

A Cross-sectional Study to Analyze the Knowledge, Attitude, and Practice of Nurses with Different Levels of Experience Towards End-of-Life Care in an Oncology Hospital

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Abstract

Background: To render comprehensive nursing care for patients in end-of-life care, nurses' knowledge, attitude, and practice are paramount. **Aim:** A cross-sectional study to analyze knowledge, attitude, and practice of nurses with different levels of experience towards end-of-life care in an oncology hospital. **Design:** Descriptive cross-sectional survey approach. **Method:** Nonprobability convenience sample of 147 nurses at oncology hospital in Apollo Hospitals (Apollo Proton Cancer Centre, Apollo Specialty Hospitals). **Results:** The main result shows that 142 (96.6%), 147 (100%) had positive attitude with different levels of experience, and 140 (95.24%) had good practice and 7 (4.76%) had fair practice on end-of-life care. **Conclusion:** The present study concluded that nurses had sufficient knowledge, practice, and favorable attitude towards end-of-life care. No statistically significant variations were found between nurses' knowledge, practice, and attitudes about end-of-life care and their demographic characteristics. **Recommendation:** Education given to the nurses at the time nursing induction will contribute to best nursing practices.

Keywords: End-of-life care, knowledge, attitude, practice, nursing care, patients

INTRODUCTION

The World Health Organization describes palliative care as a strategy that enhances the quality of

life for both children and adults, along with their families, who face challenges associated with life-threatening illnesses. Its goal is to alleviate distress by swiftly identifying and precisely assessing pain and other concerns, whether they manifest as physical, psychosocial, or spiritual issues. End-of-life care, another term for palliative care, involves a multidisciplinary approach to assess and manage symptoms holistically, striving to reduce suffering. Nurses are primarily responsible for end-of-life care.

Nurses spend more time with the patient and as well as with patient family to ensure the delivery of evidence-based quality care at all times. At the same time, they also face many challenges and obstacles while caring the patient who are at their final stage. The understanding and outlook of nurses regarding

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the end-of-life care procedure are crucial factors. Hence assessing the competency and attitude of the nurses on end of life is paramount [1].

OBJECTIVES

- To assess the understanding of nurses at various experience levels regarding end-of-life care.
- To evaluate the perspectives of nurses toward end-of-life care.
- To examine the level of care delivered by nurses in end-of-life situations.

METHODOLOGY

A quantitative descriptive research approach design was adopted in this study. the Study was conducted from at selected oncology settings from September'2023 to February 2024 in Chennai.

- *Research approach:* Quantitative, descriptive research approach
- *Research design:* Cross-sectional survey design
- *Variables used:* Dependent and demographic variable
- *Settings of the study:* Apollo Proton Cancer Center, Apollo Cancer Institute
- *Data collection method:* Survey method
- *Target population:* Nurses with different levels of experience at different settings

REVIEW OF LITERATURE

Prem et al. [2] conducted a quantitative cross-sectional study on nurses' understanding of palliative care. Research indicates that nurses and other healthcare professionals often lack the necessary preparation to adequately provide palliative care. This deficiency can be attributed to several factors, such as gaps in nursing education, a lack of curricular focus on pain management, and limited knowledge concerning pain and palliative care. The objective of this research was to assess nursing professionals' comprehension of palliative care by employing the Palliative Care Knowledge Test (PCKT) [3].

Zeru et al. [4] conducted a study wherein palliative care utilizes a team-based approach that centers on both the patient and their family. A quantitative cross-sectional survey was carried out among 355 nurses in designated hospitals within the Tigray region, spanning from February to March 2018. All respondents participated fully. Of these, 223 (62.8%) demonstrated substantial knowledge, while 200 (56.3%) exhibited positive attitudes towards palliative care. Despite generally inadequate knowledge levels, the nurses showed a favorable disposition towards palliative care.

Etafa et al. [5] conducted a multicenter cross-sectional analysis on nurses' knowledge and attitudes toward palliative and end-of-life care in public hospitals within the Wollega Zones. Out of a final sample size of 422 nurses, yielding an 88% response rate, the average score on the Palliative Care Quiz for Nursing (PCQN) was 9.34, indicating a generally low level of knowledge about palliative care among the participants. Conversely, the average score on the Frommelt Attitude Toward Care of the Dying (FATCOD) scale was 79.58, suggesting a generally positive attitude towards end-of-life care. Over half of the respondents (52%) expressed a willingness to care for dying individuals and their families. The findings reveal that while there is a readiness to engage in end-of-life care, there exists a notable deficiency in palliative care knowledge among nurses.

ANALYSIS

Table 1 shows that most of the nurses, 115 (78.2%) were aged between 18 and 25 years, 135 (91.8%) were female, 119 (81%) were undergraduates, 108 (73.59%) had less than 5 years of experience, and 115 (78.2%) have previous knowledge sessions related to care of dying. Table 2 illustrates that 144 (97.96%) of studied sample had correct knowledge that palliative care is only appropriate in situations where there is evidence of a downward irreversible deterioration. Also, 144 (97.96%) of studied sample had correct knowledge that in deathbed stage, patients have the right to decide on their own schedule, such as meeting with friends, fulfillment of wishes, and treatment.

Table 1. Frequency and percentage distribution of demographic variables of nurses ($N = 147$).

Demographic variables	No.	%
<i>1. Age in years</i>		
18–25	115	78.2
26–35	26	17.7
36–45	4	2.7
46–55	2	1.4
<i>2. Sex</i>		
Male	12	8.2
Female	135	91.8
<i>3. Education</i>		
Diploma	14	9.5
Undergraduate	119	81.0
Postgraduate	14	9.5
<i>4. Years of experience</i>		
<5 years	108	73.5
From 5 to 10 years	29	19.7
From 11 to 15 years	10	6.8
>20 years	–	–
<i>5. Previous knowledge sessions related to care of dying</i>		
Yes	115	78.2
No	32	21.7

Table 2. Frequency and percentage distribution of knowledge level about end-of-life care ($N = 147$).

S.N.	Knowledge	Yes		No	
		F	%	F	%
1.	Palliative care is only appropriate in situations where there is evidence of a downward irreversible deterioration	144	97.96	3	2.04
2.	To compare the analgesic effect of other opioids, morphine is used as a standard	135	91.84	12	8.16
3.	The method of pain treatment depends on the extent of the disease	134	91.16	13	8.84
4.	For managing pain, adjuvant therapies are important	129	87.76	18	12.24
5.	Family members to remain at the bedside until death occurs is a crucial moment for them	134	91.16	13	8.84
6.	Drowsiness associated with electrolyte imbalance may decrease the need for sedation during the last days of life	137	93.20	10	6.80
7.	Drug addiction is a major problem when morphine is used on a long-term basis for the management of pain	138	93.88	9	6.12
8.	While taking opioids, individuals should also follow a bowel regime (laxative treatment)	134	91.16	13	8.84
9.	The provision of palliative care requires emotional detachment	139	94.56	8	5.44
10.	Drugs that can cause respiratory depression are appropriate for the treatment of severe dyspnea during the terminal stages of an illness	139	94.56	8	5.44
11.	When compared with women, Men generally reconcile with their grief more quickly	123	83.67	24	16.33

12.	Palliative care is to provide	133	90.48	14	9.52
13.	In the treatment of some types of pain, placebos are appropriate	138	93.88	9	6.12
14.	In high doses, codeine causes more nausea and vomiting than morphine	133	90.48	14	9.52
15.	A special consent form for treatment in critical care units shall be valid for the period of	136	92.52	11	7.48
16.	While feeding the patient shall be nursed _____ at head up position to prevent aspiration	129	87.76	18	12.24
17.	The accumulation of losses makes burnout inevitable for those who work in palliative care	138	93.88	9	6.12
18.	Symptoms of chronic pain are different from those of acute pain.	112	76.19	35	23.81
19.	The loss of close or intimate relationship is not easy to resolve	136	92.52	11	7.48
20.	Pain threshold is lowered by fatigue or anxiety	135	91.84	12	8.16
21.	Palliative care is a measure to provide conservative and supportive measures for dying patients and their families	118	80.27	29	19.73
22.	Palliative care services include both terminal patients and family members	134	91.16	13	8.84
23.	Nurses need to understand patients' views of life and death when providing palliative care	129	87.76	18	12.24
24.	The main purpose of palliative care is to manage symptoms, reduce burden of pain, and improve quality of life	129	87.76	18	12.24
25.	In deathbed stage, patients have the right to decide on their own schedule, such as meeting with friends, fulfillment of a wish, and treatment	144	97.96	3	2.04

Table 3. Frequency and percentage distribution of level of knowledge with different levels of experience on end-of-life care among nurses (*N* = 147).

Level of knowledge	Frequency (<i>f</i>)	Percentage (%)
Unsatisfactory (<50)	5	3.4
Satisfactory (≥50%)	142	96.6

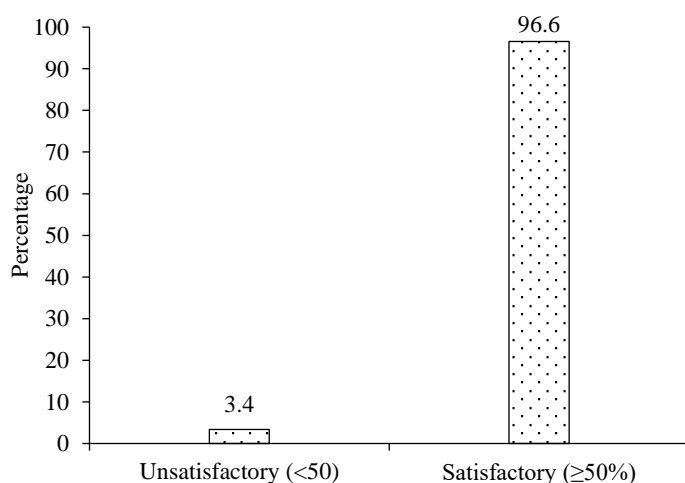


Figure 1. Level of knowledge of end-of-life care among nurses.

Table 3 shows that 142 (96.6%) had satisfactory knowledge with different levels of experience on end-of-life care and 5 (3.4%) had unsatisfactory knowledge. Figure 1 shows the percentage distribution of level of knowledge with different levels of experience on end-of-life care among nurses.

Table 4. Frequency and percentage distribution of attitude level about end-of-life care ($N = 147$).

S.N.	Nurses attitude	Nurses attitude towards care of dying patients									
		Strongly agree		Agree		Uncertain		Disagree		Strongly disagree	
		F	%	F	%	F	%	F	%	F	%
1	Giving nursing care to the dying person is a worthwhile learning experience	73	49.66	71	48.3	2	1.36	1	0.68	0	0
2	Death is not the worst thing that can happen to a person	44	29.93	54	36.73	12	8.16	37	25.17	0	0
3	I would be uncomfortable talking about impending death with the dying person	0	0	65	44.22	19	12.93	43	29.25	20	13.61
4	Nursing care for the patient's family should continue throughout the period of grief and bereavement	73	49.66	41	27.89	24	16.33	9	6.12	0	0
5	I would not want to be assigned to care for a dying person	0	0	98	66.67	11	7.48	16	10.88	22	14.97
6	The nurse should not be the one to talk about death with the dying person	0	0	52	35.37	18	12.24	51	34.69	26	17.69
7	The length of time required to give nursing care to a dying person would frustrate me.	0	0	86	58.5	28	19.05	23	15.65	10	6.8
8	I would be upset when the dying person I was caring for gave up hope of getting better	0	0	30	20.41	20	13.61	71	48.3	26	17.69
9	It is difficult to form a close relationship with the family of the dying person	0	0	50	34.01	25	17.01	46	31.29	26	17.69
10	There are times when death is welcomed by the dying person	16	10.88	60	40.82	35	23.81	36	24.49	0	0
11	When a patient asks, "Nurse am I dying?" I think it is best to change the subject to something cheerful.	0	0	15	10.2	16	10.88	63	42.86	53	36.05
12	The family should be involved in the physical care of the dying person	47	31.97	69	46.94	12	8.16	19	12.93	0	0
13	I would hope the person I'm caring for dies when I am not present	0	0	49	33.33	33	22.45	50	34.01	15	10.2
14	I am afraid to become friends with a dying person	0	0	98	66.67	18	12.24	22	14.97	9	6.12
15	I would feel like running away when the person actually died.	0	0	105	71.43	15	10.2	22	14.97	5	3.4
16	Families need emotional support to accept the behavior changes of the dying person.	65	44.22	64	43.54	10	6.8	8	5.44	0	0
17	As a patient nears death, the nurse should withdraw from his/her involvement with the patient	0	0	81	55.1	14	9.52	35	23.81	17	11.56
18	Families should be concerned about helping their dying member make the best of his/her remaining life	63	42.86	59	40.14	17	11.56	8	5.44	0	0
19	The dying person should not be allowed to make decisions about his/her physical care.	0	0	65	44.22	32	21.77	29	19.73	21	14.29

20	Families should maintain as normal an environment as possible for their dying member	62	42.18	68	46.26	12	8.16	5	3.4	0	0
21	It is beneficial for the dying person to verbalize his/her feelings.	58	39.46	73	49.66	15	10.2	1	0.68	0	0
22	Nursing care should extend to the family of the dying person.	58	39.46	65	44.22	11	7.48	13	8.84	0	0
23	Nurses should permit dying persons to have flexible visiting schedules	52	35.37	59	40.14	15	10.2	21	14.29	0	0
24	The dying person and his/her family should be the in-charge decision makers.	49	33.33	69	46.94	13	8.84	16	10.88	0	0
25	Addiction to pain relieving medication should not be a concern when dealing with a dying person	28	19.05	62	42.18	20	13.61	37	25.17	0	0
26	I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying	0	0	57	38.78	32	21.77	47	31.97	11	7.48
27	Dying persons should be given honest answers about their condition.	43	29.25	58	39.46	33	22.45	13	8.84	0	0
28	Educating families about death and dying is not a nursing responsibility	0	0	60	40.82	19	12.93	48	32.65	20	13.61
29	Family members who stay close to a dying person often interfere with the professional's job with the patient	0	0	17	11.56	40	27.21	61	41.5	29	19.73
30	It is possible for nurses to help patients prepare for death.	42	28.57	50	34.01	24	16.33	31	21.09	0	0

Table 4 demonstrates that 73 (49.6%) of the surveyed participants strongly support the notion that nursing care for the patient's family should persist throughout the grieving and bereavement process, while 53 (36%) strongly oppose the idea of diverting the topic to something cheerful when a patient inquires, "Nurse, am I dying?" Additionally, 61 respondents disagree that family members who remain close to a dying individual frequently disrupt the professional's duties with the patient.

Table 5 shows that 147 (100%) had positive attitude with different levels of experience on end-of-life care. Figure 2 shows the percentage distribution of level of attitude with different level of experience on end-of-life care among nurses.

Table 6 illustrates that 134 (91.16%) participants were doing their patient assessment as per hospital policy, 137 (93.20%) were concentrating on prevention of pressure ulcer measures and 143 (97.28%) addressed spiritual needs of the patients.

Table 7 shows that among nurses, 140 (95.24%) had good practice and 7 (4.76%) had fair practice on end-of-life care. Figure 3 shows the percentage distribution of level of practice with different level of experience on end-of-life care among nurses.

Table 8 depicts that the mean score of knowledge was 22.65 ± 2.95 with median of 24.0 and mean percentage of 90.6%. The mean score of attitude was 102.88 ± 9.20 with median of 102.88 and mean percentage of 68.6%. The mean score of practice was 9.52 ± 0.86 with median of 10.0 and mean percentage of 95.2%.

Table 9 depicts that the demographic variables do not show statistically significant association with level of knowledge with different levels of experience on end-of-life care among nurses.

Table 5. Frequency and percentage distribution of level of attitude with different levels of experience on end-of-life care among nurses ($N = 147$).

Level of attitude	Frequency (f)	Percentage (%)
Negative (<50%)	-	-
Positive ($\geq 50\%$)	147	100.0

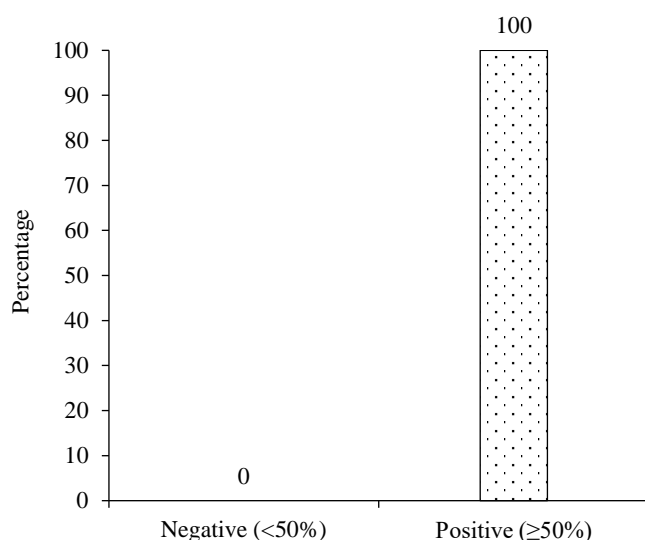


Figure 2. Level of attitude of end-of-life care among nurses.

Table 6. Frequency and percentage distribution of practice level about end-of-life care ($N = 147$).

S.N.	Practice	Done		Not done	
		F	%	F	%
1.	Patient assessment as per policy	134	91.16	13	8.84
2.	Pain assessment and reassessment as per policy	141	95.92	6	4.08
3.	Informing about what activities are being performed	136	92.52	11	7.48
4.	Meets all needs of the patient	143	97.28	4	2.72
5.	Helping with mobility (with/without assistance)	139	94.56	8	5.44
6.	Addresses spiritual needs	143	97.28	4	2.72
7.	Uses nonverbal communication	143	97.28	4	2.72
8.	Prevention of pressure ulcer measures taken appropriately	137	93.20	10	6.80
9.	Fall prevention measures taken appropriately	143	97.28	4	2.72
10.	Practices end-of-life period and hygienic care	140	95.24	7	4.76

Table 7. Frequency and percentage distribution of level of practice with different levels of experience on end-of-life care among nurses ($N = 147$).

Level of practice	Frequency (f)	Percentage (%)
Poor (<50%)	-	-
Fair (50%–75%)	7	4.76
Good ($\geq 75\%$)	140	95.24

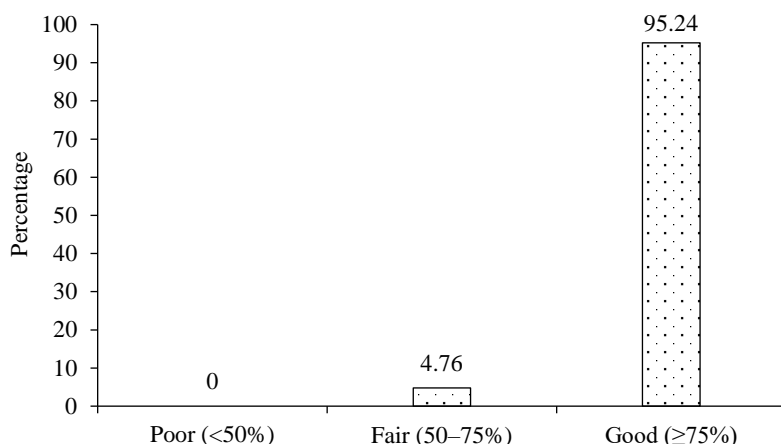


Figure 3. Level of practice of end-of-life care among nurses.

Table 8. Mean and standard deviation of knowledge, attitude, and practice score with different levels of experience on end-of-life care among nurses (N = 147).

Variables	Knowledge	Attitude	Practice
Mean	22.65	102.88	9.52
Standard deviation	2.95	9.20	0.86
Mean %	90.6%	68.6%	95.2%
Median	24.0	102.88	10.0

Table 9. Association of level of knowledge with different level of experience on end-of-life care among nurses with their selected demographic variables (N = 147).

Demographic variables	Unsatisfactory (<65%)		Satisfactory (≥65%)		Chi-square value
	No.	%	No.	%	
1. Age in years					
18-25	5	3.4	110	74.8	$\chi^2 = 1.440$ $df = 3$ $p = 0.696$ NS
26-35	0	0	26	17.7	
36-45	0	0	4	2.7	
46-55	0	0	2	1.4	
2. Sex					
Male	0	0	12	8.2	$\chi^2 = 0.460$ $df = 1$ $p = 0.498$ NS
Female	5	3.4	130	88.4	
3. Education					
Diploma	0	0	14	9.5	$\chi^2 = 1.218$ $df = 2$ $p = 0.544$ NS
Undergraduate	5	3.4	114	77.5	
Postgraduate	0	0	14	9.5	
4. Years of experience					
<5 years	5	3.4	103	70.1	$\chi^2 = 1.869$ $df = 2$ $p = 0.393$ NS
From 5 to 10 years	0	0	29	19.7	
From 11 to 15 years	0	0	10	6.8	
>20 years	-	-	-	-	
5. Previous knowledge sessions related to care of dying					
Yes	1	0.7	70	47.6	$\chi^2 = 1.660$ $df = 1$ $p = 0.198$ NS
No	4	2.7	72	49.0	

NS, not significant.

Table 10 depicts that the demographic variables had not shown statistically significant association with level of attitude with different level of experience on end-of-life care among nurses. Table 11 depicts that the demographic variables do not show statistically significant association with level of practice with different level of experience on end-of-life care among nurses.

Table 10. Association of level of attitude with different level of experience on end-of-life care among nurses with their selected demographic variables ($N = 147$).

Demographic variables	Attitude		One-way ANOVA/ “t” test value
	Mean	SD	
1. Age in years			
18–25	103.41	9.09	$F = 1.033$ $p = 0.380$ NS
26–35	100.07	9.97	
36–45	105.25	8.05	
46–55	104.00	0.00	
2. Sex			
Male	102.16	10.77	$t = 0.244$ $p = 0.812$ NS
Female	102.94	9.09	
3. Education			
Diploma	106.35	9.66	$F = 2.708$ $p = 0.070$ NS
Undergraduate	103.00	9.19	
Postgraduate	98.42	7.49	
4. Years of experience			
<5 years	102.69	8.92	$F = 0.265$ $p = 0.768$ NS
From 5 to 10 years	103.93	9.82	
From 11 to 15 years	101.90	11.04	
>20 years	-	-	
5. Previous knowledge sessions related to care of dying			
Yes	102.25	9.00	$t = 0.803$ $p = 0.423$ NS
No	103.47	9.40	

ANOVA, analysis of variance; NS, not significant.

Table 11. Association of level of practice with different levels of experience on end-of-life care among nurses with their selected demographic variables ($N = 147$).

Demographic variables	Practice		One-way ANOVA / “t” test value
	Mean	SD	
1. Age in years			
18–25	9.59	0.79	$F = 1.376$ $p = 0.252$ NS
26–35	9.26	1.00	
36–45	9.25	1.50	
46–55	9.00	1.41	
2. Sex			
Male	8.91	1.24	$t = 1.793$ $p = 0.099$ NS
Female	9.57	0.80	
3. Education			
Diploma	9.42	1.01	$F = 0.222$ $p = 0.802$ NS
Undergraduate	9.51	0.85	
Postgraduate	9.64	0.84	
4. Years of experience			
<5 years	9.58	0.72	$F = 2.244$ $p = 0.110$ NS
From 5 to 10 years	9.44	1.02	
From 11 to 15 years	9.00	1.49	
>20 years	-	-	
5. Previous knowledge sessions related to care of dying			
Yes	9.38	0.93	$t = 1.861$ $p = 0.065$ NS
No	9.64	0.77	

ANOVA, analysis of variance; NS, not significant.

DISCUSSION

One of the greatest challenges that nurses encounter is the inevitability of some patients' deaths despite their utmost efforts. While this reality cannot be changed, nurses can significantly influence the quality of life leading up to death, the manner in which death occurs, and the lasting memories for the families involved. Nursing has a rich tradition of providing holistic, patient- and family-centered care, as emphasized in the definition put forth by the American Nurses Association (ANA) which underscores nursing's dedication to diagnosing and treating human responses to illness. There are few situations or contexts where such care—focused on addressing human responses—is more crucial than in the care of the dying.

The present study shows that majority of nurses, 115 (78%), are aged 18 to 25 years; regarding education 119 (81%) of them are undergraduates. As regards years of experience, it was noticed that 115 (78.2%) received training sessions about end-of-life as part of their nursing induction, since two study settings were oncological hospitals.

This outcome aligns with the findings of Getie et al. [6], who found that nurses' knowledge of palliative care was positively influenced by their work in medical and surgical wards, as well as their participation in palliative care training. Moreover, the study revealed that the institution, individual education level, work in medical wards, and participation in palliative care training significantly affected nurses' attitudes. The results were derived from a cross-sectional quantitative study involving 341 nurses from selected hospitals in Addis Ababa, conducted between January 2012 and May 2012. Out of 365 nurses initially selected, 341 (94.2%) responded. Among the participants, 104 (30.5%) demonstrated good knowledge, and 259 (76%) displayed a favorable attitude toward palliative care [6].

This result is in contrast to those of Altarawneh et al. [7]. The research on nurses' understanding, attitudes, and practices concerning palliative care for cancer patients revealed a low average knowledge score ($M = 8.8$), a moderate average attitude score ($M = 80.9$) towards patients nearing end-of-life, and a moderate average practice score ($M = 52.7$) in palliative care. Variations in palliative care knowledge, attitudes, and practices were noted based on factors such as the nurses' gender, educational level, training in palliative care, years of experience, and their employment sector. There were significant correlations observed between palliative care practices and both knowledge of, and attitudes towards, dying patients. Nevertheless, no substantial correlation was identified between understanding of palliative care and attitudes toward terminally ill patients.

These results are consistent with those presented by Guadu et al. [8], who observed that nurses typically had a solid grasp of palliative care. According to the study, while half of the nurses exhibited favorable attitudes and good knowledge about palliative care, their practical application of this care was lacking. Notably, the nurses' educational level and years of experience were significantly correlated with their knowledge of palliative care. Additionally, training in palliative care significantly impacted both the knowledge and attitudes of nurses towards this field. It is recommended that nurses receive regular palliative care training and ongoing professional education to enhance their practice [9, 10].

CONCLUSION

The present study concluded that nurses had sufficient knowledge, practice, and favorable attitude towards end-of-life care. Statistical analysis shows no significant correlation between nurses' knowledge, practices, and attitudes towards end-of-life care and their demographic characteristics.

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