



THE DETERMINANTS OF PARTOGRAPH UTILISATION AMONG OBSTETRIC CARE PROVIDERS AT PRIMARY HEALTHCARE LEVEL IN SOUTH-EAST NIGERIA: A MIXED-METHODS STUDY

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ABSTRACT: *BACKGROUND* Prolonged and obstructed labour is responsible for 8% of maternal deaths can be prevented by using partograph during labour since complications can be discovered early and avoided. The goal of this study was to determine the factors that influence partograph utilisation (barriers and facilitators) among Obstetric caregivers in primary healthcare centres, Orlu local government area of Imo State, southeast Nigeria. **METHOD** A mixed method design was adopted for the study. For quantitative and qualitative data collection, a semi-structured questionnaire and an interview guide were utilised. A structured validated proforma was also used to collect data from patient records in all the health centres. The qualitative study consisted of oral interviews conducted among 22-unit heads in the 22 health centres. The data were analysed using simple descriptive statistics such as frequency and percentages, and the results were presented in tables. **RESULTS** According to the findings, the use of partograph among Obstetric caregivers in primary Healthcare centres in Orlu L.G.A was determined by personal factors such as skill incompetency in carrying out an assessment with the partograph (2.6 ± 0.87); time constraint (2.8 ± 0.55), institutional factors influencing the use of partograph included, non-availability of partograph (2.9 ± 0.92), Lack of adequate orientation (3.4 ± 0.58), Lack of training (3.3 ± 0.47). The qualitative data revealed barriers to the use of the partograph to include unavailability of partograph, inadequate number of staff, increased workload and poor supervision. For partograph utilisation to improve among obstetric caregivers, further training and employment of more staff are needed, provision of partograph forms are also important factors to consider.

KEYWORDS: Utilisation; Partograph; Determinants; Primary Health Care; obstetric care



INTRODUCTION

Obstructed labour-related maternal mortality is preventable, and there are persuasive claims that acquiring knowledge of and using the partograph would result in a reduction in maternal mortality (WHO, 2004). However, data across African countries has revealed that the utilisation of partograph is poor despite its use which is simple for intrapartum monitoring of labour (Opiah et al., 2012, Wakgari et al., 2015, Nwaneri et al., 2017). According to Opiah et al (2012), There is a substantial link between the number of obstetric care providers in a shift and partograph utilisation. Inadequate manpower was seen as a factor influencing the utilization of partograph, and the use of Partograph is considered to be an additional time-consuming process.

Challenges to partograph use by midwives are numerous, of which some researchers earlier documented some as the inadequate number of partograph sheets, poor number of staff, poor knowledge in the use of partograph as well as time-consuming (Opiah, et al., 2012). According to Yisma et al (2013), the following factors offer barriers to the use of partograph:

the knowledge level of midwives to the use of partograph. 195 midwives from both health centres and public hospitals were utilised in the study. The vast majority of respondents reported inadequate knowledge of partograph use (30.66%), the next majority indicated that the partograph takes lots of time to fill (28.23%). Others also reported that it requires much detail to fill (10.48%), 6% indicated that there is a lack of adequate personnel, and 16.13% indicated that it is the duty of the doctor to fill the partograph.

While 8.06% indicated that they lack training in the use of partograph. Reproductive and child health care consist of both preventive and curative services for the improvement of overall population health, particularly among women and children and to ensure a healthy and 17 reproductive population that reproduces itself safely. One of the ministry's objectives is to ensure that people live longer, have healthy and good productive lives and reproduce without risk of injuries or death. For this reason, the metropolitan set an objective of achieving 80% supervised delivery, of which only 52,083 (38%) were achieved in 2011 (Accra Metro Annual Report, 2012). Partograph is essential in monitoring delivery, yet it is underutilised (Beenu, et al., 2013).

Asibong et al., (2013) conducted a cross-sectional descriptive study among one hundred and thirty purposefully selected and consenting obstetric caregivers (OCGs) working in the General Hospital, Calabar, Nigeria, using a self-administered semi-structured questionnaire. The majority of respondents (70.8 per cent) had an excellent basic understanding of the partograph but lacked a specific and in-depth understanding of the partograph's component pieces. Partograph availability ($\chi^2=56.5$, $P=0.0001$) and knowledge of partograph (both $\chi^2=12.05$, $P=0.0001$) exhibited a significant connection with its use. Knowledge of partograph was substantially connected to previous training ($\chi^2=9.43$, $P=0.002$). Little or no knowledge of the partograph (85.4 per cent), non-availability (70 per cent), staff scarcity (61.5 per cent), and the fact that it is time-consuming to operate were all factors impacting utilisation (30 per cent). The ineffective use of the partograph in the research facility is hampered by a lack of specific understanding of the partograph, its non-availability, low staff numbers, and insufficient training.



Obstacles to using the partograph can be overcome by providing ongoing on-the-job training and organisational commitment. Little is known regarding the use of partographs and the factors that influence them in primary health care institutions in the research area. The information obtained from the study will aid policymakers, stakeholders, programme designers, and obstetric care providers in providing high-quality intrapartum care.

METHODOLOGY

Research Design

This study adopted a mixed design that used the convergent parallel design also known as triangulation which has been successfully used by other researchers (Zelee & Tegegne, 2018, Wakgari et al., (2015). The triangulation method allows data to be validated by comparing results from many sources. It examines the consistency of responses acquired using several instruments and raises the likelihood of control (Kennedy, 2009). Therefore, quantitative and qualitative data were collected and given equal priority in discussing the phenomenon under study. This was considered suitable because the researcher believes that peoples' experiences may not be fully captured by numerical data alone (Heale & Forbes, 2013).

The researcher chose this method to increase confidence in the findings by confirming a proposition with two or more independent measures; the combination of findings from two or more rigorous approaches provides a more comprehensive picture of the results than either approach could do alone in exploring utilisation and associated factors of partograph utilisation among obstetric care providers in primary health care centres in Orlu Local Government.

For qualitative strand

Twenty persons are required because it is expected that the interview ends when no new patterns are perceived in the data (Polit & Beck, 2010).

Sample

Due to the small size, all the entire 83 obstetric care providers were involved in the study.

Inclusion Criteria

Participants must be obstetric care providers

Participants must have spent at least three months in the facility.

Instrument for Data Collection

Quantitative strand

The instrument for data collection was a researcher-developed structured questionnaire and proforma which was used to collect data from the patient's folder. The questionnaire was divided into four sections. Section A contained eight items which sought information on demographic data of the respondents, and Section B and C, eight (8) and six (6) items each sought information on the personal and institutional factors that influence the use of partograph. The primary variables included as components of the modified WHO partograph, which



comprised sixteen items, were used to create the checklist. To be objective, the modified WHO partograph's labour parameters/parts were evaluated to see if they had been monitored according to WHO standard practice. The following are standard techniques for recording parameters depending on time intervals: - (1) every four hours, monitor cervical dilatation, moulding, the descent of the presenting part, and blood pressure; (2) every 30 minutes, monitor foetal heart rate, maternal pulse, and uterine contractions; (3) the baby's condition after birth should always be documented on the card. If a parameter was recorded, it was marked as Yes; otherwise, it was marked as No.

For qualitative strand

For qualitative, an interview guide was developed and a short semi-structured Interview was done to elicit in-depth information from selected participants on partograph utilisation and its associated factors. All tools were written in English, and all the requirements of the interview were adhered to such as informed consent and assurance of confidentiality. A semi-structured interview was conducted among purposely selected twenty (22) key informants from each facility (midwife and Officer-in-charge). The participants were urged to take an active role in the interview. The facilitator guided the conversation in the correct direction. A digital voice recorder was used to record all of the material, and notes were taken. Nurses and midwives were among the group's members.

Validity of Instrument

It was established by presenting the research instrument to the research supervisor and two senior academics in the Department of Nursing, University of Nigeria, Enugu Campus, who are specialists in Community Health Nursing, to ensure that items addressed the objective/purpose and scope of the study. A copy of the instrument was given to them to assess its suitability as well as make corrections where necessary, corrections made were used to modify the questions

Reliability of Instrument

The instrument's reliability was determined by giving 10 copies of the questionnaire to obstetric care providers in primary health care facilities in Ideato North Local Government Area of Imo State who had similar characteristics to the study group but were not part of the study group, using a test-retest method. The data obtained was subjected to an internal consistency test using the Cronbach Alpha Reliability test, which yielded a reliability of 0.82. To get the reliability of the instrument, a pre-test of the instrument was conducted using the test-retest approach. coefficient of correlation (r) is strong and positive ($r = 0.959$). Therefore, the reliability of the instrument is considered strong.

Qualitative strand

The standards for measuring trustworthiness developed by Lincoln and Guba (1985) were applied for assessing reliability in qualitative instruments.

Ethical Consideration

To obtain ethical approval for the study, a letter of introduction from the Head of the Department of Nursing, University of Nigeria, Enugu Campus, an application letter, a summary



of the research protocol, and a questionnaire were sent to the Research Ethics Health Committee of the Ministry of Health of Imo State. By telling the obstetric care professionals about the study's goal, the researcher was able to get informed permission. Throughout the study, the researcher upheld research ethics by ensuring that participants have the opportunity to choose whether or not to participate and that the researcher maintains the utmost confidentiality of information collected from respondents. Triangulation of semi-structured surveys, structured checklists, and training of observers, facilitators, note-takers, and voice recorders was used to ensure data quality. Sample adequacy was determined by data saturation. After the observation was completed, the data were reviewed for completeness and consistency.

The effect of observation on provider behaviour was minimised by assuring providers that data collection was anonymous and that individual performance would not be publicly reported or shared. Because providers were not informed about the topics and items on the checklists, they were unable to prepare.

Procedure for Data Collection

Administrative permission was obtained from the heads of each facility to facilitate data collection using the ethical approval letter from the Head of the Department.

The researcher hired and trained three assistants on the study's goals, as well as how to administer the questionnaire and collect data using the checklist. The researcher with the research assistants visited the obstetric caregivers in the selected health facilities to collect data. The checklist was used to get information from 157 average deliveries per year in all the primary health centres) patients' medical folder. On the spot, all questionnaires were filled out and collected. The questionnaire and checklist were distributed and collected during a three-week period.

Qualitative data collection

The researcher purposively selected twenty-two respondents (eleven midwives and eleven officers in charge of CHEWS) from all the health care centres for the interview and a semi-structured interview that lasted about 8 to 10 minutes each. Face-to-face conversations were used to conduct the semi-structured interview at a time, place, and date that were convenient for both the researcher and the participant. The participants gave their informed consent to have the interview session audio-taped. A relaxed, conversation was used throughout the interview. The participants were probed using the interview guide to elicit information and the questions were rephrased if there is difficulty in understanding. The language of communication was English. Twenty-two obstetric caregivers were interviewed. The interview continued until the last participant when no new patterns were perceived in the data. Interview sessions were audiotaped and transcribed verbatim after the interview. Relevant field notes were also taken by the researcher while the participants were being interviewed.

Method of Data Analysis

Quantitative strand

The questionnaire and pro forma that had been retrieved were gathered and counted. The software used for analysis was SPSS version 24. Simple descriptive statistics of frequency and



percentages were used to present the data. Tables were used to present the findings. The frequency and percentages for objectives one, two, and three were reported. After correcting for confounding variables, a logistic regression analysis was used to analyse the assumed correlations of various factors with the level of consumption and associated factors of the utilisation of the outcome variables.

Qualitative strands

Two members of the study team used theme analysis to analyse the identified interview data, based on the records taken during the interview, which were transcribed with the quantitative findings for discussion. The first stage of the data analysis involved the transcription of the obtained data. Responses recorded on the electronic device were listened to and typed out verbatim in the words of the respondents. All responses were in the English language and so there was no need for translation. The method of analysis adopted was a content analysis: "a research technique for establishing reproducible and accurate inferences from texts (or other relevant matter) to the contexts of their use," as defined by Krippendorff (2004). Essentially, the idea is to connect the outcomes to the context or setting in which they were generated. This method involved four stages: decontextualisation, recontextualisation, categorisation and compilation.

In the first stage, the researcher, first of all, familiarised herself with the data by reading the transcribed text repeatedly to make sense of the responses. This availed the researcher of the opportunity to immerse herself in the work and deepen her understanding of the data. In the process, all meaningful units in the text were identified and shaded in distinct colours. Each unit was labelled with a code in relation to the context

In the second stage, the researcher read through the whole transcribed text again together alongside the meaningful units to see if any of the unmarked text gave further insight into the answers sought by the researcher. Any unit found relevant at this stage was added while the rest not corresponding to the aim of the research were excluded. So, themes emerged which were: unavailability of the partograph, human-related factors and government intervention.

Following the above, like units were pooled into sub-themes to reflect the units that make them up. Sub-themes were further grouped into themes. The generated themes give the answers sought by the researcher. The themes and sub-themes were then presented in such a way that the reader could quickly gain an overview of the findings. The next phase involved a detailed analysis of each theme after which a name that passes on the information effectively was decided by the researcher. The final phase involved writing a comprehensive narrative, explaining the themes which responded to the research objectives.



RESULTS

Socio-demographic information of study participants

associated factors among obstetric caregivers in primary healthcare centres in Orlu L.G.A. of Imo State.

Table 1: Socio-demographic information of the participants. n =78

s/n	Variables	Frequency	Percentage
	8-27years	12	15.4
	8-37 years	45	77.7
	8-47years	16	20.5
	8-57years	5	6.4
	Mean \pm SD	34.0 \pm 700	
2	Gender		
	Male	2	2.6
	Female	76	97.4
3	Highest professional qualification		
	Registered Nurse/Midwives	13	16.7
	Obstetric doctor	1	1.3
	CHEW	44	56.4
	Health Assistant	20	25.6
	Years of working experience in the facility		
	< 1 - 5yeras	57	73.1
	6 - 10 years	18	23.1
	11 - 15 years	1	1.3
	16 -20 years	0	0.0
	21 – 25years	2	2.6
	Mean \pm SD	5.0 \pm 4.00	

Table 1 shows the socio-demographic characteristics of the Participants. 76 (97.4%) were females. 45 (57.7%) were CHEWs, 20 (25.6%) health assistants, 13 (16.7%) nurses. 57 (73.1%) of the workers had worked between < 1 year and 5 years and the mean years of experience was 5 years.

Personal factors that influence the use of partograph among Obstetric caregivers

As shown in Table 2, the personal factors that influence the use of partograph. They include skill incompetency in carrying out the assessment with the partograph with a mean response of 2.6 ± 0.87 ; the fact that filling the partograph is time-consuming 2.8 ± 0.55 ; lack of adequate orientation to partograph use of 3.2 ± 0.78 ; and inadequate educational background 2.8 ± 0.59 .

**Table 2: Personal Factors that influence the use of partograph**

Items	F(%)	F(%)`	D(%)	SD(%)	Mean+SD
Skill incompetetary in carrying out assessment with the partograph	16(20.5)	18(23.1)	40(51.3)	4(5.1)	2.6±0.87
Inability to interpret findings correctly after assessment with the partograph	3(3.8)	26(33.3)	42(53.8)	7(9.0)	2.3±0.69
Filling the partograph is time consuming	2(2.6)	64(82.1)	8(10.3)	4(5.1)	2.8±0.55
Partograph has no benefit if used to monitor progress of labour	3(3.8)	2(2.6)	61(78.2)	12(15.4)	1.9±0.58
Lack of adequate orientation to partograph use	31(39.7)	36(46.2)	8(10.3)	3(3.8)	3.2±0.78
Obstetric care givers exhibit laziness generally in the use (if the partograph)	1(1.3)	10(12.8)	66(84.6)	1(1.3)	2.1±0.42
Lack of knowledge of the partograph	2(2.6)	16(20.5)	58(74.4)	2(2.6)	2.3±0.53
Inadequate educational background	6(7.7)	55(70.5)	15(19.2)	2(2.6)	2.8±0.59

Index: SA- strongly agree

1. Agree

D- disagree

SD-strongly disagree

Decision rule:

Mean score ≥ 2.5 -strong influencer otherwise not.

Institutional Factors Influencing the use of partograph

Table 3 shows the institutional factors influencing the use of partograph among obstetric caregivers in healthcare centres in Orlu L.G.A. the factors include non-availability of partograph charts in labour wards 2.9 ± 0.92 ; lack of adequate orientation to partograph use 3.4 ± 0.58 ; lack of training of staff through the organisation of seminars/ workshops on partograph in the health care facilities 3.3 ± 0.47 ; lack of supervision 3.4 ± 0.61 ; availability of other methods to observe woman 2.5 ± 0.64 .

**Table 3: Institutional Factors Influencing the use of partograph**

Items	SA(%)	A	D	SD(%)	Mean+SD
Non-availability of partograph charts in labour wards	30(38.5)	15(19.2)	32(41.0)	1(1.3)	2.9±0.92
Lack of adequate orientation to partograph use	32(41.0)	44(56.4)	1(1.3)	1(1.3)	3.4±0.58
Lack of training of staff through the organisation of seminars workshop on partograph in the health care facilities	26(33.3)	52(66.7)	0(0.0)	0(0.0)	3.3±0.47
Lack of Supervision	37(47.4)	38(48.7)	2(2.6)	1(1.3)	3.4±0.61
Availability of other methods to observe woman	5 (6.4)	33(42.3)	39(50.0)	1 (1.3)	2.5±0.64
Delay in getting permission for the use of partograph	5 (6.4)	3 (3.8)	68(87.2)	2(2.6)	2.1±0.55

Decision rule:

Mean score ≥ 2.5 -strong influencer otherwise not.

Qualitative

The audio interview of twenty-two (22) unit heads were transcribed verbatim in English and analysed thematically. Three (3) major themes and five (5) subthemes emerged from the obstetric caregivers' responses which are overall the phenomenon, partograph was described both as a tool for monitoring labour as well as a costly machine used in health care facilities. The description of the instrument suggested at some point absolute unfamiliarity with the instrument. When its use was explored, it was found to be rested on the two extremes of ample use and non-use. Factors related to humans such as Manpower, Time constraints, and indifference to use tools contributed to poor utilisation of partograph. Alibis which health workers use to explain non-use of the tool included being transferred from another centre, late presentation of women in labour to the hospital, and leaving partograph in order saving lives. Other factors include; lack of partograph in centres and training package faulted for being insufficient and short.

The participants include different health workers and cadres such as nursing officers, assistant chief nursing officers, nurse midwives, Chief community health extension workers, chief community health technicians, Community health assistants, principal community health education workers, and Community health extension workers. Years of service ranged from one year to up to 39 years.



Three themes and sub-themes were generated from the responses.

Themes

Sub-themes

Unavailability of the partograph	Unfamiliarity with the partograph, inadequate knowledge on the use of partograph
Human related factors	Excuses on non-use of partograph (time-consuming, transfers, late presentation of women in labour.
Government Intervention	(a) Employment of more staff (b) training and staff/retraining) of staff, (c) Adequate provision of partograph form

1. **Unavailability of the partograph:** this theme has 1 element (a) Absolute unfamiliarity with the instrument and non-use due to poor knowledge.

2. **Human-related factors:** this has 3 elements (a) human-related factors (Manpower, deficient training package- short training, time constraint, and indifference)

3**Government intervention:** (a) Employment of more staff (b) training and retraining) of staff, (c) Adequate provision of partograph form

Unavailability of the partograph. Responses on the utilisation of partograph led to the emergence of the theme on the unavailability of partograph, to put theory into practice in the words of participant 1: *‘We were trained for two days and they told us that they will give us partograph for pregnant women but since then we have not seen anything like partograph. What then do we use?’*

The researcher sought to understand whether health workers use partograph and how often they use it. From the responses, the above theme emerged. Extremes of utilisation presented a situation where some claim to be using partograph appropriately each time they manage a labour case which can be interpreted as using partograph without significant challenges. In the words of participant 1: *‘Now, as we talk about it we are using it here in the centre. If we have any woman in labour we open a partograph for her. For now, it is used all the time’* and we have no problem using it. ‘In the words of participant 2: *we use partograph here and there is no challenge at all’*. As participant 3 puts it: *‘There is no challenge we are facing currently because right from the school of nursing, we learnt about partograph, and we are making use of it.’*

Inadequate knowledge of the use of the instrument and non-use: Others, however, haven’t used it at all or don’t know what it is. In other words, it has never been used by some health workers. Participant 3 puts it this way: *‘Here in the AA health centre, we don’t use partograph but we do what we call observation. Whatever we observe we put it down. When a patient comes into labour you do observation and put down in short it is continuous monitoring. And participant 4 said ‘Yes I was trained but in fact, we are not using it.’*



It was obvious that what hindered some health workers from using partograph was ignorance of the tool. This was evidenced by the way it was wrongly described as a machine that the government has not been able to acquire. In contrast, a partograph is a paper tool and can be reproduced by photocopy; *'the issue is that you cannot always have it because the machine is costly and the government has not provided our centre with one.* Another clue that suggested unfamiliarity with the tool was saying that partograph cannot be used because women in labour come mostly during the daytime whereas partograph works in daylight. The fact is, the use of partograph is not limited to the time of the day as it can be used anytime. Participant 4 said: *'No training I have to accept, lack of manpower too. And this place we are staying is a very remote area a lonely area. So most times, our patients come by night and there is no way you will begin to use partograph by that time. But if they come during the day, it is easy to use it then.'*

b) Human-related factors:

Reasons for poor use of partograph were explored and the factors were found to be human-related factors such as;

Human-related factors (Manpower, deficient training package- short training and time constraint, and indifference).

Participants really emphasised on poor staffing of many of the centres which according to them has prevented them from using partograph. They stated that sometimes, one or two persons are on duty and cannot meet up with the responsibilities if they are using partograph. Participant 5 stated: *'The numbers of workers are not enough they are few. The government don't want to employ more workers, they said to use what we have to work and it makes work very hard for us. Now see today in antenatal it's only me and two students are observing and doing everything. Is it enough? It is not enough.'*

And participant 6 added: 'It's just that we don't have enough staff and that's the reason why we are unable to use it. For instance, if it's only two people that will be available in a shift and we have deliverance, their services will be needed' Partograph was also said to be time-consuming because health workers on duty have a lot to do. In the words of a participant7: *'you know that thing wastes our time and we don't have enough staff. This requires that we have enough staff if you look around you will see we don't have enough staff.'*

Some also pointed out that the training they received was inadequate or they have not received any training at all on partograph. By inadequate they mean that the training was short lasting for only a day or at most two. They also expected that the training should be first-hand, hands-on training but to their disappointment, they receive step-down training from people who have been trained. A participant said: *'If I must say because of the staff working here are not being trained and everybody is supposed to go for the training. We can't use it if we don't know how to use it. They should be training and retraining all staff from time to time. And more staff, the government should employ staff so that there will be enough staff in the health facility because one person cannot be managing labour, assisting other persons and at the same time handling partograph bill.'*

Participant 8: *'well, the training is not even by the main persons. They just trained some of our colleagues and they taught us what they understood when they came back. So what do you expect to learn in that kind of training?'*



They also related having received training in the distant past and require retraining to have their knowledge of partograph refreshed. In the words of participant 9: *'We have forgotten what we learnt long ago owing to the fact we don't use it. So it's easy to forget'*.

Some have received training but still don't use it and make no effort to do so. Part of the reason for not making use of it is that they have not tried to. Ike said: *'We don't normally use it because it's somehow difficult because we have not been trying. Although we have training but not like that so we need to be trained on how to use it.'*

Excuses on nonuse of partograph (transfers, late presentation of women, leaving partograph to saving lives). Some excuses were given as reasons for not using partograph. It was a commonality among the participants to say that reason for not using a partograph was a transfer. They explained that they were recently transferred to the centre and therefore have not started using partograph yet. Others include transfers, late presentation of women, and leaving partograph to save lives. In a statement by participant 10: *'No other reason apart from this lack of manpower and time. When some women present, they are already in serious labour and you cannot go and be looking for partograph what you will do is to save the life first to deliver the child.'*

Participant 11 said: You know I'm not up to one month here. So I have not started using it yet.

Participant 12: The thing is I came here on transfer. I'm still new here. We use it in my former centre.

Government intervention: a) Employment of more staff (b) training and staff/retraining) of staff, (c) Adequate provision of partograph form

Health workers believe that if tools/partograph are provided and staff are trained on how to use it, use will be improved. Besides, they also pointed out that increasing the staff strength is key to solving the problem as well as promoting the use of partograph.

Training and retraining: the participants suggested training and retraining for all staff. In the words of a participant: *'Yes with more training and more staff anyway, we can use it, only that we don't have enough staff that's enough personnel. With training, we can start using it to manage labour and properly as well.'*

Another said: *'we need more enlightening on this. I meant we need to be more educated on how to use the partograph.'*

1. Employment: increasing staff strength was also suggested because according to the participants, it will allow them time to use the partograph.

Participant 13 put it thus: *'Well, as I said earlier, manpower is the main problem. We don't have adequate staff. If we do, it will become easier for us to implement management of labour with partograph.'* Participant 14: *'Government should employ people because the truth is, we are lacking hands. We need more staff.'*



2. Adequate provision of the partograph: (promotion and supervision): the participants also expressed that the use of partograph should be promoted by the government supplying all centres with it and supervisors to oversee the use.

In the words of participant 15: *if the government should pay attention to this partograph and give it the support it needs, health workers will become more serious about it. It should be taken seriously and promoted like other programs. They should also delegate people who will be supervising the use.*

Summary of major findings

1. The utilisation of partograph among Obstetric caregivers in primary Healthcare centres in Orlu L.G.A was found to be poor.
2. The Personal Factors that influence the use of partograph included Skill incompetency in carrying out the assessment with the partograph (2.6 ± 0.87); time constraint (2.8 ± 0.55), feeling that the partograph is not beneficial (2.8 ± 0.55), Lack of adequate orientation to partograph use (3.2 ± 0.78), and Inadequate educational background (2.8 ± 0.59).
3. Institutional Factors Influencing the use of partograph included, non-availability of partograph (2.9 ± 0.92), Lack of adequate orientation (3.4 ± 0.58), Lack of training (3.3 ± 0.47), Lack of supervision (3.4 ± 0.61), and availability of alternative methods of observation (2.5 ± 0.64).
4. The utilisation of partograph borders on the theme of unavailability of partograph and unfamiliarity with the instrument which led to nonuse.
5. Factors that militate use of partograph were: (a) human-related factors (Manpower, deficient training package- short training time constraint, and indifference)
6. According to the participant, government intervention in employing more staff, training and retraining of staff and provision of partograph for use will improve the utilisation of partograph.

DISCUSSION OF FINDINGS

Discussion of findings

Major findings from this study will be explored in relation to findings from earlier literature on the issue, depending on the research objectives created for the study.

Personal factors that influence the use of partograph among obstetrics caregivers

Partograph use with a management plan, according to the WHO, reduced delayed labour and promoted effective obstetric assessment and intervention in South East Asia (Overhead & Osrin 2014). Knowledge and years of experience are leading factors influencing the use of partograph as seen in the result of the study 36 (46.2%) agreed that lack of adequate orientation to partograph use and 64 (32.1%) reported that it is time-consuming, this is validated by Sama



et al., (2017), in Cameron that it's finding less than one third (9.6) of the respondents had good knowledge on the partograph and concluded that little or no knowledge of the partograph was factor militating its routine use. From the qualitative findings, results drawn from participant IV on human-related factors that time constraint and indifference demonstrated by the response as late presentation of pregnant women in labour as validated by the study of Govender, Motloba and Barua (2017) barriers to not using the partograph included being unsure how to use it (13%), partograph charts not available (8.7%), partograph takes too long (21.7%), being too busy responses from participant IV is as follows”, *you know that thing wastes our time and we don't have enough staff.*

Institutional factors that influence the utilization of partograph among obstetric care

Results drawn from the qualitative responses showed consistency in need of government intervention through (a) employment of more staff as reported by participant V. *“yes with more training and more staff any way we can use it, with training we can start using it to manage labour and properly as well “* On the issue of solving the problem of nonuse, increasing staff strength will improve the use of partograph as seen with the response of participant IV *“well, like I said earlier manpower is the main problem, we don't have enough staff, if we do; it will become easier for users to implement management of labour with partograph”*. Participant VII also said; *“ government should employ people because the truths are, we are lacking hands, we need more staff.* From the checklist, only a few copies of the partograph were found attached to medical files of patients. According to Khonje (2012), the challenges to using the partograph were a lack of manpower, a heavy workload, and a lack of supervision incentive. In addition, Asibong et al., (2013) in Calabar found that a lack of employees and inadequate training are problems that prevent the partograph from being used effectively.

Despite advocacy to expand training and combine other good measures to improve health workers' strength, it is still very poor based on the results of these findings, lack of adequate orientation to partograph use is high with 44(56.4), lack of supervision and lack of training of staff through the organisation of seminar /workshop on partograph in health facilities were 52 (66.7%).

Implication of the study

1. The results of the study revealed that there is poor usage of partograph even among nurses in primary health care centres despite all efforts on advocacy, this has a direct implication to nursing, as they are the voice to lead in achieving sustainable development goals.
2. The result also revealed that there are still personal related factors such as poor knowledge on the use of partograph among obstetric caregivers labelled as excuses, as some obstetric care gives use transfer as an excuse for not using partograph which reveals the gap in knowledge and use of partograph.
3. The findings of this study also reveal a very poor number of registered nurse midwives in the primary healthcare centre which has implications for midwifery practice as it reveals that midwives are few qualified midwives in the primary healthcare centre to curb the high maternal mortality.



CONCLUSION

This study found out the use of partographs and what factors determine its use among obstetric care providers in PHCs in the Orlu Local Government Area. Using the Mixed method approach, data were collected using structured questionnaires, proforma and oral interviews. Analysis was done with simple descriptive statistics of frequency and percentage and thematic analysis was used to analyze the record of the interview after it was transcribed and translated. Major findings of the study revealed a great level of poor use of partograph among obstetric caregivers due to inadequate manpower and lack of orientation on partograph use.

The use of partograph among obstetric caregivers in primary health care centres in Orlu L.G.A, Imo State is poor. This is due to human-related factors such as personal factors such as waste of time and transfers as reasons for poor utilisation of partograph as an assessment tool among obstetric caregivers. Personal factors reveal incompetence in the monitoring of labour with the partograph and lack of adequate orientation on partograph use. Institutional factors reveal inadequate manpower lack or insufficient training and orientation on the use remained a great challenge. Finally, this study reveals that with employment, supervision and training on partograph, utilisation will be improved. Government intervention in the form of provision of partograph forms, employment of more staff, and training on the use of partograph revealed as factors that will improve partograph use.

RECOMMENDATIONS

The researchers offered the following recommendations based on the findings of this investigation;

1. There is a need for an enlightenment campaign on the use of partograph among obstetric caregivers in primary healthcare centres as they are the first point of care to the rural dwellers.
2. There is a need for increased staffing to ensure quality care which will reduce maternal mortality in Nigeria.
3. There is a great need for training and retraining of staff on the use of partograph to ensure updates on the use.
4. There is a need for supervision, monitoring and sanction on defaulters on the use of partograph among obstetric caregivers in primary health care.

Suggestions for further studies

Based on the findings, the following studies are recommended

- a. Evaluation of the effect of training on the knowledge and use of partograph among primary health workers.
- b. Access the utilisation of partograph among midwives and doctors in tertiary institutions in Imo state.



Conflict of Interest

No conflict of interest exists

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