# Assessment of Knowledge, Practice and Challenges of End-of-Life Care Among Healthcare Workers: A Study at a Nigerian Teaching Hospital Assessment of End-of-Life Care in Nigeria

Oluwatoyosi Ayobami Adekeye<sup>1\*†‡</sup>, Aliyu Joan Ovaoiza<sup>2</sup>

†1 Associate Professor, Department of Community Medicine and Primary Healthcare, Bingham University, Karu, Nasarawa State, Nigeria †1 Department of Community Medicine, University of Abuja Teaching Hospital, Gwagwalada, Federal Capital Territory, Nigeria <sup>2</sup> Student, Department of Community Medicine, University of Abuja Teaching Hospital, Gwagwalada, Federal Capital Territory, Nigeria

Abstract: Background: End-of-life care is a crucial component of comprehensive patient support during their final stages of life. In order to maintain the highest level of quality of life for the patient, hospice care places a strong emphasis on facilitating a peaceful, dignified transition from life to death. While hospice care and palliative care are closely related, there are some differences between the two concepts. The main distinction is that while palliative care may entail curative treatments, hospice care does not. This study aimed to evaluate the knowledge, practice, and challenges related to end-of-life care among healthcare workers at the University of Abuja Teaching Hospital in Nigeria. Methodology: This descriptive cross-sectional study utilized a selfadministered questionnaire distributed to doctors and nurses across various departments. The sample size (N=161) consisted of Doctors and Nurses. The data collected was analyzed using SPSS version 21. The questionnaire encompassed sociodemographic information, knowledge, practice, and limitations associated with end-of-life care. Result: The findings underscored a noteworthy trend in knowledge and practice among healthcare workers. Results indicated that 85.3% of participants exhibited GOOD knowledge of end-of-life care. However, the study exposed a less favorable aspect of practice, with 60.7% of respondents indicating a poor end-of-life care practice. Conclusion: The study outcomes reveal challenges that hinder optimal end-of-life care delivery. Limited resources, insufficient training opportunities, and the absence of a comprehensive national policy were identified as significant barriers. This study highlights the pressing need for additional research and evaluation to expedite the development of end-of-life care in Nigeria.

*Keywords*: End-of-life, Knowledge, Practice, Challenges, Health workers.

## 1. Introduction

End-of-life care, or hospice care, is a critical component of healthcare that focuses on providing comprehensive support and comfort to individuals during their final months or years [1]. It encompasses various aspects, including addressing mental, emotional, physical, and spiritual needs and assisting with practical tasks [2]. Hospice care is characterized by its emphasis on ensuring a smooth, dignified transition from life to death while striving to maintain the best possible quality of life for the individual. While hospice care is closely associated with palliative care, the two concepts differ primarily in that hospice care does not involve curative treatments, whereas palliative care might.

The provision of end-of-life care involves a multidisciplinary team of healthcare professionals, such as specialized doctors, nurses, physiotherapists, spiritual leaders, therapists, social workers, and volunteers. This team collaboratively addresses the complex needs of patients during this delicate phase of life. The care can be administered in various settings, including the patient's home, nursing homes, hospitals, or dedicated hospice centers.

The historical evolution of end-of-life care dates back to the 14<sup>th</sup> century. However, it gained significant recognition and development in the mid-20<sup>th</sup> century, thanks to the pioneering efforts of figures like Cicely Saunders in the United Kingdom [3]. Over time, end-of-life care has spread across borders, with organizations like Hospice Africa playing a vital role in its development in Africa. While developed countries have made strides in implementing hospice care, developing nations, including Nigeria, have faced challenges establishing comprehensive end-of-life care services due to limited resources, inadequate training, and cultural beliefs [4], [5].

Despite the global push for improved end-of-life care, there remains a significant gap between the demand for palliative care and its actual provision. Many individuals who could benefit from such care do not have access to it. This issue is particularly pronounced in developing countries, where the burden of non-communicable diseases and limited healthcare resources pose substantial challenges [5].

<sup>\*</sup>Corresponding author: toyosi.adekeye@binghamuni.edu.ng

Nigeria, with its high mortality rate and dwindling healthcare workforce, faces a pressing need to prioritize hospice care. While organizations like the Hospice and Palliative Care Association of Nigeria (HPCAN) and the Center for Palliative Care Nigeria (CPCN) have made efforts to promote hospice care, more research, advocacy, and training are required to ensure effective implementation [6], [7].

# 2. Methods

# A. Study Location

The study location was the University of Abuja Teaching Hospital, Gwagwalada, which is located in the Federal Capital Territory. It is the only government-owned tertiary healthcare center in the Gwagwalada area council. A five hundred (500) bed facility that can extend to 800 bed spaces. The hospital is home to various specialties, accommodating over 550 consultants, doctors, and over 460 nurses. This institution receives patients from residents in Abuja and the neighboring states, including Kogi, Kaduna, Niger, and Nasarawa, amongst others.

### B. Study Population

The study included 161 healthcare workers at the UATH in the Gwagwalada area council who had encountered and cared for patients whose illnesses ended their lives, particularly Doctors and Nurses.

## C. Inclusion Criteria

This study included doctors and nurses currently working at UATH who had practiced there for at least a year and were available during the study.

# D. Exclusion Criteria

This study excluded healthcare workers who were unavailable, ill, or on leave and healthcare workers other than doctors or nurses.

# E. Study Design

This study was a descriptive cross-sectional study that included the use of semi-structured, self-administered questionnaires.

### F. Sampling Technique

A stratified sampling technique was used to select departments in the hospital that offered inpatient care. From the list of departments, simple randomized sampling was done, and four departments were selected by balloting without replacement: the Department of Surgery, Internal Medicine, Paediatrics, and Obstetrics and Gynaecology. A list of all the available doctors and nurses was collected, and sample subjects were selected using simple randomized sampling.

### G. Data Analysis

The data collected was coded into a computer and analyzed using the Statistical Package for Social Sciences (SPSS) version 21 (IBM, Armonk, NY, United States of America). The data was analyzed for descriptive statistics of all variables, such as measures of central tendency to identify odd values, missing

values, or outliers. The frequency of socio-demographics, graded knowledge, practice, and limitations was reported using cross-statistics and inferential statistics.

### H. Ethical Consideration

All participants were kept confidential, and no personal information was required. Ethical approval will also be obtained from the Research Ethics committee at UATH.

### 3. Results

The survey yielded a ninety-three (93%) percent response rate reflecting data on the sociodemographic characteristics of the respondents, the knowledge, practice, and the limitations to the practice of end-of-life care among healthcare workers at the University of Abuja Teaching Hospital.

### A. Sociodemographic Characteristics

Socio-Demographic findings of the participants

C NI-	Socio-Demographic findings of the participants			
S.No.	Variables	Frequency	Percentage	
1	Age (in years):	40	22.0	
	20-29	48	32.0	
	30-39	68	45.3	
	40-49	22	14.7	
	50-59	12	8.0	
	Total	150	100.0	
2	Gender:	02	(1.2	
2	Female	92 58	61.3 38.7	
	Male Total	58 150	100.0	
3	Religion:	130	100.0	
3		133	88.7	
	Christianity Islam	133	11.3	
	Total	150	100.0	
4		130	100.0	
4	Tribe: Hausa	17	11.3	
		43		
	Igbo Yoruba	43 21	28.7 14.0	
	Others	69	46.0	
	Total	150	100.0	
5	Marital Status:	130	100.0	
3	Single	57	38.0	
	Married	88	58.7	
	Others	5	3.3	
	Total	150	100.0	
6	Occupation:	150	100.0	
Ü	Doctor	81	54	
	Nurse	69	46	
	Total	150	100.0	
7				
	internal medicine	41	27.3	
	Paediatrics	39	26.0	
	Obstetrics/Gynaecology	36	24.0	
	Surgery	34	22.7	
	Total	150	100.0	
8	Designation at work:			
	Consultant		3.3	
	Registrar	5	42	
	Medical Officer	63	8.7	
	Senior Nursing	13	13.3	
	Officer	20	32.7	
	Nursing Officer	49	100.0	
	Total	150		
9	Years of service at UATH:	<u></u>		
	1-10	99	66.0	
	11-20	33	22.0	
	21-30	18	12.0	
	Total	150	100	

Table 2
Assessment of the knowledge of end-of-life care Knowledge of end-of-life care

S.No.	Variable	Frequency	Percentage (%)
1	Do you know about end-of-life care		
	Yes	141	94.0
	No	5	3.3
	i don't know	4	2.7
_	Total	150	100.0
2	End of life care is the care offered to people with long term or life threatening illness		
	Yes	120	80.0
	No	16	10.7
	i don't know	14	9.3
_	Total	150	100.0
3	End of life care is the care offered to people with terminal illness with less than a year to live	100	<b>72.7</b>
	Yes	109	72.7
	No	22	14.7
	i don't know	19	12.7
	Total	150	100.0
4	End of life care can also be referred to as Hospice care		
	Yes	111	74
	No	17	11.3
	I don't know	22	14.7
_	Total	150	100
5	End of life offers support to a person's mental and emotional needs, physical comfort, spiritual needs and p		
	Yes	127	84.7
	No	4	2.7
	i don't know	19	12.7
	Total	150	100.0
6	In end of life care, the patient involved is being treated only for symptoms they may experience and not the		
	Yes	94	62.7
	No	30	20.0
	i don't know	26	17.3
_	Total	150	100.0
7	End of life care is offered based on the patients terms	25	24 <b>5</b>
	Yes	97	64.7
	No	27	18.0
	i don't know	26	17.3
0	Total	. 150	100.0
8	End of life care can be offered at home or in a facility, be it a nursing home, a hospital or an structured hos		00.0
	Yes	132	88.0
	No	0	0
	i don't know	18	12.0
	Total	150	100.0
9	End of life care is a multidisciplinary type of care	106	22.5
	Yes	136	90.7
	No	5	3.3
	i don't know	9	6.0
4.0	Total	150	100.0
10	Knowledge on effects of end of life care		
	The practice of end of life care improves the general experience and practice of the healthcare worker positively	119	79.3
	End of life care offers a level of satisfaction and comfort to the family and caretakers of the patient	134	89.3
	End of life care helps the individual live best quality of life till they transit	134	89.3
	End of life care prepares the individual for life after death	79	52.7
11	Overall Knowledge of End of life care		
	Poor knowledge	22	14.7
	Good knowledge	128	85.3
	Total	150	100.0

The table 1 shows the sociodemographic characteristics of the respondents. Most respondents (45.3%) were aged 30-39 years, with most respondents (61.3%) being female. Most respondents identified as Christian 88.7%, persons from minority ethnic groups (46%), And married (58.7%). Eightyone (54%) of the respondents were doctors, while 69(46%) were nurses with 41(27.3%) of the respondents from the department of Internal medicine, 39(26%) from the department of Paediatrics, 36(24%) from the department of Obstetrics/ Gynaecology and 34(22.7%) from Surgery department.

Among the doctors, most 63(42%) were Registrars, 5(3.3%) were Consultants, and 13(8.7%) were medical officers. Of the Nurses, 20(13.3%) were senior nursing officers and the others

49(32.7%) were nursing officers.

Most of the respondents had worked in the hospital for less than 10 years with only 18(12%) with a history of working more than 20 years in the facility.

Table 2 reflects the assessment of the knowledge of end-of-life care from the respondents; 94% of the respondents knew what end-of-life care was, the majority (80%) were aware that end-of-life care was the care offered to people with long-term or life-threatening illnesses and 72.7% knew that the care was offered to people with terminal illnesses with approximately less than a year to live. The majority of the respondents, 74%, also knew that end-of-life care is called Hospice care. Concerning end-of-life care, 84.7% knew that the care offers

No.   Variable   Frequency   Percentage (%)		General practice of end of life care				
Yes no   27   18.0   14.0   16.0   17.0   16.0   17.0   18.0   19.0   18.0   19.0   19.0   18.0   19.0	S.No.			Percentage (%)		
I don't know	1	There is an end of life care team or specialty in this facility				
Total   33   22.0   100.0   100.0   100.0   100.0   100.0   100.0   100.0   100.0   100.0   100.0   100.0   100.0   100.0   11.3   1.3   1.3   1.3   1.5   1.3   1.5		Yes no	27	18.0		
There is a guideline in this facility for end of life/hospice care   Yes no						
There is a guideline in this facility for end of life/hospice care   Yes no		Total	33	22.0		
Yes no				100.0		
I don't know	2		·			
Total						
150   100.0						
Satisfied with the care administered to the terminal patients in this facility Yes no 30 20.0 1 don't know 80 53.3 Total 40 26.7 150 100.0		Total				
Yes no	_					
Idon't know	3					
Total						
150   100.0						
As a healthcare worker, I have offered end-of-life care to an individual on your own Yes 90 60.0   No 22 14.7   i don't know 38 25.3   Total 150 100.0   The opinions and wishes of family members/caretakers considered in the management of the patient Yes 117 78.0   No 7 4.7   i don't know 26 17.3   Total 150 100.0   Tinvolved other professionals to take care of patients psychosocial and spiritual concerns Yes 100 66.7   No 33 22.0   i don't know 17 11.3   Total 150 100.0   Total 150 100.0   Total 150 100.0   As a healthcare worker, I have great and the management of the patient Yes 100 66.7   No 33 22.0   i don't know 17 11.3   Total 150 100.0   Total 150 100.0   Total 150 100.0   Total 150 100.0   Implored non-medical therapies which may improve patient health in the management and treatment of patients Yes 63 42.0   No 63 42.0   No 63 42.0   No 63 42.0   No 63 42.0   I don't know 24 16.0   Total 150 100.0   Total		Total				
Yes						
No	4					
i don't know   38   25.3     Total   150   1000     Total   150   1000     Total   78.0   7   4.7     i don't know   26   17.3     Total   150   1000     Total   150   1000     I involved other professionals to take care of patients psychosocial and spiritual concerns						
Total   150   100.0						
The opinions and wishes of family members/caretakers considered in the management of the patient Yes						
Yes	5					
No	3					
i don't know						
Total						
Company   Comp						
Yes	6					
No   133   11.3   11.3   11.3   11.3   100.0	U	-		•		
i don't know						
Total						
Patient was aware of his/her right to refuse treatment at any stage of the care   Yes   97   64.7     No   24   16.0     i don't know   29   19.3     Total   150   100.0     I implored non-medical therapies which may improve patient health in the management and treatment of patients   Yes   63   42.0     No   63   42.0     i don't know   24   16.0     Total   150   100.0     End of life care was administered until patients demise   Yes   97   64.7     No   38   25.3     i don't know   15   10.0     Total   150   100.0    10						
Yes	7					
No	•		• •			
i don't know						
Total   150   100.0						
No						
Yes	8					
i don't know 24 16.0 Total 150 100.0  Find of life care was administered until patients demise Yes 97 64.7 No 38 25.3 i don't know 15 10.0 Total 150 100.0  In my practice, patients are adequately informed of the type of care they are receiving Yes 99 66.0 No 30 20.0 i don't know 21 14.0 Total 150 100.0  In my practice, patients are adequately informed of the type of care they are receiving Yes 100.0 In my practice, patients are adequately informed of the type of care they are receiving Yes 100.0 In my practice, patients are adequately informed of the type of care they are receiving Yes 100.0 In my practice, pain management is the mainstay treatment of end of life care Yes 109 72.7 No 18 12.0 i don't know 23 15.3				•		
Total 150 100.0  Find of life care was administered until patients demise Yes 97 64.7 No 38 25.3 i don't know 15 10.0 Total 150 100.0  In my practice, patients are adequately informed of the type of care they are receiving Yes 99 66.0 No 30 20.0 i don't know 21 14.0 Total 150 100.0  In my practice, pain management is the mainstay treatment of end of life care Yes 109 72.7 No 18 12.0 i don't know 23 15.3		No	63	42.0		
End of life care was administered until patients demise           Yes         97         64.7           No         38         25.3           i don't know         15         10.0           Total         150         100.0           In my practice, patients are adequately informed of the type of care they are receiving         Yes         99         66.0           No         30         20.0         i don't know         21         14.0           Total         150         100.0         100.0           In my practice, pain management is the mainstay treatment of end of life care         Yes         109         72.7           No         18         12.0           i don't know         23         15.3		i don't know	24	16.0		
Yes		Total	150	100.0		
No	9	End of life care was administered	until patients demise			
i don't know 15 100.0  Total 150 100.0  In my practice, patients are adequately informed of the type of care they are receiving Yes 99 66.0  No 30 20.0 i don't know 21 14.0 Total 150 100.0  In my practice, pain management is the mainstay treatment of end of life care Yes 109 72.7 No 18 12.0 i don't know 23 15.3		Yes	97	64.7		
Total   150   100.0		No	38	25.3		
In my practice, patients are adequately informed of the type of care they are receiving         Yes 99 66.0         No 30 20.0         i don't know 21 14.0         Total 150 100.0         In my practice, pain management is the mainstay treatment of end of life care         Yes 109 72.7         No 18 12.0         i don't know 23 15.3		i don't know	15	10.0		
Yes 99 66.0 No 30 20.0 i don't know 21 14.0 Total 150 100.0  In my practice, pain management is the mainstay treatment of end of life care Yes 109 72.7 No 18 12.0 i don't know 23 15.3		Total	150	100.0		
No       30       20.0         i don't know       21       14.0         Total       150       100.0         11       In my practice, pain management is the mainstay treatment of end of life care         Yes       109       72.7         No       18       12.0         i don't know       23       15.3	10	In my practice, patients are adeq	uately informed of the type of care	they are receiving		
i don't know 21 14.0 Total 150 100.0  11 In my practice, pain management is the mainstay treatment of end of life care Yes 109 72.7 No 18 12.0 i don't know 23 15.3		Yes	99	66.0		
Total 150 100.0  In my practice, pain management is the mainstay treatment of end of life care Yes 109 72.7 No 18 12.0 i don't know 23 15.3		No	30	20.0		
11 In my practice, pain management is the mainstay treatment of end of life care Yes 109 72.7 No 18 12.0 i don't know 23 15.3		i don't know		14.0		
Yes 109 72.7 No 18 12.0 i don't know 23 15.3						
No     18     12.0       i don't know     23     15.3	11	In my practice, pain managemen	t is the mainstay treatment of end o	f life care		
i don't know 23 15.3		Yes				
Total 150 100.0		i don't know		15.3		
		Total	150	100.0		

support to a person's mental and emotional needs, physical comfort, spiritual needs, and practical tasks. A good percentage (62.7% and 64.7%) of the respondents know that in end-of-life care, patients are treated only for symptoms they may experience, not the terminal disease itself. That care is offered based on the patient's terms respectively. Most respondents (88%) knew that end-of-life care could be offered at home or in a nursing home, hospital, or structured hospice center. 90.7% of the respondents knew that end-of-life care is a multidisciplinary type of care.

The majority of respondents agree that end-of-life care offers a level of satisfaction and comfort to the family and caretaker

of the patient 134 (89.3%), and that end-of-life care helps the individual live the best quality of life until transition 134 (89.3%). Some also agree that end-of-life care prepares the individual for life after death 79(52.7%)

Concerning overall knowledge of end-of-life care among healthcare workers at the University of Abuja teaching hospital, only 85.3% have GOOD knowledge.

# B. Practice of End-of-Life Care

Table 3 reflects the general practice of end-of-life care at UATH. 60% of respondents recognize that there is no end-oflife care team within the facility, and 50% (75) of the respondents agree that there are no guidelines for the practice

Table 4 common symptoms of persons receiving end of life care

S.No.	Variables	Frequency	Percentage (%)		
1.	Common Symptoms of Persons Receiving End of Life Care				
	Pain only	57	38.0		
	Pain and other symptoms	93	62.0		
	Total	150	100.0		
2.	Common Diseases receiving End-of- Life care				
	Cancer	107	71.3		
	Sickle cell	3	2		
	Liver disease	19	12.7		
	Kidney disease	37	24.7		
	Diabetes	3	2		
	HIV	13	8.7		
3	Others				
	Invalid	136	90.7		
	Destroyed Lung Syndrome	2	1.3		
	Heart Failure	2	1.3		
	Stroke	8	5.3		
	Stroke,	2	1.3		
	Total	150	100.0		
4.	Limitations of practice of end of life care				
	Patients reject end of life care even after being adequately informed	61	40.7		
	Patients present late to healthcare facilities	113	75.3		
	Non-inclusion of end of life care as part of training at undergraduate level	89	59.3		
	Lack of specialized trainings for healthcare workers	89	59.3		
	Insufficient number of healthcare professionals	96	64.0		
	Absence of a standby end of life care team	114	76.0		
	Socio-cultural and religious believes in the country	103	68.7		
	Non-cooperation of faith based organization	82	54.7		
	Lack of special funds for setting up end of life care in institutions	104	69.3		

of end-of-life care in this facility. The Majority of 80(53.3%) of the respondents indicated their lack of satisfaction with end-oflife practice in this facility.

The table also assesses the practice among healthcare workers on an individual basis. 60% of the healthcare workers had administered end-of-life care independently, and 78% considered the opinions and wishes of the patient's family members or caretakers in patient management. 66.7% of respondents stated that they involved other healthcare professionals in caring for patients' psychosocial and spiritual needs, and 64.7% ensured patients were aware of their rights to refuse treatment and care at any stage. About 42% implored non-medical therapies in patient management. In practice, 66% and 72.7% adequately informed the patient on the type of care they were receiving and managed pain as the mainstay of treatment, respectively.

The overall practice of end-of-life care at UATH was generally poor, with the majority, 60.7% (91), exhibiting poor practices.

Table 4 reveals that pain alone as the manifesting symptom for end-of-life care consisted of about 38% (57) of cases. Common disease conditions managed in end of life care were Cancer 107(71.3%), Kidney disease 37(24.7%), liver disease 19(12.7%), HIV/AIDS 13(8.7%), sickle cell disease 3(2%) and diabetes 3(2%) Some of the most commonly experienced limitations to the practice of end of life care at UATH are the absence of a designated end of life care team 114(76%), late presentation of patients 113(75.3%), lack of funding to support end of life care in the institution 104(69.3%), and sociocultural and religious believes 103(68.7%). Other limitations include the insufficient number of healthcare professionals trained in end-of-life care 96(64%), Non-inclusion of end-of-life care as part of training at undergraduate level and Lack of specialized

trainings for healthcare workers both have 89(59.3%), noncooperation of faith-based organizations 82(54.7%) and patients rejecting end of life care even after being adequately informed 61(40.7%).

# C. Results on the Associations

Table 5 shows the relationship between the sociodemographic characteristics of the respondents and their overall knowledge on end-of-life care. The results showed that there is a relationship between respondent's sociodemographic characteristics and the knowledge of end-of-life care. Apart from religion, (X<sup>2</sup>=0.129, p=0.719) which has no statistical relationship with the overall knowledge, all the other variables age ( $X^2=34.507$ , p=0.001), gender ( $X^2=9.509$ , p=0.002), ethnicity ( $X^2 = 25.162$ , p=<0.001), marital status ( $X^2 = 35.159$ , p = <0.001), occupation (X<sup>2</sup> = 10.150, p = <0.001), area of practice( $X^2 = 21.695$ , p=0.001), designation at work( $X^2 = 24$ . 695, p= 0.012) and years of service ( $X^2 = 7.349$ , p=0.025) all indicated a statistically significant relationship between these parameters and knowledge.

Table 6 above represents the relationship between the sociodemographic characteristics of the respondents and the overall practice of end-of-life care by the respondents. The results show that there is no statistical relationship between the sociodemographic characteristics and overall practice.

### 4. Discussion

This study had a 93% response rate, which was similar to a study conducted in a teaching hospital in Enugu State, Nigeria, that focused on evaluating the knowledge and practice of endof-life care among nurses with a response rate of 94.6%.8 This study also had a preponderance of female respondents (61.3%) compared to other studies where the male-to-female ratio is

Table 5 Association between Sociodemographic Characteristics and Knowledge

S.No.	Variables	Knov	vledge	Chi-Square	P-Value
		Poor knowledge Frequency (%)	Good knowledge Frequency (%)		
1	Age (in years):	· · · · · · · · · · · · · · · · · · ·			
	20-29	12(8)	36(24)		
	30-39	0(0)	68(45.3)	24.507	- 001*
	40-49	10(6.7)	12(8)	34.507	<.001*
	50-59	0(0)	12(8)		
	Total	22(14.7)	128(85.3)		
2	Gender:	, ,			
	Female	20(13.3)	72(48)	9.509	.002*
	Male	2(1.3)	56(37.3)	9.309	.002**
	Total	22(14.7)	128(85.3)		
3	Religion:	, ,	` '		
	Christianity	20(13.3)	113(75.3)	.129	.719
	Islam	2(1.3)	15(10)		
4	Tribe:	` '			
	Hausa	0(0)	17(11.3)		
	Igbo	16(10.7)	27(18)	25.162	<.001*
	Yoruba	2(1.3)	19(12.7)	25.162	
	Others	4(2.7)	65(43.3)		
5	Marital status:	` '			
	Single	2(1.3)	55(36.7)	25 1508	< 001*
	Married	15(10)	73(48.7)	35.159 <sup>a</sup>	<.001*
	Others	5(3.3)	0(0)		
6	Occupation:	,	· /		
	Doctor	5(3.3)	76(50.7)	10.150 <sup>a</sup>	.001*
	Nurse	17(11.3)	52(34.7)		
7	Area of practice:	, ,	,		
	Internal medicine	14(9.3)	27(18)		
	Paediatrics	2(1.3)	37(24.7)	21.695a	<.001*
	Obstetrics/gynaecology	0(0)	36(24)		
	Surgery	6(4)	28(18.7)		
8	Designation at work:	. ,	,		
	Consultant	0(0)	5(3.3)		
	Registrar	5(3.3)	58(38.7)	12.0453	010*
	Medical Officer	3(2.0)	17(11.3)	12.945 <sup>a</sup>	.012*
	Senior Nursing Officer	0(0)	13(8.7)		
	Nursing Officer	14(9.3)	35(23.3)		
9	Years of service at UATH		` '		
	1-10				
	11-20	9(6)	90(60)	7.349 <sup>a</sup>	.025*
	21-30	8(5.3)	25(16.7)		
	•	5(3.3)	13(8.7)		

<sup>\*:</sup> statistically significant X2: Chi square

equal or males are the majority. For example, in a study among medical interns, there were almost five males for every one female [9].

This study had more participation from doctors than nurses, with 81% of doctors and 69% of nurses taking part. 10 interestingly, most end-of-life palliative care studies tend to focus on nurses. The respondents were sampled from four different in-patient departments, which is different from other studies where only doctors in the ICU were involved in end-of-life care research [10]. This study revealed that the healthcare workers at UATH possess a strong understanding of endof-life care, with 85.3% demonstrating overall knowledge. This is in contrast to studies conducted in the northwest Nigeria, where respondents had poor knowledge regarding end-of-life care.

To provide effective end-of-life care, it is crucial for both the caregiver and the facility to understand the principles and regulations governing this practice. Unfortunately, more is required to improve overall quality of end-of-life care in UATH is poor, with only 39.3% of respondents reporting satisfactory care. Most respondents also confirmed the absence of a dedicated hospice care specialty, team, or guidelines for end-

of-life care. Although there are few studies on end-of-life care in Nigeria, there are also governing guidelines established by the federal ministry of health, which created a Palliative Care Policy for Hospice and Palliative Care to serve as a manual for all end-of-life care operations in the country.

While 90% of respondents have offered some form of end-of-life care on an individual basis, this falls short of the recommended multidisciplinary approach. Only about 67% of respondents involved other professionals in administering end-of-life care. However, 78% of respondents indicated that they considered the opinions and wishes of the patient's family in managing patients. Additionally, 66% of respondents reported adequately informing patients about the type of care they are receiving, which is essential as the WHO guidelines recommend full patient involvement in end-of-life care [11].

In this study, various disease conditions were identified in addition to cancer. These included end stage kidney disease, long-term liver disease, diabetes, HIV, sickle cell disease, stroke, and others. It's worth noting that according to the World Health Organization, all terminal illnesses are eligible for care. This underscores the importance of providing support and care

Table 6 Association between sociodemographic data and practice

~ ~ ~		Association between sociodemographic data and practice			
S.No.	Variable	Practice		Chi-Square	P- Value
		Poor practice Frequency (%)	Good practice Frequency (%)		
1	Age (in years):				
	20-29	37(24.7)	11(7.3)		
	30-39	39(26)	29(19.3)	12.477 <sup>a</sup>	.006
	40-49	12(8)	10(6.7)		
	50-59	3(2)	9(6)		
2	Gender:				
	Female	53(35.3)	39(26)	.932ª	.334
	Male	38(25.3)	20(13.3)		
3	Religion:				
	Christianity	79(52.7)	54(36)	.791ª	.374
	Islam	12(8)	5(3.3)		
4	Tribe:				
	Hausa	12(8)	5(3.3)		
	Igbo yoruba others	34(22.7)	9(6)	11.681 <sup>a</sup>	.009
	-	12(8)	9(6)		
		33(22)	36(24)		
5	Marital status:				
	Single	44(29.3)	13(8.7)	15.0403	000
	Married others	42(5)	46(30.7)	15.940 <sup>a</sup>	.000
		5(3.3)	0(0)		
6	Occupation:	•			
	Doctor	60(21)	21(14)	13.265 <sup>a</sup>	.000
	Nurse	31(20.7)	38(25.3)		
7	Area of practice:	` '	` ,		
	Internal medicine	26(17.3)	15(10)		
	Paediatrics	29(19.3)	10(6.7)	5.761a	.124
	Obstetrics/gynaecology	18(12)	18(12)		
	Surgery	18(12)	16(10.7)		
8	Designation at work:	,	,		
	Consultant	0(0)	5(3.3)		
	Registrar	47(31.3)	16(10.7)	20.4248	000
	Medical Officer	9(6)	11(7.3)	28.431 <sup>a</sup>	.000
	Senior Nursing Officer	13(8.7)	0(0)		
	Nursing Officer	22(14.7)	27(18)		
9	Years of service at UATH		` /		
	1-10	65(43.3)	34(22.7) 14(9.3) 11.	4.7.400	002
	11-20	19(12.7)	( ) ( - )	4.743 <sup>a</sup>	.093
	21-30	7(4.7)			

to patients with various diseases [11].

Furthermore, the analysis revealed a correlation between sociodemographic characteristics and end-of-life care practices. The longer the duration of practice, the better the practice. This outcome is not surprising, given that end-of-life care requires utmost maturity, empathy, and adequate training to handle patients' concerns and those of their families or caretakers.

# A. Limitation to the Practice of End-of-Life Care

The shortage of trained healthcare professionals remains one of the most important limitations to the proper practice of endof-life care. This is understandable as the end-of-life care requires a team effort. Some of the reasons for not providing end-of-life care, are patients arriving at the facility too late (75.3%), which can lead to poorer outcomes, but end-of-life care should begin at the first encounter, particularly with chronic diseases, so late arrival should not deter care. Noncooperation of faith-based organizations (69%) is next because there is a spiritual aspect to end-of-life care, and a lack of cooperation may present a problem to coordinated care. The lack of a standby end-of-life care team, which is emphasized in WHO guidelines and federal ministry of health guidelines for the importance of teamwork is another major limitation [11], [12]. A study found that 64% of healthcare workers lack specialized training, highlighting a problem that affects Lowto-Middle-Income countries (LMIC) and institutions should address by providing appropriate training. Additionally, 59.3% identified the non-inclusion of end-of-life care at the undergraduate level as an issue. It's essential to start providing coverage from the grassroots level to ensure adequate care. Sociocultural and religious beliefs in the country were cited by 54.7% as a limitation, and 40% noted patients rejecting end-of-life care despite being informed. These challenges require solutions at the government, health institutional, and individual levels.

### 5. Conclusion

The United Nations Sustainable Development Goal three (3), focuses on achieving good health and well-being for everyone [13]. This includes individuals with terminal illnesses. Unfortunately, the prevalence of debilitating terminal illnesses is increasing, highlighting the need for hospice care. However, it is important to note that there is currently no established end-of-life care team, specialty, or guidelines in UATH. To address this issue, the limitations that have been identified should be addressed at the government, healthcare institutions, and healthcare provider levels.

### 6. Recommendation

The Nigerian Ministry of Health has done an excellent job developing the policy for palliative care. However, more intentional implementation through awareness creation for the populations and capacity strengthening workshops for healthcare providers are needed to make this policy more widely accepted. It should be incorporated into the manuals for health service provision in every federal health institution. In addition to the fully funded programs for diseases like HIV and TB, increased intentional collaborations, partnership creation and increased funding for end-of-life care should be encouraged.

Health institutions, should train existing workforce, increase the healthcare workforce and invite specialists in palliative care to provide training for hospital staff. A special team should be formed for end-of-life care.

Healthcare providers should take the time to learn about endof-life care, practice how to offer it, and be prepared for when the situations arise. As the old saying goes, "If you fail to plan, you have planned to fail." Offering end-of-life care should not be a difficult task if proper planning and preparation are done beforehand.

### References

- [1] National Health Service (NHS) United Kingdom. What End of Life Care Involves [Internet]. 2022 [accessed on 21 August 2024]. Available from: <a href="https://www.nhs.uk/conditions/end-of-life-care/what-it-involves-and-when-itstarts/">https://www.nhs.uk/conditions/end-of-life-care/what-it-involves-and-when-itstarts/</a>
- [2] End-of-life care [Internet]. 2024 [accessed on 21 August 2024]. Available from: <a href="https://en.m.wikipedia.org/wiki/End-of-life">https://en.m.wikipedia.org/wiki/End-of-life</a> care
- [3] New Vision Hospice. The History of Hospice and Palliative Care [Internet]. 2021 [accessed on 28 August 2024]. Available from: https://newvisionhospice.com/2021/01/15/thehistory-of-hospice-and-palliative-care/
- [4] Palliative Care: The Nigerian Perspective [Internet]. 2021 [accessed on 28 August 2024]. Available from: https://www.intechopen.com/chapters/66960
- [5] Adeolu AA, Arowolo OA, Alatise OI, Osasan SA, Bisiriyu LA, Omoniyi EO, Odesanmi WO. Pattern of death in a Nigerian teaching hospital; 3-decade analysis. Afr Health Sci. 2010 Sep;10(3):266-72.
- [6] Chukwunyere Nnadi Daniel. Palliative Care: The Nigerian Perspective. [Internet]. 2019 [accessed on 28 August 2024]. Available from; <a href="https://www.intechopen.com/chapters/66960">https://www.intechopen.com/chapters/66960</a>

- [7] Fadare, Joseph & Obimakinde, Abimbola & Afolayan, Jide & Popoola, Sunday & Aduloju, Tolulope & Adegun, Patrick. (2014). Healthcare Workers Knowledge and Attitude Toward Palliative Care in an Emerging Tertiary Centre in South-West Nigeria. Indian journal of palliative care. 20. 1-5.
- [8] Ingwu JA, Nwaiku L, Ohaeri B. Knowledge and practice of end-of-life care among nurses in a teaching hospital in Nigeria. Int J Palliat Nurs. 2016 Apr 2;22(4):194-9.
- [9] Nnadi, Daniel & Singh, Swati. (2016). Knowledge of Palliative Care Among Medical Interns in a Tertiary Health Institution in Northwestern Nigeria. Indian Journal of Palliative Care. 22, 343.
- [10] Sharma H, Jagdish V, Anusha P, Bharti S. End-of-life care: Indian perspective. Indian J Psychiatry. 2013 Jan;55(Suppl 2):S293-8.
- [11] World Health Organization (WHO). Palliative care [Internet]. 2020 [accessed on 28 August 2024]. Available from: https://www.who.int/news-room/fact-sheets/detail/palliative-care
- [12] Federal Ministry of Health and Social Welfare, Federal Republic of Nigeria. Hospice and Palliative Care Policy [Internet]. 2024 [accessed on 12 September 2024]. Available from: <a href="https://www.health.gov.ng/">https://www.health.gov.ng/</a>
- [13] United Nations Development Programme. Goal 14, Life Below Water. [Internet]. 2024 [accessed on 15 September 2024]. Available from: https://www.undp.org/sustainabledevelopment-goals/below-water
- [14] End of life care explained: what is it, how is it provided, and what are the challenges? <a href="https://www.nuffieldtrust.org.uk/resource/end-of-life-care-explained-what-is-it-how-is-it-provided-and-what-are-the-challenges">https://www.nuffieldtrust.org.uk/resource/end-of-life-care-explained-what-is-it-how-is-it-provided-and-what-are-the-challenges</a>
- [15] Agom DA, Onyeka TC, Iheanacho PN, Ominyi J. Barriers to the Provision and Utilization of Palliative Care in Africa: A Rapid Scoping Review. Indian J Palliat Care. 2021 Jan-Mar;27(1):3-17.
- [16] Agrawal K, Garg R, Bhatnagar S. Knowledge and Awareness of End-oflife Care among Doctors Working in Intensive Care Units at a Tertiary Care Center: A Questionnaire-based Study. Indian J Crit Care Med. 2019 Dec;23(12):568-573.
- [17] Chronic staff shortfalls stifle Africa's health systems: WHO study https://www.afro.who.int/news/chronic-staff-shortfalls-stifle-africashealth-systems-whostudy#:~:text=The%20European%20region%20had%203.4,distribution %20of%20the%20health%20workforce.
- [18] Abate AT, Amdie FZ, Bayu NH, Gebeyehu D, G/Mariam T. Knowledge, attitude and associated factors towards end of life care among nurses' working in Amhara Referral Hospitals, Northwest Ethiopia: a crosssectional study. BMC Res Notes. 2019 Aug 19;12(1):521.
- [19] Youssef, H. A. M., Mansour, M., Al-Zahrani, S., Ayasreh, I., & Abd El-Karim, R. (2015). Prioritizing palliative care: assess undergraduate nursing curriculum, knowledge and attitude among nurses caring end-of-life patients. *European Journal of Academic Essays*, 2(2), 90-101.
- [20] Turgay G, Kav S. Turkish healthcare professionals' views on palliative care. J Palliat Care. 2012 Winter;28(4):267-73. PMID: 23413762.
- [21] Singer, P. A., Martin, D. K., & Kelner, M. (1999). Quality end-of-life care: patients' perspectives. *Jama*, 281(2), 163-168.
- [22] What Are Palliative Care and Hospice Care? https://www.nia.nih.gov/health/hospice-and-palliative-care/what-are-palliative-care-and-hospice-care