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Utilization and Satisfaction Levels of Primary Health Care Services Among Adults in Umuna Community, Orlu Local Government Area, Imo State

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ABSTRACT

Primary Health Care (PHC) remains the foundation of Nigeria's health system, yet utilization and satisfaction with PHC services remain suboptimal, particularly in rural areas. Understanding community-level patterns of knowledge, use, and satisfaction is essential for improving PHC delivery. This study assessed these factors and their determinants among adult residents of Umuna community, Orlu Local Government Area (LGA), Imo State, Nigeria. A community-based descriptive cross-sectional study was conducted among 400 adults selected through convenience sampling. Data were collected using a pre-tested, semi-structured questionnaire assessing sociodemographic characteristics, knowledge of PHC services, utilization patterns, and satisfaction. Knowledge, utilization, and satisfaction were scored using standardized scales. Data were analyzed with SPSS version 28 using descriptive statistics and chi-square tests to explore associations between PHC utilization and sociodemographic variables. Most respondents were young adults (53.8%), female (68.3%), and traders or business owners. Knowledge of PHC services was moderate (39%), with high awareness of immunization (78%), antenatal care (67.3%), treatment of common illnesses (61.8%), and health education (59.5%). Overall, 61.3% had used PHC services within the past six months, though many preferred hospitals due to perceived shortages of drugs, inadequate staffing, and poor equipment. Satisfaction with PHC services was generally low to moderate (34%), and was significantly associated with occupation and marital status. Utilization was significantly associated with monthly income, knowledge level, and satisfaction ($p < 0.05$). Although awareness and utilization of PHC services in Umuna were relatively high compared to many Nigerian settings, satisfaction remained low due to persistent system challenges, misconceptions about PHC functions, and inadequate service delivery. Strengthening PHC infrastructure, improving drug supply and staffing, and enhancing community health education are essential to improving trust and optimizing PHC use.

Keywords: Primary Health Care, Utilization, Satisfaction, Knowledge, Community Health

INTRODUCTION

Primary Health Care (PHC) is globally recognized as the foundation of effective health systems, defined by the Alma-Ata Declaration as essential and universally accessible care delivered through scientifically sound, socially

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acceptable, and affordable methods that encourage full community participation. [1] As a patient-centered approach, PHC aims to promote health, prevent disease, treat common conditions, and ensure continuity of care. Its success depends heavily on public awareness, accessibility, and satisfaction with the quality of services provided. Client satisfaction—achieved when expectations of care are met—is widely regarded as an important indicator of service quality and a determinant of health-seeking behavior. [2]

Health-care utilization reflects the degree to which individuals access health services for disease prevention, treatment, and general well-being. [3] In Nigeria, PHC became the central strategy for achieving "Health for All" following adoption of the 1978 Alma-Ata Declaration and the launch of the National Primary Health Care Policy in 1988. [4] The system is designed to function through a three-tier governmental structure and provides essential services such as maternal and child health, immunization, disease control, environmental health, health education, and the provision of essential drugs. [5–7] Despite these intentions, PHC performance across Nigeria has remained suboptimal. Less than 20% of potential users rely on PHC facilities, a situation worsened by infrastructural decay, inadequate staffing, obsolete equipment, and an almost non-functional referral system. [8,9] Utilization is further constrained by financial barriers, long travel distances, poor service availability in rural settings, and marked disparities between urban and rural facilities. [10–12] Although rural communities constitute more than half of Nigeria's population, fewer than one-third have access to modern healthcare services. [13]

Studies across Nigeria reveal wide variations in PHC utilization: from as low as 12% in Kwara State to over 40% in parts of the southwest, and substantially higher rates in countries such as South Africa and Pakistan. [14] Persistent challenges in Nigeria—including uneven distribution of health workers, poor remuneration, dilapidated infrastructure, and cultural preferences for traditional healers—contribute to low uptake, particularly in underserved rural areas. [15,16] These disparities underscore the importance of assessing community-level knowledge, utilization patterns, and satisfaction with PHC services. Understanding how communities perceive and use PHC services is essential for strengthening primary care delivery, improving service quality, and informing health policy. Evaluating utilization and satisfaction provides insight into accessibility issues, quality gaps, and the effectiveness of PHC systems. It also helps identify barriers that must be addressed to achieve equitable health outcomes and improve public trust in PHC as the first point of contact in the health system. [17] This study contributes to this need by examining knowledge, service utilization, satisfaction, and associated determinants within a rural Nigerian community, providing evidence that can inform PHC improvement strategies across similar settings.

LITERATURE REVIEW

Primary Health Care (PHC) remains central to improving population health, yet evidence from low- and middle-income settings shows persistent gaps in awareness, utilization, and satisfaction. Knowledge of PHC services varies widely across countries, with some communities demonstrating strong awareness of services such as immunization and antenatal care, while others remain poorly informed due to weak community engagement and inadequate publicity. [18–21] Utilization is shaped by socioeconomic status, cultural beliefs, accessibility, and health-system factors including drug availability, staff competence, and facility infrastructure. [22–25] Studies across Africa and Asia consistently highlight low utilization in rural areas, driven by long distances, high costs, poor staffing, and non-functional referral systems. [26–31] Patient satisfaction—an essential indicator of quality—depends on staff attitude, waiting time, facility cleanliness, and availability of essential services, with higher satisfaction typically associated with older age, lower income, and previous positive experiences. [32–38] Despite global reforms emphasizing patient-centered care, satisfaction levels in many developing countries remain suboptimal due to infrastructural deficits and inconsistent service quality. [39–41] Socio-cultural norms, education, and affordability strongly influence health-seeking behaviour, with rural populations often relying on traditional healers or home remedies when PHC services are perceived as inadequate, inaccessible, or unresponsive. [42–47] Evidence consistently shows that improving PHC utilization and satisfaction requires strengthening infrastructure, ensuring equitable staffing, reducing financial barriers, and enhancing community-based health education. [48–50] These findings underscore the need to examine PHC usage patterns and determinants within rural Nigerian communities, where disparities in access, quality, and outcomes continue to persist.

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METHODS

This study was conducted in Umuna community of Orlu, a semi-urban area in Imo State with a population of approximately 420,600, characterized by poor electricity supply, reliance on borehole water, and a predominantly farming and trading population where common illnesses include malaria, pneumonia, diarrhea, HIV and tuberculosis. [51] A community-based descriptive cross-sectional survey was employed among adult residents aged 18 years and above who were permanent members of the community and provided informed consent. Individuals who were severely ill, mentally incapacitated, unconscious, unavailable during data collection, or who withdrew consent were excluded. The minimum sample size was calculated using Cochran's formula, based on a prevalence of 30% from a previous study, and was rounded to 400 participants. [52] Convenience sampling was adopted, selecting adults readily available at the PHC facility or nearby and willing to participate.

Data were collected using a pre-tested, semi-structured questionnaire adapted from an earlier study, consisting of four sections: sociodemographic characteristics, knowledge of PHC services, utilization patterns, and satisfaction with services. Pretesting ensured validity and reliability. Knowledge, utilization, and satisfaction were measured using structured scoring systems: knowledge scores categorized as poor, moderate, or good; utilization classified into poor, moderate, or good; and satisfaction graded from poor to good based on Likert-scale responses. Completed questionnaires were cleaned, coded, and entered into Microsoft Excel before transfer to SPSS version 28 for analysis. Descriptive statistics (frequencies and percentages) and inferential tests, including chi-square, were employed, and results presented in tables and charts. Ethical approval was obtained and permission was secured from the PHC authorities. Written informed consent was obtained from all participants, with provisions for those unable to read or write. Confidentiality, voluntariness, and the right to withdraw were ensured throughout the study.

RESULTS

A total of 400 adult residents of Umuna, Orlu were interviewed on the utilization and satisfaction of primary health care facility services.

Table 1: Socio-demographic Characteristics of Umuna Adult Residents

Variables	**Frequency (n)**	**Percentage (%)**
Age		
18-29	215	53.8
30-39	96	24.0
40-49	63	15.8
50 and above	26	6.5
Total	400	100.0
Gender		
Male	127	31.8
Female	273	68.3
Total	400	100.0
Marital status		

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Married	151	37.8
Single	228	57.0
Divorced/Separated	21	5.3
Total	400	100.0
Religion		
Catholic	169	42.3
Anglican	73	18.3
Pentecostal	122	30.5
Traditional	15	3.8
Muslim	10	2.5
None	11	2.8
Total	400	100.0
Educational level		
None	9	2.3
Primary	26	6.5
Secondary	97	24.3
Tertiary	268	67.0
Total	400	100.0
Occupation		
Civil servant	59	14.8
Farmer	33	8.3
Trader/Business	175	43.8
Housewife	10	2.5
Student	88	22.0
Others	32	8.0
None	3	.8
Total	400	100.0
Income		

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No income	115	28.7
Less than N10,000	50	12.5
N10,000-N24,000	53	13.3
N25,000-N39,000	61	15.3
N40,000 and above	121	30.3
Total	400	100.0
Family type		
Monogamous	345	86.3
Polygamous	55	13.8
Total	400	100.0
Number of children		
None	70	17.5
1-2 children	146	36.5
3-4 children	106	26.5
5-6 children	66	16.5
More than 6 children	12	3.0
Total	400	100.0
Type of waste disposal		
Open dumping	78	19.5
Covered bin	152	38.0
Open bin	30	7.5
Plastic bag	140	35.0
Total	400	100.0

Table 1 shows the socio-demographic characteristics of the respondents. It revealed that more than half (53.8%) of the respondents were within 18-29 years, a little above two-third (68.3%) were female, 57.0% were single, 42.3% were Catholics, 67.0% had tertiary education, 43.8% were traders or business owner, 86.3% were of monogamous family type, 30.3% earned N40,000 and above, 36.5% had 1-2 number of children while 38.0% used covered bin.

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Table 2: Knowledge of PHC Services and facility among Umuna Adult Residents

Variables	Frequency (n)	Percentage (%)
Do you know if there is a primary health care facility in your area?		
No	28	7.0
I don't know	101	25.3
Yes	271	67.8
Total	400	100.0
Antenatal care/delivery		
No	131	32.8
Yes	269	67.3
Total	400	100.0
Immunization		
No	88	22.0
Yes	312	78.0
Total	400	100.0
Family planning		
No	185	46.3
Yes	215	53.8
Total	400	100.0
Treatment diseases and injuries		
No	153	38.3
Yes	247	61.8
Total	400	100.0
Health education		
No	162	40.5
Yes	238	59.5
Total	400	100.0

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Referral services		
No	234	58.5
Yes	166	41.5
Total	400	100.0
Ultra Sound Scan		
No	325	81.3
Yes	75	18.8
Total	400	100.0
Does the primary health care facility provide free services		
No	117	29.3
I don't know	180	45.0
Yes	103	25.8
Total	400	100.0
Does the primary health care facility provide services for 24 ours		
No	84	21.0
I don't know	169	42.3
Yes	147	36.8
Total	400	100.0

Table 2 shows the Knowledge of PHC Services and facility among Umuna Adult Residents. It revealed that a little above two-third (67.8%) knew that there was primary health care facility in their area. The knowledge of the availability of the following PHC services antenatal care/delivery, immunization, family planning, treatment of injuries and health education were 67.3%, 78.0%, 53.8%, 61.8% and 59.5% respectively.

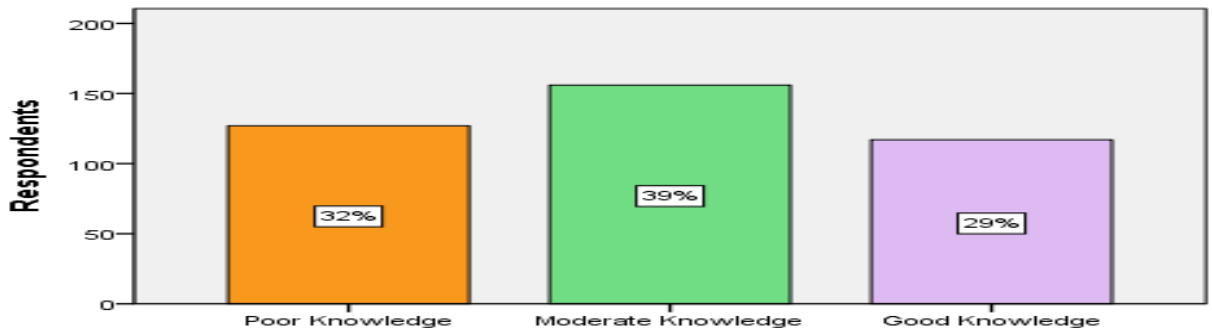

Figure 1: Level of PHC Services and Facility Knowledge among Umuna Adult Residents

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Figure 1 shows that there is moderate knowledge (39%) of Level of PHC Services and Facility Knowledge among Umuna Adult Residents

Table 3: Utilization of PHC Facility Services among Umuna Adult Residents

Variables	**Frequency (n)**	**Percentage (%)**
Have you ever attended the primary health care facility for treatment		
No	155	38.8
Yes	245	61.3
Total	400	100.0
If you have attended, how recently		
I have not attended	155	38.8
less than 3 months ago	83	20.8
3-6 months ago	62	15.5
More than 6 months ago	100	25.0
Total	400	100.0
I have not attended the health facility		
I have attended	245	61.3
I have not attended before	155	38.8
Total	400	100.0
The health staff know what they are doing		
Not a reason	109	27.3
Yes a reason	151	37.8
I have not attended	140	35.0
Total	400	100.0
Facility is near my house		
Not a reason	106	26.5
Yes a reason	154	38.5

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I have not attended	140	35.0
Total	400	100.0
The staff give me immediate attention		
Not a reason	103	25.8
Yes a reason	157	39.3
I have not attended	140	35.0
Total	400	100.0
Drugs are available		
Not a reason	89	22.3
Yes a reason	171	42.8
I have not attended	140	35.0
Total	400	100.0
Drugs are cheaper		
Not a reason	97	24.3
Yes a reason	163	40.8
I have not attended	140	35.0
Total	400	100.0
Drugs are genuine		
Not a reason	118	29.5
Yes a reason	142	35.5
I have not attended	140	35.0
Total	400	100.0
The staff are caring		
Not a reason	104	26.0
Yes a reason	156	39.0
I have not attended	140	35.0
Total	400	100.0

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The health services are always available		
Not a reason	149	37.3
Yes a reason	111	27.8
I have not attended	140	35.0
Total	400	100.0
If you were to decide on a place to receive treatment, where would you prefer		
Home	38	9.5
Primary health facility	79	19.8
Hospital	235	58.8
Traditional healers	5	1.3
Prayer house	8	2.0
Pharmacy/medicine store	35	8.8
Total	400	100.0

Table 3 shows the Utilization of PHC Facility Services among Umuna Adult Residents. It revealed that a little below two-third (61.3%) of the respondents attended the primary health care facility for treatment, 38.8% have not attended PHC. The following reason made the respondents to attend primary health facility: the staff know what they are doing (37.8%), facility near their house (38.5%), the staff gives immediate attention (39.3%), availability of drugs (42.8%), drugs are cheap (40.8%), drugs are genuine (35.5%) and the staff are caring (39.0%). However, more than half (58.8%) of the respondents prefer to receive treatment from the hospital.

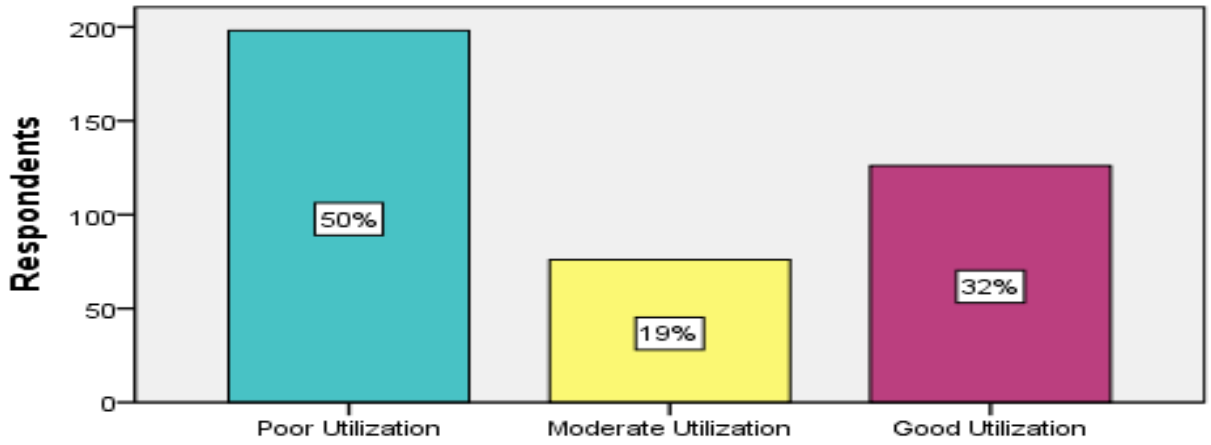

Figure 2: Level of PHC Services and Facility Utilization among Umuna Adult Residents

Figure 2 shows that there was poor utilization (50%) of Level of PHC Services and Facility Utilization among Umuna Adult Residents.

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Table 4: Satisfaction of PHC Facility Services among Umuna Adult Residents

Variables	Frequency (n)	Percentage (%)
I think the health center has everything needed to provide complete medical care		
Strongly disagree	12	4.9
Disagree	48	19.6
Uncertain	70	28.6
Agree	82	33.5
Strongly agree	33	13.5
Total	245	100.0
The medical care I have been receiving is just about perfect from the health center		
Strongly disagree	2	0.8
Disagree	22	9.0
Uncertain	70	28.6
Agree	111	45.3
Strongly agree	40	16.3
Total	245	100.0
Sometimes health staff make me wonder if their diagnosis is correct		
Strongly agree	10	4.1
Agree	72	29.4
Uncertain	56	22.9
Disagree	77	31.4
Strongly disagree	30	12.2
Total	245	100.0

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I feel confident that I can get the medical care from the center without paying much		
Strongly disagree	3	1.2
Disagree	42	17.1
Uncertain	49	20.0
Agree	102	41.6
Strongly agree	49	20.0
Total	245	100.0
When I go to the health center, they are careful to check everything when treating and examining me		
Strongly disagree	3	1.2
Disagree	31	12.7
Uncertain	58	23.7
Agree	113	46.1
Strongly agree	40	16.3
Total	245	100.0
I have easy access to the health center and I can afford treatment there		
Strongly disagree	2	0.8
Disagree	19	7.8
Uncertain	40	16.3
Agree	124	50.6
Strongly agree	60	24.5
Total	245	100.0
Whenever I want, I see the health staff that I want to treat me		
Strongly disagree	8	3.3
Disagree	29	11.8

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Uncertain	69	28.2
Agree	97	39.6
Strongly agree	42	17.1
Total	245	100.0
In the health center people have to wait too long for emergency treatment		
Strongly agree	16	6.5
Agree	73	29.8
Uncertain	68	27.8
Disagree	58	23.7
Strongly disagree	30	12.2
Total	245	100.0
The health staff act too business-like and impersonal towards me		
Strongly agree	23	9.4
Agree	83	33.9
Uncertain	72	29.4
Disagree	43	17.6
Strongly disagree	24	9.8
Total	245	100.0
The health staff treat me in a very friendly and courteous manner		
Strongly disagree	4	1.6
Disagree	24	9.8
Uncertain	66	26.9
Agree	90	36.7
Strongly agree	61	24.9
Total	245	100.0

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The health staff sometimes hurry too much when they are treating me.		
Strongly agree	16	6.5
Agree	84	34.3
Uncertain	70	28.6
Disagree	50	20.4
Strongly disagree	25	10.2
Total	245	100.0
Health staff sometimes ignore what I complain about		
Strongly agree	30	12.2
Agree	91	37.1
Uncertain	53	21.6
Disagree	47	19.2
Strongly disagree	24	9.8
Total	245	100.0
I have some doubts about the ability of the health staff who treat me		
Strongly agree	23	9.4
Agree	80	32.7
Uncertain	56	22.9
Disagree	63	25.7
Strongly disagree	23	9.4
Total	245	100.0
The health staff treating me usually spend plenty of time with me		
Strongly disagree	7	2.9
Disagree	50	20.4

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Uncertain	92	37.6
Agree	65	26.5
Strongly agree	31	12.7
Total	245	100.0
I find it hard to get a referral to the general or teaching hospital from the health center		
Strongly agree	26	10.6
Agree	77	31.4
Uncertain	70	28.6
Disagree	49	20.0
Strongly disagree	23	9.4
Total	245	100.0

Table 4 shows the Satisfaction of PHC Facility Services among Umuna Adult Residents. It revealed that one-third (33.5%) of the respondents thinks that the health center has everything needed to provide complete medical care, 45.3% agree that the medical care they have been receiving is just about perfect from the health center, 31.4% disagree that sometimes health staff make them wonder if their diagnosis is correct, 41.6% feel confident that they can get the medical care from the center without paying much, 46.1% agree that when they go to the health center, they are careful to check everything when treating and examining them, 50.6% agree that they have easy access to the health center and they can afford treatment there, 39.6% agree that whenever they want, they usually see the health staff that they want to treat them, 29.8% agree that in the health center people have to wait too long for emergency treatment, 33.9% agree that the health staff act too business-like and impersonal towards them, 36.7% agree that the health staff treat me in a very friendly and courteous manner, 37.1% agree that health staff sometimes ignore what they complain about while 31.4% agree that they find it hard to get a referral to the general or teaching hospital from the health center.

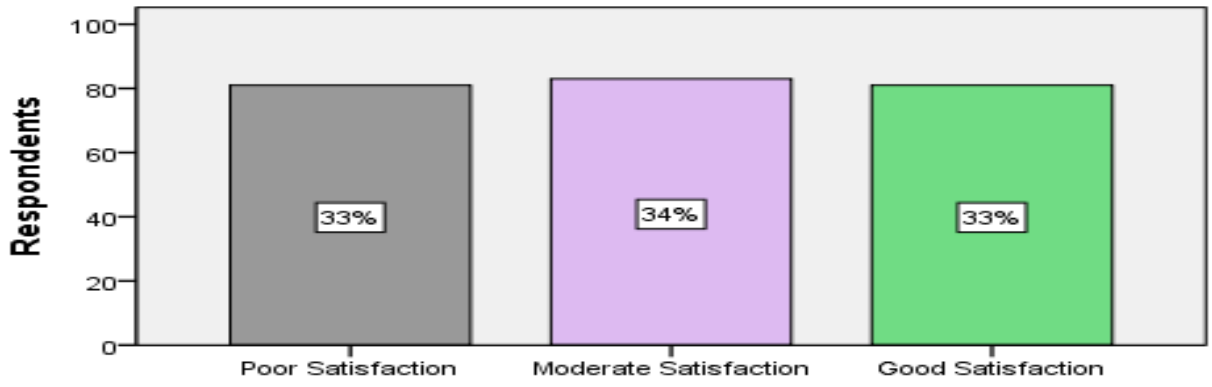

Figure 3: Level of PHC Services and Facility Satisfaction among Umuna Adult Residents

Figure 3 shows that there was 34% moderate satisfaction Level of PHC Services and Facility Utilization among Umuna Adult Residents.

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Table 5: Factors associated with level of utilization of PHC Facility Services among Umuna Adult Residents

Variable		**level of utilization of PHC Facility Services**			**Total %** **N=400**
Associated Factors	**Poor utilization**	**Moderate utilization**	**Good utilization**	**Total (%)**	**χ^2/p-value**
Age					
18-29	117(54.4)	33(15.3)	65(30.2)	215(100.0)	9.235/0.161
30-39	43(44.8)	20(20.8)	33(34.4)	96(100.0)	
40-49	24(38.1)	16(25.4)	23(36.5)	63(100.0)	
50 and above	14(53.8)	7(26.9)	5(19.2)	26(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Gender					
Male	74(58.3)	20(15.7)	33(26.0)	127(100.0)	5.723/0.057
Female	124(45.4)	56(20.5)	93(34.1)	273(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Marital status					
Married	62(41.1)	32(21.2)	57(37.7)	151(100.0)	**9.887/0.042***
Single	124(54.4)	38(16.7)	66(28.9)	228(100.0)	
Divorced/Separated	12(57.1)	6(28.6)	3(14.3)	21(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Religion category					
Catholic	79(46.7)	35(20.7)	55(32.5)	169(100.0)	5.690/0.459
Anglican	36(49.3)	15(20.5)	22(30.1)	73(100.0)	
Pentecostal	60(49.2)	24(19.7)	38(31.1)	122(100.0)	
Others	23(63.9)	2(5.6)	11(30.6)	36(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Education Category					

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None/Primary	19(54.3)	4(11.4)	12(34.3)	35(100.0)	1.927/0.749
Secondary	48(49.5)	21(21.6)	28(28.9)	97(100.0)	
Tertiary	131(48.9)	51(19.0)	86(32.1)	268(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Occupation category					
Civil servant	17(28.8)	16(27.1)	26(44.1)	59(100.0)	**13.210/0.040***
Trader/Businessman	44(50.0)	16(18.2)	28(31.8)	88(100.0)	
Student	98(56.0)	30(17.1)	47(26.9)	175(100.0)	
Others	39(50.0)	14(17.9)	25(32.1)	78(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Income					
No income	76(62.8)	16(13.2)	29(24.0)	121(100.0)	**23.423/0.003***
Less than N10,000	29(58.0)	3(6.0)	18(36.0)	50(100.0)	
N10,000-N24,000	22(41.5)	14(26.4)	17(32.1)	53(100.0)	
N25,000-N39,000	27(44.3)	14(23.0)	20(32.8)	61(100.0)	
N40,000 and above	44(38.3)	29(25.2)	42(36.5)	115(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Family type					
Monogamous	163(47.2)	67(19.4)	115(33.3)	345(100.0)	5.485/0.064
Polygamous	35(63.6)	9(16.4)	11(20.0)	55(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Number of Children					
None	84(57.5)	22(15.1)	40(27.4)	146(100.0)	10.093/0.259
1-2 children	27(38.6)	17(24.3)	26(37.1)	70(100.0)	
3-4 children	48(45.3)	23(21.7)	35(33.0)	106(100.0)	
5-6 children	31(47.0)	12(18.2)	23(34.8)	66(100.0)	
More than 6 children	8(66.7)	2(16.7)	2(16.7)	12(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	

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Type of waste disposal					
Open dumping	39(50.0)	11(14.1)	28(35.9)	78(100.0)	3.164/0.788
Covered bin	77(50.7)	28(18.4)	47(30.9)	152(100.0)	
Open bin	16(53.3)	7(23.3)	7(23.3)	30(100.0)	
Plastic bag	66(47.1)	30(21.4)	44(31.4)	140(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Level of Knowledge					
Poor Knowledge	105(82.7)	14(11.0)	8(6.3)	127(100.0)	**99.825/0.00***
Moderate Knowledge	62(39.7)	41(26.3)	53(34.0)	156(100.0)	
Good Knowledge	31(26.5)	21(17.9)	65(55.6)	117(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	
Level of Satisfaction					
Poor Satisfaction	172(72.9)	29(12.3)	35(14.8)	236(100.0)	**130.504/0.00***
Moderate Satisfaction	18(21.7)	23(27.7)	42(50.6)	83(100.0)	
Good Satisfaction	8(9.9)	24(29.6)	49(60.5)	81(100.0)	
Total	198(49.5)	76(19.0)	126(31.5)	400(100.0)	

The following socio-economic characteristics, level of knowledge and satisfaction were significantly associated with level of utilization of PHC Facility Services: Marital status ($p<0.042$), occupation category ($p<0.040$), monthly income ($p<0.003$), level of knowledge ($p<0.00$) and level of satisfaction ($p<0.003$).

DISCUSSION

This study assessed knowledge, utilization, and satisfaction with primary health care (PHC) services among adults in Umuna community and revealed patterns consistent with, yet distinct from, findings across Nigeria and other low-resource settings. The majority of respondents were young adults aged 18–29 years, which differs from reports in South Africa where older adults constitute the primary PHC users but aligns with studies in Western and Southeastern Nigeria where younger adults and traders predominated. [53,54] The high proportion of female respondents can be attributed to greater daytime availability, similar to findings from Kwara State where women were more likely to be encountered at home and hence sampled more frequently.[55] Utilization of PHC services in this study (61.3%) was substantially higher than levels reported in earlier Nigerian studies, including those in Kwara and Osun States where utilization ranged from 12% to 44%, but comparable to findings in South Africa and Pakistan, which reported considerably higher community engagement with PHC services. [55–58] Moderate knowledge of PHC services reflects partial community awareness, particularly regarding maternal care, immunization, and treatment of common illnesses—services known to be widely recognized across many low-income countries. [59] Immunization utilization was notably high, consistent with the essential preventive role PHC facilities play in most health systems and the impact of Nigeria's nationwide immunization campaigns. However, utilization rates remained lower than those reported in Pakistan, likely due to differences in coverage, outreach activities, and service integration. [58]

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Despite PHC being designed as the first point of contact in the Nigerian health system, many respondents preferred hospitals for initial care. Their preference stemmed from perceptions of inadequate staffing, lack of doctors, poor drug availability, and insufficient equipment at PHC centers. Similar patterns have been observed in Pakistan, the United Kingdom, and parts of Europe, where perceived higher-quality care and better diagnostic capacity attract patients to hospitals even for minor conditions. [60–63] The limited use of referral services in this study further reflects weak integration within Nigeria's health system and contributes to overburdening higher-level facilities. Satisfaction with PHC services was moderate (34%), considerably lower than satisfaction levels reported in London, India, Kosovo, Iraq, and Saudi Arabia, where patient satisfaction levels range between 50% and 73%. [64–66] Local insecurity, inadequate staffing, and drug stock-outs may have contributed to reduced satisfaction among residents in this region. Satisfaction was significantly associated with occupation and marital status, mirroring evidence from Middle Eastern and African studies that socioeconomic and demographic factors strongly influence patient experience and service perception. [64,67] Respondents frequently believed PHC centers were only suitable for women and children—a misconception documented in several Nigerian communities and one that undermines PHC's broader mandate as a comprehensive first-contact service.

While many respondents acknowledged that PHC centers were accessible and affordable, deficiencies in infrastructure and human resources continued to limit trust and full engagement. Shortages of essential drugs and the exodus of health professionals—driven by poor remuneration, limited career incentives, and security challenges—have been reported nationwide and remain barriers to service delivery. [68] Consequently, PHC facilities struggle to meet community expectations, contributing to low satisfaction and suboptimal utilization for non-maternal and non-child health services. Overall, the findings underscore persistent gaps between the design and actual functioning of PHC services in Nigeria. Addressing these discrepancies requires improving staff availability, strengthening drug supply chains, enhancing facility infrastructure, and intensifying community health education to correct misconceptions and encourage appropriate use of PHC services.

Limitations

The study relied on self-reported data, which may have introduced recall and social desirability biases. Despite interviewer training, interviewer influence cannot be fully excluded. The use of convenience sampling limits generalizability, as the sample may not fully represent all demographic groups in Umuna. Additionally, the cross-sectional design precludes establishing causal relationships between sociodemographic factors and PHC utilization or satisfaction.

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