

Nurses' Attitudes Toward End-of-Life Care: A Cross-Sectional Study

Nurul Azlinda Mohamed¹, Amirah Fatin Ibrahim¹, Ayuni Asma' Baharudin¹,
Mohd Arif Atarhim²

¹Kulliyyah of Nursing, International Islamic University Malaysia

²Department of Nursing, The National University of Malaysia

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ABSTRACT

End-of-life care is an important aspect of holistic nursing care. As a frontliner, nurses play a significant role in end-of-life care delivery and their attitudes influence the quality of care provided to end-of-life patients and families. This study aims to assess nurses' attitudes toward end-of-life care and examine the relationship between demographic characteristics with nurses' attitudes. A descriptive cross-sectional study was conducted among registered nurses at a public hospital in Malaysia. Using a simple random sampling, 223 nurses were recruited. Data were collected via an online form using the Frommelt Attitudes Toward Care of The Dying Scale (FATCOD). Descriptive statistics were used to assess demographic characteristics and attitude scores, meanwhile independent t-tests was used to examine group differences. Majority of nurses (89.24%) had a fair attitude, 7.62% showed a positive attitude and 3.14% had negative attitude. Among the six subscales, "Family as Caring" subscale recorded the highest mean score ($M = 4.39$, $SD = 0.65$), followed by "The Care of the Family" subscale ($M = 4.12$, $SD = 0.69$). Meanwhile the lower scores were observed in "Communication" subscale ($M = 3.13$, $SD = 0.49$) and "Fear/Malaise" subscale ($M = 3.29$, $SD = 0.59$). A statistically significant difference was found between years of working experience with total attitude scores ($p = 0.04$). Nurses demonstrated positive attitudes toward family-related care for end-of-life patients. However, emotional and communication challenges may compromise holistic care. Educational effort should prioritize communication skills and emotional resilience to enhance compassionate end-of-life care for patients and families.

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Corresponding Author:

Amirah Fatin binti Ibrahim

Kulliyyah of Nursing, International Islamic University Malaysia,
Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200, Kuantan, Pahang, Malaysia
Email: amirahfatin@iium.edu.my

1. INTRODUCTION

Caring for end-of-life patients is an important component of holistic nursing care. End-of-life care is given to patients and their families during the time surrounding death and focusing on providing comfort, dignity and quality of end-of-life care. As a central to end-of-life care, nurses deliver not only physical support but also emotional, psychosocial, and spiritual care for terminally ill patients and their families.

With the increasing number of ageing populations worldwide and the rise of chronic and life-limiting illness prevalence, the demand of end-of-life care is expected to grow.

End-of-life care is known as a part of palliative care. According to the consensus-based definition, palliative care is the active holistic care of individuals across all ages with serious health-related suffering due to severe illness and especially of those near the end of life (Radbruch et al., 2020). The World Health Organization (2020) stated that approximately 56.8 million people require palliative care annually. However, only 14% of those in need get the access and receive the palliative care services. It is estimated that by 2030, there will be an increase of 240% in the palliative care needs in Malaysia (Yang et al., 2022). The rising demand for palliative care emphasizes the need to equip nurses with adequate knowledge, attitudes, and practices in this area. This is important to ensure a compassionate and competent end-of-life care delivery among nurses.

Nurses' attitudes toward end-of-life care directly influence the quality of care they provide to patients and their families (Blaževičienė et al., 2020). In a multicenter cross-sectional study in China by Zheng et al. (2022) found that factors such as bereavement experience, prior death education, a sense meaning of life, and death anxiety significantly influenced nurses' attitudes. Additionally, nurses' attitudes were significantly influenced by a combination of personal background, professional environments, educational experiences, and psychological factors (Ghazanfari et al., 2025). Furthermore, adequate knowledge, skills and positive attitudes are required to provide quality end-of-life care (Aljehani et al., 2021). Nurses with positive and favourable attitudes demonstrated compassionate communication and good emotional preparedness. Meanwhile, nurses who have negative and unfavourable attitudes reported avoidance and discomfort in discussing and addressing end-of-life patients' needs. In end-of-life care, nurses' supportive attitudes, particularly towards family involvement are considered crucial to enhance patients' outcomes (Putri & Yuswardi, 2024). Nurses' negative attitudes towards end-of-life care, thus compromised the quality-of-care delivery (Alshammari et al., 2023). As a result, patients and their families' physical, emotional, and psychological needs will be unmet.

Despite the importance of assessing nurses' attitudes toward end-of-life care, there is limited research in the Malaysian public hospital context that has examined the nurses' attitudes toward end-of-life care. In Malaysia, previous studies have been conducted among nurses in teaching hospital (Hussin et al., 2018), nursing students in a private college (Lim et al., 2020), primary care physicians (N. Hamdan et al., 2023), and undergraduate nursing students in a public university (Abd Rashid & Wan Azhar, 2025). Therefore, this study aims to assess the attitudes towards end-of-life care among nurses working at a public hospital in Malaysia. In addition, this study focuses on subscale patterns and domain-level interpretation to address a critical gap in nurses' attitudes toward end-of-life care.

2. RESEARCH METHOD

2.1 Study design

A descriptive cross-sectional study was conducted among nurses at a public hospital in Malaysia. Data was collected using an online form regarding attitudes toward end-of-life care.

2.2 Sample and sampling

A simple random sampling was used to recruit nurses in this study, to ensure each nurses had equal chances of selection. Nurses working in adult wards such as medical, surgical, haematology, orthopaedic, gynaecology, and ICU, and who had encountered end-of-life care at least once in the clinical setting, were included in this study. Nurses who work in pediatric wards were excluded from this study to ensure a more homogenous sample. This exclusion was intended for a focused exploration of end-of-life care delivery to adult patient populations. This study excluded nurses who were on maternity or study leave during the data collection period. The sample size was calculated using the Raosoft online calculator. With a confidence interval of 95%, 5% margin of error and an estimated response distribution of 50%, yielding a minimum required sample size of 204 respondents. However, to account for potential dropout rate, an additional 20% was added, resulting in a final sample size of 245. Aligned with the simple random sampling method, Excel was used to generate random numbers and unique identifiers were assigned to the eligible respondents.

2.3 Instruments

Nurses' attitudes toward end-of-life care were assessed using the Frommelt Attitude Toward the Care of the Dying Scale (FATCOD) (Frommelt, 1991). FATCOD consists of 30 Likert-type items, scored on a 5-point scale from 1 (Strongly Disagree), 2 (Disagree), 3 (Uncertain), 4 (Agree) to 5 (Strongly Agree). Items 1, 2, 4, 10, 12, 16, 18, 20, 21, 22, 23, 24, 25, 27, and 30 are all positively worded statements, while others are negatively worded. The tool was confirmed for its validity and reliability in previous studies and has been a commonly used tool to assess attitudes toward end-of-life and palliative patients (Etafa et al., 2020; N. Hamdan et al., 2023; Lim et al., 2020). The Cronbach's alpha for this study is 0.633, which is deemed acceptable (Konting et al., 2009). Socio-

demographic characteristics such as age, gender, education level, and years of working experience were also collected.

2.4 Data collection methods

Prior to data collection, ethical approval was obtained from the respective ethical committees and the targeted hospital. After getting the approval, a pilot study was conducted involving 30 nurses from the same study setting to assess the clarity, relevance, and reliability of the questionnaire. Nurses who were involved in the pilot study were excluded from the main study. An online questionnaire was used and distributed to the selected respondents. Assurance of confidentiality and anonymity was explained, and informed consent was taken prior to completing the questionnaire. An information sheet consisting of the study objective, procedures and ethical aspects was presented at the beginning of the online questionnaire. Additionally, respondents were informed of their right to withdraw from the study at any point without penalty.

2.5 Data analysis

The data analyses were conducted using IBM-SPSS version 25. Descriptive statistics including frequency, percentage, mean, and standard deviation was used to assess the level of attitude, to describe the socio-demographic characteristics and to assess the nurses' attitude according to the subscales. Additionally, independent t-test were used to examine the differences between attitudes and socio-demographic. A significant level was set at $p < 0.05$. Negatively worded items in FATCOD were reverse coded prior to analysis.

3. RESULT AND DISCUSSION

3.1 Demographic characteristics

Of the total of 245 respondents, only 223 respondents completed the online questionnaire, giving a response rate of 91.02%. The analysis showed that the mean age of the nurses was 32.93 ($SD = 4.26$) ranging from 25 to 45 years old. Female nurses represented 95.5% ($n=213$) and male nurses was 4.5% ($n=10$). Regarding the educational qualification, majority of the nurses was a diploma holder (96.4%), and 3.6% has higher education level. 52% of nurses has less than 10 years of working experience, while 42% had more than 10 years of experience. Table 1 presents the socio-demographic characteristics of the respondents. The analysis of nurses' attitude showed that nurses have a fair attitude towards end-of-life care with total mean score was 105.52 ($SD = 9.97$). Majority of nurses have fair attitude (89.2%), and 7.6% of the nurses reported of having positive attitudes. Meanwhile, 3.1% of the nurses reported have negative attitudes towards end-of-life care.

Table 1. Socio-Demographic Characteristics of Respondents (n=223)

Variables	Frequency (n)	Percentage (%)	Mean \pm SD
Age			32.93 \pm 4.26
< 31 years old	70	31.4	
\geq 31 years old	153	68.6	
Gender			
Male	10	4.5	
Female	213	95.5	
Education level			
Diploma	215	96.4	
Degree and above	8	3.6	
Years of working experience			8.97 \pm 4.63
< 10 years	116	52.0	
\geq 10 years	107	48.0	
Attitude Level			
Negative	7	3.1	
Fair	199	89.2	
Positive	17	7.6	

3.2 Attitudes of nurses towards end-of-life care

Table 2 presents level of nurses' attitudes toward end-of-life care. Majority of nurses have fair attitude (89.2%), and 7.6% of the nurses reported of having positive attitudes. Meanwhile, 3.1% of the nurses reported have negative attitudes towards end-of-life care.

Table 2. Level of Nurses' Attitudes Toward End-of-Life Care

Variables		Frequency (n)	Percentage (%)
Attitude Level	Negative	7	3.1
	Fair	199	89.2
	Positive	17	7.6

The analysis of subscales revealed that the highest mean score for attitude subscale was Family as Caring subscale ($M = 4.39, SD = 0.65$), followed by the Care of the Family subscale ($M = 4.12, SD = 0.69$) and Active Care subscale ($M = 3.66, SD = 0.58$). On the other hand, lower mean subscales were Communication ($M = 3.13, SD = 0.49$), Fear/Malaise subscale ($M = 3.29, SD = 0.59$) and Relationship subscale ($M = 3.37, SD = 0.52$). Regarding the inter-item analysis, the highest reported items were item 12 “The family should be involved in the physical care of the dying person.” ($M = 4.61, SD = 0.71$), item 18 “Families should be concerned about helping their dying member make the best of his/her remaining life.” ($M = 4.53, SD = 0.74$), item 16 “Families need emotional support to accept the behavior changes of the dying person.” ($M = 4.44, SD = 0.79$), item 21 “It is beneficial for the dying person to verbalize his/her feelings.” ($M = 4.21, SD = 0.83$), item 1 “Giving care to the dying person is a worthwhile experience.” ($M = 4.21, SD = 0.87$), item 4 “Caring for the patient’s family should continue throughout the period of grief and bereavement.” ($M = 4.11, SD = 0.95$), item 20 “Families should maintain as normal an environment as possible for their dying member.” ($M = 4.04, SD = 0.96$), and item 5 “I would not want to care for a dying person.” ($M = 4.00, SD = 1.10$). Conversely, the lowest reported items were item 11 “When a patient asks, “Am I dying?” I think it is best to change the subject to something cheerful.” ($M = 2.14, SD = 1.03$) which is in the “Communication” subscale. Table 3 shows mean scores for overall subscales and items.

Table 3. Nurses' Attitudes Toward End-of-Life Care (n=223)

Item Number	Subscale/Item	Mean	SD
	The Total Attitude (FATCOD) Scores	105.52	9.97
	Fear/Malaise Subscale	3.29	0.59
1	Giving care to the dying person is a worthwhile experience.	4.21	0.87
3	I would be uncomfortable talking about impending death with the dying person.	2.26	1.04
5	I would not want to care for a dying person.	4.00	1.10
7	The length of time required giving care to a dying person would frustrate me.	3.50	1.16
8	I would be upset when the dying person I was caring for gave up hope of getting better.	2.26	1.08
13	I would hope the person I’m caring for dies when I am not present.	2.82	1.27
14		3.75	1.18
15	I am afraid to become friend with a dying person.	3.95	1.11
26	I would feel like running away when the person actually died.	2.91	1.25
	I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying.		
	The Care of The Family Subscale	4.12	0.69
4	Caring for the patient’s family should continue throughout the period of grief and bereavement.	4.11	0.95
16	Families need emotional support to accept the behavior changes of the dying person.	4.44	0.79
22	Nursing care should extend to the family of the dying person.	3.81	0.98
	Communication Subscale	3.13	0.49
2	Death is not the worst thing that can happen to a person.	2.99	1.42
6	The nurse should not be the one to talk about death with the	2.61	1.28

Item Number	Subscale/Item	Mean	SD
	dying person.		
11	When a patient asks, "Am I dying?" I think it is best to change the subject to something cheerful.	2.14	1.03
27	Dying persons should be given honest answers about their condition.	3.83	0.93
28		3.49	1.23
30	Educating families about death and dying is not a nursing responsibility.	3.74	1.04
	It is possible for nurses to help patients prepare for death.		
	Family as Caring Subscale	4.39	0.65
12	The family should be involved in the physical care of the dying person.	4.61	0.71
18		4.53	0.74
20	Families should be concerned about helping their dying member make the best of his/her remaining life.	4.04	0.96
	Families should maintain as normal an environment as possible for their dying member.		
	Relationship Subscale	3.37	0.52
9	It is difficult to form a close relationship with the dying person.	3.04	1.06
10	There are times when the dying person welcomes death.	3.49	1.04
17	As a patient nears death, the nurse should withdraw from his/her involvement with the patient.	3.50	1.29
21	It is beneficial for the dying person to verbalize his/her feelings.	4.21	0.83
29	Family members who stay close to a dying person often interfere with the professional's job with the patient.	2.64	1.11
	Active Care Subscale	3.66	0.58
19	The dying person should not be allowed to make decisions about his/her physical care.	3.62	1.22
23	Nurses should permit dying persons to have flexible visiting schedules.	3.81	1.07
24		3.96	0.89
25	The dying person and his/her family should be the in-charge decision-makers.	3.25	1.16
	Addiction to pain relieving medication should not be a concern when dealing with a dying person.		

3.3 Differences in nurses' attitudes toward end-of-life care in relation to socio-demographic characteristics

An independent sample t-test was conducted to compare the total attitude scores with nurses' socio-demographic characteristics. The result revealed that there was a statistically significant difference between years of working experience and total attitude scores in which nurses with more than or equal to 10 years of working experience score slightly higher ($M = 71.29$, $SD = 6.37$) than those who had less than 10 years of working experience ($M = 69.48$, $SD = 6.81$; $t = -2.04$, $p = 0.04$). However, comparison with other variables such as age, gender and education level were not statistically significant ($p > 0.05$) as shown in Table 4.

Table 4. Independent t-test to Analyze the Difference Between Socio-Demographics and Nurses' Attitude Toward End-of-Life Care

Variables	Attitude		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>		
Age				
< 31 years old	69.83	6.90	-0.79	0.43
≥ 31 years old	70.59	6.54		
Gender				
Male	69.73	6.64	-0.30	0.77
Female	70.38	6.66		
Education Level				
Diploma	70.26	6.60	-1.04	0.30
Degree and above	72.75	7.86		
Years of Clinical Experience				
< 10 years	69.48	6.81	-2.04	0.04
≥ 10 years	71.29	6.37		

4. DISCUSSION

The present study assessed the attitudes of nurses towards end-of-life care. The findings of this study show that nurses generally have a fair attitude towards end-of-life care. A similar finding was reported by Etafa et al. (2020) found that nurses in Ethiopia demonstrated less favourable or moderate attitudes towards end-of-life care. In contrast, studies in Saudi Arabia by Alshammari et al. (2023) and Iran by Ghazanfari et al. (2025) found that nurses hold a favourable attitude towards end-of-life care. These contradictory findings might vary due to differences in training, educational curriculum, and patients' exposure. Additionally, cultural, and religious beliefs as well as healthcare infrastructure and policies, might contribute to these contradictory findings.

In this study, nurses reported higher mean scores on the "Family as Caring" and "The Care of The Family" subscales. This indicated that nurses strongly value the family-related aspects in end-of-life care. This finding reflects that nurses demonstrated a positive attitude towards the family presence and involvement in end-of-life care. Additionally, high mean score towards "The Care of The Family" indicates that nurses have a supportive attitude in providing emotional and extended care to the patient's family throughout the dying and into bereavement periods. Similar findings reported by K. M. Hamdan et al. (2023) and (Alshammari et al., 2023) that most nurses had a favourable attitude toward family involvement in end-of-life care. Furthermore, nurses also agreed that nursing care and emotional support should be extended to the patients' families (Alshammari et al., 2023; K. M. Hamdan et al., 2023). A previous study by Etafa et al. (2020) also revealed similar findings but nurses reported moderate agreement on continuation of nursing care for patient's family throughout grief and bereavement. The similarity with previous findings might be influenced by nurses' personal beliefs, professional experiences and their understanding of the importance of family presence. Furthermore, Malaysian culture that supports family involvement might have contributed to nurses' favourable attitudes. In addition, a multinational comparative study revealed that nurses generally hold positive attitudes towards family involvement in care (Cranley et al., 2022). However, the level of positivity is influenced by country, age, gender, and practice area (Cranley et al., 2022).

Nurses often face significant challenges in communication during end-of-life care. In this study, nurses reported the lowest mean scores in the "Communication" subscale ($M = 3.13$, $SD = 0.49$) compared to other subscales. This finding indicated that nurses experienced discomfort in engaging with end-of-life communication with patients and families. This finding is similar to studies conducted in China, Ethiopia and Kuwait, which highlight communication challenges in end-of-life care practice. Chen et al. (2023) stated that nurses avoid open conversations about prognosis or dying, despite generally having positive attitudes toward end-of-life care. The avoidance attitude in such communications was due to emotional discomfort and cultural sensitivity. Similar to Malaysian culture, discussing death may be viewed as distressing or culturally inappropriate. Furthermore, studies by Etafa et al. (2020) and Alenezi et al. (2022) also reported that nurses had less confidence in end-of-life communication, particularly in conversations related to death and dying. A study in Saudi Arabia, however, found that nurses had a slightly more favourable attitude in communication, particularly among nurses who received structured end-of-life care training. This indicated that targeted education improved nurses' readiness to initiate and discuss death and

dying. The discrepancies in these findings could be due to a lack of formal training, cultural factors, unclear professional role and exposure to end-of-life patients.

In this study, “Fear/ Malaise” subscales yielded a mean score of 3.29 ($SD = 0.59$). This subscale consists of items that assess emotional discomfort, avoidance tendencies and negative perceptions related to death. The result shows that nurses have a moderate level of discomfort and psychological tension when dealing with dying patients. In other words, nurses generally accept death as part of professional care, but psychological distress continues to influence their practice. A similar finding was reported by Alenezi et al. (2022), that a significant number of nurses demonstrated feeling uncomfortable or overwhelmed in providing care to dying patients. Chen et al. (2023) also reported that nurses in China experienced sadness and helplessness when caring for terminally ill patients. Alshammari et al. (2023) and Etafa et al. (2020), however, reported that nurses who received structured end-of-life care education and training demonstrated more emotional resilience. Despite similarities in emotional challenges, differences in the “Fear/Malaise” subscale may be attributed to training exposure, formal education, work environment, institutional support and cultural factors.

This study revealed a statistically significant difference between nurses’ years of working experience and their attitudes toward end-of-life care. This finding is consistent with Zafar et al. (2024), who reported that more experienced nurses had a positive attitude. The significance in this study might reflect that end-of-life care experiences, nurses’ beliefs and work environment influence nurses’ attitudes toward end-of-life care. Contrary to this finding, Etafa et al. (2020) stated that the length of duration in nursing profession experience was not a significant factor determining nurses’ attitudes. According to Etafa et al. (2020), nurses’ attitudes towards end-of-life care were influenced by other factors such as personal beliefs and culture, compassion, and experiences of family. The discrepancies in findings suggest that years of working experience were not the main factors in determining nurses’ attitudes.

However, in terms of age, this study found that nurses’ age showed no statistically significant difference in their attitudes towards end-of-life care. This finding aligns with Etafa et al. (2020), indicating no significant relationship between age and attitude scores among Ethiopian nurses. This contradicts the results of a study in Kuwait by Alenezi et al. (2022) that age was a significant factor influencing nurses’ attitudes, with older nurses showed more supportive attitudes toward end-of-life care. These varied findings might be influenced by cultural background, institutional culture, death education and clinical exposure. The lack of significance in this current study may reflect that age alone is not a reliable factor in determining nurses’ attitudes towards end-of-life care. This study suggests that the development of positive attitudes towards end-of-life care is more strongly shaped by years of working experience than by nurses’ age. For instance, older nurses may have fewer years of working experience due to a late career start, while younger nurses may have extensive experience if they started early.

In addition, no statistically significant difference was found in this study between nurses’ gender and educational level and their attitude scores. These findings suggest that nurses’ attitudes were not independently influenced by age and educational background. Similarly, Etafa et al. (2020) stated that gender and education level were not significant in influencing nurses’ attitudes. However, a study among Iranian nursing students by Rezaei et al. (2024) found a statistically significant difference between gender and end-of-life care attitudes. This suggests that gender might influence nursing students’ perceptions and approaches towards end-of-life care, which affects their future practice. Zheng et al. (2025) reported that nurses with higher educational levels and female nurses tend to demonstrate more positive attitudes. The discrepancies indicated that demographic characteristics were not the main influential factor in determining nurses’ attitudes towards end-of-life care.

5. LIMITATIONS

This study was conducted at a single public hospital in Malaysia, which limits the generalizability of the findings. Additionally, the study included only nurses from adult wards and excluded those from emergency department and paediatric wards which restricts the scope and findings differences across different specialities. Furthermore, data collection was conducted using self-administered online Google form and has a potential bias. In addition, the Cronbach’s alpha value of 0.633 in this study, indicates a moderate reliability and has the potential limitations in the response consistency. Lastly, a cross-sectional study design only captures attitudes at a single point of time but not causal relationships between variables.

6. CONCLUSION

The findings of this study indicate that nurses demonstrated fair to positive attitudes towards end-of-life care. This study also found that nurses with more years of working experience generally exhibit favourable attitudes in caring for end-of-life patients. However, nurses demonstrated less favourable attitudes in communication aspects of end-of-life care. Furthermore, nurses held moderate emotional discomfort in delivering end-of-life care to patients and their families. These findings suggest the need for

enhanced support systems and educational programs, particularly related to communication with end-of-life patients and their families. These interventions are crucial in preparing nurses for the emotional challenges in end-of-life care.

7. RECOMMENDATIONS

For recommendations, future research should involve multiple hospitals and various wards from different regions to enhance the generalizability of findings. Besides, mixed-method study design should be conducted to provide deeper insights into the reasons for differences in nurses' attitudes towards end-of-life care. Through incorporation of semi-structured or focus-group interviews, nurses would be able to express their experience and perspective in end-of-life care. Additionally, targeted training programs focusing on communication and emotional coping in end-of-life care should be developed. Finally, a longitudinal study should be conducted to assess the long-term effectiveness of educational or training programs.

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