.</p>

“Factors affecting the nurse-patients’ family communication in intensive care unit of Kerman: A qualitative study” (Loghmani, Borhani, & Abbaszadeh, 2014)	To examine interaction barriers and assistive strategies in communication between the nurse and patient family in the ICU setting.	Research study 8 registered nurses and 10 patient families under care of two large university hospitals in Iran	Qualitative study with content analysis	Research indicated a need in changing the attitudes of the nurses, effective communication, and establishing a professional point of view.
“Intensive care unit nurse perceptions of caring for the dying: Every voice matters” (Popejoy, Brandt, Beck, & Antal, 2009)	To examine perceptions of nurses caring for the dying in intensive care units.	Research study 22 ICU nurses from a midwestern, university hospital in the United States	Qualitative study	A structured program was developed using the palliative approach and input from the nurses.
“Patterns of palliative care service consultation in a sample of critically ill ICU patients at high risk of dying” (Seaman, Barnato, Sereika, Happ, & Erlen, 2017).	To explore the patterns with palliative care consultations and communication in critically ill patients at the highest risk of dying.	Research study Dataset of 1440 ICU patients in the United States	Retrospective cohort study with secondary analysis	Report showed a lack and late presentation of palliative care consultation.

Table 4. Summary of findings: Strategies for Approaching the Spiritual or Religious Needs of Critically Ill Adult Patients in Intensive Care Units

Article name	Purpose	Type of study (e.g., research study)/ sample size	Methods	Main outcomes
“ICU nurses’ perceptions and practice of spiritual care at the end of life: Implications for policy change” (Abu-El-Noor, 2016)	To explore the meaning of spirituality and spiritual care. To discover strategies that limit and help identify spiritual needs and required actions in response to those needs.	Research study 19 nurses from two intensive care units in Palestine.	Qualitative study, interpretive-descriptive approach	Research stated that spiritual care should be based on the religious beliefs and practices of the patient and family. Nurses use various tools in identifying the spiritual care needs of patients.
“The patient is dying, please call the chaplain: The activities of chaplains in one medical Center’s intensive care units” (Choi, Curlin, & Cox, 2015)	To understand how spiritual care is being provided by ICU clinicians and find areas in need of improvement.	Research study 4169 intensive care admissions in one of the five adult ICUs at Duke University Hospital in the United States	Cross-sectional retrospective chart review	Hospital chaplain visitation is effective. Need for more engagement of chaplains in multidisciplinary approach of care in the ICU.
“The association of spiritual care providers’ activities with family members’ satisfaction with care after a death in the ICU” (Johnson et al., 2014)	To describe how often spiritual activities are performed by providers for patients who eventually died in the ICU and their family members.	Research study 275 family members and 57 spiritual care providers for patients admitted to ICUs in a tertiary hospital found in Unites States	Quantitative study Qualitative study	Activities performed by spiritual care providers was associated with higher family satisfaction with care in general and spiritual care specifically.
“The role of ICU nurses in the spiritual aspects of end-of-life care in the ICU: An explorative study” (Noome, Beneken Genaamd Kolmer, Leeuwen, Dijkstra, & Vloet, 2017)	To examine the role of ICU nurses in the context of spiritual care from the perspectives of chaplains involved in the care of the patient.	Research study 11 chaplains in a Dutch ICU in the Netherlands	Qualitative explorative study	ICU nurses must improve their assessment of the spiritual needs of the patient. Suggest approaches to spiritual care that are effective.

"Experiences and expressions of spirituality at the end of life in the intensive care unit" (Swinton et al., 2017)	To assess the experiences and feelings of family members and clinicians on the involvement of spirituality in the dying process.	Research study 70 dying patients and 208 participants, consisting of family members and clinicians in a Canadian ICU	Qualitative interpretive description study	Report suggested the implementation of interventions that respond to the spiritual diversity of the patient population.
"Spiritual care in the ICU: Perspectives of Dutch intensivists, ICU nurses, and spiritual caregivers" (Willemsse, Smeets, Van Leeuwen, Janssen, & Foudraïne, 2018)	To exploring the role of spiritual care as part of daily adult ICU care. Supplying care to both terminally ill and the basic patient population.	Research study 487 participants of 85 hospitals in the Netherlands. Participants included ICU nurses, spiritual caregivers, and other intensive care clinicians	Quantitative study Qualitative study	Findings show that spiritual care has not effectively integrated into the daily care of the patient. Spiritual care contributes to the well-being of patients.

Findings

The principal goal of this review was to identify the areas involved in end-of-life care management in the ICU setting in need of improvements and the interventions that can enhance patient and family experiences during the dying process. Upon analyzing the research data collected, four themes or areas in the care of patients approaching the EOL emerged, showing a need for better performance by intensive care clinicians. These areas were: identification of goals of care, withdrawal process of curative medical treatments, communication, and integration of religion and spirituality in patient care. For each of these areas, interventions and strategies assisting in end-of-life care management of ICU adult patients were examined to determine their effectiveness in the care of patients. The interventions discussed in the research data focused mainly on a multidisciplinary strategy in improving care. The data also focused on the responsibilities of specific clinicians involved in the care of patients, including nurses and spiritual care providers (e.g., chaplains). Palliative-directed interventions performed by intensive care clinicians played a vital role in enhancing the experience of patients.

The Initiation and Identification of Care Goals

Multidisciplinary communication approaches, mortality prediction scores, and discussion techniques were shown to be effective (Gehlbach et al., 2011; Orr, 2020; Wessman et al., 2017). A few other studies proposed potential interventions that could improve the process of eliciting discussions of care goals, including shared decision-making, routine meetings, and the use of objective or clinical indicators for life-limiting illnesses (Anstey et al., 2019; Orford et al., 2016).

Multidisciplinary communication approaches were used by one study to assist clinicians when discussing care goals with patients and their families and improve transitions to comfort care (Wessman et al., 2017). The multidisciplinary communication approaches included in the study were communication tools, patient-family pamphlets, standardized computerized GOC and comfort care order sets, and didactic sessions. The communication templates were used by physicians and nurses as a discussion guide in care conversations and provided information on the preparation and scene setup for these conversations. These templates were distributed to ICU staff members at a surgical burn trauma intensive care unit (SICU) via educational sessions, directed e-mails, and included in resource handbooks for physicians and nurses. Patient-family pamphlets were used to provide basic educational material on what to expect at the end-of-life. The bedside nurses reviewed the information on these pamphlets with patients and their family members. Afterward, the nurses conducted a follow-up conversation to answer questions and explain information that was not well understood. Physicians used the standardized GOC and comfort care order sets to direct appropriate comfort care measures, discontinue curative interventions and eliminate invasive monitoring. These order sets also utilized appropriate analgesics and sedatives in the care of patients approaching the EOL for symptom alleviation (e.g., pain, difficulty breathing). Didactic sessions were structured as "Grand Rounds" and involved physicians, nurses, and other healthcare team members to improve education regarding GOC/EOL issues. The study

used a preintervention and postintervention survey evaluation for ICU clinicians. The response rate for preintervention/postintervention periods were 50.4% and 36.1%, respectively (Wessman, Sona, & Schallom, 2017). The study reported improvements in work stress ($P = 0.04$), space allotment or family support space ($P = 0.001$), and end-of-life information provided ($P = 0.006$) by ICU clinicians (Wessman et al., 2017).

A cross-sectional study of hospitals with adult ICUs in Australia and New Zealand reported that 20.2% of patients received a mismatch in treatment intensity by at least one ICU healthcare professional (Anstey et al., 2019). Mismatches were generated when there was a perceived difference between treatment intensity and achievable care goals. These mismatches were either too much or too little treatment. Anstey et al. revealed that the mismatch for too much treatment was higher (58.1%) than too little treatment (1.6%) (Anstey et al., 2019). The findings of this study also showed that there were a substantial proportion of mismatches “between either the achievable goals of care, expected prognosis or patient’s wishes” (Anstey et al., 2019). The study proposed a shared decision-making approach to determine the best treatment options in the care of patients. This approach encouraged the participation of patients, families, and healthcare professionals in discussions. This approach also supported the use of communication prompts in conversations with patients and families and regular meetings. The study’s findings showed a strong agreement with the need for formal communication training and routine meetings with patients and their families to identify care goals (Anstey et al., 2019).

Mortality prediction scores were the focus of another study to initiate end-of-life goals of care communication in an adult intensive care unit (Orr, 2020). Care providers selected an increased severity of illness (SOI) instrument in the first phase of the study. The scoring system chosen was sequential organ failure assessment (SOFA). This system provides a numerical rating

that indicates the degree of dysfunction of six organ systems, including respiratory, liver, coagulatory, neurologic, renal, and cardiovascular. The scoring system was designed to heighten the awareness of ICU clinicians regarding the severity of the patient's illness and prompt earlier EOL goal-of-care conversations for patients receiving a high score. This scoring system was also used to increase the timeliness of EOL goals of care communication and improving care. Care improvements were reported to be seen in the proper alignment of treatment with patient wishes (Orr, 2020). The quantitative questionnaire given to the study participants determined that the SOI instrument was acceptable and feasible for calculating mortality risk prediction scores, trusted, and easy to use as part of ICU clinicians' daily routine and practice (Orr, 2020). There was some disagreement related to using the SOI instrument as an effective method of determining patient mortality risk. In consideration of this finding, Orr stated that "SOFA scores alone should not be used to initiate EOL goals-of-care communication without determining what contributed to the score" (Orr, 2020).

A prospective observational study found that the use of objective indicators for life-limiting illnesses (LLIs) may improve the identification of patients whose clinical course is approaching death (Orford et al., 2016). The study used a combination of clinical indicators, including the presence of a severe illness, comorbidities, the number of unplanned hospitalizations, nursing home residency before hospitalization, and frailty level. Orford et al. indicated that the "presence of a LLI indicator derived from established palliative care tools was strongly associated with 1-year mortality" (2016). This finding supports the efforts in promptly identifying and initiating EOL goals of care discussions for high-risk populations (Orford et al., 2016).

Discussion techniques used in a mixed-method study improved intensive care clinicians' understanding of the patient and surrogate communicated care goals (Brandt et al., 2012).

Researchers found that alternating between open and closed-ended questions during care conversations assisted in clarifying misunderstandings in information shared by the patient or surrogate. Brandt, Shinkunas, Gehlbach & Kaldjian stated, “there was good inter-rater reliability between investigators in their interpretation of participants' open-ended responses, with agreement in 78 of 100 cases” (2012). The study also pointed out that “open-ended goals of care responses matched participants' closed-ended most important goal of care in only 28 of 100 cases” (Brandt et al., 2012). Another research study using quantitative methods found that 67.7% of responses made by patients and surrogates differed with their physicians about the most important goal of care (Gehlbach et al., 2011). This incident occurred even after 88% of the respondents, patients, and surrogates, were able to answer open-ended questions (Gehlbach et al., 2011). These findings illustrate that it is vital for clinicians to continue seeking clarification in treatment discussions to reach a shared understanding. This process encourages a dialogue approach in the communication of goals of care.

Achieving Dignified Treatment Withdrawals

Many studies pointed out that there was increasing pressure for life-sustaining therapies to be withheld or withdrawn since patients did not improve or worsened in condition (El Jawiche et al., 2020; Epker et al., 2015; Lautrette et al., 2015; Taylor et al., 2020). Also, the appearance of conflicting and contrasting opinions on appropriate measures to direct treatment withdrawals occurs commonly in the intensive care setting. Using semi-structured interviews with ICU nurses, a qualitative descriptive and exploratory study found that treatment withdrawals were increasingly stressful and supported the need for interdisciplinary support and cooperation (Taylor et al., 2020). In another study, using a web-based survey of ICU clinicians, findings indicated that most clinicians (92%) believed that withholding and withdrawal decisions should always be

multidisciplinary (El Jawiche et al., 2020). Based on the results of these studies, an interdisciplinary approach was necessary for a deeper evaluation of possible methods and selection of the best method that commensurate with patient circumstances. Other studies mentioned the use of compassionate care, constructing the story, medication therapy, and the addition of an intermediate step in the decision to forgo life-sustaining treatment (DFLST) as effective measures in achieving an appropriate withdrawal process for patients.

Compassionate care was used by one study to improve the process of treatment withdrawal (Efstathiou & Ives, 2018). The findings of the qualitative study illustrated the use of compassion through two subcategories, (1) compassion through dignity and (2) compassion through care and emotional support to the family. Compassion through dignity was shown by ICU clinicians in the management of the patient symptoms, ensuring cleanliness, and removal of unnecessary technical equipment during withdrawal. Compassion through care and emotional support to family included “attentive listening, providing emotional support, providing timely and relevant information and allowing extensive visiting times to family members” (Efstathiou & Ives, 2018). Participants showing this form of compassion also mentioned the use of emotional engagement. For example, the nurses reported feeling the need to open emotionally and show their sadness or distress, often not seen as appropriate in other settings. The study suggested that the use of these two forms of compassionate care can further develop the role of clinicians, emotionally support families, and maintain the dignity of patients (Efstathiou & Ives, 2018).

The construction of the story was a group of communication practices used by intensive care nurses to abet families in understanding what was happening to their significant other (Peden-McAlpine et al., 2015). In the process of withdrawing aggressive treatments, this strategy allowed families to become fully aware of the patient’s “illness trajectory” and “possibility of death”

(Peden-McAlpine et al., 2015). In the process of withdrawing aggressive treatments, patients and families recognized the need to relieve patient suffering, promote comfort, and foster a peaceful death. The communication practice used an overall plot and five subplots to interpret the actions and events associated with care in the ICU setting. Communication with the patients and their families began as soon as patients were admitted into intensive care units. Nurses first focused care discussions on treating the patient's current illness. The overall plot or storyline was then triggered by the patient's change in illness status or decline in health (e.g., multi-system organ failure). Nurses would then move or focus discussions on the possible termination of aggressive treatment and palliative care. Talks would proceed through the five identified subplots, including organization and interpretation of information from different sources, "learning who the patient is as a person and putting the medical diagnosis into the biographical life of the patient, helping families see the deteriorating status of the patient, imagining and acting on moral possibilities for end-of-life care, and facilitating saying goodbye" (Peden-McAlpine et al., 2015). The narrative study found that nurses were able to facilitate a peaceful death for patients and their families using these methods (Peden-McAlpine et al., 2015).

A prospective observational study supported the use of opioids and sedatives to manage symptoms associated with the withdrawal of treatments (Epker et al., 2015). The study mentioned that opioids and sedatives were "medications of choice in treating pain and various forms of distress in end-of-life care" (Epker et al., 2015). There have been assumptions that these medications could hasten the death of patients, which has led to the reluctance of many clinicians in using them or increasing dosages of these drugs for patients in severe distress. Despite the assumption, the study found that increased dosages did not contribute to a shorter time till death. The increased dosages of these medications helped treat patients' terminal restlessness, death rattle,

and stridor. These symptoms were present in less than 6% of patients sedated before and after withdrawal (Epker et al., 2015).

Another prospective observational study proposed an intermediate step in the decision to forgo life-sustaining treatment to assist in the withdrawal process (Lautrette et al., 2015). The DFLST stages included (1) no escalation of treatment, (2) withholding, and (3) withdrawal. According to Lautrette et al., “no escalation of treatment” was initiated between full therapy and withholding or withdrawal decisions in the DFLST process (2015). No escalation of treatment referred to decisions made to prevent treatment escalation, or the start of treatments focused on curative care and considered unnecessary at the time of the decision. This step also did not allow clinicians to start treatments even if they were considered in the future. The study found that no escalation of treatment did not influence the prognosis of ICU patients and was not associated with increased mortality ($P = 0.25$) (Lautrette et al., 2015). The research suggests that no escalation stage of treatment can benefit families and caregivers in allowing more time to discuss and prepare for the future fatality (Lautrette et al., 2015).

Communication Strategies

With every discussion, clinicians directed communication methods to tell bad news, help patients cope, assist in the grieving process, care for families as patients, and examine the effects of the dying process (Popejoy et al., 2009). However, Bell et al. found 50%–70% of intensive care admission patients and families expressed hesitancy to voice concerns about some common care situations (Bell et al., 2018). These situations pertained to possible mistakes in treatments or mismatched goals related to aggressiveness of care. The study identified that speaking up was a possible challenge for patients and families (Bell et al., 2018). The study reported that family members did not want to be “troublemakers” or cause any disruptions in care routines. So, the

study supported the need for care approaches that opened discussions about care concerns and possible errors in treatments at the EOL in intensive care units. Other studies supported the use of communication practices (e.g., consultation services) in the early course of patient stay in intensive care to help with clarification of goals or consensus in end-of-life care decisions (Bloomer et al., 2010; Loghmani et al., 2014; Seaman et al., 2017).

A qualitative descriptive study showed that nursing communication strategies effectively navigated patients and families through the difficult transition to end-of-life care (Adams et al., 2014). These strategies were devised into five categories which were equally weighted in importance. These categories consisted of concern demonstrations, building rapport, demonstrating professionalism, interpreting information, and supporting decision-making (Adams et al., 2014). Concern was shown by allowing family members to express their emotions, acknowledging and comforting their feelings, and supporting their spiritual practices. Building a rapport focused on establishing a therapeutic relationship with patients and family members. Professionalism was displayed by nurses who presented a calm, respectful, and confident demeanor. This presentation helped families cope since they felt more comfortable knowing that their loved one was in competent hands. Interpretation of information was performed by nurses, which allowed families to understand the significance of the patient's prognosis. The ICU nurses fully supported decisions regarding care made by the patient or family. This process involved nurses avoiding the verbalization of personal opinions when sharing information. Overall, the study found that the use of these approaches allowed intensive care nurses to assist families in coping with the patient's disease trajectory, having confidence and trust in care procedures, preparing for and accepting impending death, and making decisions (Adams et al., 2014).

Experiences and Expressions of Religion and Spirituality

Many studies indicated that patients tend to display or call forth a spiritual response when bearing witness to death. Spiritual responses were needed to address the common existential questions concerning the meaning and purpose of life, relationships, and destiny (Swinton et al., 2017). These responses were commonly addressed through chaplain care services for patients. One study found that of 246 patients who died in the ICU, 199 received chaplain visits (81%) (Choi et al., 2015). This study showed that chaplain services were being incorporated into care most commonly within the last 24 hours of a patient's life in the ICU to support patients and families. Families reported more satisfaction with the patient's overall care when spiritual care was provided (Choi et al., 2015). Other studies reported that spiritual care providers engaged in a large number of activities with patients and family members. One study pointed out that activities included actively addressing and discussing spiritual or religious needs ($\geq 90\%$) (Johnson et al., 2014). The spiritual care providers were able to encourage discussion of feelings, patient values, help family members reminisce about the patient, address cultural needs and intrafamily disagreements about the plan of care (Noome et al., 2017; Johnson et al., 2014). The findings of these studies illustrate that the activities of spiritual care providers were essential to improving end-of-life care for patients.

However, many studies supported the involvement of other clinicians, including the physician and nursing staff. This involvement focused on the incorporation of spiritual care provisions into end-of-life care practices for patients. A qualitative study examined the effects of changing the dying process into a spiritual event and implementing a Three Wish Project. Swinton et al. stated that the dying process was integrated into the life narrative of patients (2017). The regular daily concerns of patients became irrelevant, and fundamental experiences became important (Swinton et al., 2017). The study supported the aims of clinicians in understanding what

the EOL journey meant to patients and their priorities. The Three Wish Project allowed for spirituality expression using two methods, soliciting wishes and fulfilling wishes (Swinton et al., 2017). The solicitation of wishes generated “positive aspirations,” and patients and their family members were able to foster “hope and affirmations” amid despair and despondency (Swinton et al., 2017). Regardless of the belief system, clinicians would have care activities reflect the patient’s wishes. Common wishes were for peace, comfort, achieving spiritual goals, and reconciliation (Swinton et al., 2017). Other studies indicated that nurses and physicians used communication and observations to identify the spiritual needs of patients (Abu-El-Noor, 2016; Willemse et al., 2018). Spiritual care provisions were provided when patients stated questions regarding the poor trajectory of their illness and the meaning of their existence. These studies supported the continued involvement and delivery of spiritual care services in the intensive care setting.

Discussion

Overview

The findings of this literature review revealed that there are many strategies used in the care of patients in the ICU setting to guide treatment decisions and relieve suffering at the end of life. Of the strategies or interventions discussed, many were multidisciplinary based, involving a handful of skilled professionals. These professionals were often intensive care physicians, advanced practice nurses (e.g., nurse practitioners), bedside nurses, and chaplains (Adams et al., 2014; Anstey et al., 2019; Choi et al. 2015; Efstathiou, & Ives, 2018; Epker et al., 2015; Gehlbach et al., 2011; Orr, 2020; Peden-McAlpine, 2015; Swinton et al., 2017). Some studies also included physiotherapists, dietitians, and pharmacists (Anstey et al., 2019; Wessman et al., 2017). These professionals cared for patients through palliative-directed interventions, including assistance in

identifying and aligning care goals, symptom management before and after treatment withdrawals, supportive communication strategies, and management of spiritual distress. These interventions improved outcomes of care and provided comfort to dying patients and their families (Adams et al., 2014; Brandt et al., 2012; Choi et al., 2015; Efstathiou & Ives, 2018; Epker et al., 2015; Orr, 2020; Peden-McAlpine et al., 2015; Swinton et al., 2017; Wessman et al., 2017). In addition, ICU clinicians were able to experience higher assurance in care activities and utilize PC essential objectives to address patient and family concerns (Efstathiou & Ives, 2018; Wessman et al., 2017). The determination made in this review was that the presence of a dying patient is fraught with challenges that affect the patient, their loved ones, and clinicians involved in direct care. Interventions discussed in the findings showed that EOL care is enhanced when approached collaboratively with patients, families, and intensive care clinicians confronting terminal illness and death.

Implications in Nursing Practice

Nurses and advanced practice nurses that work in the ICU setting can take the information provided from this literature review and apply it to their individual nursing practice. In the intensive care setting, nurses can assess patients, plan care activities, address patient and family concerns, and implement and evaluate interventions that treat distressing symptoms occurring at the end of life. Nurses are obligated to provide care that includes the promotion of comfort. Care activities can be centered around each dimension of the patient's health. As evidenced by multiple articles in this review, the experiences of patients during the dying process are shaped by the nature of the illness, patient and family reactions, and clinicians' care for the patient's physical, psychological, spiritual, and practical needs (Bell et al., 2018; El Jawiche et al., 2020; Gehlbach et al., 2011; Swinton et al., 2017).

Nurses can be a resource and support for patients and families. For example, nurses are often placed in a position to contribute to conversations about end-of-life care and decisions. It is important to emphasize that patient care is not only focused on the preferences of family members, since they may not represent, or conflict with the preferences of the patient. Nurses can focus conversations on patient preferences and respect the patient's autonomy while continuing to support the family. Nurses can provide family support through communication, frequent family meetings, and referrals for counseling if indicated. This support can help the family face the reality of the patient's prognosis and shift their focus from curative medical care to palliative care.

Nurses can also play an important role in attending to the psychological and spiritual issues associated with terminal illnesses. Nurses can use their presence to encourage and actively listen to patients and families as they express their feelings of grief, loss, sadness, fear, and despair at the end of life. These actions allow nurses to examine what the meaning of the illness is to the patient or family and elicit priorities related to care. For example, some patients may convey a need to have a greater connection with something beyond the self and uncover the existential meaning of their lives. In this case, nurses often take the initiative to offer the patient services provided by spiritual care providers. Nurses are given the opportunity to enhance the quality of life of patients, reduce suffering, and create conditions that promote growth in care services at the EOL. Nurses can achieve this through thorough assessments, listening and communicating, skillful interventions, and compassionate care.

Limitations and Implications for Further Research

This literature review focused on general strategies available to address areas in the ICU setting needing improvement. Some limitations of the project included study restrictions to a few hospital institutions or ICU settings, lack of evaluations on the sustainability of interventions, and

the presence of inexperienced clinicians. Many articles reviewed mentioned that the availability of interventions needed to be examined in various institutions or intensive care units. This process can determine the level of applicability of interventions to different intensive care locations and populations. Future studies need to focus on tailoring interventions to a variety of ICU settings to generate knowledge on the appropriateness of interventions. Next, the sustainability of interventions was not assessed by some studies. Sustainable interventions usually refer to the extent to which interventions can deliver intended benefits over an extended period. Sustainable interventions are essential to provide lasting outcomes, resulting in higher palliation levels needed at the end of life. Future studies need to investigate whether interventions can continue to provide therapeutic effects over time. Lastly, many studies mentioned that a few clinicians were not experienced in performing end-of-life care activities. This event occurs when clinicians are new to the intensive care environment, not previously exposed to care routines at EOL, or never participated in the care of dying patients, deficient in knowledge and skills. These circumstances can impact the care received by patients and families. Future research studies need to investigate how effective interventions are for ICU clinicians who are inexperienced with care procedures.

Education

End-of-life care education is necessary to increase the capability of ICU clinicians in providing basic palliative care (Mercadante et al., 2018). This education can help clinicians meet the palliative needs of critically ill patients and families. EOL education should be provided as a continuing education requirement to ensure that clinicians have relevant knowledge and skills to care for dying patients. Education can be provided through innovative methods, including online sessions and applications, projects, preceptorship experiences, and group meetings. Educational modules were one example that assisted doctors, nurses, and allied health professionals working

in the intensive care setting. One of the studies in this literature review supported using a 2.5-hour module of EOL care available on ELNEC, End-of-Life Nursing Education Consortium, to outline essential steps in initiating comfort care measures (Wessman et al., 2019). The study mentioned that some of the course content provided an “overview of dying in the ICU, communication, ethics surrounding death, and EOL care discussions and “the final hours” (Wessman et al., 2019). Clinicians may find the use of modules helpful, especially if they are easily accessible to review.

Conclusion

This literature review attempted to evaluate the effectiveness of current EOL palliative care approaches in the intensive care setting, while answering research questions to understand gaps in the literature and areas where more research must occur. After reviewing the twenty-four articles, it was determined that interventions focused on multidisciplinary measures in identifying care goals, assisting treatment withdrawals, communicating with patients and families, and managing spiritual distress, may effectively treat end-of-life issues occurring in the ICU setting. This group involvement in care procedures has improved care outcomes and strengthened the confidence, knowledge, and experience of clinicians in caring for dying patients.

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