MIDWIVES KNOWLEDGE OF PARTOGRAPH TOWARDS PREVENTION OF MATERNAL AND NEONATAL MORTALITY IN SPECIALIST HOSPITAL GOMBE

ABSTRACT

This descriptive survey study took a look at Midwives knowledge of partograph towards prevention of Maternal and Neonatal mortality in Specialist Hospital Gombe, partograph is an essential tool in management of labour. the objectives of these research are to: assess the level of knowledge of midwives towards usage of partograph, assess the level of effectiveness of partograph use in detection of danger signs during labour, identify strategy for best intervention, as well as investigating rate of deliveries conducted with and without partograph in the hospital. Two hypothesis were formulated which are: The mean level of knowledge of partograph midwives is not significantly different as compared to component of partograph, the number of normal deliveries is significantly dependant of use of partograph. Literature review was done under historical background, theoretical and empirical framework of partograph use. In the study, population of midwives is 365 in the hospital and a sample size of 191 was used as obtained by Taro Yamane (1967) as well as 5010 past used labor records. Questionnaire was used for data collection. The information gathered from respondents were analyzed in percentage using tables, bar chart, pie chart, line chart and histogram using IBM SPSS software version. Hypothesis tested using chi square, the first hypothesis test shows that midwives knowledge level of partograph is significantly different to their knowledge of component of partograph, then hence the null hypothesis is rejected and alternative uphold. Test for hypothesis two also rejects the null hypothesis and uphold the alternative hence, number of normal deliveries conducted is significantly dependent on the use of partograph. Major findings of the study reveals deficit of knowledge of partograph by midwives, effectiveness of partograph in detection of danger signs, also deliveries conducted with partograph ended with less complications. The recommendations made include: knowledge update to all midwives in the hospital, the management and midwives must be committed, capacity building is necessary effective monitoring and evaluation to promote quality care in maternity nursing.

Key words: Partograph, Maternal, neonatal, mortality

Introduction

Maternal mortality is the most extreme consequences of poor maternal health complications of pregnancy and child birth which are the leading cause of disability and mortality among women of childbearing age .The urgent imperative to improve maternal health is a current major issue on the international scene which is expressed as one of the millennium development goal "goal four improve maternal health" Adesokan(2010).

Globally World Health Organization (1996) identifies the following magnitude of maternal condition: Three hundred and eighty two million (382,000,000) pregnancies occur annually

Out of which one hundred and ninety million (190,000,000) pregnancies are unwanted. One hundred and ten million (110,000,000) women that are pregnant experience pregnancy related

complications annually. Ninety nine percent (99%) of maternal death occurs in developing countries (West Africa). Six hundred thousand maternal deaths occur annually. The breakdown is one hundred and forty (140) maternal deaths occurring daily in every ten minutes. In each single maternal death there are thirty maternal morbidities. Fifty two thousand maternal mortality in Nigeria annually from pregnancy related complications.

In north east forty three thousand (43,000) maternal deaths occur annually from pregnancy related complications, in every 100,000 live births. Every ten minutes in Nigeria one woman dies from pregnancy related complications maternal mortality ratio is 740:1500 per 100,000 live births (MICS) FMOH. More than fifty percent of maternal deaths occur during intra-partum care (delivery period)

In Gombe state maternal mortality annually is 1000 recorded per 100,000 live births record of past years**.** Maternal mortality in specialist hospital Gombe is recorded 253 per every hundred live births (2011-2014). Cases of prolonged/obstructed labour are recorded as 140,000 annually (2011-2014) (record from SHG statistics unit).

Above indices clearly shows how women suffer as a result of pregnancy related complications, prolonged and obstructed labor clearly seen, judicious partograph use would help a lot in early identification of abnormality in labor

Furthermore neonatal scope of problem identified the following according to multiple indicator cluster survey (MICS) by FMOH

Globally 3,000,000 neonatal deaths occur per 100,000 live births annually.

In Nigeria annual number of still births is 163,430. Neonatal mortality per 100, 000 live births is 8000. In north east neonatal mortality 36,000 annually

Total number of neonatal death recorded in specialist hospital are 1,600 from 2011-2014 (SHG-statistics unit).

A global strategy clearly showing a number of 382 million die annually as a result of pregnancy and child births out of which 99% of these deaths occur in developing countries “many of them are preventable” stressed by WHO 1996 “maternal mortality is likened to a jumbo jet with 274 women aboard crashing into the sea every four hours day in, day out 365 days of the year” ports (2006).

Globally five causes are identified as major direct causes of maternal mortality; hemorrhage, infection, eclampsia, obstructed labor, and unsafe abortion. Obstructed labor which is one of the major cause can lead to or occur from prolonged labor and it is preventable, available evidences clearly indicate that delay model has been identified.

Four phases of Delay model

1st delay: is a delay that occurs at individual family level in taking decisions within the privacy of support to seek care which occur due to ignorance, cultural factor, women status,

2nd delay: delay in access to healthcare facilities due to location transportation, bad road, communication or absence of vehicle.

3rd delay: this delay occurs in the health care facility it has to do with personal and the poorly staffed facilities, lack of equipment, poor medical care, delay in treatment, unskillful personnel, punitive attitude of health workers, midwives negative attitude. Midwives should be skillful and utilize available resources to manage women during intra-partum care utilizing material resources especially partograph to have a clear picture of labor progress, to recognize danger signs early.

4th delay: delay in referring patient due to busy ward, no Dr/midwife to refer, no vehicle to transfer the patient to referral place/center, shortage of staff to accompany the patient, tiredness on the path of staff, indecision to refer.

Statement of problem

Much emphasis has been laid on quality of intra-partum care women receive in specialist hospital Gombe, a major concern has been on adequate resources utilization of human and material resources available in the hospital to improve the intra-partum care of all women coming for labour, personnel working in the maternity unit of the hospital are they adequate, knowledgeable and skillful? To carry out their task of managing women in labor, their level of training educational qualification at stake "majority of complications arises during child birth is attributed to the third or fourth delay" Walsh (2012) unfortunately the two delays always occur in the hospital during intra-partum care, as a result of the prolonged obstructed labor as danger signs are seldom recognized during available labor these women are mismanaged Oladipo (2012) stressed "why do we treat our women as if they were dispersible? Most of the complications occur during labor are preventable by cost effective and affordable health intervention like Partograph use Ashraf (2003) stated that "Life of women it appears has become disposable in the rainbow nation". This statement expressed how poor maternal health care is to an extreme.

This study poise to investigate usage in Partograph in specialist hospital Gombe, its effectiveness in prevention of prolong and obstructed labor as well as maternal and fetal mortality in the hospital.

OBJECTIVES OF THE STUDY

To assess level of knowledge of midwives towards usage of partograph.
To determine the level of adequacy of human and material resources for usage of partograph.
To ascertain the level of effectiveness of partograph use in detection of danger signs during labor.
To identify strategy for prompt intervention on danger signs identified and their outcome.
To investigate the rate of deliveries conducted with and without partograph in specialist hospital Gombe in the year 2014.

Significance of the study

A strategy for prevention of obstructed and prolonged labour which consequently resolved to maternal and neonatal morbidity and mortality judicious use of partograph is vital Fraser (2006) "Affirms that midwifery is becoming increasingly litigious" and so midwives must be equipped and skillful, ability to keep records during labour management must be meticulously documented."

It is therefore hoped that this study will be beneficial in the following ways:

Motivate midwives in specialist hospital Gombe to function independently/effectively through developing skills in management of labour with proper documentation of the graphical tool.

It is hoped that this study will be beneficial in early recognition of prolonged and obstructed labor and prompt intervention taken thus; reducing maternal and fetal morbidity and mortality management of specialist hospital Gombe will be motivated to enhance adequate partograph use through steady supply of the tool.

It is hoped that the management of the hospital will be motivated to organize updates/refresher courses to midwives in the hospital

This study will add to the body of knowledge to student midwives providing them with basic facts on Partograph use.

This study will add to the body of knowledge and research in nursing and midwifery, particularly in our country Nigeria where research is seldom done in nursing.
This study will enable midwives to function independently/effectively by reducing the workload placed on them during intra-partum care.

Research questions
What is the level of knowledge of partograph by midwives in specialist hospital Gombe?
What is the level of adequacy of human/material resources for the usage of partograph by midwives in specialist hospital Gombe?
To What level is partograph effective in detection of danger signs during labour?
What strategies are adopted by midwives when danger signs are Identified?
What is the state of deliveries conducted with and without the use of Partograph in specialist hospital Gombe?

Hypothesis
The mean level of knowledge of partograph by midwives is not significantly different as expected.
Number of normal delivery is significantly independent of the used or non used of partograph.

Scope and limitation
This study is limited to investigating knowledge and utilization of partograph among midwives/ practicing in specialist hospital Gombe, the study will analyze constraint to effectiveness of the graphic tool as well as possible strategies to be implemented for effective utilization of partograph in early recognition of danger signs for prompt action to prevent maternal and neonatal morbidity and mortality in specialist hospital Gombe.

LITERATURE REVIEW

Literature review of midwives knowledge and utilization of partograph towards prevention of maternal and neonatal mortality in specialist hospital Gombe, is presented under the following

Historical background of Partograph
"The partograph is a tool used for monitoring progress of labor in order to promptly detect deviation from normal delivery that developed as labor progresses" Adesokan[2014]. partograph is graphic representation of all events in labour and it is plotted against time, it is important to know that the tool is for monitoring and managing labour, thus helps to identify risk factors which may continue to manifest during labour ,example rise in blood pressure etc.
The World Health Organization (WHO) innovated partograph in form of graphical tool as one of the valuable appropriate technologies to be used for improve the monitoring labour progress, maternal and fetal wellbeing. It is an important tool for monitoring progress of labour, this innovation came about as a result of increase rate of maternal and neonatal morbidity and mortality "the maternal and neonatal mortality ratio(MMR) are highly estimated 76/1000 live births and 475/100000 live births with live expectancy in the district at fifty years" studies conducted at Rukungiri African health scene V9 august (2009) since then the use of partograph to monitor labour progress and maternal condition continues during intra-partum care. "Records clearly stress out that many maternal deaths pictorially occurred in the hospital due to 3rd & 4th

delay as stressed out by Adesokan (2014)" the third and fourth delay occurs in the hospital during intra-partum care in which the health care provider cannot recognize danger signs early and act as expected this prompted the advocacy for partograph use for monitoring labour at all levels of health care delivery primary, secondary and tertiary. Management during intra-partum becomes a major concern to world health organization and international scene.
A large and growing body of literature shows that."correct use of partograph lowers rates of prolonged labors and associated complications leading to maternal and neonatal mortality saxeena (2012) "electrical partograph are also in existence and becoming widespread and can be built into medical record system" there are related technologies exist as paperless partograph. While many partograph have been developed, the WHO partograph is arguable and most popular the WHO partograph and variation of it are usually photocopied into later paper and are also available at the cost of photocopies "numerous electronics adaptation have also been created as part of medical software packages" Koniac (1992)

Mechanism of action of partograph
partograph graphically represent progression of labor,' it clearly shows when labor is progressing or proceeding at a normal rate and when it is deviating from normal" Koniac 1992 a pictorial overview is provided for a care giver to be alert and deliver a life and active baby normally and be prepared to carry out interventions, refer a woman for possible surgical intervention like caesarian section were necessary.

Historical perspective of partograph
Early recognition and diagnosis of pathological labor, judicious use of partograph is crucial in preventing maternal intra partum morbidity and mortality and therefore considered valuable and applicable internationally especially in developing world were maternal health indices is generally poor in a baseline clinical audit of intra partum care at the Tibetan Delek conducted by Steward in (1996) the following was recorded "High levels of intra partum care complications associated with mismanagement of client, inappropriate transfer of women in labor observed "this audit serves a factor in implementation in intra partum care" the delivery of intra- partum care was modified when midwives were trained on partograph used to help rationalized the management of labor and probable referral ,after which a sustained reduction and approximately 50 percent incident of complication was observed after the introduction of partograph ,which was linked with more rational decision making regarding management and transfer during labor .Stewart concluded that "Introducing and maintenance steady use of partograph can lead to improvement quality of obstetric care, thus reducing maternal mortality in a population ".Another report by Bio–medicine journal (2006)explains that "A sustained reduction of approximately 60% incidence of prolong labor was observed after the introduction of partograph use during intra partum care ".
World Health Organization (WHO)recommend use of partograph to follow labor and delivery ,with the objective e to improve health care delivery by reducing maternal and neonatal morbidity and death , series of studies conducted by WHO clearly revealed extend in which partograph is neglected in south east Asia an others. several studies also shows that partograph is a necessary tool that cannot be neglected during intra partum care in management of labor to work on work on maternal and neonatal mortality .Studies conducted in Northern part of Nigeria in the year (2012) shows gross inadequate partograph usage in many health facilities ,improper use in some health facilities leading to unnecessary interventions complications i and

untimely referrals causing maternal and neonatal morbidity and mortality and death, partograph is seen as a simple and inexpensive tool that can prevent a lot of hitches in obstetric care. Another studies conducted in Addis Ababa 2013) shows that more than half of obstetrical care givers in public health institutions in Addis Ababa gave fair knowledge on partograph and agreed that partograph use will improve maternal and neonatal morbidity and mortality situating in the country, only 50% of care givers consented o using partograph to monitor labor some are on the view that partograph use is time consuming and stressful. Importantly note that increasing the effectiveness and efficiency of health services everywhere particularly in developing countries with limited resources of health care services cultural beliefs and negative attitudes towards innovations. Historically partograph has been developed essentially as a useful tool for monitoring progress of labor to avoid unnecessary interventions so maternal and neonatal mortality are not needlessly increased, to ensure close monitoring, to intervene in a timely manner, essentially partograph is useful in assessment of: Fetal wellbeing, Maternal wellbeing and progress of labor

As described by Fraser (2004) "In recent years the partogram of partograph has been widely accepted as an effective means of recording progress of labor, it is a chart which salient features of labor entered in a graphic form and therefore provide opportunity for early identification of deviation from normal. It is now clearly seen that the graphic chart innovated by WHO was done to improved the health of mother child and the entire family this tool has become routinely used in management of labor in many countries and proved vital historically in decision making, referrals and prevention maternal fetal morbidity and mortality which has cramped our communities in Africa leading to loss of potential and viable women and children.

In strategy of reduction of maternal mortality and morbidity with the use of partograph, Fraser Cooper and Nolte (2006) affirms that "midwifery becomes increasingly litigious, midwifes record of becomes a legal document and must be kept meticulously" the principle of partograph has been described by WHO "is a graph chart for effectiveness of labor the fifth millennium development goal aim at reducing maternal mortality by 2015" now by 2020 curdo (2012). Maternal mortality reduction has also been addressed under the new national development initiative and the national economic empowerment development strategy (NEEDS). (Nursing journal 2009) every normal pregnancy is expected to lead to normal labor and delivery. it is recommended that progress of labor should be monitored with partograph beneath and brown 2009 opined that partograph is a chart on which salient features of labor are entered in a graphical form therefore provide the opportunity for early identification of deviation from normal. Studies conducted in Delhi (1996) explains partograph use as routing in the management of labor in many countries arms world and very helpful in the management and decision making process "both incidence of prolonged labor ,obstructed labor and the appropriateness of transfer of women in labor where considered to be cause of concern after judicious partograph use" it has been stressed out that after the baseline partograph use in (2006) "there are no on sight obstetrician or surgical facilities at delek hospital so those women experiencing prolonged or difficult labor are those potentially requiring caesarian section are transferred to obstetrician at the nearest health facility" another studies conducted in (1996) suggested that "decision making by staff regarding transfer was proved inappropriate when partograph was utilized, not based on record details of progression of labor. In response to these scenario's was the introduction of partograph for routine use by WHO (modified partograph) with the aim of quantifying events occurring during labor and qualifying decision making regarding subsequent care during labor in all maternal care centers. The key measures for improvement included the documentation of

findings in intra-partum care and the number of women transferred due to inability of labor to progress. Report by bio-medicine journal (2006) "a sustained reduction of approximately 50% of the incidence of prolonged and obstructed labor was observed after the introduction of partograph use during labor, introduction of the routine use of partograph was associated with more rational decision making process regarding transfer during. Tibetan (2006) concluded "introduction and maintenance of partograph can lead to improvement in quality of obstetric care in all maternities"

It is now evident that partograph use has become necessary and routine in the management of labor in many countries around the world and can be helpful in the management and decision making process

THEORETICAL FRAMEWORK OF PARTOGRAM

Theory is a term that explains or a format idea or set of ideas that is intended to explain a concept Oxford [2010) . it clearly explains opinions of people about object matter which may or may not be proved but it is assume to be true. As stated by Myles (2014) "Midwifery is becoming increasing litigious , the midwifes record of labor is a legal documents and must be kept meticulously. This explains the importance of record keeping in midwifery practice, documentation, its vital to note that record should be as contemporaneous as is reasonable, and must be authenticated with midwives identification, midwives should not destroy records and records be kept in a sage manner.

Partographs are created as stated by Myles [2014) to give current comprehensive and concise information regarding the women's observations, physical, psychological as well as socio – logical state.

Theoretical aspect of pantograph is seen as supposition put forward to explain pantographs speculations explosions of general principle which is distinct form practice and execution. Westmiger (1998) theoretical aspect explains general idea, notion on pantograph trend. Theoretically pantograph has also been identified as "A tool for monitoring labor, its theory is based on abstract ideas, principles relating to partograph rather than its practical aspect, application and uses of partograph" Sure- p (2013).

Definition;

Jacobs [2012] Explains that "partograph is a record of all observations made on a woman in labour , the central feature of which is the graphic recording of the dilatation of the cervix as assessed by vaginal examination''. Myles (2004) defines "partograph as a record to give comprehensive account and concise information regarding the woman's physical information regarding the woman physical, psychological, sociological state, any problem that arises as well as the midwives response to that problem including any interventions carried out.'' From the above It is clear that an accurate record during labor provides the basis from which clinical improvement, progress or deterioration of the mother or fetus can be judged as such the notes should be kept in chronogical order.

Komolate (2006) describes partograph as a "Tool for effective monitoring management of labor it is a chart on which Salient features of labor are entered in a graphic form and therefore provides opportunity for early identifications of deviations from normal''. She stressed out that midwives can use partograph to identify complications in labor. The partograph provides health professionals with a pictorial overview of the labor into allow every identification and diagnosis

of pathological labor. The World Health organization (WHO) recommend using partograph to follow labor and delivery , with the objectives

1. To improve health care and reduce maternal and fetal morbidity and death.
2. To evaluate the impact of WHO partograph on labor management and outcome.
3. To device test protocol for labor management.
4. For assessment of fetal wellbeing.

- For assessment of maternal well being
- For assessment of progress of labour.

Features of partograph

Komalafe (2006) identified the following part and features of pantograph:

1. Patient information including name , gravida, parity, registration number at the top
2. Petal heart rate is recorded to monitor fetal condition
3. Liquir amnii (amniotic fluid) is observed and recorder "C" as clear, "B" blood stained , 'M" meconeurm stained, if membranes are not ruptured 'I" for intact is recorded molding "O" or "+" or "++" or "+++"
4. Cervical dilatation is plotted with 'x"
5. Descend of the presetting part is plotted with "o'
6. Time is recorded using the time of admission as "Xero –time ", the actual time of the day is recorded below the hours line.
7. Contractions along with cervical dilation and descend of head, tells the progress of labor, record contractions under the time line.
8. Oxytocin injections, other drugs and intravenous fluids that are recorded in the space provided.
9. The blood pressure, pulse and temperature are recorded in the space provided
10. The last column for urine testing urine, is tested for presence of protein charted as "A" – absence , "+' or "++" and the volume of every urine collected charted at the last column.

Parts Of Partograph

Partograph consist of ten (10) parts which are clearly described below;-

The first part consist of a column provided for patients name, her gravity and parity, hospital and registration number, date of admission, time of admission, name as describe by oxford [2000] ''As a means of identification'' should be clearly written a column for state of membranes if it has ruptured hours should be clearly written.

Second part of partograph describes the fetal condition by stating foetal heart rate of 90 -200 beats per minutes. Baillere (2000) Describe fetal heart rate " As the heart beat of fetus auscultated and counted through abdominal wall , uterus and liquior amnii for a period of one minute. It may be counted continuously by a fetal monitor" (statescope] thou the most satisfactory method of estimating this by ultrasound [cephalometry]. Myles (2004) stressed that " Fetal heart rate should be between 110 - 160 beats per minutes during auscultation, with pattern of fetal movement are a reliable sign of fetal well being, evidence of at least 10 movements a day is considered usual. Fetal heart rate should be between 110- 160 beats per minutes during auscultation, with pattern of fetal movement are a reliable sign of well being, evidence of at least 10 movements a day is considered usual''. Fetal heart rate should be monitored continuously at an interval of 30 minutes komolafe (2006) stressed that " listening to and recording fetal heart rate is a safe and reliable way of knowing that the fetus is well". Each column represent 30 minutes in which fetal heart rate must be monitored. WHO adequately

design the column for fetal heart rate with two black darken lines from above 120 beats per minutes and above 160 beats per minutes, clearly indicate that any fetal heart rate above 160 an below 120 is abnormal. ‘ there are spaces for record the fetal heart rate every half hourly, each square represents 30 minutes check and record the fetal heart rate atl east every half hourly, when there are problems you may listen to the fetal heart rate frequently Adosokan [2004) fetal heart rate is recorded at the top of partograph.

Assessment Of Fetal Condition

Midwife must be alert to monitor fetal heart rate consistently during labour as stressed out by Smith. D (1999) . “ the midwife should be able to identify normal and abnormal condition of the baby during Labour and at birth , even though the fetal heart rate has been well monitored during labour in order to detect any changed in fetal condition”. With adequate monitoring of fetal heart rate, the midwife will be able to perform a main activity of giving routine care to the baby or active resuscitation according to the signs and symptoms presented by the baby. Midwife must recognized promptly signs of mild asphyxia and severe asphyxia, handle baby gently clear airways, cover baby one towel and give intervention as necessary. FHR is monitored every 30 minutes, with deviation from normal it is done more offer 5-15 minutes actively .

Amniotic Fluid (Liquor Amnii)

The third part of pantograph is a column provided for charting stage of ammoitic fluid (liquor amnii). Ammontic fluid is fluid which is surrounding the fetus, the composition is similar to that of intra – cellular fluid; about 99% is water, protein, fats carbohydrate, sodium, potassium solution, debris made up of desquamated fetal epithelial cells, vernix carseosa, lanugo hair, various enzymes and pigments made up 1% of its composition. Billirer’s (1999) “The fluid allows for growth and free fetal movement also equalizes pressures, protecting fetus form injury as well as maintain constant temperature and providing small nutrients.

Saxena (2004) “States that the origin is from both fetus and mother , secreted by amnion, maternal vessels, fetal urine and the fluid is exchange as often as three hours. Volume ranges from 500mls – 1500mls. “It also aids in cervical effacement and dilatation particular when presenting part is poorly applied” Myles (2004).

Assessment State of Membranes

The state of liquor amnioii fluid can assist in assessing the fetal condition the following observations are recorded after assessment immediately below the fetal heart rate usually these observation is made during each vaginal examination.

- “ If on virginal examination membranes rupture
- Liquor is clear , write letter ‘C’ for clear
- Liquor is blood stained write letter ‘B’
- Liquor is absent write ‘A’ for absent” Saxeena (2004)

Abnormalities may be occur in liquor explained by Ekpeze (2009) “increase quantity of above 1500mls is called polyhdramnious mostly associated with congenital malformation, quantity of 300mls and under is called oligohydramnious also associated with congenital abnormalities of the fetus”. Clear liquor indicates baby’s well being, while liquor that appears meconeum stained indicate fetal distress syndrome. It calls for listening to fetal heart rate more frequently 5 -15 minutes, also in absence liquor, bloody stained liquor all indicates danger sign during Intra-partum care.

Moulding

Moulding as identified by Koniach (1992) "Is a process of overriding of the cranial bones at the sutires and fontannels where by the fetus adapt s itself to the pelvis through which it is passing". When moulding occurs the head is squeezed into a different shape and alteration of diameters of the fetal skull occurs. Myles (2004) "Describes moulding as change in shape of fetal head that takes place during its passage in the birth canal." Alteration in shape is possible because the bones of the vault allows a slight degree of bending and the skull bones are able to override at the diameter, this overriding allow a considerable reduction in the size of presenting diameter. "While the diameter at the right angle to them is able to lengthen owing to the give of skull bones thus stressed by Saxeena (2004) as below;

(-) absence of moulding
(+) bones are touching each other
(++) bones are overlapping
(+++) bones are overlapping

In normal moulding the head is well flexed with sub-occipito - bregmatic and Bi-parital diameters presenting, as bones overlap this diameters decrease to facilitate engagement and passage of the head through the brim, Cavity and outlet of bonny pelvis. " Moulding is a protective mechanism to prevent foetal brain from being compressed as long as it is not excessive , too rapid or in unfavourable direction". Koniac (1992)

Assessment & Recording Moulding

Moulding is assessed at each time a midwife conduct vaginal examination , in a situation where the head remains high gives a clue of disproportion, thus difficult for midwife to assess moulding. The amount of moulding helps you to know how well the foetus is making room for the fetal head to occupy. Midwife must move her two fingers on vaginal examination try to assess and ascertain degree of moulding, it is recorded as ;-

"o" – bones are separated and sutures can be felt easily
+ = bones are just touching each other
++ = bones are overlapping , can be separated easily with pressure from your finger REFER if descent and labour is not progressing well.
+++ - Bones are over lapping , cannot be separated easily with pressure from your finger Adesokan (2004)
+++ calls for referrals

The amount of moulding helps you to know how well the pelvis is making room for he foetal head to pass through. Moulding occurring when the head is still high is a sign of disproportion (baby is too big for mothers pelvis) requires prompt intervention. As stressed in public medical Abstract (2012) "That majority of maternal death complications attributable to obstructed and proving labour could be preventable by cost effective an affordable health interventions like partograph use"

Assessment Of Maternal Condition With Partograph

Maternal conditions according to Baillere's midwives dictionary (1997) define's it as " pertaining to the mother" this explain those factors or indices that are being monitored with partograph from the mother or woman in labour. Assessment of maternal conditioners are recorded at the middle and bottom of the partograph, each at the appropriate column provided.

Vaginal examination to assess cervical dilation.

Vaginal examination is a "means of assessing factors of pregnancy , labour and pueperium, which two fingers and inserted into the vaginal opening". Tindal (2008) vaginal examination should always be preceded by abdominal examination, as stated by (Myles 2004) " Prior to

touching the woman a sound explanation of the proposed examination and their significance should be given , verbal consent should be obtained and recorded in the notes, midwife must be aware that a competent woman, with a capacity to make decision is within her right to refuse treatment regardless of its consequences to her and her unborn baby, she does not have to give a reason". This explains the important of seeking consent, which the midwife must comply, ask women to empty bladder or catheterized when necessary as head may be displaced by full bladder as well as being uncomfortable for the woman, during the vaginal examination midwife combine both external findings on palpation, a skilled midwife will have a detailed picture of the labour and its progress subsequently.

The following are indications for vaginal examination as stressed out by Myles (2004)

- To make positive identification of presentation
- To determine whether the head is engaged
- To exclude cord prolapsed after ruptured members
- To assess progress or delay in labour
- To confirm full dilatation of cervical OS.
- To confirm fetal axis, presentation of second twins in multiple pregnancy and to rupture membrane in second twin. Adesokan (2004) added the following indications
- To feel (assess) caput, moulding
- To feel pelvic size on admission

She stressed that vaginal examination be done every four (4) hours when a woman is in active labour, while WHO (2009) Added that vaginal examination be done at Interval of three hours when a women is 7 cm dilation and two hours when 8cm dilation then repeated one hourly when it is 9cm dilatation.

Procedure

- Vaginal examination is an A – septic technique
- Explain procedure to patient and obtain consent
- Protect her dignity and privacy
- Ask the women to lie down on her back with knees bend and her legs spread apart (lithotomy position)
- Look at her genitals for discharge e.g amniotic fuid. clear watery blood , meconeum.
- Clean the genital area with antiseptic
- Put on sterile gloves after washing hands
- Wipe genital area front to back repeatedly
- Insert two fingers middle and index finger gentle feel the woman's vaginal walls, feel for hard scarring, move fingers to the back of vagina & feel for stool in rectum.
- Feel the cervix with tips of your finger, check its firmness and thickness and decide how much the cervix has thinned, (thinning of the cervic is effacement).
- Determined how much the cervix has opened, opening of the cervix is dilation, measure the dilatation in cm, starting from 1cm to full dilatation 10cm.
- Complete or full dilation occurs when cervix is not felt
- Feel bags of waters (membranes). Like full balloon .
- If membrane are intact and well formed.
- If membranes are ruptured, the amniotic fluid should be clear or stained with meconeum or fluid may be absent.
- Feel the baby's presenting part, identify baby's part that lies directly or the cervix e.g vertex, breech.

- Feel for fontanels in vetex presentation, moulding etc
- Assess level of baby's head fits into the pelvic
- Feel for presence or absence of umbilical cord prolapsing.
- Remove fingers gently
- Reassure women, clean her up and make her comfortable.

From vaginal examination a midwife assessed cervical dilatation and it is recorded marked x. " Cervical dilatation and it is recorded marked x". Cervical dilation is assessed at every vaginal examination and marked with a cross (x) on the partograph, began plotting on the partograph at 4cm active phase Koniach (1992).

Komolafe (2006) explains "That active phase of labour extents when the cervix is 4cm dilatation, the current method now is to start using partograph when the cervical os is 4cm dilated".

"In cervical dilatation, the dilation is plotted with zero time on the graph & further examinations are made at least every fours". A line joins the points of each dilatation the cervical dilatation is divided into two phases:- Sexena (2014).

Alert Line

Alert line is a line that runs upward from the point marked 4cm dilation to 10cm dilation marked with the name "alert". Oxford dictionary (1995) defines alert as "a watchful, observant " this signifies that a midwife must be observant at this stage of intra-patum care, being watchful is ability to recognized danger sings early enough for necessary action". Being alert is paying full attention to things around you, and are able to deal with anything that might happen at the process of intra -patum. "Care adequately, if the line marked for the patent moves to the right of alert line, dilation is slow indicate delay in progress of labour" . (Saxena, 2014).

Action line

Action according to Oxford Dictionary (1995) "is a process of doing something or functioning, thing done, energetic. It also stands for taking emergency steps to deal with particular for seen problem". Action line is to be drawn 4 hours to the right of the alert line, it is suggested that if cervical dilation reach this line, there should be a critical assessment of the cause of delay and decision about appropriate management should be taken". Saxena (2014)

Descent assessment

Descend according to Bailliers (1994) is a "Downward movement of the fetus into the brim cavity and outlet of the pelvis in order to be born". Descend can be assessed abdominally and virginally as stated that " Descend is the station of the head identified & noted on vaginal examination are to be marked on the right end of partograph points and joined (Tiren 2008) When descend is assessed virginally " The level or station of the presenting pent is estimated in relation to the Ischial Spines, which are fixed points at the outlet of bonny pelvis" Myles Then descend is assessed virginally". the level or station of the presenting part is estimated in relation to the Ischial Spines, which are fixed points at the outlet of the bonny pelvis Myles (2004). In normal labour head descend progressively, midwifes must asses to know if the head is lower than previously.

In Assessment of descent abdominal palpation is done in which the head is felt above the symphysis pubis it is record as a **circle = 'O'** or 0/5 meaning the sinciput is above level of symphysis pubis.

Assessment of descend vaginally thus ;
Descend of 5 /5 indicates the head is above pelvic brim
Descend of 4/5 indicates small (0.05/5) part if the head into brim
Descend of 3/5 indicates 1/5 part of the head into the pelvis
Descend of 2/5 indicate 1.5 part of the head into the pelvis
Descend of 1/5 indicate 2/5 part of head into brim
Descend of 0/5 indicate the head completely inside pelvic brim.
Koniach (2004) further explains that a "midwife should take the opportunity to assure herself of its adequacy as she competes her vagina examination. She may be able to feel the Ischial Spines, which should be blunt, and note the size of the sub- public angle, which should be about 90^0 and accommodate two examining fingers. Prominent Ischial spines and reduced sub public angle are unfavourable features associated with android pelvis".

Timing

A column located below columns for dilation and descend is mainly for charting time, each square represent 30 minutes two squares stands for one hour respectively. Hours starting from 0 to 12 hours of the day in which a normal labour should not exceed 12 hrs "Supportive care during labour are most useful in helping the woman tolerate labour pains and facilitating the progress of labour, with the use of partograph. For induced labour the line of starting induction is recorded as Zero time and further recording at hourly interval" Tiran (2008).

Helps to prevent prolonged labour i.e labour lasting more than 12 hours". Reproductive Health Division". FMOH (2005) "partograph plays an important role in timing duration of labour and necessary intervention at each phase". Time of admission is referred to as 'O' time, it is charted outside the starting point , each column represent one hour continuously up to 12hrs of labour.

"Hours – This is the time that elapse since onset of active phase of labour
Time:- Record actual time'. Adesokan (2004)

Contractions

Contraction is the temporary shortening of muscle fibres which return to its original shape during relaxation'. Aluson (2006) uterine muscles are describe with unique property, during labour the contraction does not pass off entirely but muscles fibres retain some of the shortening of contraction instead of becoming completely relaxed and it is called retraction". Myles (2004).

This process assist in progressive expulsion of the fetus continuously. Each labour is individual and does not always conform to expectations, but generally before labour becomes established uterine contraction may occur every 15-20 minutes lasting 30 seconds. Contractions generally classified into three types and a midwife must be able to assess identify each type and record accordingly. Contractions are plot every 10 minutes below the time and or the left hand side, client at every half hourly, count the number of contractions in 10 minutes time period and their duration in seconds .

Mild contractions last for 20 seconds can occur once , twice or three times in 10 minutes its is charted in dots, each box representing one in 10 minutes.

- Moderate contractions lastly 20-40 seconds thus charted in diagonal lines each box representing one in 10 minutes.
- Strong or severe contractions are contractors lasting more than 40 seconds represented in solid colour  each box representing one in ten minutes . 

“ Meanwhile the length and strength of contractions gradually increases through the latent phase into active phase in first stage , by the end of first stage they occur at frequent interval 2-3 minutes lasting longer 50-60 seconds and very powerful” (Myles 2004). Midwife must be competent to monitor contractions continuously sitting by patient bed side, place her palm on the fundus of the uterus, time contraction for period of ten (10) minutes and record accordingly. Comparison must be made with previously monitored to ascertain progress of labour.

Oxytocin use in labour

“ Oxytocin has been identified as a hormones secreted by the posterior lobe the pituitary gland that causes or stimulate contraction of the uterine myometrim, it also causes milk to be expressed from the alveoli into the lacti ferrous duct” (Tiran 1997) synthetic oxyocin may also be administered intramuscularly or intravenously to cause uterine contraction in labour after delivery, to control post partum heamorrage or for augmentation / induction of labour. “ The pulsative release produces more effective uterine contraction, also successful for lactation”. Nortuntz et-al (2001). These group of drugs one classified as uterotomic drugs : syntometrin, syntocinon, ergometrine and prostagland) their mode of action is to stimulate muscles of the uterus to contract, may be administered with crowning of the head, at the delivery of interior shoulder, or at the end of second stage of labour following delivery of the placenta”. (Myles 2004) Oxytocen is a drug that can also be use to augment labour if indicated.

Two columns are provided in the partogram for recording oxytocin drop/ minute. Record the amount of oxytocin per minutes with intravenous fluid , iv drops must be clearly stated on the label and dosage of oxytocin added into the fluid, indicate 11v fluid drop per minute and every 30 minutes when used , within the bigger box provided.

Drugs given and intravenous fluid

“Drug is any medicinal substance” mainly for treatment of disease and or ailment” Wilson (2004). The need for drug use in intra-partum care can be categorized into analgesia in labour for prevention and management of heamorrage and treatment of physiological and pathological disorders. Some drug interaction is harmful and some have therapeutic effect. (Tindal 1997) “A midwife must chart every drug use during intra – partum care”.

Intra-venous fluid are fluid given to a women in labour through or within the vein, these fluids mostly come in form of 5% dextrose, dextrose saline, normal saline etc. administered to a woman at an initial stage of labour as she must be on nil per OS. By securing intravenous line with carnula and continuous until safe delivered is accomplished.

All intravenous fluid given must be charted accordingly at the appropriate column of a partograph.

Assessment of blood pressure, pulse and temperature.

Blood pressure, pulse and respiration are vital signs that are relating to life, essential to existence of an organism, they are cardinal points that indicate life and liveliness.

Vital signs are seen by Usmen e – el (2003) “as things , that such as temperature, blood pressure, pulse etc that shows that they are alive”. Vital signs are apart of the observation carried out on the mothers side, recorded at the bottom of partograph, all are indicated accordingly.

Pulse

Pulse has been define as the local rhythmic expansion of an artery, which can be felt with the finger, by Tiran (2012). It is also seen by Usman et-el (2007). “As a wave of distension and elongation felt in an artery wall due to contraction of the left ventricle forcing about 100mls of blood into the already full aorta”

There may be quite variation considerably in pulse rate in health cause by number of factors e.g position, sex, age etc. characteristics of pulse as rate, rhythm, volume and tension.
Monitoring pulse rate of women in labour and in identification of change in maternal condition in intra-partum care. A box is provided representing 30 minutes each meaning maternal pulse is taken at every 30 minutes interval and compared with the previous one at every intake, deviation from normal should be identified earlier and compare with other factors for necessary action, pulse is recorded and marked with (.) on lines dividing every thirty minutes.

Blood pressure

Is the pressure or force which the blood exerts against the walls of blood vessels Tiren (2010) thou there exist some pressure in the blood vessels, the term is generally used in reference to the critical blood pressure. This pressure is determine by several interrelated factors such as pumping action of the heart, resistance to blood flow in the arterioles, elasticity of the walls of the arteries , blood volume, blood viscosity etc. blood pressure is measured in brachial artery using sphygmomanometer. Two levels are recorded; systolic pressure Denice (1997) "when the ventricles are at rest, diastolic pressure when the ventricles contract".
During intra partum care blood pressure should be assessed every two hours, " take blood pressure every two hours" in a stable condition, variation in blood pressure during labour calls for frequent checking which could be hourly or at 30 minutes interval. Record blood pressure with mark ↕ on lines between two columns of thirty minutes continuously.

Temperature

Body temperature is that degree of heat of the body compared to standard scale as measure by thermometer. Normal body temperature ranged from 36.2^{o}C – 37^{o}C 2 (97^{o}f – 98.4^{0}f) Usman (1997) . Temperature can be taken orally, rectally, and into anxilla. Midwife should monitor temperature of a women in labour every four hours an chart at the sixth pert of partograph, various factors are known to affect body temperature commonly during intra-partum are anxiety, wheather, diseases condition etc. A woman in labour with rise in body temperature calls for further investigation and necessary intervension also sub- normal body temperature could be alarming and require necessary action.

<u>Urine testing</u>

This process is also refers to as urine analysis it involves "collection of urine and it is tested for presence of protein and ketone bodies" Balliere's (1999).
Testing urine for protein reveals the proper functioning of the kidneys which is a clue to identify pre-eclampsia couple with other signs identified. Presence of Ketone bodies is identified by detecting acetone in urine which are normal metabolic products of lipids and pyruvate within the liver and are oxidized by muscles.
Ketosis occur when Ketones are formed in excess in the body due to impaired carbohydrate absorption in the body. The midwife must work towards ensuring supply or restoring carbohydrate metabolisms in the body. "This condition present with fruity odour in her breath produce by cetone". Tiran (1997). Recording of urine testing for protein is done at the seventh part of partograph , the test is done using multi-stick reagent in the maternity unit, while test for acetone is done with a tablet and it is recorded on the eight apart of pantograph according.
Deviation from normal of the two test calls for appropriate intervention.

Volume of urine

All urine passed through out the period of Intra – partum caree is collected continuously , measured and recorded. " Patient is ask not to pass urine and feaces in the same bed pan" Usman et –el (2003). Bladder should be emptied continuously by catherization, all urine must be

measured and recorded accordingly in the column provided last part or partograph. Bladder must be check at interval of one hours or continuous. Midwife must observed presence of blood in urine, concentration urine, scanty urine, presence of meconeum stained and necessary action and intervene as appropriate.

Records.

Though out the first stage of labour , the midwife must keep meticulous records of all events of these women physical, psychological and sociological conditions and as well as the fetus. While observing the progress of labour she should be alert for signs of second stage of labour, a comprehensive record for the progress of labour must be evident, vital parameters, treatments and nursing care must be clearly documented.

Posterior part of partograph

There are responses that the midwife is expected to report at the posterior aspect of the partograph a midwife is expected to respond accordingly based on her findings and intervention's carried out.

Labour notes

Labour notes is a brief record of all that happened during first and second stages of labour, to remind oneself and co-workers in the management of a women during intra- partum care Tindal (1997) "Explains notes as a record written down to aid memory short or long time' for the notes written further care can be instituted.

First stage

Labour simply means " parturation or childbirth, labour in a normal situation is suppose to occur spontaneously at term and completed with 12hrs without physiological or psychological trauma to both mother and fetus. Physiology of labour depends on interaction between uterine action, maternal pelvis and the fetus'. (Tindal 1997) stressed that Physiology of first stage of labour depend on contractions and retraction fundal dominance, effacement and dilatation of the cervix , polarity in the uterus facilitates contraction and retraction in the upper uterine segment, and dilatation in the lower uterine segment.

Second stage.

a midwife can competently identify commencement of second stage of labour by continuing evaluation, of the progress of labour noting the following as identified by Saxena, (2014)

- Contraction pattern frequency, duration, intensity
- Maternal behaviour changes
- Sign & Symptoms of transition and impending second stage
- Position of low back pain
- Position of location of maximum intensity fetal heart tones.

Vaginal examination must be reviewed to determine dilatation and effacement of the cervix as well as level of the presenting part (fetal station), this can also be repeated after spontaneous rupture of membrane

" Vaginal examination must be minimize to avoid introduction of intra – partum infection" Jacob, (2012) . Midwife must observe signs of second stage of labour, (Myles, 2004) States that " At least five factors determine whether the second stage is continuing optimally, and these must be carefully observed uterine contraction, descend, rotation and flexion, fetal conditions, suspicious pathological changes in the fetal heart and maternal conditions".

During birth both mother and baby are particularly vulnerable to infection, meticulous a septic technique should be observed, WHO recommend six cleans to be taken care of at the time of labour and delivery to minimize chances of infection such as ;

- " Clean hands
- Clean perineum
- Clean cut cutting , instrument
- Clean cord care
- Clean cut ties"

The midwife report comprehensive conduct of the delivery in the following steps:-

- Delivery of the fetal head, as the head descend, as the largest diameter of the fetal head descend the vaginal introitus, as the head distend perineum, how hand is used for exerting downward and forward flexion. How the head is delivered, suctioning as soon as the head is born, how to feel for cord round the neck, delivery of the anterior shoulder followed by posterior shoulder and delivery of the rest of the body supported with one hand. Report on clamping the cord, placing baby or mothers abdomen and covered with soft dry blanket after showing to mother for sex identification. The next column on the partograph after labour notes is for responses to be filled on date of delivery, time of delivery and method which may be spontaneous / vacuum extraction / C/S /forceps destructive. Midwife should indicate accordingly which method is appropriate applied for the delivery conducted, these plays an important role in enhancing the care at post – partum .

  Perineum

  Report on condition of perineum at delivery be clearly spelt out. " Perineum anatomically is the area extending from the pubic arch to the coccyx, with the underlying tissues" while obstetrically is the fibro muscular pyramid between the lower third of the virgina anterior and the anal canal posteriorly, isachial tuberosity laterally" Bailleres, (1997). It has been describe as an area vulnerable to laceration or episiotomy may be given there. Report should indicate if it is intact, or episiotomy given or probably the woman sustained laceration with degree repaired or not.

  Anasthesia :

  Anaethesia used, could be local or general "Anasthesia is a state in which the whole body (general) or part is induced to be insensible to pain, feeling or sensation" Myles (2004). It is induced to permit performance of surgery or other painful procedures example giving episiotomy, suturing tear and others.

Third stage of labour

Active management of third stage of labour is of parament important by the midwife, third stage of labour has been define as " period from the birth of the child to complete expulsion of the placenta and its membranes, it involve separation and expulsion of the placenta and membranes and the control of heamorrage Jacobs, (2012)

Management of third stage starts during second stage of labour actively after the delivery of the anterior shoulder. Management takes a "period of 5-20 minutes" Beilliers, (1997) involves administration of uterotonic drugs which could be "These drugs are syntometrim, syntocinon, ergometrine and prostaglandin that stimulates smooth muscles of uterus to contact, they may be administered at the time of delivery of anterior shoulder of the baby, at the end of second stage of labour following the delivery of the placenta" (Myles, 2004).

Active management, control cord traction

Active management is demanded at third stage of labour " This stage starts with the delivery of the baby to the expulsion of placenta and membranes or after birth" Safemotherhood , R.H.D (2005) .

Active Management is a policy where by prophylactic administration of uterotonic, as a precautionary measure aimed at reduction in the risk of post partum hemorrhage, it is applied regardless of the assed obstetric risk status of the woman. "An active management policy usually includes the administration of an uterotonic agents either intravenously, intramuscularly or even orally" Myles (2004). In controlled cord traction once the placenta is known to have separated , midwife does the following;-

- Places the ulnar border of her left hand in the supra pubic region
- Gently pushes the contracted uterus upwards,while with her right she gains a firm hold on the cord and extents' gentle traction, following the (curve of cairus).
- Membranes one eased out slowly and gentle to avoid tearing them, may lead to retained product.
- Oxytocic drug is already administered to facilitate placenta separation.
- Waiting for signs of placental separation is not necessary before attempting control cord traction.
- Midwife collect placenta with her two palms and gently place it inside disinfectant bowl prior to its examination.
- Perineum part must be well inspected to rule out tear if it ahs occurred suturing is necessary, however minor bruises can be treated with disinfectant and adequate perineal care. Midwife must clearly state the conduct of third stage of labour either yes or no in the column provided. Time placenta is expelled either complete or incomplete.

Medication

Column provided at the right hand side of the active management of third stage to record medication served at this stage of labour. "The term medication is a process in which medicine is being served for treatment of illness or diseases"; Collins, (2000) medications usually served in third stage of labour involves, oxytocic drugs and analgesics and antibiotics etc.

" Oxytocin is a synthetic form of natural oxytocin produced in the posterior pituitary, and safe to use in under context than combined ergometrim / oxytocin agents can be administered both intravenous and intramuscularly injection" (Myles , 2004) .

Research evidence to date suggest that this is effective uterotonic choice where routine prophylactic management of third stage of labour is practiced. More specifically in women who experience blood loss exceeding 1000mls, other group of drugs one used afterwards in first and fourth stage of labour or at the post partum period.

Blood Loss Amount

Blood loss refers to the total sum of blood that a women loses during labour as reported by Saxena (2014) "fluid blood loss over 300ml to be often under estimated, this is important factor to consider in assessing blood loss" studies conducted by Brendit (1966) in Myles (2004) shows that valid points that haemodynamically women can withstand perhaps a 1000 – 1500mls of blood loss. However any further blood loss may not be tolerated so readily". This shows that women undergoing virginal delivery or caesarian section whatever, have a limit of blood loss they can tolerate, however dehydrated or aneamic

women may not withstand sudden large volume of blood loss. “Generally blood loss during delivery should be controlled by midwife as much as possible not to succeed 300-500mls . Through out process of intra-partum care” Jacob, (2012). Details of blood loss estimation must be stated in the column provided, blood loss of less than 250cc is considered mild, 250 – 499cc moderate, while 500cc and above is large or severe.

Report on baby

Weight :

Weight has been defined by Oxford Dictionary (2010) as “an object mass numerically expressed using a recognized scale of units or system of units”. Baby’s weight is the total mass of a baby at birth, which is measured using baby’s weighing scale. “A normal term baby weights approximately 3.5kg to 4kg , most baby’s are plump and have prominent abdomen” Myles, (2004) midwife should measure the weight at birth and record at the column provided.

Length

Estimation of length of a newborn at birth is essential to ascertain the growth and development of the baby subsequently. “ Length has been define by Collins, (2000) as the “measurement or extend from end to end”. The newborn length is measured from the crown of the head to the heels , measures 50cm averagely on a newborn” Saxena, (2014) . The essential of length measurement as stressed by Myles (2004) it is suggested that serial length measurements monitoring growth should be made by the same individual to improve reliability”. In measuring length of a newborn, head and feet must be in contact with the board at the top and foot of the device with legs straight and extended, after measurement finding should be recorded at the column provided on the partograph.

Baby presentation

Presentation according to Tindal, (1997) “ is that part of the fetus which first enters the pelvis, occupying the inner pole of the uterus”. Normally cephalic with the vertex presenting, sometimes with breech and occasionally face, brow or shoulder”.

Vertex presentation is the type of presentation where by an area of the head bounded by the anterior and posterior fontanels, laterally by the parietal eminences is presenting” Dolcin, (2002). “In vertex presentation the head is completely fleshed. That vertex lies outer the cervical Os and the first part to appear at the vulva, this is regarded as the most favourable presentation for normal vaginal delivery”.

Breeeh & others

Breech presentation is a kind of longitudinal lie of the fetus in which the buttocks present in the lower pole of the uterus.” Here the fetus lies longitudinal with the buttocks in the inner pole of the uterus, and presenting diameter is bitro-chanteric of 10cm, and the denominator is the sacrum, occurring in about 3% of pregnancies at term” Myles(2004).

Other presentations ranges from brown, face shoulder and cord presentations, which are all regarded as abnormal presentations. Clear record of the type of presentation is vital in ascertaining the intervention required by the mother and baby on the partograph at the right column.

Apgar scoring.

Apgar scoring is system of assessment devised by Dr Virginia Apgar to a newborn at birth precisely, after One minutes and five minutes of birth respectively. Komolafe, (2004) describes “Apgar scoring as a simple test to help the midwife decide if the new born baby

needs help, the midwife assess the baby immediately it is born and again respectively, the assessment of the condition of the baby after five minutes of birth, the signs needed to remember are easy using Dr. Apgar's method".

After delivery of the baby in which the midwife has already preceded with drying the skin, to minimize heat loss, she now make an assessment of the baby's general condition using Apgar score at 1 minutes and 5 minutes. " it has been shown that assessment at five minutes is more reliable as a predictor of the risk of death during 28 days of life , and of the child's newrological state and risk of major disability at 1 year of age" Myles (2004). The highest the score the better the out come of baby.

Mmemonic for the apgar score is Myles (2004)

"A-Appearance (i.e colour)
P- Pulse (i.e heart rate)
G- Grimace (i.e response to stimuli0
A- Active (i.e tone)
R- Respiration.

The highest score for a healthy newborn is 10 at five minutes, as each points carries 2 marks as its highest score and o in a case where the baby is not breathing.

Midwife must be competent in carrying with assessment on the newborn at birth 1and 5 minutes later, record the score adequately at each column provided and calls for intervention where applicable to enhance chances of baby's survival . 'medical aid should be sought if score is less than 7 at I minute, and less than 6 at 5 minutes" Myles (2004)

Mothers condition

Continuous monitoring of the mother is important after 3rd stage of labour is completed , up to period of one hour , which is regarded at fourth stage of labour. " It is important for mother and baby to remain in the midwifes care for atleast an hour after birth, regardless of the birth setting". Myles (2004)

Fourth stage

This stage extend form expulsion of the placenta to one hour later, midwife at this time spend time in clearing up and completion of records, but carefully and importantly pays attention to observation of mother and baby. She adequately carry out the following care after one hour of delivery

- Check the blood pressure of the women at every is minutes interval for the next two hours
- Check pulses rate 15 minutes for 2hrs as well.
- Measure fundal height every 15mintues for 2hrs
- Encourage patient to pass urine or catheterize. If despite destended bladder the patient is unable to void, is indicated". Saxena, (2004)
- Monitor woman breathing rate as well as that of baby.
- Keep baby warn with cap and socks
- Check umbical cord every 15 minutes for 2hrs.
- Ensure baby is attached to breast & check regularly for ability to suck.

After 2hrs, "above observation and intervention one check every 30 minutes for the next one hour. The midwife is responsible for seeing that all observations are made and recorded prior to transfer of mother and baby to the post natal ward Jacobs (2012) .

It is important that the midwife after all necessary intervention of cleaning mother and baby with all forms of A-Septic technique, now transfer the mother and baby to lying in ward. " Midwife

should leave detail of her contact . Telephone number where she may be contacted should the parents feel any cause for concern" Jacob, (2012). The midwife incharge of lying in ward continues with the women subsequent care as needed.

Birth attended

A column is provided as last part of the partograph, for identification of birth attendance , here midwife is expected to write her name in full and the date delivery conducted for sake of the acknowledgement , identification and documentation.

Emperical Framework of Partograph

Empirical aspect of literature review is a of literature on partograph which is based practical experiment on the tool clear analysis of the practical use of partograph In the field of practice. Empirical review also emphasis studies of partograph that relies on practical experience and not based on theory alone, the empirical evidence provides adequate support to the subject under study. It is important to approach the task under study empirically as well. As stated by [ogumaka 2002] '' it is also belief that people should rely on practical experienced and experiment, rather than on theories, as a basis for knowledge and practical.''

Partograph developed by WHO. as a tool effectively use during inter-partum care. It was seen as a primary weapon all midwifes can posses because of its important in inter-partum care, unfortunately partograph has faced a lot of misconception and misinterpretation by not only midwives but health care sector this led to under utilization of the tool. ''misconceptions and misinterpretation are brought about by unfavorable experience suffered by individuals or ignorance of certain phenomenon'' [Dolan 1997]. Specialist hospital Gombe is expected to provide the best of maternity care service because it is a reference centre for all maternity case. The purpose of innovation of partograph is to render effective intra -partum care to all women in labor in a consistent, logical manner.

partograph provides the structure for intra-partum care which involves skills and knowledge in monitoring labor efficiently and time to record all findings on the sheet provided, as stressed by [reproductive health journal 3/1/4 2006] ''partograph use has became routine in the management of labor in many countries around the world, and can be helpful in the management and decision n making process'' [6-8].

Studies conducted in Delek health facility, explains that ''Those women requiring intervention are transferred to obstetricians at the nearest bigger hospital a journey of 20-40 minutes immediately after judicious use of partograph to monitor their labor care. No doubt the introduction of routine partograph use by WHO with the aim of quantifying events occurring during labor and quantifying decision taken with regards to transfer and or intervention is essential.

In recent years studies reveals that the tool is widely accepted as an effective means of recording the progress of labor, the charts are clearly design and commucating information adequately on labor progress. As it is a fact that a women undergoing labor is a contineous process that may not always progress as obstetrics curves currently suggest. Aderonlce, [1999] highlighted that ''partograph is too detailed yet one midwife on duty at time finds it difficult to plot it to standard, because of many activity she is compounded with, however good to use as it safeguard mother and child health care.''

partograph use is good as complications can be diagnosed early and enables decision making on next step to manage the mother and baby, it is simple and good exercise that helps detect dangers in mother and baby. Partographs are also use for handing over to next midwife on duty. when going out, as she glance the partograph she clearly identify where labor has reached. Studies

conducted in Rukunjiri District Uganda [2009] states that ‘’The finding of the feotal heart rate during intra-partum care was abnormal above 160 beats per minutes, that prompted the midwife to prepare to resuscitate asphyxiated baby, this study reveals significance between utilization of the tool to tackle complication that, might arise, this confirms that partograph when use to monitor labor progress determines feotal out come. Similarly Taylor [1989]. Remarked “Ability to manage labor with partograph required determination and justification on the part of health care givers rather than on vogue supposition’’. Gombe specialist hospital beings a tertiary centre that caters for different kinds of ill health, with lots of expectation to give efficient care to the populace needs more skilful midwives to meet up this expectation of the society through partograph intervention.

Walsh [1996] in the study said “The principles behind change is to improve patient care by using approach which furnishes nurses with an ideal tool with which to provide total patient care.’’

4The problem of new ideas is caused by attitude of health care providers [midwives] developing high anxiety level, criticism which affect change. It is pertinent to note as stated by wash 1983] ‘’Midwifery care to a large extend becoming more technical and scientific approach to improve maternity care.’’ A search for theory which can be the basis for national description’’. Taylor, [1989] innovations are seldom welcome in health care delivery leading to inability to improve from the past and old methods.

Practicals demostration of partograph use.

Partograph has been identified and recognized in maternity care in recent years, it has been widely accepted as a means of recording all observations and findings to give a comprehensive clear picture of cervical dilatation in which cervicograph has been in use ‘’cervicograph is the diagrammatic representative of the dilation of the cervix as charted against the hours in labor.’’ It is good to note that rate of progress of labor must be considered in the context of the woman total well being and choice myles [2004]

Studies conducted in Ethiopia Addis Ababa public health institution shows that ‘’health care providers process knowledge on the instrument can clearly explain the function of alert line and it implication in care during intra-partum, Function of action line well understood by 57% of obstetric care givers several studies conducted showing utilization of partograph relatively high among obstetric care givers working in health centre’s and hospitals Several reports demonstrates use of partograph to monitor mothers and their baby’s health in labor thus it is seen as one of the vehicles to reduced maternal mortality as stated by central statistical agency Ethiopia for maternal mortality ratio continuous to be the major index of the widening discrepancy in the level of care and the outcome of reproductive health between the advanced and developing country. The maternal mortality in Ethiopia is high despise the recognition maternal mortality as a public health issue, in Ethiopia maternal mortality ratio is estimated at 676/100,000 live births.

‘’Imminent complication like poor progress of labor, prolong labor, foetal distress and in worse cases obstructed labor and ruptured uterus, early detection of prolong labor greatly contributes to prevention of obstructed labor and other related complications such as ‘ sepsis, post-partum hemorrhage and obstetric fistula Mathai M, [1994] ‘’partograph is a simple and in expensive tool which plays on important role in care of all women undergoing labor in hospitals, studies reveal that hospital which implementation is successfully done, it has made impact in improving condition of health of families and mothers’’.

Studies from Nigeria shows that 33% of midwives were using partograph to monitor labor yielding desirable result, it has also been identified that care givers may resist using the tool because of sufficient knowledge and do not fully understand Why they have been ask to use the

tool. ‘’Non availability of pre-printed copies of partograph has also been reported as a factor to non utilization’’ Fawole [2012].

Another study conducted on availability of partograph usage and importance reveals that ‘’sub-standard monitoring of foetal heart rate and cervical dilatation which has over three time or four times risk of getting baby with Apgar score of less than seven respectively which partograph was not use’’ Fried man [1985]. This study was conducted with the aim of identifying the relationship between babys Apgar score and the quality of monitoring parameters during intra-partum care using partograph at a particular health facility.

On the general view of empirical aspect of partograph, its application, evaluation of effectiveness, health care providers are of the view of its effectiveness in prevention of complication during intra-partum care and delivery. ‘’However few responses from heads of maternity departments we has negative perception‘’ Simon [2012]. Some responded as being too detailed to content with, Even thou majority of heads of maternities felt it was a useful tool in detecting abnormally labor progress so as to take action with lack of proper guideline highlighted. On the other hand, Health workers perceived the partograph to be useful in helping them detect abnormal labor and necessary interventions instituted at the appropriate time and manner to save the mother and babies life.

Summary

Historically partograph was innovated and introduced in form of graphical tool by WHO in 1970’s as a strategy to prevent high rate of maternal and neonatal morbidity and mortality in which its knowledge and usage is to be promoted and effectively utilized in all maternity care.

Literature is well reviewed on several ideas that explains the concept and its application which has to do with acceptability, documentation and plotting of the graph, it also explains its exposition, speculations and its general principle’s as a tool for effective intra-partum care. All features of partograph are properly dealt with, their descriptions clearly narrated, as well as their relevance in prevention of complications in labor both to mother and baby.

Empirical framework of partograph also considered and reviewed in this chapter which is all about clinical experiment of the tool under study. It’s clear analysis on practical application in field of practice and its impact so far, as stated by Ogumaka [2014] ‘’it is belief that people should use practical experience and experiment most rather than on theories as a basis for knowledge’’. On its practical application of partograph revelation made about its usefulness in preventing complications based on past usage.

Misconceptions and misinterpretations were analysed, constrains related to administration, availability in facilities were to looked into, as well as financial implication as one of the major constraints to consider.

METHODOLOGY

Chapter three explains the design and procedure used in the study on knowledge and utilization of partograph among midwives in specialist hospital Gombe, in this chapter the researcher present the following-:

Research design

The research design for this study will be descriptive survey; it will ascertain knowledge and utilization of partograph among midwives in specialist hospital Gombe towards prevention of neonatal and maternal mortality.

Area of study

This study will be conducted in Gombe state in tertiary hospital within Gombe metropolis. Gombe state is one of the 36 states in Nigeria, located at the North –Eastern part of the country the State is approximately bounded by Adamawa State Eastwards, Bauchi State at the west Yobe and Taraba State north and south respectively. People of Gombe are mainly traders while some are farmers, Gombe State Specialist Hospital is located at the heart of Gombe town the hospital was established as a health institution to provide a range of specialist services for a large population in the area it also serves as a training ground for nurses and midwives in the state and nationwide.

Population of the study

The target population for this study will consist of all midwives in specialist hospital Gombe, with a total number of three hundred and sixty five (365) distributed in various units of the hospital, as well as labour record folders for the year 2014 with a total number of 5,010.

Sample and sampling technique

The sample size of this study was determined using Yamane Taro (1967) formulae and will be computed as follows.

N= N/1+N(e*2)
= 365/1+365(0.05)
= 365/1+365(0.0025)
=365/1+0.9128
=365/1.9125
=191.

One hundred and ninety one (191) midwives will make up sample size for the study as well as five thousand and ten (5,010) past used labour record folders. Simple Random sampling techniques will be used for the study.

Instrument for data collection

The instrument that will be used for data collection in this study will be questionnaires as well as retrieving data directly from past used labour record folders ,questionnaire will be made up of a number of items divided into 4 sections in accordance with the research questions.

Section A: will be made up of 7 items to assess level of knowledge of midwives on partograph usage

Section B; will consist of 6 items to determine level of adequacy of human and material resources for usage of partograph.

Section C; will consist of 5 items ascertaining the level of effectiveness of partograph in detection of danger sign during labor

Section D; will be made up of 6 items to identify strategy of prompt intervention on danger signs identified and their outcome.

Section E: Will consist of 2 items to ascertain the rate of normal and abnormal deliveries conducted with and without Partograph.

Validation of instrument
The questionnaire will be developed by the researcher and be given to project supervisor who will carefully go through them and made some corrections and suggestion, and will be taken to some experts in midwifery field of practice to ascertain the validity of the instrument .

Reliability of the Instrument
The researcher will administer the questionnaire to a group of midwife educators for pilot study ,the number of educators that will be used for the study will be sixteen to enable the researcher ascertain how the questions could be understood and answered by the respondents.
Provision will be made after each question for respondent to comment freely with adequate instruction directing respondents to comment on any item ambiguous to them, and to write down any suggestion they think could help in improvement of the questionnaire, after that necessary amendment will be made on the questionnaire, thus making the instrument reliable.

Administration of Instrument
The researcher will personally administer the set of questionnaire sample of the study in specialist hospital Gombe and will try to retrieve the completed questionnaire within two to three days of distribution, it is hoped that 97% of the questionnaire will be successfully retrieved, and 3% loss may be incurred.

Method of data analysis
The information that will be gathered from respondent will be analyzed and presented in tables, bar charts, pie charts, histogram; all responses will be analyzed in percentage. IBM SPSS software version 21 will be used to achieve this.
Responses to questionnaire items on attitude will be analyzed based on the following Likert's scale opinion range; Strongly agreed, Agreed, Undecided, Disagreed and Strongly disagreed.

with and without Partograph.

Validation of instrument

The questionnaire is developed by the researcher and be given to project supervisor who carefully went through them and made some corrections and suggestion, and is taken to some experts in midwifery field of practice to ascertain the validity of the instrument , hence proved valid for the study.

Reliability of the Instrument

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Results And Discussion

Data Presentation, Analyses and Interpretation

Section A

RESEARCH QUESTION 1: What is the level of knowledge of partograph?

Table 1: **Partograph definition (n=191)**

Responses	**Frequency**	**Percentage**
Correct	130	68.1
Incorrect	61	31.9
Total	191	100.0

Source: Field work 2017

Table (1) shows that only 68.1% of respondents got partograph the definition correctly.

Table 2: **Meaning Of Alert Line (n=191)**

Responses	**Frequency**	**Percentage**
Correct	73	38.2
Incorrect	118	61.8
Total	191	100.0

Source: Field work 2017

Table (2) shows that majority of respondents do not know meaning alert line of partograph

Table 3**: Components of Partograph** (n=191)

Responses	**Frequency**	**Percentage**
Correct	74	38.7
Partially correct	54	28.3
Incorrect	63	33
Total	191	100.0

Source: Field work 2017

Table (3) shows that only 38.7% of respondents listed the components of partograph correctly.

figure 1

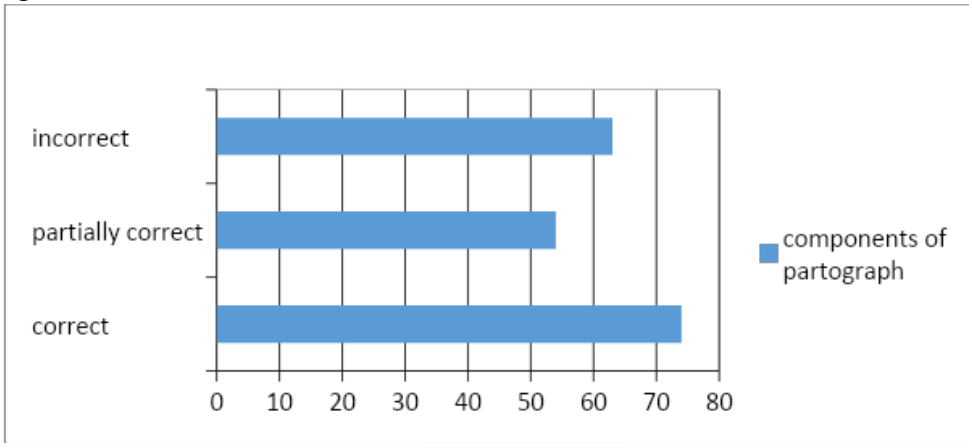


Table 4: **Fetal Heart rate** (n=191)

Responses	**Frequency**	**Percentage**
Strongly Agreed	90	47.1
Agreed	75	39.3
Undecided	6	3.1

Disagreed	14	7.3
Strongly Disagreed	6	3.1
Total	191	100.0

Source: Field work 2015

Table (4) shows that 47.1% strongly agreed that fetal heart rate is monitored every thirty minutes during intra-partum care.

Table 5: Normal progress of Labour to the of Alert Line (n=191)

Responses	**Frequency**	**Percentage**
Strongly Agreed	68	35.6
Agreed	78	40.8
Undecided	12	6.3
Disagreed	24	12.6
Strongly Disagreed	9	4.7
Total	191	100%

Source: Field work 2015

Table (5) shows that only 40.8% of respondents agree that normal plot of labour falls on the left alert line of partograph

Table 6: **Normal Labour within Stipulated duration of 24 hours** (n=191)

Responses	**Frequency**	**Percentage**
Strongly Agreed	35	18.3
Agreed	80	41.9
Undecided	12	6.3
Disagreed	57	29.8
Strongly Disagreed	7	3.7
Total	191	100.0

Source: Field work 2015

Table (6) shows that only 41.9% of respondents agree that normal labour has stipulated duration of 12 hours

Table 7: **Blood pressure Monitored four hourly** (n=191)

Responses	**Frequency**	**Percentage**
Strongly Agreed	42	22.0
Agreed	85	44.5
Undecided	10	5.2
Disagreed	37	19.4
Strongly Disagreed	17	8.9
Total	191	100.0

Source: Field work 2015

Table (7) shows that only 44.5% of respondents agree that blood pressure is monitored every four hours during intra-partum care

SECTION B

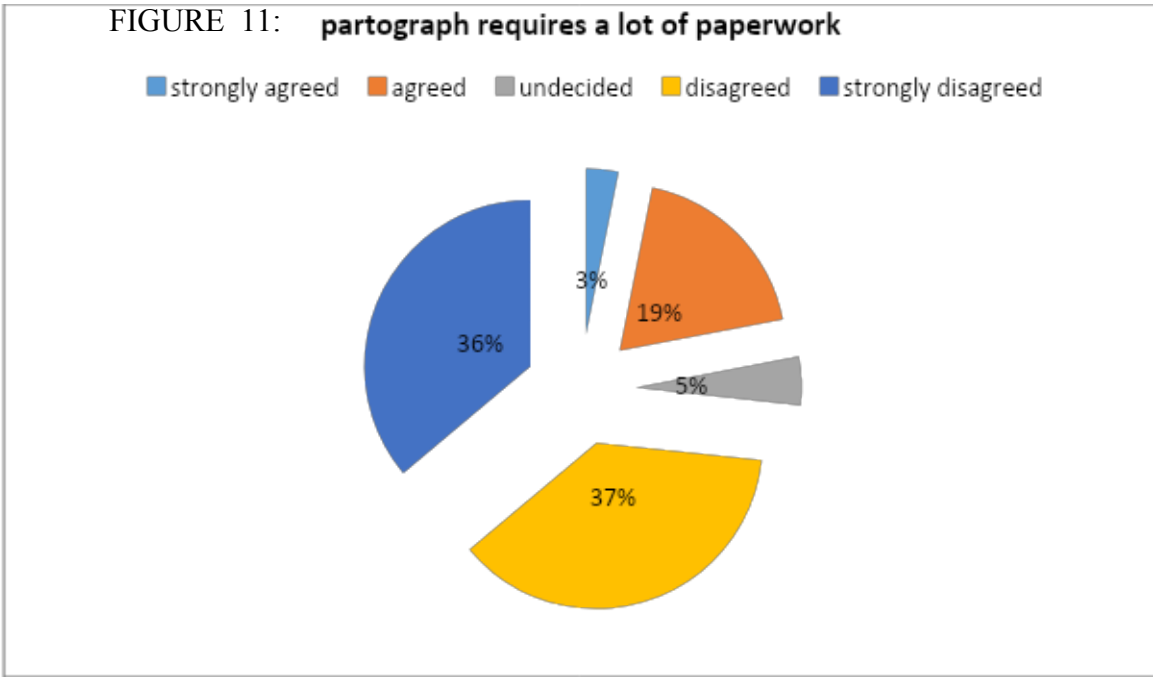
Table 13: **Partograph requires a lot of paper work** (n=191)

Responses	**Frequency**	**Percentage**
Strongly Agreed	6	3.1
Agreed	36	18.8
Undecided	9	4.6
Disagreed	71	37
Strongly Disagreed	69	36.1
Total	191	100 .0

Source: Field work 2017

Table (13) shows that majority of the respondents 37% of respondents strongly disagree thatpartograph require a lot of paper work and is time consuming.

FIGURE 11: **partograph requires a lot of paperwork**



Section C

RESEARCH QUESTION 3: To what level is partograph effective in detection of danger signs during labour?

Table 14: **Monitored Fetal Heart Rate (n=5010)**

Fetal Heart Rate	**Frequency**	**Percentage**
Not Done	1600	31.9
Abnormal Rate	995	19.9
Normal Rate	2415	48.2
Total	5010	100.0

Source: Field work 2017
Table 14 shows that 48.2% of fetal heart rate was taken at normal rate

Table 15**: Monitored Women Cervical Dilatation (n=5010)**

cervical dilatation	Frequency	Percentage
Not Done	1271	25.4
Abnormal Rate	629	12.6
Normal Rate	3110	62.1
Total	5010	100.0

Source: Field work 2017s
This table 15 shows that 62.1% of women cervical dilatation was taken at normal rate

Table 16**: Monitored Women Uterine Contraction (n=5010)**

Uterine Contraction	Frequency	Percentage
Not Done	2850	56.9
Abnormal Rate	605	12.1
Normal Rate	1555	31.0
Total	5010	100.0

Source: Field work 2017
This table 16 shows that 56.9% of women uterine contraction was not taken.

Table 17: Monitored Women Blood Pressure (n=5010)

Blood Pressure	Frequency	Percentage
Not Done	1450	28.9
Abnormal Rate	1620	32.3
Normal Rate	1940	38.7
Total	5010	100.0

Source: Field work 2017
Table 17 shows that 38.7% of women blood pressure was taken at normal rate

Table 18: Monitored Women Descend of Presenting Part (n=5010)

Descend of Presenting Part	Frequency	Percentage
Not Done	3336	66.6
Abnormal Rate	810	16.2
Normal Rate	864	17.2
Total	5010	100.0

Source: Field work 2017
Table 18 shows that 66.6% of women descend of presenting part was taken not done.

SECTION D

RESEARCH QUESTION 4: What strategies are adopted by midwives when danger signs are identified?

Table 19: outcome of women abnormal fetal heart rate (n=995)

abnormal fetal heart rate monitored	Frequency	Percentage
Caesarian section	940	94.4
Augmentation	55	5.6
Total	995	100.0

Source: Field work 2017

Table 19 shows that 94.4% of women abnormal fetal heart rate was not done

Table 20: Outcome of Women Abnormal Cervical Dilatation (n=5010)

Women abnormal cervical dilatation monitored	Frequency	Percentage
Caesarian section	300	33.1
Augmentation	971	66.9
Total	1271	100.0

Source: Field work 201

Table 20 shows that 66.9% of abnormal cervical dilatation was done at abnormal rate.

Table 21: Outcome of Women Abnormal uterine Contraction (n=5010)

Women Abnormal Contraction	Frequency	Percentage
Caesarian Section	380	62.8
Augmentation	225	37.2
Total	605	100.0

Source: Field work 2016

Table 21 shows that 62.8% of women with abnormal contraction had caesarian section

Table 22: Outcome of women abnormal descend of presenting part (n=5010)

Women abnormal descend of presenting part	Frequency	Percentage
Caesarian Section	500	61.7
Augmentation	310	38.3
Total	810	100.0

Source: Field work 201

Table 22 shows that 62.6% of women with abnormal descend of presenting part had caesarian section done

Table 23: outcome women abnormal blood pressure (n=5010)

Women abnormal blood pressure monitored	**Frequency**	**Percentage**
Caesarian Section	400	51.2
Augmentation	380	48.8
Total	780	100.0

Source: Field work 2017

This table shows that 51.2% of women with abnormal blood pressure had caesarian section done

Section D
HYPOTHESIS TESTING

Hypothesis 1: The mean level of knowledge of partograph is not significantly different as compared to their knowledge of partograph component.

Table 18: Partograph definition vs. Components of partograph

Partograph definition	**Components of Partograph**			**Total**
	Correct	Partially correct	Incorrect	
Correct	65 (50.0%)	38 (29.2%)	27 (20.8%)	130 (100.0%
Incorrect	9 (14.8%)	16 (26.2%)	36 (59.0%)	61 (100.0%)
Total	74(38.7%)	54 (28.3%)	63 (33.0%)	191 (100.0%)

Chi-Square = 31.858 df=2 p = 0.0000

Decision rule

If X^2 cal > than X^2 tab, we reject null hypothesis, otherwise we accept the alternative.

X^2 tab = 5.991

. Since, X^2 cal (31.858) > X^2 tab (5.991) we reject the null hypothesis that `the midwives knowledge level of partograph is not significantly different as compared to their knowledge of partograph component. Hence, we uphold the alternative hypothesis, that the midwives knowledge level of partograph is significantly different as compared to their knowledge of level of component. .

Hypothesis 2: The number of normal deliveries conducted is significantly independent of used or none-used of partograph

Type of deliveries			**Total**
	Partograph used	Partograph not used	

Normal deliveries	2880(73.85%)	1020(26.15%)	3900(100%)
Abnormal deliveries	739(66.58%)	371(33.42%)	1110(100%)
Total	3619(72.24%)	1391(27.76%)	5010(100%)

X^2 =22.4071, df=1, P-value=0.0000 X^2 tab=3.841

Decision rule-

Since, X^2 cal (22.407) > X^2 tab (3.841) we reject the null hypothesis that number of normal deliveries is significantly independent of the used or non-used of partograph. Hence, we uphold the alternative hypothesis, that number of normal deliveries is significantly dependent on use of partograph, as such the use of partograph makes a difference in delivery.

The research work seeks to ascertain midwives knowledge of partograph towards prevention of maternal and neonatal mortality in specialist hospital Gombe. Partograph usage has been devised as a strategy in prevention of obstructed and prolong labour thus preventing maternal and neonatal mortality. Judicious partograph use is vital. Fraser, (2006) "Affirms that midwifery is becoming increasingly litigious "and so midwives must be equipped and skillful , ability to keep records during labour ,management must be meticulously documented" .

Chapter one of the study introduces clearly state the problem formulate objective for the study, significant of the study and research questions it also states limitation and purpose of the study. Chapter two ,of this research work exposes the related literature , it really explain what partograph is all about ,the historical perspective ,of partograph , theoretical as well as empirical frame work of partograph as innovated by World Health Organization (W H O) "A graphical representation of all event in labour and it is plotted against time ".essentially to know that the tool is for monitoring labour ,thus hel p to identify risk factors which may continue to manifest during labour .This chapter also treated different features of partograph from bio data , fetal heart rate monitoring and recording ,liquor amnii, cervical dilatation , descend of presenting part,contraction , time, blood pressure monitoring as well as oxytocic drugs given , urine passed ,and report on each stage of labour.

Chapter three of the study highlighted the methodology adopted for the study ,data used was obtain from midwives and past used labour records .

Chapter four comprises of data presentation, analysis and interpretation. It also discussed how responses to the questions were presented in a tabular form, bar chart ,line charts, pie charts ,analyzed and interpreted .Chi square used to test hypothesis to ascertain substantive validity of the hypothesis postulated .Research question formulated in chapter one of this studies were also answered accordingly; Research question one seeks to ascertain the level of knowledge of partograph of midwives in specialist hospital Gombe was answered in table 1, 2 ,3 and 4 respectively 68.1%of respondent got partograph definition correctly , while table 2 points out that majority of respondents do not know the meaning of alert line of partograph ,while table 3 shows that only 38 .7 percent of respondents listed components of partograph correctly .This shows deficit in s level of knowledge of partograph by midwives in the hospital , which is in line with Reproductive health journal of 3rd January, 2006.which stressed that "Used of partograph involved skills and knowledge in monitoring labor efficiently and time to record all findings on the sheet provided".

Research question two seeks to find out the level of effectiveness of partograph in detection of danger signs during labour was answered in table in table 14, 15, 16, 17.and 1 18 accordingly .data collected from the maternity using pro format template shows that 19.9%of fetal heart rate monitored using partograph in labour detected at abnormal rate and necessary intervention given to save the baby s life ,In table 15 24.4% 0f abnormal cervical dilatation was detected with partograph and necessary intervention done promptly . Template in table 16 shows that 12.1 %of abnormal uterine contraction was identified with partograph use and 32.3%of abnormalpressure in women in labour identified with partograph .These are all in line with statement madeby (Ogumaka,2012) "People should rely on practical experience and experiment rather thantheories as a basis for knowledge and practice".

Research question three seeks to ascertain effective strategy for prompt intervention when danger signs are identified and their outcome. This question was answered in table 19, 20, and figure 2 which appear in bar chart table 22 and 23 respectively. Table 19 shows outcome of labour ofwomen with abnormal fetal heart rate in which caesarian section was done, while 5.6% theirlabour was augmented to save babies from going into distress. Table 20 shows the number ofwomen in labour with abnormal cervical dilatation identified in which 33.1% had caesariansection done. 66% had their labour augmented successfully. This is in line with statement madeby World Health Organization (WHO,2012)"Partograph in form of graphical tool as one of thevaluable appropriate technology to improve monitoring labour for prompt action." Also table22 shows that caesarian section were done to 61% women with poor descend of presenting partduring labour and augmentation to 38.3 % to prevent complication ' In table 23 women identified with rise in blood pressure using partograph 51.2 % had caesarian section done, while 48.8% were augmented to save the lives of mother and baby by hastening the delivery accordingly.

The last research question seeks to find out the state of deliveries conducted with partograph and without partograph and their outcome .table 24 shows that 73.8% 0f deliveries conducted with partograph are normal , which is in line with Bio-medicine journal,(2006) "States that reduction of prolong labour of 60% was observed with partograph use".

Table 25 shows that 79.55%of abnormal deliveries conducted with the use of partograph .Thisaffirms the statement made by Fraser, (2005) Partograph is a chart which salient features oflabour are entered into in a graphic form and there for provide opportunity for earlyidentification of deviation from normal ".This means partograph is vital in identification ofabnormal labour for prompt action.

The study took a look at Midwives knowledge of partograph towards prevention of maternal and neonatal mortality in specialist hospital Gombe. Data was raised using questionnaire, responses to questions were analyzed in percentage s and deemed positive if above 50% carries the highest frequency.

Two hypotheses were formulated and tested in the study, hypothesis one is midwives level ofknowledge of partograph is not significantly different as compared to their knowledge ofcomponent of partograph. This hypothesis was tested using chi square in which its calculatedvalue of 3.858 was found greater than the tabulated value of 5; 991 based on chi square decisionrule, the calculated value is greater than the tabulated value the null hypothesis is rejected whilealternative hypothesis uphold.

Hypothesis two postulates that ;The number of deliveries conducted is significantly independent of used or unused of partograph .The chi square calculated is 22.407 which is > than chi square

tabulated of 3.841 as such the null hypothesis is rejected and we uphold the alternative hypothesis that the number of normal deliveries Is significantly dependent of used of partograph.

CONCLUSION

Based on the percentage of responses from questions and findings from hypothesis, the following conclusions were made:

There exist deficit of knowledge of partograph in the hospital.

Pro format template reveals the effectiveness of partograph used to detect abnormal fetal heart rate abnormal cervical dilatation, abnormal contraction as well as abnormal blood pressure.

Level of prompt intervention given include caesarian section and augmentation of labor respectfully done successfully to save the mother and babies life.

Deliveries conducted with partograph used were efficiently monitored, successfully with less complication than those conducted without partograph.

Hypothesis one affirms that midwives level of knowledge of partograph is different as compared to their knowledge of components of partograph,

Hypothesis two tested and it shows the number of normal deliveries conducted is significantly dependent of use of partograph.

RECOMMENDATIONS

Given the conclusion drawn above the following recommendation were made:

Knowledge update is necessary to all midwives in the hospital for partograph use, its components and essentiality in management of labour.

Partograph should be made available in the maternity ward for usage.

Virtually commitment is required on the part of midwives towards utilization of partograph improve performance midwifery practice.

Hospital management should place emphasis and enforce partograph utilization in management of all women in labour, with an eye view on what is going on in maternity ward.

There is need to intensify training of midwifery student in colleges on partograph for efficiency in midwifery practice.

Stable and intensive monitoring and evaluation will go a long way in promoting quality care in maternity care.

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