
Review

Utilization of Adaptive Communication in End-Of-Life Care in Intensive Care Unit During the Covid-19 Pandemic: Literature Review

Ulfah Nurrahmani^{1*}

¹Dr Hasan Sadikin Hospital, Bandung

***Corresponding author**

Ulfah Nurrahmani

Dr Hasan Sadikin Hospital

Pasteur Road 38th, Telp: (022) 2034953

Email: ulfahnurrahmani@yahoo.com

Article Info

Article History:

Received April 4 2022

Revised June 18 2022

Accepted August 2 2022

Keywords:

Covid-19

End-of-life

Intensive Care Unit

Communication

ABSTRACT

Covid-19 is becoming a global pandemic that presents new challenges in critical care. Visitation restrictions and isolation are major challenges in end-of-life care communication. The use of communication as an indicator of the quality of end-of-life care in the critical care management chain is required to adapt creatively and effectively. The aim of this research is to know the description of communication in end-of-life care in intensive care units during the covid-19 pandemic based on literature sources related to scientific research journals. The research was conducted by searching for research results published in 2019-2021 from databases such as PubMed, google scholar, and science direct using the keywords "communication", "end-of-life", "intensive care unit", and "pandemic". The search results selected twelve articles that met the PICO analysis for review. Twelve articles explain that adaptive communication can be carried out between patients, families, and the medical team through continuous video and telephone calls. Long-distance communication is carried out by following special rules, namely on time, coordinated by the entire team, and environmental and patient readiness, both in outward appearance and hemodynamic status. Communication adaptations in other forms are described in more detail in the communication guide checklist and written information sheets, as well as efforts to increase the role and number of nursing staff in large-scale communications. The use of adaptive communication positively can be beneficial in improving the quality of end-of-life care in intensive care units during a pandemic.

How to cite this article: Nurrahmani, U. (2022). Utilization of Adaptive Communication in End-Of-Life Care in Intensive Care Unit During the Covid-19 Pandemic: Literature Review. *Journal of Nursing Science Update*, 10(2), 101-107.

Introduction

Since March 11, 2020, WHO has designated Covid-19 as a world pandemic. As of February 15, 2022, the number of covid cases globally has reached 414 million, with a death rate of 5.8 million. Deaths due to COVID-19 are likened to a 'tsunami' of deaths due to the very high number (Jackson et al., 2020). The percentage of patients infected with COVID-19 who require ICU treatment of 16%-24% (Grasselli et al., 2020). The number of beds in the ICU is less compared to the high number of patients who experience Acute Respiratory Distress Syndrome (Anggraeni et al., 2020). Therefore, efforts to deal with the Covid-19 pandemic focus on evidence-based knowledge and procedure skills pillars and end-of-life management pillars (Spinello, 2011).

The family defines high-quality end-of-life care in the ICU, namely timely communication and also full of attention and affection. In decision-making, they always focus on the goals of patient care, principles, and values that are embraced. End-of-life care should avoid prolonged death, and the fourth is to prioritize comfort and dignity (Nelson et al., 2010). In realizing quality end-of-life care, an important indicator is a communication between patients, families, and health workers. The dying patient and his family urgently need communication as one aspect of care.

Before the covid-19 pandemic, patients with families communicated next to the patient's bed. However, restrictions on visits during the pandemic pose substantial communication barriers, thus becoming an obstacle in family and patient-centered care. Thousands of people died without families (Jackson et al., 2020). Restrictions on family visits in the ICU negatively affect patient and psychological recovery (Rose et al., 2021).

The decline in physiological function at the end of life is four: sudden death, cancer trajectory, organ failure, and frailty. Covid-19 with severe ARDS falls into the category of organ failure and has the opportunity to experience sudden death. Covid-19 patients who experience severe Acute Respiratory Distress Syndrome will require ICU treatment and need end-of-life care.

Informed consent issues, confidentiality issues, and information delivery that occur daily are the ICU's complexity (Shead et al., 2021). Communication in the ICU takes place

in a complex and complex manner. Patients can no longer verbally communicate their questions, needs, or wants (Hoorn et al., 2016). Therefore, it is necessary during the covid-19 pandemic to find the picture of communication adaptation in end-of-life care in intensive care units based on related scientific research journal literature sources. The pandemic is not yet complete; several countries have declared the fourth wave of the new covid-19 surge, including Indonesia. This research aims to know the description of communication in end-of-life care in intensive care units during the covid-19 pandemic based on literature sources related to scientific research journals.

Method

The study was conducted by searching the results of research published in 2019-2021 from databases such as PubMed, google scholar, and science-direct using the keywords "communication", "end-of-life", "intensive care unit", and "pandemic". Search results selected twelve articles that met PICO analysis for review. The literature search process can be seen in figure 1.

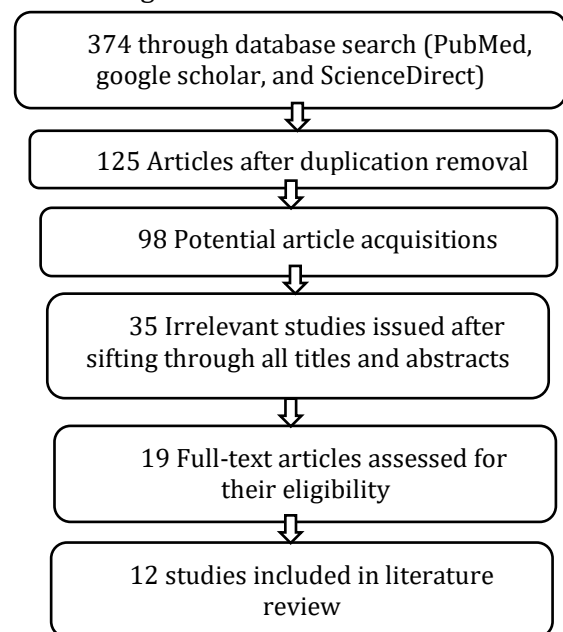


Figure 1. Search Results in The Database Results and Discussion

Search results obtained 374 articles and selected twelve articles that meet PICO analysis for review. We obtained twelve literatures, and they all discuss communication adaptation in the ICU during the covid-19 pandemic. Six journals are

literature review and four research journals. The research method used is a descriptive study in two journals, and the other two use cross-sectional methods.

Results and Discussion

From the journals analyzed, we found an idea of communication in the ICU between patients, families, and health workers. High-quality empathic communication late in life is of the utmost importance in delivering bad news and intubation decision-making during pandemic times in critical care (Pattison, 2020). A doctor's communication in the medical sphere significantly affects the explanation of information and informed consent. Most patients in critical care are unable to speak for themselves, which leads to family members' involvement in communication with the doctor (Piazza, et al., 2015). The quality of end-of-life care can be improved by adapting communication between patients, patient families, and health workers during the pandemic.

The twelve journals conclude that communication adaptation is divided into three strategies (Table 1).

A. Digital communication technology

Communication adaptation can be made in communication facing Covid-19 in the ICU, namely with digital communication technology in the form of family video calls and phone calls on a regular (Cardona et al., 2020; Ersek et al., 2021; Feder et al., 2021; Galazzi et al., 2021; Jeitziner et al., 2021; Negro et al., 2020; Pattison, 2020; Rose et al., 2021). The video call is referred to as video call end-of-life and is done based on the rules, among others:

- a. The ICU team coordinated (Galazzi et al., 2021)
- b. During the video call, interference from the machine alarms lowered his voice (Galazzi et al., 2021). A video call end-of-life is defined as a call made via tablet or smartphone with an active camera carried out in a structured manner that suspends intensive medical care and focuses palliative care on the end of the patient's life.
- c. The patient is prepared to be ready to be seen by the family because the condition while in the ICU has changed the patient's appearance, both clinically and emotionally, if the patient is conscious

(Galazzi et al., 2021; Negro et al., 2020). An unstable dynamic patient is not recommended for video calls.

- d. Spiritual assistance is done if the family requests it (Galazzi et al., 2021).
- e. In order for the family to feel confident that the patient is comfortable and not in pain, they can ask the nurse for help to wipe the face and hold the patient's hand (Galazzi et al., 2021).
- f. Teams that make video calls should not handle sudden or assigned emergency cases to the admission of new patients (Negro et al., 2020).
- g. Phone calls with family are made continuously (Galazzi et al., 2021).
- h. The phone call was made on time (Ersek et al., 2021).

The shortcomings in the use of an adaptation of digital communication technology are

- a. Non-verbal communication cannot be captured (Pattison, 2020).
- b. The need for intubation is getting faster and higher, so there is little time to communicate (Pattison, 2020; Shead et al., 2021).
- c. Some families are constrained by networking (Galazzi et al., 2021; Shead et al., 2021) and the ability to use technology (Rose et al., 2021).
- d. When compared to end-of-life care, next to the patient's bed is the first choice (Galazzi et al., 2021).
- e. Sound projection, intonation, and hospitality smile become blurred because the nurse uses complete PPE (Shead et al., 2021).
- f. Language barriers sometimes become somewhat complicated constraints (Shead et al., 2021).

Table 1. Article Mapping

| No | Title and Author | Methods and Purposes of Research | Results |
|-----------|--------------------------------|--|---|
| 1 | Natalie Pattison, 2020 | Review literature. Explaining end-of-life care during the covid-19 pandemic | High-quality empathic communication late in life is of the utmost importance in the delivery of bad news and intubation decision-making in times of pandemics in critical care. |
| 2 | Alessandro Galazzi et al, 2021 | Review literature. Describes the implementation of video calls in end-of-life care in the ICU during the year of the covid-19 pandemic. | During total isolation, video calls in end-of-life care are a useful tool. Video calls can be an intermediary between patients and their families in order to say goodbye. |
| 3 | Chris Rafterya et al, 2020 | Review literature. Know the role of nurses and social workers in end-of-life care communication for over-treatment during the Covid-19 pandemic. | Nurses and social workers are qualified people close to the patient's social situation and understand the patient's clinical condition. They can take on the role of initiator and facilitator in end-of-life care communication. |
| 4 | Ángel Estella, 2020 | Review literature. To explain the experience of ICU doctors in southern Spain during a pandemic in end-of-life care. | Health workers use video calls daily to improve communication between doctors, patients, and families to adjust to a pandemic situation. |
| 5 | Shelli Feder et al, 2021 | Type of research qualitative description study. To find out the perception of communication in end-of-life care during the covid-19 pandemic. | During isolation, end-of-life communication between the patient, family, and health team is essential. The family mentioned that poor communication could cause deep problems affecting the process of receiving death and loss. |
| 6 | Alessandra, et al 2020. | Review literature. To explain the use of video calls in facilitating communication between service providers and families in the ICU during the covid-19 pandemic. | Daily communication between the doctor and family can use video calls. The doctor leading the video call between the patient and his or her family can use a list of questions to guide during the conversation and ensure the same conversation. |
| 7 | Mary Ersek, et al. 2021 | Type of cross-sectional-retrospective research To know an overview of the importance of long-distance communication in end-of-life care during the covid-19 pandemic. | End-of-life care experiences felt by grieving family members relate to the effective use of remote communication between patients and care teams. |
| 8 | Louise Rose, et al. 2021 | Cross-sectional research methods know how to communicate between families, patients, and ICU teams during the pandemic. In | During the restrictions on visits to the ICU, virtual visits are innovations that can be made during the COVID-19 pandemic. The family can feel this in the recovery of |

| No | Title and Author | Methods and Purposes of Research | Results |
|----|------------------------------------|--|---|
| | | addition, to understand virtual visits' strategies, benefits, and obstacles. | patients. ICU virtual visits can improve the quality of care, both during and outside of pandemic conditions. |
| 9 | Diah Tika, et al. 2020 | Descriptive research methods. Identify the nurse's experience in the intensive care unit about her involvement and assessment in the patient's end-of-life care decision-making. | Considerations of end-of-life decision-making regarding withdrawing life support in covid-19 patients in the ICU are based on several things. In formulating the purpose of care, nurses are always actively involved and facilitate family members in making such decisions. |
| 10 | Danielle Claire Shead et al, 2021 | Review literature. To find out the picture of communication in the ICU during the covid-19 pandemic. | An approach to comprehensive family involvement in communication can be made through written information sheets, phone calls, and video call technology. Communication should also have an emotional component when dealing with critically ill patients. |
| 11 | Marie-Madlen Jeitziner et al, 2021 | Review literature To provide an overview of end-of-life care and decision-making processes while in the ICU, especially with regard to covid-19 and how relevant it is in practice during the pandemic. | Proper and dignified end-of-life care of individuals is essential in a pandemic. In addition, clear, open communication and a system between the patient and the family are important parts of end-of-life care. |
| 12 | Magnolia Cardona et al, 2020 | Review To find out the compatibility between patients and families and medical about end-of-life care in the ICU during the covid-19 pandemic. | To achieve the expected end-of-life care, the decision-making approach is carried out using a combination of values embraced by the patient and various matters of medical consideration. Improved communication should be improved in the process of receiving patients in the ICU and patient care. |

The advantages of using communication technology are

- a. Family conference videos can include entire families who are not allowed to visit. High-quality empathy communication skills possessed by health workers can be the capital to conduct accurate, consistent, and clear communication (Pattison, 2020)
- b. With clear care planning and family video calls, nurses can still accompany the patient until near the end of life next to his bed (Pattison, 2020).
- c. When done daily, it can improve communication between patients, doctors, and relatives (Estella, 2020).
- d. It can restore the psychological distress of the patient as well as the morale of the staff (Rose et al., 2021).
- e. Virtual visits can be used during or outside pandemics (Rose et al., 2021).

B. Model of ACP (Advanced Care Planning) approach led by nurses (Raftery et al., 2020) and the involvement of social workers

Given that the need for end-of-life care in intensive care unit rooms increased during the pandemic, the ACP model approach needs to be done to expand the exploration of the scope of end-of-life care (Raftery et al., 2020). Along with the economic crisis during the covid-19 pandemic, there is a healthcare ethical dilemma that requires immediate attention, so it is expected that discussions on withholding end-of-life care are not delayed (Raftery et al., 2020). Nurses in end-of-life communication have three roles: informant, support, and advocate. Nurses provide information about medical details as well as become advocates for the patient and family care purposes (Hebert et al., 2011). In addition, nurses navigate the flow of the health system and clarify the need to prevent overtreatment (Raftery et al., 2020).

C. Checklist of communication guides (Galazzi et al., 2021) and written information sheets

Such guidelines can provide uniform and structured communication in the delivery of information. With the adaptation of digital communication technology, the ACP treatment approach model, the communication alloy checklist and written

information sheet, communication in end-of-life care during pandemics can be implemented. In fact, adaptive structuring and adjustment can be one method of communication that can be done outside of a pandemic. The real physical barriers are masks, shields, and gloves are new barriers that sound inhumane. A smile or warmth of a hand cannot be given. Face shields and masks inhibit the loudness of the sound produced.

Conclusion

Positive utilization of adaptive communication can be beneficial in improving the quality of end-of-life care in intensive care units during pandemics. Remote communication can be used to communicate between patients, families, and medical teams both during and outside pandemics.

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