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KNOWLEDGE AND ATTITUDE TOWARDS UTILISATION OF PARTOGRAPH AMONG MIDWIVES IN SELECTED HOSPITALS IN GOMBE STATE, NIGERIA

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ABSTRACT: *Maternal mortality (MM) has remained high in developing countries including Nigeria. Various interventions for labour care like partograph are known to contribute to the reduction of MM, but reports show that they are not well utilized. Also, there is dearth of information on knowledge and attitudes of midwives towards the use of partograph. Therefore, the study assessed knowledge and attitude of midwives in Gombe state, towards the use of partograph. A cross-sectional descriptive design was adopted and 63 participants from three selected hospitals were recruited using purposive sampling technique. A self-administered questionnaire was used for data collection. Descriptive data were presented using frequency tables. Hypotheses were tested using Chi-square statistic at $p \leq 0.05$. The mean age of respondents was 37.2±7.6 years, and 77.8% were married. Majority, 96.8% had good knowledge, 70.6% had a positive attitude towards the use of partographs while only 44.4% utilised it regularly. Also, (57.1%) never attended any workshop on partograph post-graduation. There was no significant association between knowledge of partograph and its utilization ($x^2=0.026$, $p=0.103$). Factors such as shortage of manpower, poor management support and time constraints were found to negatively influence the partograph utilisation. Despite their good knowledge, partograph utilization was not consistent. It is recommended that hands-on training on the use of partograph be organized periodically and an audit system put in place to ensure its effective use.*

KEYWORDS: Knowledge, attitude, utilisation, partograph, midwives, labour, management.

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INTRODUCTION

The World Health Organization [WHO] (2024) estimated that about 287,000 women died during and following pregnancy and childbirth in 2020. Maternal death due to complications of pregnancy and childbirth was reported to be above 300,000 worldwide in the year 2020 (UNFPA, 2023). Also, a report shows that women dying from preventable or treatable complications of pregnancy and childbirth in Sub-Saharan Africa were 1 in 31 as compared to only 1 in 4300 in the developed regions (Githae, Mbisi, Boraya, 2019; Mekonem et al., 2022). Of the estimated total number of 287,000 maternal deaths worldwide, about 95% of these occurred in low and lower-middle-income countries in 2020, 85% (245,000) in Sub-Saharan Africa and Southern Asia alone (Adamolekan, Osaji & Adeyanju, 2021) most of which could have been prevented (WHO, 2024). The large percentage of maternal and child morbidity and mortality are some of the health challenges facing the African continent.

The majority of maternal deaths and complications attributable to obstructed and prolonged labour could be prevented by the use of a partograph as it's known as a way of detecting obstruction early (Markos, Arba, & Paulos, 2020). Also, it was estimated that 830 women die from preventable causes related to pregnancy and childbirth with 99% of this estimate occurring in developing countries, despite the drop of 44% between 1990 and 2015 (WHO, 2024; Assifuah et al., 2020). The partograph is a very useful graphical record of the course of labour that yields optimum results when employed in labour management by obstetric caregivers (Turkmen & Yoruk, 2021; Nwaneri, Ndie, Ehiemere, Okafor, 2019; Ademolekan, Osaji, Adeyanju 2021; Alfred & Abdallah, 2017). It is an effective clinical tool used during labour surveillance for early diagnosis of complications. The use of partographs cuts across developing and developed nations for efficient management of labour (Mekonem et al., 2022).

The partograph also indicates when the midwife needs to address existing or imminent complications like poor progress of labour, prolonged labour, foetal distress, obstructed labour and ruptured uterus (Mezmur, Semahegon & Tegegne, 2017; Bazirete, Mbombo & Adejumo, 2017). The use of the partograph therefore becomes an essential decision-making tool to assist the midwife in making the correct decisions for the woman and her baby. This tool is now widely used across African Countries to monitor labour progress, and foetal and maternal well-being (Mwari, Gitonga & Mukwhana, 2021). A non-randomized study by WHO in South-East Asia revealed that the use of partograph reduced prolonged labour from 6.4% to 3.4%, the proportion of labour requiring augmentation from 20.7% to 9.1%, an emergency caesarean section from 9.9% to 8.3% and stillbirths from 0.5% to 0.3% (Mekonem et al., 2022). Therefore, proper use of a partograph in an environment where referral and timely intervention are possible would greatly contribute to the reduction of maternal morbidity and mortality. The 2023 UN report on Trends in Maternal Mortality from 2000-2020 revealed that nearly 28.5% of global maternal deaths happen in Nigeria, and Nigeria has a 1 in 19 lifetime risk of dying during pregnancy, childbirth, or postpartum, whereas in the most developed countries, the lifetime risk is 1 in 4900 (Healthy Newborn Network, 2023). Prolonged and obstructed labour is a significant cause of maternal morbidity and mortality in Nigeria, one of the six countries contributing significantly to the global maternal mortality crisis (Adamolekun, Osaji, Adeyanju, 2021; Nkamare et al., 2020). It was also documented that the North East zone is reported to experience some of country's worst MNH outcomes (Healthy Newborn Network, 2023)

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Knowledge and utilisation of partographs among midwives and obstetricians is of utmost importance in the reduction of maternal mortality rate. The use of the partograph would engender a remarkable reduction in the number of these deaths since abnormal markers in the progress of labour would be identified early (Mwari, Gitonga & Mukhwana, 2021). This is through enabling midwives, nurses and doctors to record their examination findings on a standardised form, which generates a pictorial overview of labour progress, and maternal and foetal condition, which allows for early identification and diagnosis of pathological labour.

Appropriate use of a partograph requires an adequate number of skilled health workers with a positive attitude towards its use especially midwives at various levels. When used correctly the partograph helps to identify problems and intervention can be timely initiated thereby preventing morbidity and mortality worldwide and should be used correctly for established labour (Hagos, Cherinet & Degu, 2020; Mekonem et al., 2022; Melese &B ekiru, 2019; Palo et al., 2019).

Maternal death is worse in Northern Nigeria including Gombe state where the researcher observed that there are preventable deaths during childbirth despite the availability of partograph charts in most hospitals. Yet, this tool is not being well utilised for early identification of complications during labour. Thus, the researcher seeks to assess the knowledge and attitude of Midwives towards the utilisation of partographs in selected secondary health facilities in Gombe State, Nigeria.

METHODOLOGY

Study design: Descritive cross-sectional design was employed. It is a type of design in which the researcher studies a group of people by collecting and analysing data from members of the group at a point in time.

Sample size/sample size determination: The sample size of this study was 63 midwives working in the maternity/labour wards of the selected hospitals (General Hospital Billiri, General Hospital Bajoga and State Specialist Hospital Gombe) was used for this study. These numbers were all the midwives that meet the inclusion criteria in all the hospitals. The use of all midwives working in the maternity unit/labour ward was informed by the manageable size of midwives' numbers. The sample size was determined; Total enumeration of those that met the inclusion criteria was used because of the few numbers. Billiri General Hospital has 41 midwives and 7 of these midwives work in the labour ward. All the seven midwives in the labour ward meet the inclusion criteria. General hospital Bajoga have 28 nurse-midwives of which six are working in the maternity unit and all meet the inclusion criteria. State Specialist Hospital Gombe has 109 midwives. Out of which 50 midwives work in the maternity unit. All the fifty midwives meet the inclusion criteria

Therefore, the total nurses that meet the inclusion criteria and constitute the sample size are 63 representing 35.4% of the total percentage of the midwives in these hospitals. Polit et al. (2012), recommended that in quantitative research it is best to use the largest sample possible, because the larger the sample the more representation of the population it is likely to be.

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Inclusion criteria

The inclusion criteria are; all Midwives working in the maternity/ labour wards of the selected hospitals, all Midwives that have been working in the maternity/labour wards of these hospitals for more than three months. Midwives that are working in the maternity units/labour wards of these hospitals that agreed to participate and meet inclusion criteria.

Exclusion criteria

Midwives that were excludes were; those that have not spent up to three months in the maternity / labour wards of the selected hospitals, those that decline to participate in the study, and students Midwives who may be present in the maternity/labour wards of the selected hospital during the study period

Sampling technique

A multistage sampling technique was used as follows:

Stage one: The state have 11 local government area which was structured into three senatorial zone; Gombe north, Gombe central and Gombe south**.** One local government was randomly selected from each of the senatorial zone. A list of the names of local government in each zone was written down. Then the name of each local government was written in a paper and folded. Thus; the local governments; Funakaye, Billiri and Gombe local government to represent each senatorial district were selected via simple random sampling.

Stage two: during this stage all the secondary hospital in each of the local government selected in stage one were listed and one was randomly selected for the study. The secondary hospital selected are General hospital Bajoga, Billiri general hospital and State Specialist hospital Gombe from Funakaye local government, Billiri local government and Gombe local government area respectively.

Stage three: Midwives working in the maternity/labour wards of the selected hospital were purposively selected for the study as they have the information required for this study.

RESULTS

The mean age of the respondents was 37.2±7.6 years. Most of them 34(54%) were aged 31-40, majority were married (77.8%). Above half 54% of the respondents have been in the labour ward for less than 7 years. All the respondents have seen a partograph and used one before as shown on table 1.

Level of knowledge of Midwives presented on Table 2 revealed that majority 61(96.8%) of respondents had good knowledge. Most, 74.6% of the respondents had positive attitude towards utilisation of partograph for management of labour as shown on table 3.

The overall utilization of the partograph among participants was high, with 100% of respondents across the three hospitals (SSHG, Billiri GH, and Bajoga GH) indicating that they had used the partograph before. However, when it comes to availability, only 68.3% reported that the partograph was always available in their labor wards. In terms of frequency

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of use, 60.3% of respondents said they used the partograph "sometimes," while 44.4% reported using it "regularly" as shown on Table 4. Factors influencing utilisation of partograph as revealed on Table 5 were shortage of staff 73%, time spent to fill the form 73%, .All respondents agreed that the charts were available.

The suggested strategies for improving the use of partograph were that provision of adequate manpower (Midwives) 36.5%, regular supervision of the use of partograph by higher authority 17.3%, provision of materials including partograph charts 15.9%, improving hospital policy on the use of partograph 14.3% and training and retraining of midwives on the use of partograph 9.3% as shown on Table 6.

The test of hypotheses presented on Table 7 showed that there is no significant association between knowledge and utilisation of partograph in management of labour ($\chi 2$= 0.026; p= 0.872). Also, there is no relationship between attitude and utilisation of partograph ($\chi 2$= 1.211, p= 0.383).

Table 1: Socio-demographic data of respondents (n=63)

Variables/Hospital	**SSHG(n=50)**	**BILLIRI GH (n=7)**	**BAJOGA GH (n=6)**	**TOTAL (n=63)**	
Age (years)	F (%)	F (%)	F (%)	F	%
20-30	7(14)	2(28.6)	3(50)	12	19
31-40	29(58)	4(57.1)	1(16.6)	34	54
41-50	11(22)	-	-	11	17.5
51-60	3(6)	1(14.3)	2(33.3)	6	9.5
Mean age=37.2±7.6					
Marital status					
Single	9(18)	2(28.6)	1(16.7)	12	19
Married	39(78)	557.1)	5(83.3)	49	77.8
Divorced	2(4)	-	-	2	3.2
Highest Qualification					
RM	-	1914.3)	1(16.7)	2	3.2
RN/RM	42(8)	6(85.7)	5(83.3)	53	84.1
BNSc	6(12)	-	-	6	9.5
MSc	2(4)	-	-	2	3.2
Rank					
Staff nurse/Midwife	4(8)	1(14.3)	1(16.6)	6	9.5
NO	12(24)	2(28.6)	2(33.3)	16	25.4
SNO	17(34)	2(28.6)	1(16.6)	20	31.7
PNO	7(14)	-	1(16.6)	8	12.7
ACNO	9(18)	1(14.3)	-	10	15.9
CNO	1(2)	1(14.3)	1(16.6)	3	4.8
Working Experience					
< 5 Yrs	4(8)	1(14.3)	1(16.6)	6	9.5
05-Oct	12(24)	2(28.6)	2(33.3)	16	25.4

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Nov-16	6(12)	2(28.6)	1(16.6)	9	14.3
17-22	21(42)	1(14.3)	-	22	34.9
23-28	7(14)	1(14.3)	1(16.6)	9	14.3
>28	-	-	1(16.6)	1	1.6
Mean= 15.1±7.3					
Years in labour ward					
Less than 7years	24(48)	6(85.7)	4(66.7)	34	54
8-14 years	18(36)	1(14.3)	1(16.6)	20	31.7
15-21years	8(16)	-	1(16.6)	9	14.3
Mean=8.3±5.1					
Ever seen partograph before					
Yes					
No	50(100)	7(100)	6(100)	63	100
Ever attended training on partograph					
Yes					
No	20(40)	4(57.1)	3(50)	27	42.9
	30(60)	3(42.9)	3(50)	36	57.1

Key: SSGH- State Specialist hospital Gombe, GH- General Hospital

Table 2: Respondents' Knowledge of partogragh

	SSHG (n=50)	**BILLIRI GH (n+7)**	**BAJOGA GH (n=6)**	**TOTAL (n=63)**	**Over all Knowledge (n=63)**
	F (%)	**F (%)**	**F (%)**	**F (%)**	**Yes (f %)**
The partograph is a simple graphic recording of labour and salient conditions of the mother and foetus against time in hours.					
Yes	50(100)	7 (100)	6(100)	63(100)	63 (100%)
Using partograph will increase the efficiency of those attending to women in labour					
Yes	41(82)	6 (85.7)	3(50)	50(79.4)	50 (79.4%)
No	4(8)	-	-	4(6.3)	
Don't Now	5(10)	1(14.3)	3(50)	9(14.3)	
The followings are functions of the action line on the Partograph Indicates when appropriate action must be taken Yes	50(100)		50(100)		50(100)

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Continuous observation and monitoring till delivery Yes	50(100)	7 (100)	6(100)	63(100)	63 (100%)
During labour, minimum duration of a strong contraction is 40 seconds Yes	50(100)	7 (100)	6(100)	63(100)	63 (100%)
Progress of labour is assessed by the degree of cervical dilatation and descent of the presenting part Yes	50(100)	7 (100)	6(100)	63(100)	63 (100%)
Labour is prolonged when it lasts more than 12 hours Yes	50(100)	7 (100)	6(100)	63(100)	63 (100%)
Diagnosis that can be made with the partograph:					
Prolonged labour Yes	50(100)	7 (100)	6(100)	63(100)	63 (100%)
Poor progress of labour Yes	50(100)	7 (100)	6(100)	63(100)	
Suspected foetal distress Yes	50(100)	7 (100)	6(100)	63(100)	
Need for augmentation of labour with oxytocin Yes	50(100)	7 (100)	6(100)	63(100)	
Need for caesarean section Yes	50(100)	7 (100)	6(100)	63 (100)	

Table 3: Attitude of respondents towards utilisation of partograph (n=63)

VARIABLES	SSHG (n=50)	BILLIRI GH (n+7)	BAJOGA GH (n=6)	TOTAL (n=63)	Overall attitude (n=63)
Partograph help detect deviation from normal delivery	F (%)	F (%)	F (%)	F (%)	Mean agreement
SA	17(34)	-	2(33.3)	19(30.2)	(%)
A	33(66)	7(100)	4(66.7)	44(69.8)	100%
Partograph should be started in active phase of labour					
SA	11(22)	-	-	11(17.5)	36.5%
A	8(16)	4(57.1)	-	12(19)	
D	31(62)	3(42.9)	6(100)	40(63.5)	

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Partograph should be used for all women in labour					
SA	2(4)	1(14.3)	-	3(4.8)	47.7%
A	26(52)	-	1(16.7)	27(42.9)	
D	22(44)	5(71.4)	3(50)	30(47.6)	
SD	-	1(14.3)	2(33.3)	3(4.8)	

Table 4: Utilisation of partograph in management of labour by respondents (n=63)

VARIABLES	**SSHG (n=50)**	**Billiri GH (n+7)**	**Bajoga GH (n=6)**	**TOTAL (n=63)**
Ever used a partograph	**F (%)**	**F (%)**	**F (%)**	**F (%)**
Yes	50 (100)	7(100)	6 (100)	63 (100)
No	-	-	-	-
Partograph is available in your labour ward at all times				
Yes	34(68)	5(71.4)	4 (66.7)	43 (68.3)
No	16 (32)	2 (28.6)	2 (33.3)	20 (31.7)
Frequency of use the partograph for women in labour				
Sometimes	22 (44)	7 (100)	6 (100)	38 (60.3)
Regularly	28 (56)	-	-	28 (44.4)

Table 5: Factors influencing utilisation of partograph in the management of labour (n=63)

VARIABLES	**SSHG (n=50)**	**BILLIRI GH (n+7)**	**BAJO GA GH (n=6)**	**TOTAL (n=63)**
Little or no knowledge of partograph	F (%)	F (%)	F (%)	F (%)
Yes	-	-	-	
No	50 (100)	7 (100)	6 (100)	63 (100)
Time consuming				
Yes	35 (70)	5(71.4)	6 (100)	46(73)
No	15 (30)	2(28.6)	-	17(27)
Non availability of partograph charts				
No	50 (100)	7 (100)	6 (100)	63 (100)
Shortage of staff on duty				
Yes	33 (66)	7 (100)	6 (100)	46(73)
No	17 (34)	-	-	17(27)

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Table 6: Strategies to improve effective use of partograph in labour management

VARIABLES	SSHG (n=50)	BILLIRI GH (n+7)	BAJOGA GH (n=6)	TOTAL (n=63)
Improve hospital policy on partograph use	7(14%)	1(14.3%)	1(16.6%)	9(14.3%)
Provision of materials including charts	10(20%)	-	-	10(15.9%)
Provision of adequate number of midwives	17(34%)	3(42.9%)	3(50%)	23(36.5%)
Regular supervision of partograph use	11(22%)	-	-	11(17.5%)
Retraining of midwives on use of partograph	5(10%)	1(14.3%)	-	6(9.5%)
Giving of incentives to staff in the labour wards	-	2(28.6%)	2(33.3%)	4(6.3%)

Table 7: Results of Hypotheses testing

Hypothesis 1 There is no significant association between knowledge level and utilisation of partograph in the management of labour.

Knowledge of partograph	utilisation of partograph			χ^2	Df	p-value	Remark
	Good	Fair	Total	0.026	1	0.872	Not Significant
Good	27	34	61				
Moderate	1	1	2				
Total	28	35	63				

Hypothesis 2 There is no significant association between attitude towards the use of partograph and utilisation of partograph in the management of labour

Attitude towards use of partograph	utilisation of partograph			χ^2	Df	p-value	Remark
	Good	Fair	Total	1.211	1	0.383	Not Significant
Positive	19	28	47				
Negative	9	7	16				
Total	28	35	63				

DISCUSSION OF FINDINGS

This study was carried out to assess knowledge, attitude and utilisation of partograph in the management of labour among midwives in selected hospitals in Gombe state Nigeria. Sixty-three Midwives participated in this study from the three hospitals used for the study.

Level of knowledge of Midwives in this present study was high as revealed by the findings where the level of knowledge was good (adequate) for 61(96.8%) of respondents. This figure is higher than what was reported by other studies. For instance, Assifuah et al. (2020), Adamolekun, Osaji & Adeyanju (2021), Mwari, Gitonga & Mukhwana (2021) reported 78%,

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69% and 60% respectively in their studies carried out among Obstetric care givers. This difference could be due to two reasons, the various studies population comprises of mixture of medical doctors, nurses and midwives and in some cases health assistants that differ from this present study which have only Midwives as its study population. The composition of people of different training level could not give equal knowledge assessment level as compared to this present study that uses Midwives only. Secondly the other studies included observation as method of data collection and assessment of records while, this present study uses questionnaire only.

This present study revealed that 74.6% of the respondents have Good (positive) attitude towards utilisation of partograph for management of labour. This is contrary to the findings of Melese & Bekiru (2019) who reports 42.1% positive attitude toward use of partograph respectively among obstetric caregivers. The low attitudinal level from other studies may be due to methodological issues of due to differences in study populations. While this present study comprises of midwives only the others comprises of mixture of different cadre of health workers. It could also be due to the differences in the cutoff point of what is graded positive attitude and negative attitude.

This present study revealed that 44.4% of respondent utilized the partograph regularly for labour management. This result is slightly higher than 32.6% recorded in Niger Delta university teaching hospital by Opiah et al., (2017) and 32.3% reported by Fawole et al., (2008). However, this present result is, lower to that of Mezmur, Semahegon & Tegegne, (2017) who reported 92.6% in Eastern Ethiopia; Maphashu et al. (2017) reported 79.4% in Odi District hospital Gautery South Africa. This shows that use of partograph is poor in Nigeria with exception to this present study, as compared to other African countries.

Factors influencing utilisation of partograph as revealed in this study are shortage of staff 73% and time spent to fill the form 73%. This result is similar to what other studies reported. Nwaneri et al. (2019), Zellelw & Tegegne, (2018) and Assifuah et al. (2020), all reported that filling the partograph is time consuming, lack of inadequate staff, lack of partograph sheets, lack of knowledge and lack of positive attitude are factors affecting the utilisation of partograph in labour management by obstetric caregivers. Ademolekun, Osaji & Adeyanju (2021) in a study carried out at ondo reported that more partograph are completed when there is more than one midwife on duty in the labour ward, this study did not however found lack of knowledge and non-availability of partograph charts as factors hindering use of partograph in the management of labour as reported by Hagos, Cherinet, & Degu (2020). Also, Palo, Patel, Singh, Priyardarshi et al. (2019), also identified lack of monitoring from higher authority and late arrival of women to the hospital when cervix is about 8 to 10 centimetre dilated as factors affecting utilisation of partograph in the management of labour.

On the strategies to use in improving utilisation of partograph in labour management, respondents in this study suggested that provision of adequate manpower (Midwives) 36.5%, regular supervision of the use of partograph by higher authority 17.3%, provision of materials including partograph charts 15.9%, improving hospital policy on the use of partograph 14.3% and training and retraining of midwives on the use of partograph 9.3%. The findings of this study is similar to Palo et al. (2019), who reported the improving knowledge of Obstetric caregivers through continuous on-the-job training on partograph use and establishing a hospital policy on routine plotting and use of partograph to monitor all women in labour.

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The study findings revealed that there is no statistically significant association (x=0.026; Df=1;p= 0.872) between knowledge and utilisation of partograph in management of labour using Chi square test of association. Chi square test of hypothesis also revealed that there is no relationship between knowledge and utilisation of partograph and attitude and utilisation of partograph in the study population. This results are however different from what was reported by (Mezmur, Semahegon & Tegegne, 2017) who reported a significant relationship between knowledge and utilisation of partograph in their studies. This difference could be due to homogeneity (midwives) of the study population of this present study as against heterogeneous population (Medical doctors, Nurses, Midwives and health assistants) of the other studies. According to Adamolekun, Osaji & Adeyanju (2021) in their explanation of the KAP model, knowledge is expected to be translated into practice. Thus, good knowledge among the study population should lead to good utilisation of partograph, but this was contrary to finding of this present study. This could be due to barriers against practice such as workload and shortage of manpower as identified by which were some of the findings in this study influencing utilisation of partograph among the study population. an important step for designing appropriate intervention strategies that would encompass: training, retraining, and continuous professional educational programs to further empower Midwives and obstetricians in safe motherhood practices (Melese & Bekiru, 2019; Sama, Takah, Danwe, Melo et al, 2017)

IMPLICATIONS OF FINDINGS TO NURSING PRACTICE

The findings of this study have significant implications for nursing and midwifery practice. While midwives demonstrated a high level of knowledge (96.8%) regarding the use of the partograph, the gap between knowledge and actual utilization (44.4%) signals the need for strategic interventions. Addressing barriers like staffing shortages and high workloads is essential for enhancing partograph use in labor management. Hospital administrators and nursing leaders should prioritize adequate staffing and allocate resources to ensure midwives have the capacity to complete the partograph effectively. Continuous education through training and retraining programs will ensure that midwives remain proficient in interpreting and acting on labor data, promoting safer outcomes for both mothers and newborns.

Additionally, the consistent use of partographs should be mandated through hospital policies, ensuring standardized labor management practices across all facilities. Leadership and supervision are crucial, with nursing and midwifery managers playing a vital role in monitoring adherence and providing feedback to improve utilization. Access to necessary resources, such as partograph charts, must be guaranteed to support midwives in their duties. At a broader level, nursing and midwifery associations should advocate for integrating partograph use into national clinical guidelines and performance metrics, driving consistent practice across healthcare settings. These efforts will ultimately lead to better labor management, improving maternal and neonatal health outcomes.

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CONCLUSION OF THE STUDY

In conclusion, this study revealed that midwives in selected hospitals in Gombe State, Nigeria, possess a high level of knowledge regarding the use of the partograph in labor management, with 96.8% demonstrating adequate understanding. However, despite this high knowledge, the actual utilization of the partograph was relatively low, with only 44.4% using it adequately. This discrepancy highlights a gap between knowledge and practice, which can be attributed to factors such as staffing shortages, time constraints, and high workloads. The study also found that midwives had a generally positive attitude towards partograph use, with 74.6% showing a good attitude, yet these attitudes did not always translate into practical application. Factors influencing partograph utilization included inadequate staffing, time spent filling out the forms, and other workload-related issues. These findings suggest that while midwives are well-informed, systemic barriers limit the practical use of the partograph in labor management. Overall, this study emphasizes the need for hospital administrators to address these barriers through policy changes, increased staffing, continuous professional development, and improved supervision to enhance the consistent use of partographs. By addressing these issues, there is potential to improve maternal and neonatal outcomes in the region.

Ethical considerations

All ethical considerations duly observed.

Declaration of interest

The researchers declared no conflict of interest.

REFERENCE

Adamolekun P A, Osaji T, Adeyanju A B (2021) knowledge and utilisation level of partograph in labour management among midwives, AJHNM vol 4, i(6), pp 101-118 https://doi.org/10.52589/AJHNM-FGRZBGWS

Alfred, C. R., & Abdallah, S. L. (2017). Midwives' kno wledge and use of part ographs at Juba Teaching Hospital, South Sudan. *South Sudan Medical Journal, 10*(4), 76-79.

An A D, Emilia O (2023) Knowledge, attitude and skills of partograph utilisation among health workers, Bali medical journal vol12, I (1), pp-626-630 https:///doi.org/10.15562/bmj.v2i1.3975

Assifuah A P, Hormenu T, Domfeh C, Ebu N I (2020) knowledge and challenges of partograph among midwives E journal of nursing and healthcare vol 2 i(5), pp 1-9

Bazirete, O., Mbombo, N., & Adejumo, O. (2017). Utilisation of the partogram among nurses and midwives in selected health facilities in the Eastern Province of Rwanda. *Curationis, 40*(1), 1-9. doi:10.4102/curationis.v40i1.1751

Githae, C. N., Mbisi, A., & Boraya, J. O. (2019). utilisation of Partograph in the Management of Women in labour among Nurses Working in Embu County, Kenya. *Nursing & Healthcare International Journal, 3*(2), 000181. doi:10.23880/nhij-16000181

Hagos A A, Cherinet E T, Degu G (2020) utilisation of partograph and its associated factors among midwives working in health institutions, BMC journal of pregnancy & child https://doi.org/10.1186/s12884-020-2734-4

Article DOI: 10.52589/AJHNM-TPLDUD9E
DOI URL: https://doi.org/10.52589/AJHNM-TPLDUD9E

Healthy Newborn Network (2023) Nigeria: Maternal and Newborn Health Country Profile Accessed from: https://healthynewbornnetwork.org/resource/2023/nigeria-maternal-newborn-health-country-profile/

Maphasha, O. M., Govender, I., Motloba, D. P., & Barua, C. (2017). Use of the partogram by doctors and midwives at Odi District Hospital, Gauteng, South Africa. *South African Family Practice*, 81-86. doi:10.1080/20786190.2017.1280899

Markos, M., Arba, A., & Paulos, K. (2020). Partograph Utilization and Associated Factors among Obstetric Care Providers Working in Public Health Facilities of Wolaita Zone, 2017. *Journal of pregnancy*, *2020*, 3631808. https://doi.org/10.1155/2020/3631808 Mekonem L A, Tadesse A T, Tariku M F, Haile S Y, SHiferaw Z Y (2022) Partograph utilisation and associated factors among obstetric care givers in governmental health institutions, ploS ONE vol 18, i(3) https://doi.org/10.1371/journal.pone.0264373

Melese, K. G., & Bekiru, E. T. (2019). Knowledge of partograph utilisation and its associated factors: A cross-sectional survey in Wolaita Zone Southern Ethiopia. *International Journal of Nursing and Midwifery*, *11*(1), 1-6. doi:10.5897/IJNM2018.0311

Mezmur, H., Semahegn, A., & Tegegne, B. S. (2017). Health professional's knowledge and use of the partograph in public health institutions in eastern Ethiopia: a cross-sectional study. *BMC Pregnancy and Childbirth, 17*, 291. doi:10.1186/s12884-017-1477-3

Mwari P S, Gitonga L K, Mukhwana E C (2021) assessment of midwives in management of labour in public health facilities, International journal of health sciences and Research vol 11, i12 https://doi.org/10.52403/ijhsr.20211223

Nkamare M B, Oniso J I, Beredugo L I, Ogboru N O(2020) availability & utilisation of partograph among health workers in selected primary care center, IOSR journal of nursing and health sciences vol 9, i3, pp-29-33 https://doi.org/10.9790/1959-0903032933

Nwaneri, A., Ndie, E. C., Ehiemere, I., Okafor, E., Ezenduka, P. O., & Emeh, A. (2019). Assessment Of Client-Centred Administrative Factors And Nurses' utilisation Of Partograph In Primary/Secondary Health Care Facilities In Enugu Metropolis. *LAUTECH Journal of Nursing, 4*, 44-51.

Palo, S. K., Patel, K., Singh, S., Priyadarshini, S., & Pati, S. (2019). Intrapartum monitoring using partograph at secondary level public health facilities-A cross-sectional study in Odisha, India. *Journal of Family Medicine and Primary Care, 8*(8), 2685-2690. doi:10.4103/jfmpc.jfmpc_472_19

Sama, C. B., Takah, N. F., Danwe, V. K., Melo, U. F., Dingana, T. N., & Angwafo, F. F. (2017). Knowledge and utilisation of Partograph: A cross-sectional Survey among Obstetric care Providers in Urban Referral Pubkic Health Institutions in Northernwest and Southwest Cameroon. *PLoS ONE, 12*(2), e017286.

Turkemen H, Yoruks S (2021) Determination of midwives and nurses Knowledge who were given partograph training, journal of Anatolia nursing & health sciences vol 24 i(2) pp-148-155 https://doi.org/10.17049/ataunihem.611598

UNFPA (2023) A neglected global crisis for women: Nearly 300,000 mothers died in 2020 from preventable causes https://esaro.unfpa.org/en/news/neglected-global-crisis-women-nearly-300000-mothers-died-2020-preventable-causes

World Health Organization (2024) Maternal Mortality https://www.who.int/news-room/fact-sheets/detail/maternal-mortality/

World Health Organization (2024)Maternal Healthhttps://www.afro.who.int/health-topics/maternal-health

Zelellw, D. A., & Tegegne, T. K. (2018a). Level of partograph utilisation and its associated factors among obstetric caregivers at public health facilities in East Gojam Zone, Northwest Ethiopia. *PLOS ONE, 13*(7), e0200479. doi:10.1371/journal.pone.0200479

Article DOI: 10.52589/AJHNM-TPLDUD9E
DOI URL: https://doi.org/10.52589/AJHNM-TPLDUD9E