



Related Factors to end of Life Care by Nurse in Intensive Care Unit

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ABSTRACT

Background: The mortality rate of patients who were admitted in the intensive care unit has been increased. Therefore, end of life care is needed. Goals of end-of-life care is to help the patients would die with dignity and to help the family could receive bereavement. End of life care is related with internal and external factors. Aims: This study aims to analyze the factors that related to end-of-life care. Methods: This study was a quantitative research with analytic-correlation design. The samples were 62 critical care nurses, which obtained by total sampling. This study was conducted in ICU of Kendari Hospital Southeast Sulawesi. Data collection used questionnaire then analyzed with bivariate through Spearman's Rho and multivariate through logistic regression. Results: The implementation of end-of-life care in ICU of Kendari Hospital was optimal (74%, median = 55), which was related to several factors such as knowledge ($p = 0,000$), moral distress ($p = 0,002$), patient and family characteristics = 0.009), organizational structure and culture ($p = 0,000$). Knowledge was the most related factor in improving the quality of end-of-life care (OR = 45,542) with probability 97%. Conclusion: Optimization of end-of-life care is related with the personal (internal) of the nurse factors, patient and family, and organizational structure and culture. Implication: Related factors to end of life care will enrich the thought that delivered nursing care, nurse need to align knowledge with professionalism, leaving the pressures and dilemmas due to moral stress, as well foster a deep understanding of the nature of spirituality and culture sensitivity when accompanying dying patients, grows awareness that the best preferences of critical patient care are ones benefit the patients and families.

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ABSTRAK

Latar Belakang: Angka kematian pasien di ruang intensive care unit terus mengalami peningkatan sehingga end of life care sangat dibutuhkan. End of life care membantu pasien meninggal dengan bermartabat dan membantu keluarga menerima kehilangan dengan baik. End of life care berhubungan dengan faktor internal dan faktor eksternal. Penelitian ini merupakan penelitian kuantitatif dengan desain analytic correlation. Jumlah sampel sebanyak 62 perawat ICU yang didapatkan melalui teknik total sampling. Penelitian dilaksanakan di ICU rumah sakit di kota Kendari Provinsi Sulawesi Tenggara. Pengumpulan data dengan kuesioner dan analisis data univariat dengan Spearman's Rho dan analisis multivariate dengan regresi logistik. Hasil: Pelaksanaan end of life care di ICU rumah sakit Kota Kendari sudah optimal (74%, median = 55), yang berhubungan dengan beberapa faktor yaitu pengetahuan ($p=0,000$), distress moral ($p=0,002$), karakteristik pasien dan keluarga ($p=0,009$), struktur dan budaya organisasi ($p=0,000$).

Pengetahuan merupakan faktor yang paling berhubungan untuk meningkatkan kualitas pelaksanaan end of life care (OR=45,542) dengan probabiliti 97%.

Kesimpulan: Pelaksanaan end of life care yang optimal berhubungan dengan faktor personal (internal) perawat, factor pasien dan keluarga, factor struktur dan budaya organisasi. Implikasi: Temuan faktor yang berhubungan dengan pelaksanaan end of life carememperkaya pemikiran bahwa dalam memberikan asuhan keperawatan, perawat harus menelaraskan pengetahuan dengan profesionalisme, menyampingkan tekanandan distress moral, menumbuhkan pemahaman mendalam mengenai hakikat spiritualitas dan peka budaya saat mendampingi pasien menjelang ajal, menumbuhkan kesadaran bahwa preferensi terbaik dari perawatan pasien kritis adalah yang menguntungkan pasien dan keluarga.

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INTRODUCTION

Intensive Care Unit (ICU) is one of the service units in a hospital (RS) where the therapy and care provided focuses more on the life saving of patients with life-threatening critical conditions, involves the collaboration of professionals from various disciplines and is supported by the latest technology. such as supporting life, aggressive curative therapy and 24 hour observation (Urden et al., 2010). Despite this, the deaths of patients in the ICU still occur. The mortality rate for patients in the ICU is reported to continue to experience a significant increase. Globally, each year the ICU patient mortality rate is estimated to be around 10-29% depending on age and disease severity (Elias et al., 2015). In Indonesia, the mortality rate for patients in the ICU is around 25% of the number of admissions with an average length of stay more than 7 days (Hardisman, 2008). The prevalence of the mortality rate is quite high in the ICU, increasing the need for end of life care.

In the ICU, nurses spend more time with patients and families who will face death than other health teams (Campbell, 2013) so that end of life care is done more by nurses than other health workers (Rome et al., 2011). The duties of nurses in the care of dying patients are to provide comfortable care, provide information and advocacy for patients and their families, encourage reflection and the implications of end-of-life care (Lewis, 2013).

The goal of end of life care is to meet the physical, psychological, social and spiritual needs of dying patients as well as family needs through comprehensive assessment and comfort (Thurston et al., 2011). Meeting the needs is expected to improve the quality of life of dying patients so that they can face death in peace. As for families, getting adequate information and receiving psychological support will make the more open to accepting feelings of loss (Rome et al., 2011).

Implementation of end of life care in the intensive care unit is related to the nurse's personal or internal factors, patient and family characteristics, structure and organizational culture. These factors can be a strength as well as a challenge in improving the quality of nursing services, especially in end of life care.

The purpose of this study was to identify the relationship between personal or internal factors of nurses, patient and family characteristics, as well as organizational structure and culture with the implementation of end of life care in the ICU.

METHOD

This study was an analytic-correlation study using a cross-sectional approach which was carried out in the ICU room in Kendari.

Research Participants

The population in this study were 62 critical nurses with total sampling.

Instrument

The instrument in this study is questionnaire. Questionnaire 1 was used to measure related factors

with the implementation of end of life care by nurses. This questionnaire was adopted

from previous research conducted by Kassa et al. (2014), Ruder (2013), and Elpern, Covert & Kleinpel (2005) with some modifications and reliability test analysis was 0,851 (Cronbach's alpha value > 0.6). Questionnaire 2 is used to measure the implementation of end of life care adopted from Engelberg et al. (2010) and reliability test analysis was 0,879 (Cronbach's alpha value > 0.6).

Data Analysis

Data analysis used Spearman's Rho with a degree of significance (p value) <0.05. Multivariate analysis with logistic regression.

RESULTS AND DISCUSSION

Table 1 Respondents Characteristics

Variable	f	%
Gender		
Men	21	33,9
Women	41	66,1
Age		
19 - 29	28	45,2
30-50	33	53,2
>50	1	1,6
Degree		
Bachelor	23	37,1

Diploma	39	62,9
Length of Work		
	28	45,2
	16	25,8
> 5	18	29
Palliative training		
once	14	22,58
never	48	77,42

Table 2 Implementation of End of Life Care in Intensive Care Unit

Variable	Med	SD	Category	f	%
<i>End of life care</i>	55	9,002	Not Oprimal	14	22,6
			Optimal	48	77,4

Table 3 Nurse's Personal / Internal Factors

Variable	Med	SD	Category	f	%
Knowledge	36	4,412	Defficient	8	12,9
			Sufficient	54	87,1
Spirituality and Culture	43,50	5,382	Defficient	31	50
			Sufficient	31	50
Moral Distress	24	3,603	No moral Distress	13	21
			Moral Distress	49	79

Table 4 Patient and Family Factors

Variabel	Med	SD	Categiry	f	%
Decision Making	32	2,675	Defficient	23	37,1
			Sufficient	39	62,9
Patient and Family Characteristics	27	3,708	Defficient	18	29
			Sufficient	44	71

Table 5 Organizational Structure and Culture Factors

Variable	Med	SD	Category	f	%
Organizational structure and culture	51	8,811	Less support	13	21
			Support	49	79

Table 6 Relation Nurse's Personal/ Internal Factors with End of Life Care

Variable	End of Life Care				<i>r</i>	<i>p</i>
	Not Optimal		Optimal			
	n=14	%	n=48	%		
<i>Nurse's Personal / Internal Factors</i>						
Defficient	11	78,5	24	50	0,36	0,004
Sufficient	3	21,5	24	50		

Table 7 Relation Subvariable of Nurse's Personal/ Internal Factors with End of Life Care

Variable	End of Life Care				<i>r</i>	<i>p</i>
	Not Optimal		Optimal			
	n=14	%	n=48	%		
<i>1. Knowledge</i>						
Defficient	6	42,9	2	4,2	0,483	0,000
Sufficient	8	57,1	46	95,8		
<i>2. Spirituality and culture</i>						
Defficient	8	57,1	23	47,9	0,077	0,551
Sufficient	6	42,9	25	52,1		
<i>3. Distress Moral</i>						
Distress	7	50	6	12,5	0,385	0,002
No Distress	7	50	42	87,5		

Table 8 Relation Patient and Family Factors with End of Life Care

Variable	End of Life Care				r	p
	Not Optimal		Optimal			
	n=14	%	n=48	%		
<i>Patient and family factors</i>						
Defficient	9	78,5	24	50	0,406	0,001
Sufficient	5	21,5	24	50		

Table 9 Relation Subvariable of Patient and Family Factors with End of Life Care

Variable	End of Life Care				r	p
	Not Optimal		Optimal			
	n=14	%	n=48	%		
<i>Decision making</i>						
Less	7	50	16	33,3	0,144	0,263
Good	7	50	32	66,7		
<i>Patient and family characteristics</i>						
Kurang	8	51,7	10	20,8	0,331	0,009
Baik	6	42,9	38	79,2		

Table 10 Relation Organizational structure and culture Factors with End of Life Care

Variable	End of Life Care				r	p
	Not Optimal		Optimal			
	n=14	%	n=48	%		
<i>Organizational structure and culture</i>						
Not Support	8	57,1	5	10,4	0,480	0,000
Support	6	42,9	43	89,6		

Table 11 Most Related Subvariable with End of Life Care

Variable	Coef.	p	OR (CI95%)
Knowledge	3,819	0,001	45,542 (4,551-455,745)
Moral Distress	1,730	0,052	5,641 (0,985-32,306)
Patient and family characteristics	2,217	0,016	9,176 (1,499-56,170)
Constanta	-4,453	0,003	0,012

DISCUSSIONS

Nurses who work in the ICU at the hospital in Kendari City, Southeast Sulawesi Province have good knowledge about end of life care. Nurses' knowledge of end of life care provides an important contribution in providing care for patients who are near death. The results also showed that the level of education of ICU nurses at the hospital in Kendari city was 39 (62.9%) of the nurses with D3 education (62.9%) and 23 (37.1%) undergraduate education. D3 (vocational) educational background in a scientific manner is sufficient to provide care to patients. Besides formal education, nurses also get additional knowledge through training (Widodo, 2016). Of the 62 respondents, 14 (22.58%) had attended palliative training which was given during intensive room nurse training.

The results of the above research are in line with research previously conducted by Naido et al. (2014), Browning (2013), Prompahakul et al. (2011) which states that knowledge is related to the quality of end of life care performed by nurses. Knowledge of end of life care influences the perception of providing end of life care.

Sufficient knowledge of end of life patient care helps increase nurses' readiness to provide quality end of life care (Montagnini, Smith, & Balistrieri, 2012).

The results showed that spirituality and cultural background were not related to the implementation of end of life care. The results of this study are different from research conducted by Bulow et al. (2008) which states that religion and culture influence end of life decision making in ICU. Different religious, cultural and ethical backgrounds will use different approaches even within the same religion even when it comes to the final decision of life. Religion and spirituality are closely related to the final phase of one's life. When facing death, the tendency to get closer to religious teachings is higher (Bulow et al., 2008).

Indonesian's people are uphold the values of belief and are tolerant of religious, customary and cultural norms (Bauto, 2014). The nurse will give the family the opportunity to accompany the patient to be closer and perform religious rituals such as praying and chanting the holy Koran. This is supported by the statement that families should be given the freedom to accompany and perform rituals in accordance

with the religions and beliefs and cultures that are believed to lead a dying patient to a good death (Steinberg, 2011). Nurses as individuals who are indirect contact with patients must understand that spiritual phenomena are very important to support holistic quality nursing care. Nurses must also understand that patients as humans are creatures consisting of body, mind and soul so that nurses need to assess the spiritual needs desired by patients (Evangelista et al., 2016).

The moral stress experienced by nurses in the ICU is caused by a situation where nurses have to continue therapy with patients who have no life expectancy, while this is known to not bring benefits to patients. This is in accordance with Browning's (2013) study which states that the moral stress experienced by ICU nurses is triggered by the continuous provision of futile care to patients with a poor prognosis. Despite experiencing moral stress, the ICU nurse at Kendari City Hospital can carry out end of life care optimally because the nurse feels responsible for providing the best care until the patient is declared cured and / or dies. Nurses have an ethics of professional responsibility, where nurses must carry out their duties responsibly in any condition (Grace, 2017).

Nurses leave the family fully up to the decision making regarding the care of dying patients. This is in accordance with the majority of respondents who answered strongly agree on the question item of family involvement in the decision-making of patients who are dying. Even though the patient shows signs of being unresponsive to treatment, if there is no decision to withdraw, then the treatment is still carried out according to the procedure (Wilkinson & Savulescu, 2011).

A study states that Asian people tend to prefer decision-making about the end of life that favors and benefits the family. This is closely related to the demographic conditions and characteristics of Asian ethnicity which are very close to religious and cultural values (Kwak & Halley, 2005). In Asian culture, medical decisions oriented towards extended family decisions as a form of respect for older people. Patients with terminal illness rely more on family and physicians to make end-of-life decisions and place less emphasis on patient autonomy (Ngo-Metzger, Phillips & McCarthy, 2007).

Characteristics of patients who undergo treatment in the ICU in general are patients with fluctuating hemodynamics who tend to be unstable so that they give an uncertain prognosis picture. This makes the characteristics of ICU patients different from patients in other rooms. The death of patients in the ICU tends to be faster than patients in other treatment rooms, so ideally end of life care is discussed and carried out earlier (Johnson et al., 2010; Lee et al., 2009). End of life care, especially in meeting psychological, social and spiritual needs, must be adjusted to the values and beliefs believed by patients and families (Janssen et al., 2016). Differences in patient conditions, environment and atmosphere between the ICU and other wards also provide differences in end-of-life care (Ranse, Yates & Coyer, 2012).

The ICU room is synonymous with the support of sophisticated equipment that functions to sustain patients' lives. In patients with a poor prognosis, the functioning of the equipment presents a dilemma because it prolongs life or prolongs the patient's suffering. A noisy environment disturbs the patient's calm and peace. This will be an obstacle and a cause of delay in end of life care for dying patients (Kongsuwan & Locsin, 2009). The availability of SOPs will make it easier for nurses to carry out procedures for treating patients who are dying (Gaudine et al., 2011). Practice guidelines should be developed to reduce ambiguity

and support the implementation of high-quality end-of-life care in intensive care units (Efstathiou & Walker, 2014).

Most related factor with end of life care is knowledge (OR = 45.542). Knowledge of end of life care is an important domain in the implementation of quality end of life care. Education and training will help nurses to improve their competence in providing palliative care, especially dealing with patients in the end of life phase (McDonnell et al., 2009; Phillips et al., 2007). The knowledge, skills and behavior of nurses play a role in the effectiveness of implementing end of life care, especially in helping families make decisions. The nurse emphasizes the importance of formally acquired knowledge, work experience and maturity to improve behavioral perspectives in order to handle uncontrollable situations when making decisions in the patient's end of life phase (Baliza et al., 2015). Knowledge becomes an important domain for nurses to provide nursing actions. Good knowledge of the principles of palliative care given to patients in the end of life phase is needed to help patients and families meet their physical, emotional and spiritual needs (Zaghla, 2014).

Limitation of The Study

The limitation in this research is that the measurement of the variables in this study is quite a lot so that respondents can experience burnout when filling out the questionnaire so that the results obtained can be biased because the respondent filled out the questionnaire carelessly or because he did not read the question items carefully. To overcome this, the questionnaire was divided into 2 parts and the researcher did not limit the time the respondent filled out the questionnaire.

CONSLUSIONS AND RECOMMENDATION

This study show that related factors to the of end of life care in ICU of Kendarihospital are personal/internal nurses factors, patient and family factors, organizational structure and culture factors.

Measurement of variables in this research is quite a lot so that respondents can experience boredom when filling out questionnaire so that the results obtained can be biased because the respondents filling out the questionnaire carelessly or because they did not read the question items carefully. It is necessary to develop a digital-based questionnaire that is easy to fill so that an assessment of the quality of end of life can be assessed easily.

Conflict of Interest Statement

This statement is to certify that all Authorshave seen and approved the manuscript being submitted. We warrant that the article is the Authors' original work. We warrant that the article has not received prior publication and is not under consideration for publication elsewhere. We attest to the fact that all Authors listed on the title page have contributed significantly to the work, have read the manuscript, attest to the validity and legitimacy of the data and its interpretation and agree to its submission in this journal.

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