

Practice and Factors Influencing Palliative Care Services for Cancer Management in Government Established Hospitals in Anambra State, Nigeria

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Abstract

Palliative care (PC) is essential for enhancing the quality of life of patients with cancer and other life-limiting conditions. However, its provision remains inadequate in many government-owned hospitals in Nigeria. This study examined the availability, practice, and associated factors influencing the provision of PC services in cancer management, as perceived by healthcare professionals. A descriptive cross-sectional study was employed in two government hospitals in Anambra State. The study surveyed 222 doctors and nurses. Data was collected by a validated, structured questionnaire and analysed using descriptive and inferential statistics, with the level of significance set at $p \leq 0.05$. The response rate was 100%. Most respondents were female (89.2%), nurses (74.3%), and aged 40 years and above (45.0%). Awareness of PC services was highest among respondents aged 30–34 years (100%; $n = 55$), with a statistically significant association between age and awareness ($\chi^2 = 19.67$; $p = 0.01$). Awareness was also higher among female respondents (90.4%; $n = 179$), which was statistically significant ($\chi^2 = 7.93$; $p = 0.01$). Overall, 88.3% of respondents reported that PC services were available in their institutions, although 61.3% rated these services as only moderately available. Palliative care was predominantly provided for patients with cancer and HIV (50.0%). Individualized patient care and symptom control were identified as the most commonly practiced PC components. Key facilitating factors included continuous professional education, adequate training, and supportive learning environments. Major barriers comprised financial constraints (91.0%), inadequate infrastructure (72.1%), and insufficient training (60.4%). Although palliative care services are present in government hospitals, their availability and practice remain suboptimal. Enhancing palliative care in this setting will require strengthened training, increased funding, and robust policy support.

Keywords: Practice, Factors, Palliative Care, Cancer Management, Government Hospitals, Anambra State.

Introduction

Cancer is a major public health challenge worldwide and remains one of the leading causes of morbidity and mortality. Globally, an estimated 20 million new cancer cases and nearly 10 million cancer-related deaths were recorded in 2022, with a disproportionate burden occurring in low- and middle-income countries (LMICs) (World Health Organization [WHO], 2023). In sub-Saharan Africa, including Nigeria, late presentation, limited access to treatment, and weak health systems contribute to high mortality rates and increased suffering among cancer patients (Bray et al., 2021). As a result, many patients experience significant physical, psychological, social, and spiritual distress throughout the course of the illness.

Palliative care is an essential component of comprehensive cancer management. The WHO defines palliative care as an approach that improves the quality of life of patients and their families facing life-threatening illness through the prevention and relief of suffering by early identification, assessment, and treatment of pain and other problems, whether physical, psychosocial, or spiritual (WHO, 2020). Evidence shows that early integration of palliative care into cancer treatment improves symptom control, enhances patient satisfaction, reduces unnecessary hospitalizations, and improves overall quality of life (Etafa et. al., 2020; Knaul et al., 2018).

Statement of the Problem

Despite its proven benefits, access to palliative care remains limited in many LMICs. It is estimated that more than 80% of people worldwide who require palliative care live in low-resource settings, yet only a small proportion receive appropriate services (Sleeman et al., 2019). In Nigeria, palliative care services are still developing, with availability largely restricted to a few tertiary institutions and often characterized by inadequate infrastructure, limited trained personnel, poor access to essential medications such as opioids, and insufficient policy implementation (Altarawneh et.al.,2023; Appiah et.al., 2023). Healthcare professionals play a critical role in the provision of palliative care services. Their level of awareness, knowledge, skills, and attitudes significantly influences the availability and quality of care delivered to patients. Studies conducted in sub-Saharan Africa have reported gaps in training and practice among healthcare workers, with many providers focusing primarily on pain management while neglecting other important aspects such as psychosocial support, communication, and end-of-life care planning (Afolabi et al., 2022). In addition, several factors including professional training, institutional support, workload, and years of experience have been shown to affect the provision of palliative care services (Awad et.al., 2025; Kassa et al., 2014). Furthermore, multiple barriers hinder the effective delivery of palliative care in resource-constrained settings. These include financial

constraints, lack of infrastructure, inadequate human resources, limited awareness, poor integration into routine clinical services, and weak health financing mechanisms (Etafa et. al., 2020; Knaul et al., 2018). Although cultural beliefs and misconceptions have historically been considered barriers, recent evidence suggests that structural and health system challenges play a more significant role in limiting service availability and utilization (Awad et.al., 2025). In Anambra State, Nigeria, tertiary hospitals serve as major referral centres for cancer care. However, there is limited empirical evidence on the availability and level of practice of palliative care services, as well as the factors influencing their provision among healthcare professionals in these settings. Understanding these issues is essential for strengthening service delivery, improving patient outcomes, and informing policy and institutional interventions. Therefore, this study aimed to assess the availability of palliative care services, determine the level of practice among healthcare professionals, identify factors associated with the provision of palliative care, and explore barriers to its delivery in tertiary hospitals in Anambra State, Nigeria.

Research Questions

1. To what extent are health professionals aware of the availability of Palliative care services at the tertiary health institutions in Anambra state?
2. What is the level of practice of palliative care by health professionals working at Tertiary health institutions in Anambra State?
3. What are the factors associated with PC care practice among health professionals at the tertiary health institutions in Anambra State?
4. What are the barriers to the provision of PC services at the tertiary health institutions in Anambra state?

Conceptual Framework

This study is anchored on the Donabedian Model for Quality of Healthcare, which evaluates healthcare services based on three interrelated components: structure, process, and outcomes (Donabedian, 1988). The model provides a comprehensive framework for assessing the availability and quality of health services and is widely used in health systems and service delivery research. In the context of palliative care, structure refers to the organizational and institutional characteristics that support service delivery. These include availability of trained healthcare professionals, infrastructure, institutional policies, essential medications, and information systems. In this study, structural factors include institutional support, availability of palliative care professionals, training opportunities, and healthcare facility resources. The process component refers to the actual delivery of care, including healthcare providers' awareness, accessibility of services, and the level of practice of palliative care such as pain management, symptom control, and individualized patient care. The assessment of healthcare professionals' practice of palliative care services represents the process dimension of the model. The outcome component reflects the effectiveness and scope of services delivered. Although patient outcomes were not directly

measured in this study, the perceived availability and level of provision of palliative care services serve as proxy indicators of service performance and quality. The Donabedian model is appropriate for this study because it explains how institutional capacity (structure) influences healthcare providers' practices (process), which ultimately determines the quality and scope of palliative care service provision (outcome). It also accommodates the assessment of barriers such as financial constraints and inadequate infrastructure, which directly affect structural capacity. Based on the Donabedian model and the study objectives, the conceptual framework illustrates the relationships between healthcare professionals' characteristics, institutional factors, awareness, availability, level of practice, and barriers influencing the provision of palliative care services (see figure 1).

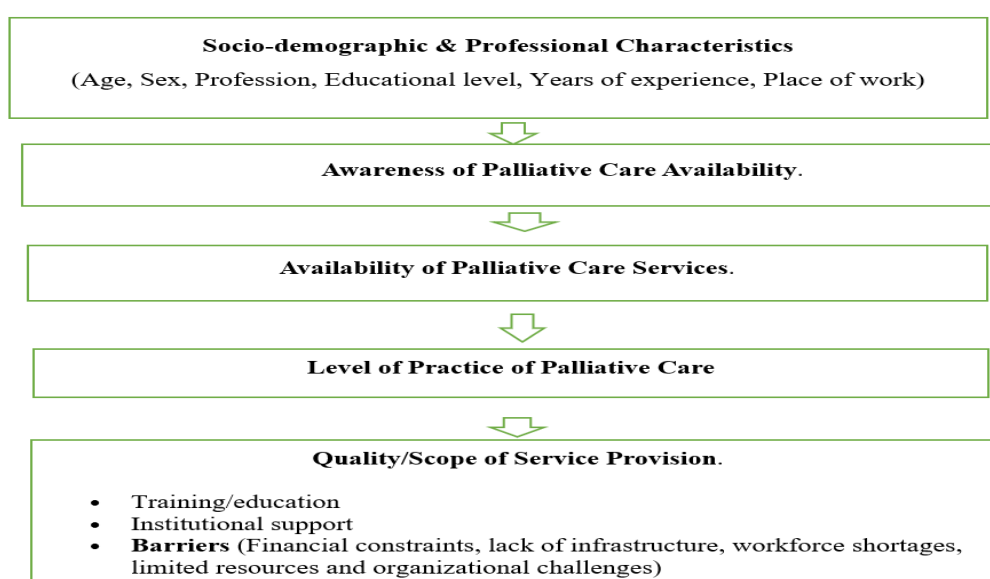


Figure 1: Conceptual framework adapted from the Donabedian Model for Quality of Healthcare

Source: Donabedian, A. (1988)

Methodology

Study Design and Setting

The study was adopted as a descriptive analytical cross-sectional design to assess the availability, practice and factors associated with the provision of PC care services in cancer management.

Study Area

The study was conducted in Anambra State, one of the 36 states in Nigeria, with Awka as its capital. The state derives its name "Anambra" from a transliteration of the Omambala River. It is bordered by Delta State to the west, Imo and Rivers States to the south, Enugu State to the east, and Kogi State to the north (City Population, 2023).

Data were collected from two government-owned tertiary health facilities: Nnamdi Azikiwe University Teaching Hospital, Nnewi (NAUTH), and Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Amaku, Awka (COOUTH). NAUTH was established in 1988 as Anambra State University of Technology Teaching Hospital, Nnewi, and attained full teaching hospital status in July 1991. It has a bed capacity of 316 and operates annexes, including Comprehensive Health Centres at Umunya, Ukpo, and Neni, as well as the Guinness Eye Centre, Onitsha. The hospital is currently situated in Nnewi, with clinical services now provided at its permanent site in Akamili. NAUTH serves as a major referral centre for patients from Anambra State and neighbouring states. COOUTH, formerly known as Anambra State University Teaching Hospital, originated as a specialist hospital established by the Anambra State Government to provide tertiary health services. The facility began in 1956 as Amaku Cottage Hospital, founded by the Awka community in honour of Dr. Philip Nweke Amaku. It was upgraded to Amaku General Hospital, Awka, in 1980 and was subsequently designated Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Amaku, Awka, in 2014.

Study Population

The study population included nurses and doctors of all cadres and in different wards of the government owned hospitals.

Inclusion Criteria

This include all nurses and doctors in different wards and outpatient clinics where palliative care services are expected to be practiced.

Exclusion Criteria

The exclusion criteria included nurses and doctors who were not present at the time of data collection, the nurses and doctors who did not give consent to participate, and the nurses and doctors who were sick and unable to participate in the study.

Sample Size Determination

The sample size was determined using Taro Yamane's Formula

$N = n / (1 + N(e)^2)$, where n =Sample size, N =Finite population, 1 =constant, e =level of significance (0.05). $N = 408$ (The number of doctors and nurses in the study sites).

$$n = 408 / 1 + 408(0.05)^2$$

$$n = 408 / 1 + 408 \times 0.0025$$

$$n = 408 / 1 + 1.02$$

$$n = 408 / 2.02$$

$$n = 201.98$$

$$n = 202$$

Consideration of 10% non-response rate gave $n = 222$

Hence Final sample size was 222

Sampling Technique

The simple random sampling technique was used to select the participants after proportionate allocation of the sample size between the two institutions. Hence, the number of nurses selected from NAUTH and COOUTH were 128 and 37, respectively. Doctors selected from NAUTH and COOUTH were 41 and 16 doctors, respectively. Total = 222 doctors and nurses from NAUTH and COOUTH, respectively.

Instrument for Data Collection:

Self –administered questionnaires were used for data collection. The questionnaire was adapted from instruments of related literature that assessed availability, practice, and factors associated with the provision of palliative care services in cancer management in tertiary health institutions. It had five sections which includes-

Section A: This assessed information on socio-demographic characteristics.

Section B: This assessed information on availability of palliative care services.

Section C: This assessed information on the level of practice of palliative care of the respondent.

Section D: This assessed information on factors that promote provision of palliative care services in cancer management

Section E: This assessed information on barriers to the provision of palliative care services by nurses and doctors at tertiary health institutions.

Validation and Reliability of the Instrument

The questionnaire was constructed in accordance with the study objectives to strengthen its validity. Face and content validity were established through a review by three subject-matter experts and the researcher's supervisor. Reliability was assessed using a test–retest method, whereby the instrument was administered to 20 nurses and doctors at the Federal Medical Centre, Asaba. Internal consistency was examined using Cronbach's alpha, which yielded a coefficient of 0.862, demonstrating a high level of reliability.

Method of Data Collection

The researcher presented an introductory letter obtained from the Head, Department of Nursing Science to the relevant authorities at the study sites. Ethical approval letters from the NAUTH and COOUTH ethics committees were received through the nursing managers of the respective units. Two research assistants, previously trained by the researcher, supported the data collection process. The questionnaires were administered directly to eligible respondents and completed questionnaires were retrieved immediately after completion.

Data Analysis

The data were entered and organized in a Microsoft Excel spreadsheet and subsequently analyzed using the Statistical Package for the Social Sciences (SPSS), version 25.0.

Respondents' data were summarized using frequency tables, percentages, and charts, as appropriate. Health professionals' level of awareness of palliative care was scored for each participant and categorized as low, moderate (fair), or good using percentage cut-offs of $\leq 40\%$, 41–69%, and $\geq 70\%$, respectively. Practice of palliative care services was similarly scored and classified as poor or good, using percentage cut-offs of $\leq 50\%$ and $\geq 51\%$, respectively. Chi-square tests and Fisher's exact tests were employed to examine factors associated with the availability, practice, and provision of palliative care services in cancer management at the tertiary health institutions in Anambra State. A p-value of ≤ 0.05 was considered statistically significant.

Ethical Consideration

An introductory letter was obtained from the Head, Department of Nursing, and used by the researcher to formally introduce the study at Nnamdi Azikiwe University Teaching Hospital (NAUTH), Nnewi, and Chukwuemeka Odumegwu Ojukwu University Teaching Hospital (COOUTH), Awka. Ethical approval was granted by the Research Ethics Committees of both institutions: NAUTH (Ref: NAUTH/CS/66/VOL.18/VER.3/115/2025/87; dated 13/10/2025) and COOUTH (Ref: COOUTH/CMAC/VOL.2/079; dated 23/10/2025). Written informed consent was obtained from all participating nurses and doctors prior to data collection.

Results

In the study, 222 respondents were interviewed and a 100% response rate was achieved. The most frequent age group was 40 and older years (100; 45.0%). Most of the respondents were female (198; 89.2%), married (129; 89.2%), and nurses (165; 89.2%). Further, most of the respondents were registered nurses or, registered midwives (142; 64.0%), work in NAUTH (169; 76.1%), and have worked for 16 years and more (83; 37.4%) (See table 1).

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency (222)	Percentage
Age (years)		
≤ 29	67	30.2
30 to 39	55	24.8
≥ 40	100	45.0
Gender		
Male	24	10.8
Female	198	89.2
Marital status		
Single	93	41.9
Married	129	58.1
Profession		
Doctor	57	25.7

Variable	Frequency (222)	Percentage
Nurse	165	74.3
Education		
RN or RM	142	64.0
BNSc or MMed	70	31.5
MSc or Residency	10	4.5
Hospital of work		
COOUTH	53	23.9
NAUTH	169	76.1
Years of experience		
≤5	70	31.5
6 to 10	35	15.8
11 to 15	34	15.3
≥16	83	37.4

Note: RN: Registered Nurse, RM: Registered Midwife, BNSc: Bachelor of Nursing Science, MMed: Master of Medicine(doctors), MSc: Masters of Nursing Science.

Most of the respondents (196; 88.3%) opined that PC is available in their hospital, most PC services were cancer and HIV care (111, 50.0%), and most of the respondents agree that PC can be accessed in their institution (159; 71.6%). Most of the respondents (109; 49.1%) opined that PC can be accessed at the facility, while 129 (58.1%) of the respondents stated there were PC professionals in their institution. Doctors and nurses together provide most of the PC services (60; 27.0%). The most common PC provided was the treatment, pain, and symptom management (177; 79.7%) (See table 2).

Table 2. Awareness and availability of palliative care (PC)

Variable	Frequency (222)	Percentage
Is PC available in your institution?		
Yes	196	88.3
No	26	11.7
How available is PC		
Fully available	71	32.0
Moderately available	136	61.3
Not available	12	5.4
Don't know	3	1.4
PC services available		
HIV care	61	27.5
Cancer care	34	15.3
Cancer and HIV care	111	50.0
None	16	7.2
Can patient access PC in your institution?		

Variable	Frequency (222)	Percentage
Yes	159	71.6
No	63	28.4
Where else can patient access PC		
Any Ward or Clinic	109	49.1
Designated Ward or Clinic	35	15.8
Oncology Ward Only	14	6.3
No response	64	28.8
Are there PC professionals in your institution?		
Yes	129	58.1
No	93	41.9
If no, who provides PC		
Doctor only	6	2.7
Nurse only	5	2.3
Doctor and Nurse	60	27.0
None	22	9.9
Type of PC provided in your ward		
Pain management	6	2.7
Pain and symptom management	39	17.6
Treatment, pain and symptom management	177	79.7

The individualization of PC and the relief of symptoms were the most agreed by the respondents (127; 57.2% with a mean score of 3.51 for each of the variable). While management of alopecia has the lowest mean score (2.52) and the highest "Never practiced" frequency (24; 10.8%). (See table 3).

Table 3: The extent of PC practice

Variable	NP=1	RP=2	PO=3	PR=4	Sum	Mean	SD
Early identification and proper assessment of patient	9(4.1)	34(15.3)	75(33.8)	104(46.8)	718	3.23	0.86
Individualization of care	9(4.1)	15(6.8)	71(32.0)	127(57.2)	760	3.42	0.79
Pain assessment using pain assessment scale	6(2.7)	66(29.7)	25(11.3)	125(56.3)	713	3.21	0.96
Disease symptom relief	3(1.4)	7(3.2)	85(38.3)	127(57.2)	780	3.51	0.63
Management of fatigue	6(2.7)	7(3.2)	116(52.3)	93(41.9)	740	3.33	0.67
Provision of emotional and spiritual support	6(2.7)	17(7.7)	122(55.0)	77(34.7)	714	3.22	0.70
Management of alopecia	24(10.8)	81(36.5)	95(42.8)	22(9.9)	559	2.52	0.82
Support for relatives	12(5.4)	65(29.3)	88(39.6)	57(25.7)	634	2.86	0.87

Variable	NP=1	RP=2	PO=3	PR=4	Sum	Mean	SD
Management of side effects	3(1.4)	21(9.5)	74(33.3)	124(55.9)	763	3.44	0.72
Education of patient	5(2.3)	62(27.9)	64(28.8)	91(41.0)	685	3.09	0.88
Observing medical ethics in PC	26(11.7)	23(10.4)	64(28.8)	109(49.1)	700	3.15	1.02
Team meeting	39(17.6)	34(15.3)	37(16.7)	112(50.5)	666	3.00	1.17
Involvement of patient in decision making	8(3.6)	13(5.9)	98(44.1)	103(46.4)	740	3.33	0.75
Provision of care at the end of life	9(4.1)	28(12.6)	113(50.9)	72(32.4)	692	3.12	0.78
Provision of support during bereavement	28(12.6)	29(13.1)	109(49.1)	56(25.2)	637	2.87	0.94
Research for best PC	39(17.6)	47(21.2)	53(23.9)	83(37.4)	624	2.81	1.11

NP: Never practiced, RP: Rarely practiced, PO: Practiced occasionally, PR=Practiced regularly, SD: Standard Deviation.

The factors that can promote PC practice that were most strongly agreed by the respondents were continuous education for health professional (146; 65.8% with a mean score of 4.58) and creating a supportive learning environment for health care professionals by developing information management system in PC (136;61.3% with a mean score of 4.59). While the most strongly disagreed, factors were 'awareness creation on PC '(14;6.3% with a mean score of 4.36) and improving access to and availability of narcotic drugs (12; 5.4% with a mean score of 4.04). See tables 4 below.

Table 4. The factors that can promote practice of PC

Variable	SA=5	A=4	N=3	D=2	SD=1	Sum	Mean	SD
Awareness creation on PC	127(57.2)	76(34.2)	5(2.3)	0(0.0)	14(6.3)	968	4.36	1.02
Attitudinal change on the use of opioids for cancer pain management	138(62.2)	76(34.2)	6(2.7)	2(0.9)	0(0.0)	1016	4.58	0.60
Continuous education for health professional, patient and the public	146(65.8)	65(29.3)	5(2.3)	6(2.7)	0(0.0)	1017	4.58	0.67
Adequate training of health care professionals to improve PC practices	139(62.6)	74(33.3)	9(4.1)	0(0.0)	0(0.0)	1018	4.59	0.57

Variable	SA=5	A=4	N=3	D=2	SD=1	Sum	Mean	SD
Increasing national and international programmes for palliative care provision	128(57.7)	94(42.3)	0(0.0)	0(0.0)	0(0.0)	1016	4.58	0.50
Provision of palliative care that value patients preference and belief	108(48.6)	82(36.9)	3(1.4)	25(11.3)	4(1.8)	931	4.19	1.04
Providing informal training to medical and nurse oncologist	122(55.0)	71(32.0)	7(3.2)	18(8.1)	4(1.8)	955	4.30	.990
Creating a supportive learning environment for health care professionals by developing information management system in PC	136(61.3)	80(36.0)	6(2.7)	0(0.0)	0(0.0)	1018	4.59	.546
Integrating PC into curricula and practice	127(57.2)	79(35.6)	12(5.4)	4(1.8)	0(0.0)	995	4.48	.684
Improving access to and availability of narcotic drugs	93(41.9)	85(38.3)	16(7.2)	16(7.2)	12(5.4)	897	4.04	1.127
Developing policy that facilitate the provision of PC to cancer patients	120(54.1)	84(37.8)	6(2.7)	6(2.7)	6(2.7)	972	4.38	.883
Making PC services accessible and affordable to patient in need	132(59.5)	77(34.7)	5(2.3)	2(0.9)	6(2.7)	993	4.47	.822
Increasing research to help identify needs and gaps in the provision of PC services	128(57.7)	73(32.9)	15(6.8)	0(0.0)	6(2.7)	983	4.43	.841

SA: Strongly agree, A: Agree, N: Not sure, D: Disagree, SD: strongly disagree, SD: Standard deviation

The barriers to PC from the respondents was assessed. The two most common barriers to the provision of PC were financial constrains (202;91.0% with a mean score of 3.88) and lack of infrastructure (160;72.1% with a mean score of 3.68). Cultural beliefs and misconception (35; 15.8% with a mean score of 3.13) was seen as the least barrier to provision of palliative care. (See table 5).

Table 5. The barriers to the provision of PC

Variable	GE=4	ME=3	LE=2	NE=1	Sum	Mean	SD
Unaware of the availability of PC in govt institution	105(47.3)	84(37.8)	24(10.8)	9(4.1)	745	3.36	0.92
Cultural beliefs and misconceptions	111(50.0)	64(28.8)	12(5.4)	35(15.8)	695	3.13	1.08
Unfriendly govt policies	115(51.8)	88(39.6)	9(4.1)	10(4.5)	752	3.39	0.77
Lack of infrastructures	160(72.1)	53(23.9)	9(4.1)	0(0.0)	817	3.68	0.55
Financial Constrains	202(91.0)	14(6.3)	6(2.7)	0(0.0)	862	3.88	0.40
Patient volume and understaffing	133(59.9)	73(32.9)	16(7.2)	0(0.0)	783	3.53	0.63
Lack of adequate training of health professionals	134(60.4)	66(29.7)	16(7.2)	6(2.7)	772	3.48	0.75

PC: Palliative Care, GE: great extent, ME: moderate extent, LE: little extent, NE: no extent, SD; Standard deviation

In the study awareness of PC provision in the institution was highest (100% (55) in the 30 - 39-year age group, and this was statistically significant (χ^2 :19.67; P:0.01). Awareness was highest (179; 90.4%) among the female respondents and it was significant (χ^2 : 7.93; P:0.01). The respondents who were single had higher awareness level (89; 95.7%) and it was significant (χ^2 : 8.50; P:0.01). Awareness level was more among the nurses (152; 92.1%) and it was significant too (χ^2 : 9.13; P:0.01). The respondents with Bachelor of Nursing Science or Master of Medicine(doctors) were more aware of availability of PC in their institution (68; 97.1%), while respondents with MSc or on Residency had no awareness (0.0%) this was statistically significant (χ^2 : 81.16; P:0.01). This 0.0% among the MSc or staff with residency status might be due to that this group being on rotational placements or newly posted to the facility, may be unfamiliar with the institutional service landscape. The respondents

working in the COOUTH (Chukwu Odumegwu Ojukwu University Teaching Hospital) had more awareness (51; 96.2%) and it was significant (χ^2 : 4.24; P:0.04). The respondents who have worked for 6-10 years and 11-15 years were all aware of palliative care (35;100.0% and 34;100.0% respectively) and this was statistically significant (χ^2 : 29.16; P:0.01). (See table 5).

Table 5: The association of sociodemographic characteristics and awareness of provision of PC

Variable	Awareness		Total	Chi square(χ^2)	P-value
	Yes (n, %)	No (n, %)	N (100.0%)		
Age (years)				19.67	0.01
≤29	63(94.0)	4(6.0%)	67		
30 to 34	55(100.0)	0(0.0)	55		
≥40	78(78.0)	22(22.0)	100		
Gender				7.93	0.01
Male	17(70.8)	7(29.2)	24		
Female	179(90.4)	19(9.6)	198		
Marital status				8.50	0.01
Single	89(95.7)	4(4.3)	93		
Married	107(82.9)	22(17.1)	129		
Profession				9.13	0.01
Doctor	44(77.2)	13(22.8)	57		
Nurse	152(92.1)	13(7.9)	165		
Education				81.16	0.01
RN or RM	128(90.1)	14(9.9)	142		
BNSc or MMed	68(97.1)	2(2.9)	70		
MSc or Residency	0(0.0)	10(100.0)	10		
Hospital of work				4.24	0.04
COOUTH	51(96.2)	2(3.8)	53		
NAUTH	145(85.8)	24(14.2)	169		
Years of experience				29.16	0.01
≤5	66(94.3)	4(5.7)	70		
6 to 10	35(100.0)	0(0.0)	35		
11 to 15	34(100.0)	0(0.0)	34		
≥16	61(73.5)	22(26.5)	83		

In the regression analysis, only one sociodemographic factor was predictor of awareness of palliative care availability is profession (Crude Odds Ratio: 0.074, 95%CI: 0.01-0.48). The nurses have a more than 13 times more likelihood to be aware of PC than the doctors. See table 6.

Table 6: Logistics regression

Variable	Crude Odds Ratio	95%Confidence Interval
Age (years)		
≤29	4.238E-14	0.00
30 to 34	0.139	0.00
≥40(ref)	1	
Gender		
Male	6.287E-8	0.00
Female(ref)	1	
Marital status		
Single	20007024.108	0.00
Married(ref)	1	
Profession		
Doctor	0.074	0.01-0.48
Nurse(ref)	1	
Education		
RN or RM	3637334389.77	0.00
BNSc or MMed	71149361002.67	0.00
MSc or Residency(ref)	1	
Hospital of work		
COOUTH	1.807	0.20-16.52
NAUTH (ref)	1	
Years of experience		
≤5	21903910650139.312	0.00
6 to 10	86447982130077.530	0.00
11 to 15	35442689084883.610	0.00
≥16(ref)	1	

Discussion

This study examined the availability, level of practice, associated factors, and barriers related to the provision of palliative care (PC) services for cancer management in tertiary hospitals in Anambra State. The findings offer important insights into the current status of palliative care delivery in tertiary health institutions within a resource-constrained context. In the study awareness of PC provision in the institution was highest (100% (55) in the 30 - 39-year age group, and this was statistically significant (χ^2 :19.67; P:0.01). Awareness of palliative care availability was generally high in this study. The respondents with Bachelor of Nursing Science or Master of Medicine(doctors) were more aware of availability of PC in their institution (68; 97.1%), while respondents with MSc or on Residency had no awareness (0.0%) this was statistically significant (χ^2 : 81.16; P:0.01). This 0.0% among the MSc or staff with residency status might be due to the reason that they may be new in the facility or they may be on rotational placements and unfamiliar with the institutional service landscape.

Most respondents indicated that palliative care services were available in their hospitals, with the majority describing the level of availability as moderate (61.3%). Over two-thirds reported that palliative care services were accessible within their institutions and could be utilized across wards and clinics. These findings suggest that, although palliative care structures are in place, services may not yet be fully developed or systematically integrated into routine oncology care. This is consistent with emerging evidence from low- and middle-income countries (LMICs), where palliative care services are increasingly present but remain limited in scope, coverage, and integration (Knaul et al., 2018; Sleeman et al., 2019). Similarly, a Nigerian multicentre assessment reported that, although palliative care units exist in some tertiary hospitals, service coverage and specialist workforce capacity remain inadequate (Boateng et al., 2024). The predominance of cancer- and HIV-related palliative care observed in this study also reflects the disease-specific model commonly reported in sub-Saharan Africa (World Health Organization [WHO], 2020).

Pain and symptom management emerged as the most commonly practiced component of palliative care (79.7%), with individualized care and symptom relief receiving the highest practice ratings. This indicates that health professionals predominantly focus on the clinical and physical dimensions of care, aligning with the traditional biomedical orientation of palliative care in many LMIC settings. Recent studies similarly demonstrate that symptom control, particularly pain management, constitutes the core of palliative care practice in African tertiary hospitals, whereas psychosocial, spiritual, and broader supportive care components remain underutilized (Afolabi et al., 2022; Nouvet et al., 2018). The very low reporting of fatigue management in this study underscores potential gaps in comprehensive symptom assessment and holistic care. The overall moderate level of practice identified may reflect constraints related to limited training, time pressures, and the absence of standardized protocols. Existing evidence indicates that structured training programmes and the use of clinical guidelines substantially enhance the quality, breadth, and consistency of palliative care practices among healthcare providers (Sleeman et al., 2019).

Continuous education for healthcare professionals, patients, and the public emerged as the most strongly endorsed facilitator of palliative care provision. Respondents also emphasized the importance of supportive learning environments and information management systems. These findings underscore the critical role of capacity building and institutional support in strengthening palliative care services. Similar findings have been reported in recent literature, where inadequate training and limited professional exposure were identified as major determinants of poor palliative care practice (Etafa et al., 2020; Kassa et al., 2014). Studies across sub-Saharan Africa indicate that regular in-service training, integration of palliative care into undergraduate curricula, and continuing professional development significantly improve awareness and service delivery (WHO, 2020). The regression findings indicated that professional cadre is a significant predictor of awareness of palliative care availability, with nurses demonstrating substantially higher awareness compared to doctors. This may be attributed to the closer and more continuous

patient contact typical of nursing roles, as well as greater involvement in bedside symptom management. Similar patterns have been documented in recent studies, where nurses demonstrated higher practical knowledge and engagement in palliative care compared to physicians (Afolabi et al., 2022; Doobay-Persaud et.al.,2023). The study showed that financial constraints (91.0%) and lack of infrastructure (72.1%) were identified as the major barriers to palliative care provision. These findings are consistent with global and regional evidence indicating that limited funding, inadequate facilities, and shortages of essential medications and equipment remain the primary challenges to palliative care implementation in LMICs (Knaul et al., 2018; Sleeman et al., 2019). There was relatively low proportion of respondents identifying cultural beliefs and misconceptions as a major barrier contrast with earlier assumptions about sociocultural resistance to palliative care. Recent studies suggest that structural and health system limitations now represent more significant constraints than cultural factors in many African settings (Appiah et al., 2023; Eke et.al.,2017). The prominence of financial barriers also reflects the high out-of-pocket expenditure for cancer care in Nigeria, which limits access to supportive and end-of-life services.

Limitations of the Study

There are limitations to be considered when interpreting the findings of this study. It is a descriptive cross-sectional design, which captures information at a single point in time. As a result, causal relationships between the identified factors and the provision of palliative care services cannot be established. Also, the study relied on self-reported information from healthcare professionals. This may have introduced response bias, including social desirability bias, where respondents could overreport good practices or the availability of palliative care services, as well as recall bias. The study was conducted in only two tertiary hospitals in Anambra State. The findings may not be generalizable to other tertiary hospitals in Nigeria or to secondary, primary, or private healthcare facilities with different levels of resources and organizational structures. There was a disproportionate representation of nurses compared to doctors among the respondents. This professional imbalance may have influenced the overall findings, particularly in areas related to awareness and practice of palliative care. It did not include the perspectives of patients or caregivers, nor did it objectively assess the quality, adequacy, or outcomes of the palliative care services provided. Despite these limitations, the study provides useful baseline information on the status of palliative care services and identifies important gaps that can inform policy, practice, and future research.

Conclusion

The findings from our study indicate that although palliative care services are generally available and accessible in the study settings, the level of availability and practice remains moderate. Palliative care activities were largely limited to pain and symptom management, with less attention given to other important components of comprehensive care such as

management of fatigue, psychosocial support, and holistic patient-centred interventions. The study also identified key factors influencing the provision of palliative care services. Continuous education for healthcare professionals, patients, and the public, as well as the creation of supportive learning environments and effective information management systems, were identified as critical facilitators of improved practice. Professional cadre and level of education were significant predictors of awareness of palliative care availability, with nurses demonstrating substantially higher awareness compared to doctors, likely due to their closer involvement in bedside care and symptom management. Despite the presence of services, major systemic barriers continue to limit optimal delivery. Financial constraints and inadequate infrastructure were the most prominent challenges, reflecting broader health system limitations in resource-constrained settings. In contrast, cultural beliefs and misconceptions were perceived as relatively less significant barriers, suggesting that structural and institutional challenges currently pose greater obstacles to effective palliative care provision.

Recommendations

Based on the findings of this study, the following recommendations are proposed to improve the availability and practice of palliative care services for cancer management in tertiary hospitals in Anambra State:

Policy and Government-Level Recommendations:

The Federal and State Ministries of Health should develop and strengthen policies that support the integration of palliative care into routine cancer management and other chronic disease services at all levels of healthcare. Government should increase budgetary allocation for palliative care services to address the major barriers identified, particularly financial constraints and inadequate infrastructure. Palliative care services should be included in the National Health Insurance and other health financing schemes to reduce out-of-pocket expenditure for patients and improve access to care.

Institutional Recommendations

Hospital management should establish or strengthen dedicated palliative care units with adequate infrastructure, essential equipment, and medications, including opioids for effective pain management. Healthcare institutions should develop and implement standard protocols and guidelines for comprehensive palliative care to ensure consistency and quality of service delivery. Hospitals should strengthen multidisciplinary collaboration by involving doctors, nurses, pharmacists, social workers, psychologists, and spiritual care providers in palliative care teams. Functional health information and documentation systems for palliative care should be developed to support continuity of care, monitoring, and evaluation.

Capacity Building and Training

Continuous professional education and in-service training on palliative care should be organized regularly for healthcare professionals, as this was identified as the strongest facilitator of improved practice. Palliative care should be fully integrated into undergraduate and postgraduate curricula for medical, nursing, and allied health training institutions. Workshops, seminars, and clinical mentorship programs should be implemented to improve the knowledge and practical skills of healthcare workers, particularly in holistic care, including psychosocial and fatigue management.

Awareness and Advocacy

Awareness campaigns should be conducted within healthcare institutions and the wider community to improve understanding of palliative care and promote early referral and utilization of services. Professional associations and hospital management should advocate for the recognition of palliative care as an essential component of comprehensive cancer care.

Service Delivery Improvement

Efforts should be made to expand the scope of palliative care services beyond pain and symptom management to include psychosocial, emotional, spiritual, and rehabilitative care. Routine assessment tools for comprehensive symptom evaluation, including fatigue and quality-of-life measures, should be adopted in clinical practice.

Directions for Future Studies

It is recommended that further studies should be conducted to assess patients' and caregivers' experiences, satisfaction, and outcomes related to palliative care services. Longitudinal and interventional studies are recommended to evaluate the effectiveness of training programs and institutional strengthening efforts on palliative care practice. Interventional studies should be conducted to assess the impact of targeted strategies such as continuous professional training, establishment of dedicated palliative care units, implementation of clinical guidelines, and integration of palliative care into routine oncology services. Evaluating the effectiveness of these interventions will inform evidence-based policy and practice.

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References

- Afolabi, O. A., Nkhoma, K., Soyannwo, O., Aje, A., Ogunniyi, A., Harding, R., & Maddocks, M. (2022). Integrated primary palliative care in Nigeria-perspectives of patients, families and providers. *Journal of pain and symptom management*, 64(4), 319-329.
- Appiah, E. O., Menlah, A., Xu, J., Susana, A. A., Agyekum, B. S., Garti, I., ... & Kumah, J. (2023). Exploring the challenges and roles of nurses in delivering palliative care for cancer patients and co-morbidities in Ghana. *BMC palliative care*, 22(1), 121.
- Awad, B., Batran, A., Malak, M. Z., Ayed, A., Shehadeh, A., Alassoud, B., & Ejheisheh, M. A. (2025). Knowledge, attitudes, and self-efficacy regarding palliative care among Palestinian nurses in intensive care units. *BMC nursing*, 24(1), 435.
- Boateng, S. A., Okyere, J., Attafuah, P. Y., & Dzansi, G. (2024). Institutional drivers for integrating palliative care services in a hospital in a sub-Saharan African military hospital context. *Palliative Care and Social Practice*, 18, 26323524241262327.
- Bray, F., Laversanne, M., Weiderpass, E., & Soerjomataram, I. (2021). The ever-increasing importance of cancer as a leading cause of premature death worldwide. *Cancer*, 127(16), 3029–3030. <https://doi.org/10.1002/cncr.33587>
- City population (2023). Anambra State, Nigeria. Available at: https://www.citypopulation.de/en/nigeria/admin/NGA004_anambra/ Accessed Feb 19th, 2026
- Doobay-Persaud, A., Solchanyk, D., Fleming, O., Patel, N., Drane, D., Hauser, J., & Ogbenna, A. (2023). Palliative Care Challenges in Nigeria: A qualitative study of interprofessional perceptions. *Journal of pain and symptom management*, 65(1), e1-e5.
- Donabedian, A. (1988). The quality of care: How can it be assessed? *Journal of the American Medical Association*, 260(12), 1743–1748. <https://doi.org/10.1001/jama.260.12.1743>
- Eke, G. K., Ndukwu, G. U., Chukwuma, N. S., & Diepiri, B. B. (2017). Knowledge and perception of healthcare providers towards palliative care in Rivers State, Nigeria. *Port harcourt medical journal*, 11(3), 156-160.
- Etafa, W., Wakuma, B., Fetensa, G., Tsegaye, R., Abdisa, E., Oluma, A., ... & Takele, T. (2020). Nurses' knowledge about palliative care and attitude towards end-of-life care in public hospitals in Wollega zones: A multicenter cross-sectional study. *PloS one*, 15(10), e0238357.
- Kassa, H., Murugan, R., Zewdu, F., Hailu, M., & Woldeyohannes, D. (2014). Assessment of knowledge, attitude and practice and associated factors towards palliative care among nurses working in selected hospitals, Addis Ababa, Ethiopia. *BMC palliative care*, 13(1), 6.
- Knaul, F. M., Farmer, P. E., Krakauer, E. L., De Lima, L., Bhadelia, A., Kwete, X. J., ... & Zimmerman, C. (2018). Alleviating the access abyss in palliative care and pain relief—an imperative of universal health coverage: the Lancet Commission report. *The Lancet*, 391(10128), 1391-1454.
- Nouvet, E., Sivaram, M., Bezanson, K., Krishnaraj, G., Hunt, M., de Laat, S., ... & Schwartz, L. J. (2018). Palliative care in humanitarian crises: a review of the literature. *Journal of International Humanitarian Action*, 3(1), 5.
- Sleeman, K. E., De Brito, M., Etkind, S., Nkhoma, K., Guo, P., Higginson, I. J., ... & Harding, R. (2019). The escalating global burden of serious health-related suffering: projections to 2060 by world regions, age groups, and health conditions. *The Lancet Global Health*, 7(7), e883-e892.
- World Health Organization. (2020). *Palliative care*. <https://www.who.int/news-room/fact-sheets/detail/palliative-care>. Accessed 15th December, 2025
- World Health Organization. (2023). *Cancer fact sheet*. <https://www.who.int/news-room/fact-sheets/detail/cancer>. Accessed 15th December, 2025