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Knowledge and Practice of Existing Guidelines for the Management of Obstetric Complications among Healthcare Providers in Selected Health Facilities, Kwara State, Nigeria

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Abstract

This study assessed the level of knowledge and practice of existing guidelines for the management of obstetric complications among healthcare providers in selected primary and secondary healthcare facilities in Kwara State, Nigeria, and examined the relationship between socio-demographic characteristics and guideline utilization. A descriptive survey design was employed among 150 nurses and midwives selected through a multistage sampling technique. Data were collected using a validated and reliable structured questionnaire and analyzed with SPSS version 25 using descriptive and inferential statistics. Results showed that healthcare providers demonstrated an overall high level of knowledge and practice of obstetric management guidelines, particularly in the management of postpartum haemorrhage, obstructed labour, uterine rupture, and cord prolapse. However, notable gaps were identified in knowledge and practice related to pre-eclampsia and eclampsia, including diagnostic criteria and pharmacological management. Inferential analysis revealed statistically significant relationships between healthcare providers' age, professional qualifications, and years of experience, and both their knowledge and practice of existing guidelines ($p < 0.05$). The study concludes that although guideline awareness and application are generally strong among healthcare providers in Kwara State, targeted capacity-building interventions are required to address identified deficiencies. Strengthening continuous professional education, mentorship, and access to updated guidelines is essential

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to ensure consistent, evidence-based obstetric care and to improve maternal health outcomes.

Keywords: Obstetric complications, Clinical guidelines, Healthcare providers, Knowledge, Practice, Maternal health,

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Introduction

Health systems rely on clearly defined models of care to guide the organization and delivery of services in ways that promote best practice, efficiency, and improved health outcomes. A model of care provides a structured framework that outlines how services should be delivered to specific populations as they move through different stages of health and illness, and it is applicable across diverse healthcare settings (Brereton et al., 2017). Within maternal health services, models of care are particularly critical because they support coordinated clinical decision-making, effective case management, and timely referrals across levels of care. Healthcare providers are therefore expected to possess adequate knowledge of, and competence in applying, established care models and clinical guidelines to ensure safe and effective management of obstetric conditions (Akute et al., 2024) The purposeful alignment of human, material, and organizational resources within a functional care model enhances the capacity of health systems to meet patient needs, support healthcare workers, and achieve sustainable service delivery outcomes.

Maternal mortality remains a major public health challenge globally, despite improvements recorded in recent decades. The World Health Organization defines maternal mortality as the death of a woman during pregnancy or within forty-two days of termination of pregnancy from causes related to or aggravated by pregnancy or its management (WHO, 2018). Women and newborns are most vulnerable during labour, delivery, and the immediate postpartum period, with a substantial proportion of deaths resulting from preventable obstetric complications (Kumar et al., 2022). Common direct causes include postpartum haemorrhage, pre-eclampsia and eclampsia, obstructed labour, sepsis, uterine rupture, and complications of unsafe abortion, while indirect causes such as anaemia further compound risks (WHO, 2022). Evidence indicates that late presentation, delayed or inappropriate referral, inadequate clinical skills, and poor adherence to management guidelines contribute significantly to adverse maternal outcomes, particularly in low-resource settings (Sharma et al., 2024; Ameh et al., 2021). Effective implementation of emergency obstetric and newborn care, supported by functional referral systems and skilled healthcare providers, has therefore been identified as a cornerstone for reducing maternal and neonatal morbidity and mortality (Dominico et al., 2022).

In Nigeria and similar contexts, the structure of the healthcare delivery system places primary health care facilities as the first point of contact, with referrals to secondary and tertiary facilities for advanced management when complications arise (WHO, 2022). However, weak referral systems, poor communication, inadequate transportation, and inconsistent adherence to clinical guidelines often undermine the effectiveness of this hierarchy. Studies have shown that delayed referrals and prolonged stays at referring facilities are associated with poor maternal and fetal outcomes (Akaba & Ekele, 2018). Obstetric emergencies such as obstructed labour and uterine rupture remain prevalent in low-resource settings, largely due to limited access to skilled care, suboptimal use of tools such as the partograph, and inappropriate use of uterotonics (Ayenew, 2021). The Three Delays Model further highlights how delays in decision-making, reaching appropriate facilities, and receiving timely care interact to increase the risk of maternal death (Ope, 2020; Gbenag-Epebinu et al., 2023). Addressing these delays requires not only community-level preparedness but also competent healthcare providers who are knowledgeable and consistent in applying evidence-based guidelines.

Kwara State has implemented initiatives such as the Emergency Obstetric and Newborn Care Model to strengthen the capacity of healthcare providers and improve maternal outcomes (Ameh et al., 2021). Nevertheless, maternal mortality ratios in the state remain a concern, reflecting ongoing gaps in service delivery and quality of care. While existing guidelines for the management of obstetric complications are available, their effective utilization depends largely on the knowledge, experience, and practice patterns of healthcare providers. The findings of this study demonstrate that although overall knowledge and practice of obstetric management guidelines among healthcare providers are high, significant variations exist based on age, professional qualification, and years of experience. These disparities underscore the need for continuous training, supportive supervision, and system-

wide reinforcement of guideline-based care. Understanding how healthcare providers apply existing guidelines within the referral system is therefore essential for improving maternal health outcomes and strengthening obstetric care in Kwara State.

The study aimed to assess the level of knowledge and practice of existing guidelines for the management of obstetric complications among healthcare providers and to examine the relationship between their socio-demographic characteristics and the use of these guidelines. The specific objectives of the study were:

1. To assess the level of healthcare providers' knowledge of existing guidelines for the management of obstetric complications.
2. To evaluate the level of healthcare providers' practice of existing guidelines in managing obstetric complications.
3. To examine the relationship between healthcare providers' socio-demographic characteristics and their knowledge of existing obstetric care guidelines.
4. To determine the relationship between healthcare providers' socio-demographic characteristics and their practice of existing guidelines for obstetric complication management.

Methods and Materials

A descriptive survey research design was used. The target population for this study is 150 healthcare providers in selected primary and secondary healthcare centres. The sample size was determined using (Fisher's formula) single population proportion formula.

The following assumptions are considered

n = Minimum sample

Z =Standard normal deviate set at 1.96 (that corresponds to 95% confidence interval)

$$n = \frac{Z^2 p(1 - p)}{d^2}$$

d = Desired degree of accuracy set at 0.05

p = 9.62% proportion of the healthcare providers with a high-level referral for umbilical cord prolapse as a component of knowledge and practice of healthcare providers using existing guidelines on the management of obstetric complications (Nsemo et al., 2022).

$$n = \frac{1.96 \text{ X } 1.96 \text{ X } 0.096 \text{ X } 0.904}{0.0025}$$

= 133.4

Total sample size (n) = n/r

= 133.4 / 0.90

=148.2

Approximately = 150

The calculated minimum sample size with the non-response rate is 150 healthcare providers. A detail of the proportional distribution of health workers is in Table 1

Table 1: Proportional Distribution Table

Site	Calculation	Sample
Kwara south		
Offa	45/501*150	13.47 = 14
Ifelodun	48/501*150	14.37 = 14
Irepodun	68/501*150	20.36 = 20
Kwara Central		
Ilorin west	231/501*150	69.16 = 69
Ilorin south	70/501*150	20.95 = 21

Kwara North		
Edu	20/501*150	5.988 = 6
Kaima	20/501*150	5.988 = 6
Total		150

The study employed a multistage sampling technique to ensure that participants were representative of the three senatorial districts in Kwara State and that the characteristics relevant to the research questions were adequately captured. At the first stage, a cluster sampling approach with total enumeration was used to include all three geopolitical zones of the state - Kwara South, Kwara Central, and Kwara North comprising a total of sixteen local government areas. In the second stage, simple random sampling was applied to select specific local governments from each zone in proportion to their size: three local governments from Kwara South (Offa, Ifelodun, and Irepodun), two from Kwara Central (Ilorin West and Ilorin South), and two from Kwara North (Edu/Pategi and Kaima). The third stage involved the random selection of health facilities within the selected local governments, with particular attention given to facilities that had registered nurses and midwives providing maternity services. In several instances, only one or two facilities met this criterion and were therefore selected. At the final stage, purposive and convenience sampling was used to recruit respondents, as eligible participants were selected at their duty posts during data collection periods. This approach allowed the study to balance representativeness across the state with practical considerations related to workforce distribution in primary and secondary health facilities.

The study population for health care providers consisted of nurses and midwives involved in maternity care in the selected facilities. Inclusion criteria required participants to have at least six months of work experience in their current facility and to express willingness to participate in the study, ensuring that respondents had sufficient exposure to referral systems and obstetric care practices. Those on leave or unwilling to participate were excluded. Quantitative data were collected using a structured, self-administered questionnaire developed based on relevant literature and existing guidelines. The questionnaire was designed in clear and simple language to enhance comprehension and accuracy of responses. It was divided into sections covering socio-demographic characteristics, knowledge and practice related to referral systems and the management of obstetric complications, the functionality of primary health care centres in providing emergency obstetric care, and the availability and use of management guidelines. The instrument enabled the systematic collection of data aligned with the study objectives and facilitated the assessment of both knowledge and practice among healthcare providers.

To ensure rigor, the validity and reliability of the instrument were thoroughly addressed. Validity focused on determining whether the questionnaire adequately measured the intended constructs. Face validity was established through expert review by specialists in obstetrics and gynecology with research experience, who assessed the relevance, clarity, and appropriateness of the items and provided qualitative feedback. Content validity was further evaluated using Lawshe's content validity ratio, with a panel of at least five experts rating each item as essential or otherwise. Items meeting the recommended CVR threshold were retained, while expert and supervisory feedback informed revisions. Following validation, the instrument was pre-tested on 10% of the sample size in a comparable setting outside the study area to identify ambiguities and refine administration procedures. Reliability was

assessed using the split-half method, whereby questionnaire items were divided into odd- and even-numbered sets and administered to respondents outside the study sample. Pearson correlation coefficients indicated strong internal consistency, with coefficients of 0.80 for healthcare providers and 0.77 for pregnant women, demonstrating that the instruments were sufficiently reliable for the study.

Data collection for healthcare providers involved obtaining institutional permissions from the Kwara State Ministry of Health and the State Primary Health Care Development Agency, followed by visits to selected facilities on weekdays. Participants were adequately informed about the purpose of the study, and informed consent was obtained prior to questionnaire administration. Data were collected over a six-month period, during which 150 healthcare providers completed the questionnaires under the supervision of the researcher. For data analysis, completed questionnaires were checked, cleaned, and analyzed using SPSS version 25. Descriptive statistics such as mean, median, standard deviation, and percentages were used to summarize the data, while inferential statistics tested study hypotheses. Chi-square tests, Fisher's exact tests, logistic regression, and t-tests were applied to examine relationships between socio-demographic characteristics and healthcare providers' knowledge and practice regarding obstetric complication management. A p-value of 0.05 or less was considered statistically significant, ensuring that conclusions drawn from the analysis were based on accepted standards of scientific rigor.

Ethical approval was obtained from the Kwara State Ministry of Health Ethics Committee (ERC/MOH/2023/07/138), and Kwara State General Hospital, Ilorin (GHI/IRC/246/VOL.1/114). Informed consent, voluntariness, confidentiality, and participants' right to withdraw without prejudice were strictly upheld throughout the study.

Results

Table 2: Demographic Characteristics of the Healthcare Providers

Characteristics		
i. Age of Participants in Year	Frequency	%
< 30	22	14,7
30-39	54	36.0
40-49	50	33.3
≥50	24	16.0
Mean 39.09 ± 9.55 SD. Median 39		
ii. Participants' Qualification		
BSc/ BNSc	37	24.7
RN/ RM	110	73.3
MSc	3	2.0
iii. Participants' Years of Practicing		
< 6	34	22.7
6-10	37	24.7
11-15	35	23.3
≥16	44	29.3
iv. Participants' Years in Health Facility		
≤ 5	59	59.3
6-10	32	21.3

11-15	17	11.3
≥16	42	28.0
v. Participants' Rank		
NOII	72	48.0
NOI	51	34.0
SNO	9	6.0
CNO	6	4.0
ADS	7	4,7
DDNS	5	3.3

Table 2 presents the demographic profile of the healthcare providers used for this study. The age group with a modal value (54, 36%) was 30 – 39 years and the age group less than 30 years had the lowest proportion (22, 14.7 %). The mean respondents' age was 39.09 ± 9.55 SD and the median age was 39 years. The distribution of the respondents based on their educational/ professional qualifications shows that 24.7% of the respondents had either of BSc or BNSc. Most of the respondents (73.3%) were either registered nurses or midwives. Only 2% of the participants had an MSc. About half of the respondents were Nursing Officer II, while 34% were Nursing Officer I. Also, the Senior Nursing Officer and Chief Nursing Officer constituted 6% and 4% of the respondents respectively. Deputy Director of Nursing Service and Assistant Director of Nursing Service constituted 3.3% and 4.7% of the respondents respectively. In addition, the distribution of respondents based on their years of experience in the health facilities indicates that 39.3% of the respondents have less than six years of experience, 21.3% have 6 to 10 years of experience, and 11.3% have 11 to 15 years of experience while 28% have over 15 years of experience.

Table 3: Level of healthcare providers' knowledge of guidelines for the management of obstetric complications

Items	***N***	***Yes***		***No***		***Mean***	***Remark***
		f	***%***	***f***	***%***		
When to diagnose post-partum haemorrhage after vaginal delivery							
200mls	150	125	83.3	25	16.7	1.83	***High***
500mls	150	78	52.0	72	48.0	1.51	***Moderate***
1000mls	150	121	80.7	29	19.3	1.80	***High***
2000mls	150	114	76.0	36	24.0	1.75	***High***
The drug of choice for active management of the third stage of labour							
Misoprostol	150	108	72.0	42	28.0	1.71	***High***
Ergomentin	150	106	70.7	44	29.3	1.71	***High***
Oxytocin	150	123	82.0	27	18.0	1.81	***High***
The most important component of active management to the third stage of labour							
Control cord traction	150	126	84.0	24	16.0	1.84	***High***
Uterine massage	150	127	84.7	23	15.3	1.84	***High***
Administration of oxytocin	150	101	67.3	49	32.7	1.69	***High***
Cutting of the umbilical cord	150	116	77.3	34	22.7	1.77	***High***
The earliest sign of excessive blood loss							
Increase pulse rate	150	108	72.0	42	28.0	1.72	***High***
Low blood pressure	150	117	78.0	33	22.0	1.78	***High***

Increase respiration	150	90	60.0	60	40.0	1.63	***High***
Low urinary output	150	121	80.7	29	19.3	1.81	***High***
Risk factors for post-partum Haemorrhage							
Grand multiparous	150	112	74.7	38	25.3	1.75	***High***
Twin pregnancy	150	80	53.3	70	46.7	1.53	***Moderate***
Poly hydramnios	150	101	67.3	49	32.7	1.67	***High***
Hypotension in pregnancy	150	116	77.3	34	22.7	1.77	***High***
In Pre-eclampsia, there is							
Hypertension, proteinuna and oedema occur after 20 weeks of gestation	150	119	79.3	31	20.7	1.80	***High***
Hypertension and oedema, no proteinuna occurring after 20 weeks of gestation	150	65	43.3	85	56.7	1.43	***Low***
Hypertension and proteinuna occurring after 20 weeks of gestation	150	87	58.0	63	42.0	1.58	***Moderate***
Hypertension, protenuna and convulsion occurring after 20 weeks of gestation	150	94	62.7	56	37.3	1.63	***High***
In eclampsia there is							
Hypertension, proteinuria and convulsions occurring after 20 weeks of gestation	150	58	38.7	92	61.3	1.39	***Low***
Liver functions are not mandatory	150	71	47.3	79	52.7	1.47	***Low***
Magnesium sulphate is the drug of choice for convulsion	150	67	44.7	83	55.3	1.45	***Low***
Aldoment is the drug of choice for managing severe hypertension	150	61	40.7	89	59.3	1.41	***Low***
Obstructed Labour							
Obstructed labour is a common cause of maternal mortality	150	70	46.7	80	53.3	1.47	***Low***
Obstructed labour can be prevented by the use of partograph	150	110	73.3	40	26.7	1.76	***High***
Caesarean section is a treatment of choice	150	145	96.7	5	3.3	2.01	***High***
Episiotomy is a treatment option	150	101	67.3	49	32.7	1.67	***High***
Causes of Uterine Rupture							
Injudicious use of oxytocin	150	101	67.3	49	32.7	1.67	***High***
Obstructed labour	150	109	72.7	41	27.3	1.73	***High***
Fundal pressure in labour	150	78	52.0	72	48.0	1.52	***Moderate***
Cord Presentation/Cord Prolapse							
The foetal membrane is intact	150	92	61.3	58	38.7	1.61	***High***

Emergency caesarean section is recommended for cord prolapse in early labour	150	104	69.3	46	30.7	1.88	***High***
Foetal distress is a possible complication	150	123	82.0	27	18.0	1.96	***High***
Mean Cut-Off Point		***1.50***					

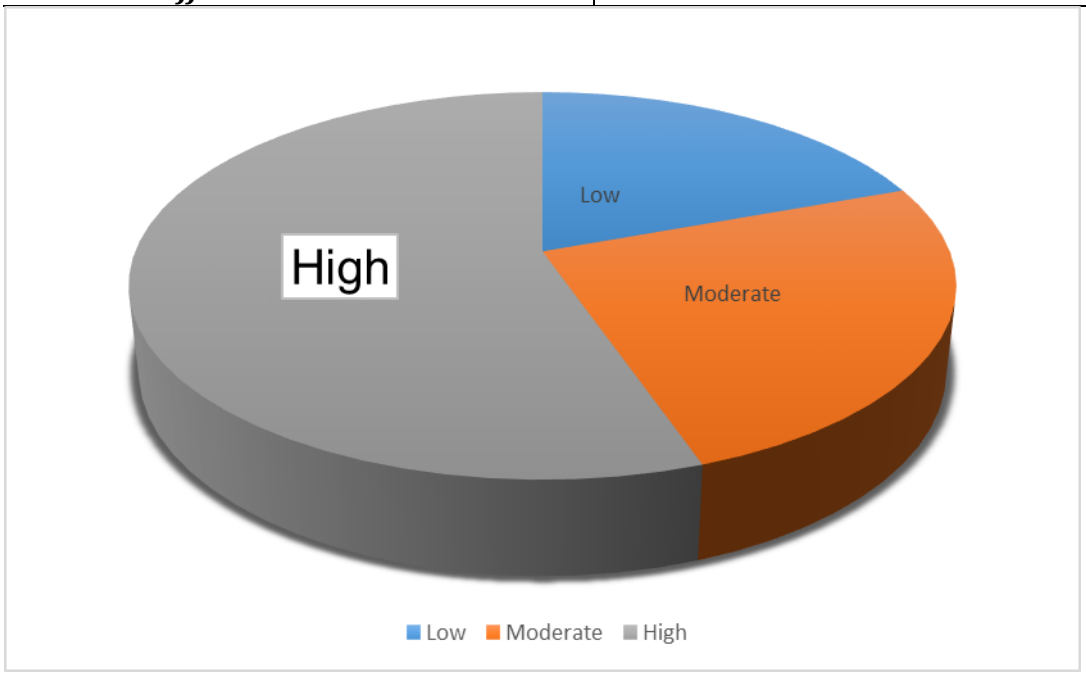

Figure 1: Healthcare providers' knowledge of existing guidelines for the management of obstetric complication

To determine the level of healthcare providers' knowledge of guidelines for the management of obstetric complications (Low, Moderate, and High), the mean score, frequency counts and percentage were used. The low practice level was determined by scores below the mean cut-off point ($x < 1.50$) while the moderate level was determined by the mean cut-off point ($1.50 \leq x \leq 1.59$) and the high practice level was determined by scores above the mean cut off ($1.60 \leq x \leq 3.00$). Table 2 shows the level of healthcare providers' knowledge of guidelines for the management of obstetric complications. Considering the mean cut-off point of 1.50, the healthcare workers expressed low knowledge of six out of 37 items. Also, they expressed moderate knowledge of four items and high knowledge of 27 items. This indicates that the overall level of healthcare providers' knowledge of guidelines for the management of obstetric complications was high

Table 4: Level of healthcare providers' practice of existing guidelines for the management of obstetric complication

Post-partum Haemorrhage	***N***	***Yes***		***No***		***Mean***	***Remark***
		f	***%***	***f***	***%***		
Vital signs	150	124	82.7	26	17.3	1.83	***High***
Intravenous line	150	126	84.0	24	16.0	1.84	***High***
Urethra catheterization	150	127	84.7	23	15.3	1.85	***High***
Oxytocin infusion	150	91	60.7	59	39.3	1.61	***High***

Repeat oxytocin/pass misoprostol	150	146	97.3	4	2.7	1.97	***High***
Insert intrauterine balloon tamponade	150	139	92.7	11	7.3	1.93	***High***
Use Anti-shock garment	150	106	70.7	44	29.3	1.71	***High***
Get blood donors	150	105	70.0	45	30.0	1.70	***High***
Money	150	144	96.0	6	4.0	1.96	***High***
Get a vehicle	150	99	66.0	51	34.0	1.66	***High***
Inform the next level of care	150	135	90.0	15	10.0	1.90	***High***
Pre-Eclampsia And Eclampsia							
Measure vital signs	150	84	56.0	66	44.0	1.56	***Moderate***
Intravenous line	150	148	98.7	2	1.3	1.99	***High***
Catheterization	150	78	52.0	72	48.0	1.52	***Moderate***
Anti-convulsant	150	101	67.3	49	32.7	1.67	***High***
Antihypertensive	150	75	50	75	50	1.50	***Moderate***
Get blood donors	150	80	53.3	70	46.7	1.53	***Moderate***
Get money	150	121	80.7	29	19.3	1.81	***High***
Get a vehicle	150	132	88.0	18	12.0	1.87	***High***
Informing the next level of care	150	94	62.7	56	37.3	1.63	***High***
Obstructed Labour							
Measure vital signs	150	110	73.3	40	26.7	1.73	***High***
An intravenous line	150	78	52.0	72	48.0	1.52	***Moderate***
Antibiotics	150	95	63.3	55	36.7	1.63	***High***
Urethral catheterization	150	118	78.7	32	21.3	1.79	***High***
Get blood donors	150	124	82.7	26	17.3	1.82	***High***
Get vehicle	150	100	82.7	50	33.3	1.67	***High***
Inform the next level of care	150	101	67.3	49	32.7	1.67	***High***
Uterine Rupture							
Measure vital signs	150	85	56.7	65	43.3	1.57	***Moderate***
Intravenous line	150	135	90.0	15	10.0	1.90	***High***
Urethral catheterization	150	83	55.3	67	46.7	1.55	***Moderate***
Antibiotics	150	135	90.0	15	10.0	1.90	***High***
Get blood donors	150	126	84.0	24	16.0	1.84	***High***
Get money	150	114	76.0	36	24.0	1.76	***High***
Get a vehicle	150	139	92.7	11	7.3	1.50	***Moderate***
Inform the next level of care	150	75	50.0	75	50.0	1.93	***High***
Cord Presentation/Cord Prolapse							

Relief cord compression	150	89	59.3	61	40.7	1.59	***Moderate***
Measure vital signs	150	78	52.0	72	48.0	1.52	***Moderate***
Intravenous line	150	92	61.3	58	38.7	1.61	***High***
Urethral catheterization	150	106	70.7	44	29.3	1.71	***High***
Antibiotics	150	111	74.0	39	26.0	1.74	***High***
Getting blood donors	150	120	80.0	30	20.0	1.80	***High***
Money	150	108	72.0	42	28.0	1.72	***High***
Getting a vehicle	150	110	73.3	40	26.7	1.73	***High***
Inform the next level of care	150	106	70.7	44	29.3	1.71	***High***
Mean Cut-Off Point		***1.50***					

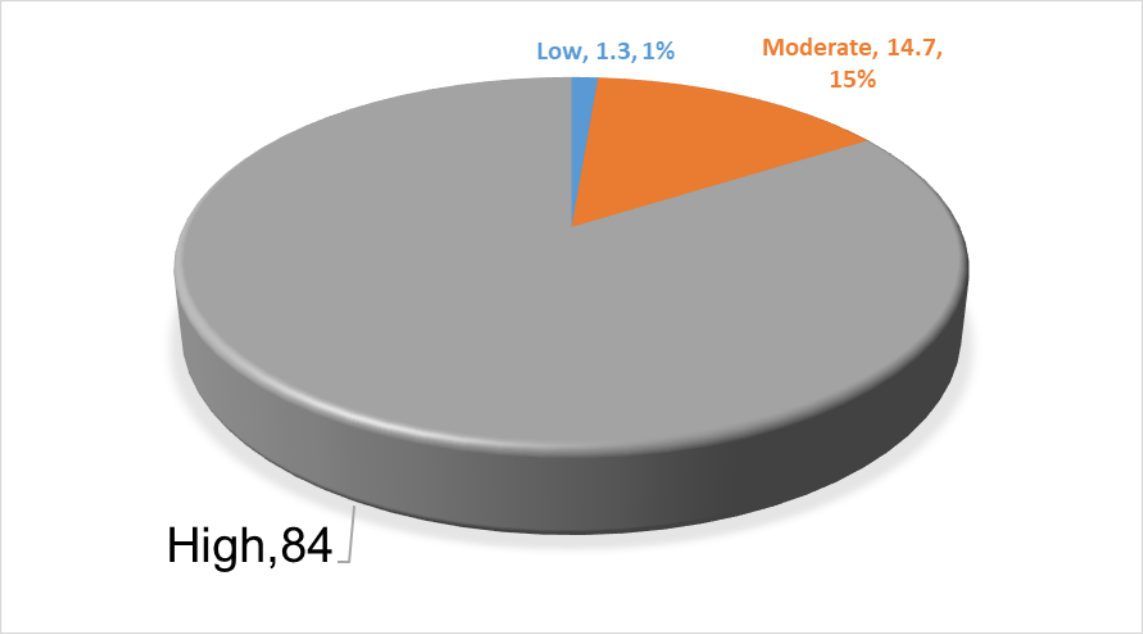

Figure 2: Healthcare providers' practice of existing guidelines for the management of obstetric complications

To determine the level of healthcare providers' practice of existing guidelines for the management of obstetric complications (Low, Moderate, High), the mean score, frequency counts, and percentage were used. The low practice level was determined by scores below the mean cut-off point ($x < 1.50$) while the moderate level was determined by the mean cut-off point ($1.50 \leq x \leq 1.59$) and the high practice level was determined by scores above the mean cut-off ($1.60 \leq x \leq 3.00$). The level of healthcare providers' practice of existing guidelines for the management of obstetric complications is presented in Table 4. Considering the mean cut-off point of 1.50, the table above showed that 10 items were considered to be moderately practised by the healthcare workers while 34 items were considered to be highly practised by the healthcare workers. This indicates that the overall level of healthcare providers' practice of existing guidelines for the management of obstetric complications was high. This is further illustrated in Figure 2.

Testing of Hypotheses

Hypothesis 1: There is no significant relationship between healthcare providers'socio-demographic characteristics and their knowledge of using existing guidelines for the management of obstetric complications.

Table 5: Chi-Square test of healthcare providers' socio-demographic characteristics and their knowledge of using existing guidelines for the management of obstetric complication

Variable	*Knowledge of using the existing guideline*				
Age in Year	***Low***	***Moderate***	***High***	***Fisher's test***	***P value***
< 30	2(9.1%)	16(72.7%)	4(18.2)%	23.432	0.001*
30-39	0 (0%)	47(87.0%)	7(13.0%)		
40-49	21(42.0%)	21(42.0%)	8(16.0%)		
50 and above	2(8.3%)	20(83.3%)	2(8.3%)		
Participant Qualification					
BSc/ BNSc	5(13.5%)	23(62.2%)	9(24.3%)	44.038	0.000*
RN/ RM	95(86.4%)	15(13.6%)	(0%)		
MSc	0(0%)	3(100%)	0(0%)		
Years of Experience in Health Facilities					
≤ 5	11(18.6%)	37(62.8%)	11(18.6)	36.915	0.000*
6-10	2(6.2%)	26(81.3%)	4(12.5%)		
11-15	1(5.9%)	12(70.6%)	4(23.5%)		
>15	0(0.0%)	22(52.4%)	20(47.6%)		

**** P< 0.05, Significant;***

The result in Table 5 shows that there is a significant relationship between the age of healthcare providers and their knowledge using existing guidelines for the management of obstetric complications (Fisher's exact test = 23.432; p = 0.001 < 0.05). Also, there is a significant relationship between healthcare providers' qualifications, years of years of experience in health facilities, and their knowledge of using existing guidelines for the management of obstetric complications. Thus, the hypothesis that there is no significant relationship between healthcare providers' socio-demographic characteristics and their knowledge of using existing guidelines for the management of obstetric complications is rejected.

Hypothesis 2: There is no significant relationship between healthcare providers' socio-demographic characteristics and practice existing guidelines for the management of obstetric complications.

Table 6: Chi-Square test of healthcare providers' socio-demographic characteristics and their practice of existing guidelines for the management of obstetric complication

Variable	*The practice of existing guideline*				
Age in Year	***Low***	***Moderate***	***High***	***Fisher's test***	***P value***
< 30	12(54.5%)	10(45.5%)	0(0%)	42.575	0.000*
30-39	16(29.6%)	27(50%)	11(20.4%)		
40-49	0(0%)	43(86.0%)	7(14.0%)		
50 and above	0(0%)	0(0%)	24(100%)		
Participant Qualification					

BSc/ BNSc	0(0.0%)	30(80.0%)	7((20.0%)	37.370	0.000*
RN/ RM	2(1.8%)	104(94.6%)	4(3.6%)		
MSc	1(33.3%)	2(66.7%)	0(0.0%)		
Years of Experience in Health Facilities					
≤ 5	4(6.8%)	48(81.4%)	7(11.8%)	8.969	0.011*
6-10	6(18.8%)	24(75.0%)	2(6.2%)		
11-15	3(17.6%)	11(64.8%)	3(17.6%)		
>15	3(7.2%)	35(83.3%)	4(9.5%)		

Significant, P < 0.05

The result in Table 6 shows that there is a significant relationship between the age of healthcare providers and the practice of existing guidelines for the management of obstetric complications (X^2 = 42.575; P = 0.000 < 0.05). Also, the relationship between healthcare providers' qualifications, years of experience in health facilities, and practice of existing guidelines for the management of obstetric complications. Thus, the hypothesis that there is no significant relationship between healthcare providers' socio-demographic characteristics and the practice of existing guidelines for the management of obstetric complications is rejected.

Discussion of Findings

Findings from the study discovered that most of the respondents are between the age of 40 - 49 years (33.3%), Those with RN/RM qualifications (73.3 %), years of practice of 16 years and above (29.3%), Years in a health facility 16 years and above (28.0%) The majority of the respondent's rank is 48.0%

Findings on the level of health care provider's knowledge of using existing guidelines for the management of obstetric complications from this study was high (55%). They expressed high knowledge in 27 items out of 37 items. This is contrary to the report from Molla et al., 2021 which stated that only 53.4% of respondents had good knowledge of AMTSL, only 42.7% of respondents answered correctly about the administration of the uterotonic drug as a critical element of AMTSL and 76.3% of providers responded that the time of cord clamping should be between 1 and 3 minutes (Molla et al., 2021). The difference between the reports could be associated with knowledge gaps and settings where the research work took place. In contrary to Tenaw et al., 2017 report, he stated that the level of knowledge and practice of obstetric care providers towards active management of the third stage of labour needs immediate attention of Universities and health science colleges better to revise their obstetrics course contents, health institutions and zonal health bureau should arrange training for their obstetrics care providers to enhance skill (Tekola et al., 2021; Tenaw et al., 2017). The contrary results could be due to knowledge gaps, study setting and management support system in training and re training of staffs (Abioye et al., 2024; Gbenga-Epebinu et al., 2020)

In this study, the respondent demonstrated high knowledge of management of pre-eclampsia (79.3%) while in another study conducted by Olaoye et al., (2019), the respondents had average knowledge of pre-eclampsia. Sixteen of the respondents (14.5%) had a high level of knowledge, while 18(16.4%) had a low level of knowledge. These contrary results could be linked to knowledge gaps, and possibly the settings and sample size.

The report from this study reveals that there is a significant relationship between the age of healthcare providers and their knowledge using existing guidelines for the management of obstetric complications (X^2 = 23.432; P = 0.001 < 0.05). Also, the relationship between

healthcare providers' qualifications, years of experience in health facilities, and their knowledge of using existing guidelines for the management of obstetric complications. A report from Olaoye et al., (2019). also supported the report from their findings that there was a significant association between the respondents' knowledge of pre-eclampsia and years of service (p= 0.023). The Chi-square test also showed a significant association between years of service and respondents' knowledge of pre-eclampsia (X^2=14.82; p=0.022). The similarity of these reports could be linked to work experience of the health care providers at the settings.

This study showed that 10 items were moderately practiced by the healthcare providers while 34 items were highly practiced by the healthcare providers. This indicates that the overall level of healthcare providers' practice of existing guidelines for the management of obstetric complications was high (84%). This report contradicts the study reported by Molla et al. (2021). They reported that only one-third of obstetric care providers had good practice during active management of the third stage of labour Only 32.3% of providers had good practice on AMTS and only 32.3 % of providers followed AMTSL steps appropriately which is in line with the study conducted in Sidama Zone (32.8%) higher than the study done in Sudan (26.7%) and (16.7%) Hawassa city, and lower than the studies conducted in Addis Ababa (47%), Nigeria (78%), and Netherlands (48%). The discrepancy might be due to knowledge gap, variation in study setting, and study participants. Another study that reported poor management practices on the appropriate medication, route, and dosage of medication for pre-eclampsia was carried out by Olaoye et al., 2019. Another report from Komolafe et al., 2024 stated that there was low adherence to practice guidelines for the implementation of EmONC in state and tertiary hospitals, Findings also showed low adherence to practice guidelines in 70.8% of haemorrhage care, 52.0% of fetal distress care, 60.0% of prolonged obstructed labour care, and 44.4% of preeclampsia/eclampsia care.

From this study, there is a significant relationship between the age of healthcare providers and the practice of existing guidelines for the management of obstetric complications (X^2 = 42.575; P = 0.000 < 0.05). Also, the relationship between healthcare providers' qualifications, years of experience in health facilities, and practice of existing guidelines for the management of obstetric complications is significant. This is also supported by the report of Molla et al study that Practice was significantly associated with work experience, knowledge, the presence of assistance during third-stage management, and time of uterotonic drug preparation.

Conclusion

The study revealed that most healthcare providers were within the active working age group, predominantly registered nurses and midwives, with varying years of professional experience. Overall, healthcare providers demonstrated a high level of knowledge and practice regarding existing guidelines for the management of obstetric complications, particularly in areas such as postpartum haemorrhage, obstructed labour, uterine rupture, and cord prolapse. However, notable gaps were identified in specific aspects of knowledge, especially in the management of eclampsia and certain diagnostic criteria. The findings further showed statistically significant relationships between healthcare providers' age, professional qualifications, years of experience, and both their knowledge and practice of existing guidelines. These results indicate that while guideline awareness and application are generally strong, targeted improvements are required to address identified deficiencies and to ensure consistent, high-quality obstetric care across all provider categories.

Recommendations

1. Regular in-service training and refresher courses should be organized to strengthen healthcare providers' knowledge in areas with identified gaps, particularly in the management of pre-eclampsia and eclampsia.
2. Health authorities should ensure continuous access to updated obstetric management guidelines and protocols in all health facilities.
3. Mentorship and supportive supervision programs should be strengthened, especially for less experienced and lower-cadre healthcare providers, to improve guideline adherence.
4. Opportunities for professional development and higher education should be encouraged to enhance evidence-based practice among nurses and midwives.
5. Policy makers should integrate periodic monitoring and evaluation of guideline use into routine maternal health services to sustain high standards of obstetric care.

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