

**QUALITY OF INTRA-PARTUM CARE RECEIVED BY PARTURIENT DURING
ACTIVE PHASE OF FIRST STAGE OF LABOUR AT UNIVERSITY COLLEGE
HOSPITAL, IBADAN, NIGERIA**

BY

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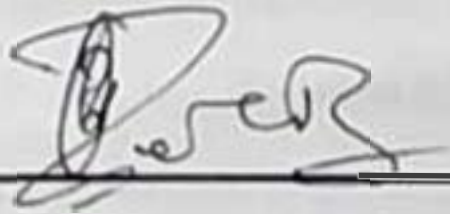
DEDICATION

This work is dedicated to the glory of Almighty God, for giving me the opportunity to move further in academics and seeing me through the rigor of this programme.

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CERTIFICATION

I certify that this project was carried out by **GBADAMOSI Iyabode Adetoro** in the Department of Health Policy and Management, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria, under my supervision.



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ABSTRACT

Skilled care at labour and delivery is a key strategy for the reduction of maternal mortality ratio in developing countries. The importance of quality intra-partum care cannot be over-emphasized. Studies on intra-partum care in Nigeria have focused on the second and third stages of labour. There is paucity of information on the quality of intra-partum care during active phase of first stage of labour. Therefore, this study examined intra-partum care during active phase of first stage of labour at University College Hospital (UCH), Ibadan, Nigeria.

A descriptive cross-sectional study was conducted among the parturient who had spontaneous vaginal deliveries (SVDs) in the labour ward of UCH, Ibadan between June and September, 2013. Sample size of 345 was estimated and parturient who had SVDs during the period of study were consecutively recruited. A pre-tested self-administered questionnaire was used to obtain data on socio-demographic characteristics and frequency of psychosocial support received by parturient during active phase of first stage of labour. Labour records of parturient were reviewed for frequency of hourly blood pressure monitoring, hourly pulse rate monitoring, four-hourly vaginal examination, half-hourly fetal heart rate monitoring conducted on the parturient and timely documentation of progress of active phase of first stage of labour on partogram as recorded on a checklist. The checklist and questionnaire were scored in percentage using 50% point, a score of $\geq 50\%$ was rated as quality/optimal intra-partum care. Data were analysed using descriptive statistics and Chi-Square test. Logistic regression was set at $p = 0.05$.

Mean age of the respondents was 30.4 ± 3.8 years. Few (38.3%) respondents were nulliparous patients while 48.4% and 13.3% have had 2 and 3-5 deliveries in the past respectively. Most (84.3%) of the respondents were booked patients and 60.6% had tertiary education. About 41.4% parturient had their blood pressure monitored hourly, 41.2% had their pulse rate monitored hourly,

85.2% had vaginal examination conducted four-hourly and 61.4% had fetal heart rate monitored half-hourly. Progress report of active phase of first stage of labour was not documented on the partograms in 65.2% of parturient. Most (89%) of the respondents received optimal psychosocial support during the active phase of first stage of labour.

Quality of intra-partum care was optimal during the active phase of first stage of labour at labour ward of University College Hospital, Ibadan Nigeria.

Keywords: Intra-partum care, Parturient, Psychosocial support, Partogram, Vaginal delivery

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LIST OF ABBREVIATIONS

A.D.N: Assistant Director of Nursing

MDC: Millennium Development Goals

SVD: Spontaneous Vaginal Delivery

UCH: University College Hospital

UNFPA: United Nations Fund for Population Activities

UNICEF: United Nation Children Fund

WHO: World Health Organization

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

According to World Health Organisation (2013), maternal death refers to “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy or its management but not from accidental or incidental causes.” Globally, more than half a million women die in pregnancy and childbirth annually. That is, one death every minute, 99% of this occurs in developing countries (Ozumba, 2008). Majority of these women are dying from severe bleeding, infections, eclampsia, obstructed labour and the consequences of unsafe abortions (UNFPA-United Nations Fund for Population Activities, 2008).

In high reproductive countries in Sub-Saharan Africa, women have 1 in 16 chance of dying at childbirth; whereas in low reproductive countries, this number is one in 2,000 and in North America, it is one in 3,500. In addition, one million children worldwide are left motherless annually, primarily because their mothers had no access to or could not afford quality health care. These children are likely to die within two years of their mothers' death (Ozumba, 2008). Soni (2009) documented that in sub-Saharan Africa, women have a 1-in-22 chance of dying during childbirth (highest in Niger: one in seven), whereas the corresponding risk in industrialized countries is one in 8,000 (lowest in Ireland: one in 48,000).

According to the WHO, Nigeria with nine other countries contributes the highest burden to maternal mortality in the world, (United Nations Children's Fund, 2013). It was discovered that ten countries accounted for about 60% per cent of global maternal deaths; India (50,000); Nigeria (40,000); Democratic Republic of Congo (21,000); Ethiopia (13,000); Indonesia

(8,800); Pakistan (7,900); United Republic of Tanzania (7,900); Kenya (6,300); China (5,900) and Uganda (5,900). It was further affirmed that at the country level, the two countries that accounted for one third of all global maternal deaths are India at 19 percent (50,000) and Nigeria at 14 percent (40,000). Maternal mortality in developing countries has been described as "a multitude of quiet tragedies" (Kwast, 1987) and "a disgrace to the modern world" (Holness, 1980). This is particularly true of sub-Saharan Africa and indeed in Nigeria, where even at the turn of the 21st century, maternal mortality remains high at 545 per 100,000 live births (Nigeria Demographic and Health Survey, 2013).

An avoidable time delay between the onset of a complication and access to appropriate health services has been known to be pertinent and indeed a central factor contributing to maternal deaths and disability (Thaddeus and Maine, 1994). Poor quality of care is an important contribution to a high maternal morbidity and mortality in many countries (Borbadila et al, 1996). Most maternal deaths are largely preventable, if preventive measures are taken adequately and appropriate care is promptly given. Hence, obstetric care of a high quality continues to be a key requirement for reducing maternal mortality (Starrs, 1998).

Intra-partum care, according to National Institute for Health and Clinical Excellence (NICE) Clinical Guidelines 55 (2007) means the care of the mother and foetus during labour and the six-week period following birth, during which the reproductive tract returns to its normal non-pregnant state. The intra-partum period extends from the beginning of contractions that causes cervical dilatation to the first 1 to 4 hours after delivery of the newborn and placenta. Intra-partum care refers to the medical and nursing care given to a pregnant woman and her family during labour and after delivery (Fabayo, 2010).

Childbirth is a time of greatest risk for maternal deaths with at least 42% of the annual estimated 352,000 maternal deaths occurring during labour and the first two days after birth (Hogan et al, 2010). This figure as described above is the main reason why childbirth should be handled by competent personnel who are skilled in all areas related to child delivery. Skilled childbirth care is defined by World Health Organisation (WHO) as care provided by "an accredited health professional - such as a midwife, doctor or nurse who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns (WHO, International Confederation of Midwives and Federation of International of Gynaecologists and Obstetricians, 2004).

The overall aim of caring for women during labour is to engender a positive experience for the woman and her family, while maintaining their physical and emotional health, preventing complications and responding to emergencies. In order to successfully achieve this aim, good Intra-partum care by those involved in the care of women during the process of childbearing is crucial (National Collaborating Centre for Women's and Children's Health, 2007).

1.2 Statement of Research Problem

World Health Organisation (1994) reported that more than 200 million pregnant women experienced the birth of a live baby to a healthy mother every year. For some, however childbirth is not a joyous event but a time of pain, fear, grief, suffering and even death. Every minute, everyday, somewhere in the world, a woman dies because of complications arising from pregnancy and childbirth. Jowett (2014) affirmed that 1,600 women die world-wide daily as a result of problems during pregnancy or childbirth.

UNFPA (2008) affirmed that maternal mortality in resource-poor nations has been attributed to the “3 delays”: delay in deciding to seek care, delay in reaching care in time, and delay in receiving adequate treatment. The first delay is on the part of the mother, family or community not recognising a life-threatening condition. Because most deaths occur during labour or in the first 24 hours post-partum, recognising an emergency is not easy. Most births occur at home with unskilled attendants, and it takes skill to predict or prevent bad outcomes and medical knowledge to diagnose and immediately act on complications. The second delay is in reaching the health-care facility, and may be due to road conditions, lack of transportations, or location. Many villages do not have access to paved roads and many families do not have access to vehicles. Public transportation may be the main transportation method. This means it may take hours to reach a health-care facility. Women with life-threatening conditions often do not make it to the facility in time. Third delay occurs at the health-care facility. Upon arrival, women may receive inadequate care or inefficient treatment. Resource-poor nations with fragile health-care facilities may not have the technology or services necessary to provide critical care to haemorrhaging, infected, or eclamptic patients. Omissions in treatment, incorrect treatment, and a lack of supplies contribute to maternal mortality (UNFPA, 2008).

Many women receive inadequate or poor-quality intra-partum care. Hospitals and clinics, particularly those serving low-income communities, are often overcrowded and understaffed (Healthy People, 2010). Understaffing can create pressure to care for a high volume of patients, making it difficult or impossible to provide quality care (Institute of Medicine, 2004; Association of Women's Health, Obstetrics and Neonatal Nurses, 2010).

UNICEF (2013) reported that the average international annual percentage change in maternal mortality rate was -3.1 percent, while the estimated number of maternal deaths for 2013 was 40,000. The lifetime risk of maternal death was 1 in 41 with Sub-Saharan Africa still the riskiest region in the world with women dying of complications during pregnancy and childbirth. According to Gupta (2014), a 15 year-old girl living in Sub-Saharan Africa faces about 1 in 40 risks of dying during pregnancy and childbirth in her lifetime, while a girl of the same age living in Europe has a lifetime risk of 1 in 3,300. Such a discrepancy poses a huge challenge to meeting the fifth Millennium Development Goal aimed at reducing maternal mortality by 75% between 1990 and 2015 (Ronsmans and Graham, 2006).

Although the UNFPA reported that the number of maternal deaths on a global scale has been reduced by half since 1990, disparity exists with Nigeria, accounting for 14 percent of all maternal deaths per year (WHO, UNICEF 2013). Frequent occurrence of maternal mortality in Nigeria reflects a dire situation in need of intervention. From 1990 to 2012, Nigeria's maternal mortality rate increased from 470 maternal deaths to 630 for every 100,000 live births (Kucharski, 2013). The consequences of maternal mortality go beyond the mother's death as they also obstruct the development of families, slow economic growth and lead to loss of global productivity. Many children in Nigeria will live their entire lives without knowing their biological mothers as a result of this.

The outcome for mother and child is strongly related to the access of health-care and the way care in labour is carried out, and WHO states that a skilled birth attendant is the single most effective way to make deliveries safe (Tordsson, 2010). Implementation of an effective intra-partum care strategy is an overwhelming priority. If the fifth Millennium Development Goal is to be achieved. As high-quality intra-partum care is an effective strategy in reducing maternal

mortality and morbidity associated with labour and childbirth. Muhammad (2011) emphasised that one of the Millennium Development Goals is to improve maternal health care. This was adopted by the international community at the United Nations Summit in Year 2000 with the aim of achieving 75% reduction in maternal mortality by the Year 2015. In Nigeria, maternal mortality is recognised as an increasing public health problem (Society of Gynaecology and Obstetrics of Nigeria, 2004).

The Intra-partum period represents a time of great opportunity for improving pregnancy outcomes by applying quality improvement principles - process standardization and the use of checklists, teamwork training, crew resource management and evidence-based medicine to the care of the labouring woman (Nelson and Grether, 1995). Monitoring the progress of labour allows the midwives and obstetricians to identify mothers and fetus who are at risk during labour and require life-saving care. Obstetric care of a high quality continues to be a key requirement for reducing maternal mortality (Stans, 1998). Obstetrics' complications are often unforeseeable. Every effort should be made to provide essential obstetric services that are available, accessible, and acceptable to all childbearing women (WHO, 1999). Since complications are not predictable, all women need care from skilled health professionals, especially at childbirth, when rapid treatment can make a difference between life and death (Muhammad, 2011).

Continuous monitoring of labour and provision of rapid care to deal with problems are most crucial for preventing adverse obstetric outcomes related to childbirth (Soni, 2009). The labour ward is in the front line of endeavours to improve the situation, where obstetricians and midwives are required to make rapid decisions under pressure to prevent and manage adverse outcomes during childbirth (Thomas and Sabaratnam, 2011).

1.3 Justification of the Study

Studies on intra-partum care in Nigeria have focused on the second and third stages of labour. There is paucity of information on the quality of intra-partum care during active phase of first stage of labour. Therefore, this study examined intra-partum care received by parturient during active phase of first stage of labour at the University College Hospital (UCH), Ibadan, Nigeria.

Findings from this study will provide information on the quality of services delivered to parturient during active phase of first stage of labour at University College Hospital, Ibadan. It will also provide additional information to the existing literatures on quality of intra-partum care in Nigeria. Furthermore, the findings from this study will contribute to knowledge in the area of intra-partum care during active phase of first stage of labour. It may form the basis for training programs on improved obstetrical practices. It will also stimulate interest for further studies. Above all, the data and key findings from this study will serve as a reference document for the hospital in policy formulation and implementation towards reducing maternal and fetal morbidity and mortality rates.

1.4 Research Questions

1. What is the proportion of parturient on whom hourly blood pressure and pulse monitoring were performed during active phase of first stage of labour?
2. What is the percentage of parturient on whom four-hourly vaginal examinations were conducted during active phase of first stage of labour?
3. What is the percentage of parturient on whom half-hourly fetal heart rate monitoring was performed during active phase first stage of labour?
4. What is the proportion of parturient who had adequate documentation of information about the progress of their active phase of first stage of labour recorded on their partogram?

5. What is the level of psycho-social support received by parturient from labour ward staff during active phase of first stage of labour?
6. What is the overall quality of intra-partum care received by parturient from labour ward staff during active phase of first stage of labour at University College Hospital, Ibadan?

1.5 Objectives of the Study

1.5.1 Broad Objective

To assess quality of intra-partum care received by parturient during active phase of first stage of labour at University College Hospital, Ibadan, Oyo State, Nigeria.

1.5.2 Specific Objectives

1. To determine the frequency of blood pressure and pulse rate monitoring performed on parturient during active phase of first stage of labour.
2. To document the frequency of fetal heart rates monitoring performed on parturient during active phase of first stage of labour.
3. To identify the frequency of vaginal examinations performed on parturient during active phase of first stage of labour.
4. To determine the timeliness of documentation of information on the progress of active phase of first stage of labour recorded on partograms of parturient.
5. To document the level of psycho-social support received by parturient from labour ward staff of University College Hospital, Ibadan during active phase of first stage of labour.

1.6 Operational Definition of Terms

Quality Care: The standard of care expected of a midwife and or obstetrician to a pregnant woman and her fetus during the active phase of first stage of labour. This includes: hourly blood pressure and pulse rate monitoring, four-hourly vaginal examination, half-hourly foetal heart rates monitoring, proper and timely documentation of information about the progress of active first stage of labour in the partogram (labour record) of the parturient and provision of safe, effective, patient-centred, timely, efficient and equitable psycho-social support to parturient during active phase of first stage of labour.

Intra-partum care: Care given to the pregnant woman and her expectant baby during active phase of first stage of labour in terms of hourly blood pressure and pulse rate monitoring, four-hourly vaginal examination, half-hourly fetal heart rates monitoring, proper and timely documentation of information about the progress of active first stage of labour in the partogram (labour record) of the parturient and provision of quality psycho-social support to parturient during active phase of first stage of labour.

Parturient: Pregnant woman in labour who is about to deliver baby or babies.

Partogram: Refers to a sheet of paper with graph (labour record) advocated by WHO, where the progress of labour is to be recorded.

Psycho-social Support: Refers to the mutual relationship established by Midwives and Obstetricians with parturient during labour and this determines the emotion, behaviour and joy of the parturient.

Vaginal delivery: Birth of a fetus through the vagina. It is the natural method of birth in women.

Safe motherhood: Woman's ability to have a safe and healthy pregnancy, delivery and puerperium.

CHAPTER TWO

LITERATURE REVIEW

2.1 Concept of Labour

Labour is the process by which products of conception are delivered from the uterus by progressive cervical effacement and dilatation in the presence of regular uterine contractions. The intra-partum period represents a time of significant risk to both mother and foetus (Clark et al, 2008).

Labour is divided into three stages as follows: the first stage of labour is that of dilatation of the cervix. It begins with regular, rhythmic, painful uterine contractions and is complete when the cervix is fully dilated (10 cm). It is further sub-divided into two phases. Latent phase of first stage of labour which is the early part of the first stage of labour when the cervix dilates from 0 up to 3cm and the cervix shortens (effacement). Active phase of first stage of labour which is the latter part of the first stage of labour which starts when the cervix is 4cm and ends when it is fully dilated (10cm). The second stage of labour is that of expulsion of the foetus. It begins when the cervix is fully dilated and is complete when the baby is completely born. The third stage of labour is that of the separation and expulsion of the placenta and membranes and also involves the control of bleeding. It lasts from the birth of the baby until the placenta and membranes have been expelled (Marshall and Raynor, 2014).

Intra-partum care refers to the medical and nursing care given to a pregnant woman, her foetus or foetuses and her family during labour and delivery. Quality of intra-partum care is an important intervention towards increasing clients' utilization of skilled attendance at birth and improving newborn's and maternal survival and wellbeing (Kigenyi et al., 2013).

Components of intra-partum care among other things include; monitoring of the parturient

blood pressure, pulse rate, foetal heart rate, vaginal examination, documentation of information about the progress of labour on the partogram of parturient, ensuring psychosocial support for the parturient and her family, detecting risk factors and problems, and referral to a higher level of care if risk factors or complications develop. The overall goal for the care in childbirth is to achieve a healthy mother and child using the least possible number of interventions compatible with safety.

2.2 The Safe Motherhood Initiative

The global campaign to reduce maternal mortality was launched in February 1987 when three United Nations agencies—UNFPA, the World Bank and WHO—sponsored the International Safe Motherhood Conference in Nairobi, Kenya. The event aimed at raising awareness about the numbers of women dying each year from complications of pregnancy and childbirth and to challenge the world to do something (Stuart, 2006). The Safe Motherhood Initiative was introduced in 1987. The initiative is to encourage and support the participation of individuals, communities, organizations and agencies in all activities aimed at reducing maternal and child morbidity and mortality. The goal of the initiative is to reduce by 50% the prevailing levels of maternal mortality by the year 2000 (Nawal, 2008). This goal was later adopted by national governments, Nigerian government inclusive.

A few years later, as part of its continuing effort to improve maternal and child health, the World Health Organisation introduced the Mother-Baby Package in 1994. This package describes each intervention needed to achieve safe motherhood in the short term and was designed to attain the goal of the Safe Motherhood Initiative. These interventions focus on family planning to prevent unwanted and mistimed pregnancies, basic maternity care for all pregnancies and special care for the prevention and management of complications during

pregnancy, delivery and postpartum. It represents the synthesis of activities at different levels of health care system. In addition, World Health Organisation defines a minimum set of health system interventions and activities that are needed for safe motherhood. It describes simple interventions needed before and during pregnancy, delivery of mother and neonate. It also outlines what can be done to prevent and manage obstetric complications in the communities, at the health centres and the hospitals. Throughout, its focus is only on those interventions known to be effective (evidence-based), which can be implemented by making most efficient use of available resources. Attainment of its objective will lead to a significant reduction in maternal and neonatal deaths and corresponding reduction in disabilities.

After a decade of implementation, an International Technical Consultation took place in Colombia, Sri-Lanka, in October 1997 to mark the tenth anniversary of the Safe Motherhood Initiative. It was observed that the programme was not achieving its goals as fast as planned, although some successes were recorded. This therefore, called for a modification of strategies. Thus, after the Colombia meeting, the World Health Organisation came up with Making Pregnancy Safer Initiative as a modification of the Safe Motherhood Initiative. This Initiative focuses mainly on the health sector. It aims at providing safe antenatal, delivery and postnatal services as well as quality neonatal care. The initiative strives to improve conditions in the health facilities to ensure quality of care and capacity for emergency obstetric care at the primary care level (WHO, 2001).

United Nations agencies including the World Health Organization (WHO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), and the World Bank issued a joint statement in 1999 to address the issue of Safe Motherhood (United Nations, 1999). The Safe Motherhood Initiative, which aimed at reducing maternal morbidity

and mortality by 50% by the year 2000, did not succeed, but maternal health has always been a major focus of World Health Organisation. The current World Health Organisation's initiative is to reduce maternal mortality to 75% of the 1990 level by 2015. If this is to be successful, effective monitoring of parturient in labour is of paramount importance. Hence, World Health Organization recommends, using the partogram to monitor labour and delivery, with the objectives to improve health care and reduce maternal and fetal morbidity and death (Magon, 2011).

2.3 Blood Pressure and Pulse Rate Measurements during Active Phase of First Stage of Labour

The wellbeing of both mother and foetus must be carefully monitored during labour. Monitoring of labour should not be restricted to assessment of uterine contractions and cervical dilatation (UNICEF, 2009).

Pulse Rate: Pulse is a wave of distension and elongation felt in an artery wall due to the contraction of the left ventricle of the heart, forcing about 60 to 80 millilitres of blood through the already full aorta and into the arterial system. The normal range of the maternal pulse rate is 60 to 100 beats per minute. The pulse is monitored hourly during the active phase of the first stage of labour. Commonest causes of a rapid pulse rate (tachycardia) are anxiety, pain, pyrexia, exhaustion and shock.

Blood Pressure: Blood pressure is the force or pressure which the blood exerts on the walls of the blood vessels. The systemic arterial blood pressure usually called arterial blood pressure is the result of the discharge of blood from the left ventricle into the already full aorta. When the left ventricle contracts and pushes blood into the aorta, the pressure produced

within the arterial system is termed the systolic blood pressure. When complete cardiac diastole occurs and the heart is resting following the ejection, the pressure within the arteries is termed diastolic blood pressure. The difference between systolic and diastolic blood pressure is the pulse pressure (Ross and Wilson, 2001). A review of labour records of 338 parturient at 12 selected government secondary health facilities providing free health services in Osun State of Nigeria to assess the quality of intra-partum care they received while in labour with respect to blood pressure measurement revealed that, optimal care was received in only fifty-two (15.4 %) of parturient (Osungbade et al, 2010).

2.4 Fetal Heart Rate Monitoring in Active Phase of First Stage of Labour

The remarkable decline in neonatal mortality rates in the middle of the 20th century in high income countries has been commonly credited to the advent of hygienic childbirth practices and modern care (Pickkala, et al. 1985) with additional reductions since the 1970s attributed to increasingly intensive neonatal care. In low income countries where skilled professionals attend fewer than half of deliveries, each year 60 million births occur outside facilities (UNICEF, 2009); the burden of neonatal morbidity and mortality related to childbirth remains very high (Lawn et al, 2009).

According to Brookside Associate (2015), foetal monitoring is done to detect presence of foetal life at time of admission and to detect development of foetal distress during labour. A fetoscope or fetal monitor may be used to obtain foetal heart rates. Normal foetal heart rate (FHR) ranges from 120 to 160 beats per minute (BPM). The rate may increase or decrease by 30 BPM during a contraction. It should return to the baseline immediately after the contraction. Listening to the heart beats just as contraction is finishing helps to determine how well the baby is tolerating the stress of labour. A continued foetal heart rate of greater

than or less than 30 BPM from the normal baseline after contractions may be indicative of foetal distress as defined by:

Fetal tachycardia—Fetal heart rates sustained at greater than 160 BPM.

Fetal bradycardia—Fetal heart rates sustained at less than 120 BPM.

Fetal distress is indicated by fetal heart rates between contractions that are consistently abnormal. Any variation should be reported immediately. There are two methods of measuring the fetal heart rate. These are intermittent auscultation, using pinnards fetoscope or sonicaid and continuous electronic surveillance. According to Safe Motherhood Initiative format, FHR should be checked every 30 minutes in a patient with normal labour and every 15 minutes in a patient on induction of labour or augmentation of labour.

In a study carried out by Osungbade et al (2010) in 12 selected secondary health facilities in Nigeria where 338 intra-partum monitoring records of half-hourly fetal heart rate that were categorized into optimal and sub-optimal care based on the frequency of the procedure performed on parturient within a time period in the Safe Motherhood Initiative were reviewed, the result showed that (21.6%) parturient received optimal care.

Buchmann and Pattinson (2006) in an investigation on babies who die from labour-related intra-partum hypoxia: a confidential enquiry in South African public hospitals, where seventeen hospitals from a range of health-care environments participated in confidential enquiries of perinatal deaths resulting from labour-related intra-partum hypoxia. The results of the finding showed that there were 102 deaths including 22 stillbirths and 80 neonatal deaths. The majority of these deaths occurred in low-risk women with apparently uncomplicated labour. There appeared to be a failure to detect or respond to evidence of fetal

distress. Intra-partum care for all women in labour requires close attention to detail in monitoring foetal health.

Zarko et al (2010) carried out a study to compare intra-partum interventions and outcomes in low-risk primiparous women and identifying factors which may contribute to the variations between different maternity units observed that units with guidelines for intra-partum fetal heart monitoring had higher rate of normal vaginal deliveries and lower rate of caesarean section for fetal distress. Units with partogram guidelines also had lower rates of caesarean section for fetal distress. Units with guidelines on the involvement of neonatal staff recorded less babies with Apgar score <7 at 5 minutes. It was concluded that written delivery suite guidelines have significant impact on the type of intra-partum care and outcome of pregnancy in low-risk women.

Quilligan (1975) in a survey observed that the incidence of intra-partum stillbirth was about three times less in a high-risk group of patients who were monitored than the expected rate in an unmonitored group. This study showed that though perinatal mortality was significantly reduced in the monitored high-risk group, the unmonitored "normal" group had a significant perinatal mortality (3-7 per 1000 deliveries in the "normal" unmonitored group compared with 1-5 per 1000 in the high-risk monitored group). Thus, it seemed logical to try to monitor all patients as soon as they were admitted in labour in an attempt to reduce the effects of intra-partum asphyxia.

2.5 Vaginal Examination during Active Phase of First Stage of Labour

This is one of the essential diagnostic actions in the assessment of the start and the progress of labour. It should only be conducted by trained birth attendants with clean hands covered by sterile gloves. The number of vaginal examinations should be limited to the strictly

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necessary. During first stage of labour, usually once every 4 hours is enough as prescribed in the manual for the use of the partogram (WHO, 1993). If labour passes off smoothly, experienced birth attendants can sometimes limit the number of examinations to one. Ideally, that would be the one examination necessary to establish active labour. That is to confirm the fact that there is dilatation of the cervix (the most objective criterion of active labour). Another practice in the management of labour is to only perform a vaginal examination when there is an indication for the need, for example, when the intensity and frequency of the contractions decrease or at signs of heavy show or the urge to push or before the administration of analgesia (WHO, 1999).

The intimate nature of any vaginal examination should never be forgotten and as with any procedure consent obtained. While they may be useful in assessing progress in labour, to many women who may already be in pain, frightened and in an unfamiliar environment; they can be very distressing. The adverse effect on the woman may be reduced by having due regard for the woman's privacy, dignity and comfort. Good communication as in all aspects of care is vital and caregivers should explain the reason for the examination and what will be involved. Caregivers should also be sure that the vaginal examination is really necessary and will add important information to the decision-making process. The findings and their impacts should also be explained to the woman using the word 'only' when referring to the amount of dilatation may not be a good start and could easily dishearten (discourage) or even frighten her (National Collaborating Centre for Women's and Children's Health, 2007).

Vaginal examination is important for the following reasons: to feel the thinning, shortening (effacement) and opening of the cervix, to feel the position of the presenting parts, to assess the caput, moulding and bag of waters and liquor and membranes and to assess the perineum and pelvis on admission.

In a study carried out by Osungbade et al, (2010) in 12-selected secondary health facilities in Nigeria where 338 intra-partum monitoring records of four-hourly vaginal examinations that were categorized into optimal and sub-optimal care based on the frequency of the procedure performed on parturient within a time period in the Safe Motherhood Initiative were reviewed, the result showed that two hundred and forty-three (71.9 %) parturient received optimal care. Another research carried out by Buchmann and Libhaber (2007) to determine accuracy of clinicians in estimating cervical dilatation on 508 women during active phase of first stage of labour and how this is affected by clinician experience and obstetric factors showed that, the researcher and clinicians agreed on the dilatation in 250 instances (49.2%) and differed by 2cm or more in 258 (50.8%) women. Accuracy was greater at low (3-4 cm) and high (8-10cm) dilatations. Reduced accuracy was associated with decreasing clinician experience and with lower stations of fetal head. It was observed that this is the first study to investigate accuracy of cervical assessment in parturient women (Buchmann and Libhaber, 2007).

2.6 Documentation/Recording of Information on Partogram during Active Phase of First Stage of Labour

In 1954, Friedman introduced the concept of partogram by graphically depicting the dilation of the cervix during labour. In 1972, Millpott and Castle developed Friedman's concept into a tool for monitoring labour by adding the so-called "action" and "alert" lines to the graph. The current partogram is designed to monitor not only the progress of labour, but also the condition of the mother and the foetus during labour. The partogram includes different variables (fetal heart rate, dilation of the cervix, contractions, pulse rate of the mother and so on) plotted on a pre-printed paper. The plotted data allow the attending health-care

practitioner to identify early deviations in the plotted parameters from the normal and make decisions regarding direct intervention or referral.

The partogram has been heralded as one of the most important advances in modern obstetric care. World Health Organisation advocates its use as a necessary tool in the management of labour and recommends its universal use during labour. However, some health-care practitioners especially in high-income countries have questioned its effectiveness. For example, Walgreen has suggested that use of the partogram can be an unnecessary interference in clinical work. In addition, Lavender and Malcolmson have argued that the partogram may restrict clinical practice, reducing midwives' autonomy and limiting their flexibility to treat each woman as an individual. The present Cochrane review had two objectives: to determine the effect of use of the partogram on perinatal and maternal morbidity and mortality; and to determine the effect of partogram design on perinatal and maternal morbidity and mortality (Soni, 2009).

The partogram (sometimes known as partograph) is usually a pre-printed paper form, on which labour observations are recorded. The aim of the partogram is to provide a pictorial overview of labour, to alert midwives and obstetricians to deviations in maternal or fetal well-being and labour progress. Charts often contain pre-printed alert and action lines. An alert line represents the slowest 10% of primigravid women's labour progress. An action line is placed a number of hours after the alert line (usually two or four hours) to prompt effective management of slow progress of labour (Lavender, Harl and Smyth, 2008).

Partogram is a chart which shows the progress of labour over time. It displays observations reflecting the maternal and fetal conditions as well as the progress of labour. The

observations of every woman in the first stage of labour must be recorded on a partogram. The progress of labour is seen at a glance on it. When used effectively, the partogram provides a graphic representation of labour progress and the condition of the mother and foetus; reminds providers to monitor the labour timely; guides early detection of prolonged labour; and avoids unnecessary and early interventions e.g. augmentation of labour, caesarean section and so on. In a large multicentre trial in South East Asia, the use of partogram with an agreed labour management protocol reduced the incidence of prolonged labour; the proportion of labours requiring augmentation; intra-partum stillbirth rate and emergency caesarean section rate (WHO, 1994).

In another study carried out by Fawole et al, (2010) to assess knowledge about the partogram and its utilization among maternity care providers in primary health care in south western Nigeria, about a quarter of respondents, 75 (27.3%) had received prior training on the partogram. Only 25 (9.1%) reported that the partogram was available in their labour wards. Knowledge about the partogram was poor: only 18 (16.0%) of all respondents correctly mentioned at least one component part of the partogram, 21 (7.6%) correctly explained function of the alert line and 30 (10.9%) correctly explained function of the action line. Prior training significantly influenced knowledge about the partogram. Knowledge about assessment of labour was also poor; less than 50% of all respondents knew the normal duration of labour and just about 50% understood assessment for progress of labour. It was therefore, concluded in the study that the partogram is not utilized for labour management in Nigeria. Knowledge about partogram and assessment during labour is grossly deficient. Findings suggest poor quality intra-partum care. Effective interventions to improve labour supervision skills and partogram utilization are urgently required. Furthermore, an investigation carried out to assess the effectiveness of promoting the use of the World Health

Organisation partogram by midwives in a maternity home revealed that 92.4% out of 358 labouring women partograms were not correctly completed (Fahdhy and Chongsuvivatwong, 2005).

In a study carried out by Greenfield (2003), analyzing the labour records of 583 consecutive patients presenting in labour showed that 24% of patients that present in early labour were not monitored at all during the labour process. Of the patients that were monitored, a median score of 40% was obtained for filling in of the labour graph. The highest score (59%) was obtained for plotting cervical dilatation on the graph, but other aspects received very poor scores, that is, recording of the fetal heart rate $\frac{1}{2}$ hourly (34%), degree of moulding on vaginal examination (39%), strength and duration of contractions $\frac{1}{2}$ hourly (47%), maternal blood pressure and pulse hourly (21%), maternal intake and output 4 hourly (23%) and recording of intake of drugs and fluids (18%). The median scores for the 3 aspects of the partogram were as follows: fetal condition 40%; labour progress 51%; maternal condition 22% and in only 24% of patients was any decision on further action recorded.

Buchmann (2001) in a study to evaluate the effect of a training programme on the clinical skills and decision making of midwives identified major deficiencies in basic skills. Eighty-eight midwives were tested on their use of the partogram, including knowledge and ability to analyse clinical information. After initial testing, a training programme was introduced and the test then repeated by the participants. The initial pre-training test results showed that the partogram was completely filled in 71% of cases, but in only 21% of cases was this done correctly. The mean score for knowledge was 56% and for analysis 38%. Results combining knowledge and analysis of clinical facts yielded the following mean scores: fetal assessment 39%; progress of labour 32% and maternal assessment 56%. At the second test (post-training programme), scores were as follows: fetal assessment 42.4%; progress of labour 45.0% and maternal assessment 52.6%. This shows that despite the fact that there was a statistically

significant improvement in various aspects of partogram use this did not impact dramatically on the final product. That is, managing patients in labour.

2.7 Psychosocial Support Received by Parturient during Active Phase of First Stage of Labour

For a concept to be psycho-social, it means it relates to one's psychological development in and interaction with a social environment. Psychosocial support is the process of meeting a person's emotional, social, mental and spiritual needs (Villar and Belizan, 2002). All of these are essential elements of positive human development. The individual needs not be fully aware of this relationship with his or her environment. It was first commonly used by psychologist, Erik Erikson in his stages of social development. Contrasted with social psychology which attempts to explain social patterns within the individual, it is usually used in the context of "psychosocial intervention" which is commonly used alongside psycho-educational or psycho-pharmacological interventions and points toward solutions for individual challenges in interacting with an element of the social environment. Problems that occur in one's psychosocial functioning can be referred to as "psychosocial dysfunction" or "psychosocial morbidity." This refers to the lack of development or atrophy of the psychosocial self, often occurring alongside other dysfunctions that may be physical, emotional, or cognitive in nature.

McComick (2005) refers to the term 'psychosocial' as a close relationship between the individual and the collective aspects of any social entity. They mutually influence each other.

The 'psychological' effects are caused by a range of experiences that affect the emotions, behaviour, thoughts, memory and learning capacity of an individual. To a large extent, the psychological effects depend on the way in which these events are perceived and given meaning by the individual. Social effects are the shared experiences of disruptive events that

affect the relations between people – not only as a result of the events, but also of death, separation and sense of loss. It also includes an economic and political dimension, since many people suffer multiple consequences of, for example, disasters or armed conflicts. In a hospital environment, the social event may be as a result of the patient-nurse relationship which will determine emotion, behaviour, thought, memory and learning capacity.

Effective communication is a fundamental aspect in today's maternity services. The overall aim of caring for women during labour and birth is to engender a positive experience for the woman and her family, while maintaining their physical and emotional health, preventing complications and responding to emergencies. To successfully achieve this aim, good communication between all those involved in the care of women during the process of childbearing is crucial. Developing a rapport, trust and effective communication between healthcare providers and women is important to a woman's positive childbirth experience. Other factors include involvement in decision making, informed explanations and meeting personal expectations. All these elements have a positive impact on women and their childbirth experience. Their influence, whether the experience is good or bad, cannot be overestimated. The views, beliefs and values of the woman, her partner and her family in relation to her care and that of her baby should be sought and respected at all times. Women should be fully involved so that care is flexible and tailored to meet her and her baby's individual needs. Women should have the opportunity to make informed decisions about every aspect of their labour and birth. Women sometimes decline the offer of interventions for numerous reasons, including previous unpleasant experiences. Individualised care should be supported by giving evidence-based information and active informed consent should be sought from women before all monitoring procedures, examinations and treatments (National Collaborating Centre for Women's and Children's Health, 2007).

Reports of randomized controlled trials on support in labour showed that continuous empathetic and physical support during labour resulted in many benefits including: shorter labour; significantly less medication and epidural analgesia; fewer Apgar scores of <7 and fewer operative deliveries (Hodnett and Osborn 1989; Hemminki et al, 1990; Hofmeyr et al. 1991 and Hodnett, et al 2011). These supports include: emotional support consisting of praise, reassurance, measures to improve the comfort of the mother, physical contact such as rubbing the mother's back and holding her hands, explanation of what is going on during labour and delivery and a constant friendly presence.

World Health Organisation (1999) opined that the woman in labour should be accompanied by the people she trusts and feels comfortable with; her partner, best friend, doula or midwife. In some developing countries, this could also include the traditional birth attendants. Generally, they are people she has become acquainted with, during the course of her pregnancy. Professional birth attendants need to be familiar with both the supportive and the medical tasks they have and be able to perform both with competence and sensitivity. One of the supportive tasks of the caregiver is to give women as much information and explanation as they desire and need. Women's privacy in the birthing setting should be respected. A labouring woman needs her own room, where the number of attendants should be limited to the essential minimum.

Klaus, Kennell and Berkowitz (1992) described the following five components of psychosocial support:

Emotional support: Giving the woman continuous support during labour and delivery by talking to her, using encouraging and calming words. Furthermore, acknowledging the effort

being made by the mother and answering her questions while maintaining constant visual contact.

Information: Keeping the woman informed about how her labour is progressing and in words that are clear and easy to understand, about all the medical procedures.

Physical supports: Encouraging the woman to adopt more comfortable positions. In addition, telling her how to relax (including visualisation techniques) and to breathe. Giving the woman massages and holding her hand when appropriate.

Communication: Keeping up a conversation so that the woman would not feel alone.

Immediate contact between mother and child: Encouraging the woman to hold her baby immediately after birth and promote early breastfeeding provided that the conditions of the mother and the newborn permit it.

Hodnett et al (2004) In a review of 15 trials among 12,791 women to investigate continuous support for women during labour found out that women who had continuous support were less likely to receive analgesia during labour, to be delivered by caesarean section or by instrumental vaginal delivery or to report dissatisfaction with their childbirth experiences. Halldorsdottir and Karlsdottir (1996) in a qualitative study sought views and experiences from a purposive sample of ten women who had experienced both caring and uncaring encounters during childbirth in Iceland summarised three traits of the caring midwife which are defined as follows:

Competence – has the necessary knowledge and skills needed to coach a woman through the journey of labour and giving birth; is responsible, attentive, deliberate and communicates effectively.

Genuine concern and respect for the woman – is encouraging and supportive, respectful and benevolent.

Positive mental attitude – is cheerful and positive, reliable and trustworthy, considerate and understanding.

Similarly, the authors summarised three traits of the uncaring midwife as follows:

Lack of competence – being rough when giving care to women, ineffective communication, not taking the initiative when needed and lack of understanding and flexibility.

Lack of genuine concern and respect for the woman as a person – being thoughtless, strict on routines and rules, not taking notice of the woman and lacking in cooperation, being indifferent and untouched by the event as such, lack of interest and understanding in general, being non-supportive and insensitive, being hurried and in a rush.

Negative character traits – being gloomy and brusque, cold, unkind or harsh.

Berg, Lundgren, and Hermansson, (1996) in a qualitative study using interviews with 18 women (six primiparous) who were 2-4 days post birth investigated women's experiences of labour and birth in Sweden in 1994 identified three main themes: the need to be seen as an individual; to have a trusting relationship; and to be supported and guided on one's own terms. These themes were associated with a positive birth experience. Another small-scale (n = 14) interview-based study conducted in Iceland by Halldorsdottir and Karlsson (1996) also explored women's experience of giving birth. Analysis of the findings showed that women have a need for a sense of control as well as a need for caring and understanding. Additionally, there is a need for a good relationship with the midwife, which includes the women feeling safe and secure. An explanation of events and reassurance regarding progress are also important to women.

Vando (1999) in a convenience sample of 15 women (eight first-time mothers) who told 33 birth stories in United States of America (early 1990s) concluded that when decision making was increasingly shared between the women and the caregivers, the women expressed more positive emotions. Professional knowledge and power needs to be supportive, not directive, of the birthing processes. Another questionnaire survey in a study carried out by Brown and Lumley (1994) among 790 women 8-9 months after they had given birth (Australia) revealed that not having an active say in decisions was associated with a six-fold increase in dissatisfaction among nulliparous women and a 15-fold increase among multiparous women. When adjusted for parity in a logistic regression model, the following factors were highly related to dissatisfaction with intra-partum care: lack of involvement in decision-making, insufficient information, a higher score for obstetric intervention and the perception that caregivers were unhelpful. A second Australian cross-sectional questionnaire survey among 1,336 women 6-7 months after they had given birth found that, after adjusting for parity, social factors and obstetric care, caregivers perceived as unhelpful and not having an active say in decisions about their care had the greatest impact on women's experience of birth (Brown and Lumley, 1998).

CHAPTER THREE

METHODOLOGY

3.1 Study Area

The study was carried out at the labour ward of the University College Hospital, Ibadan, Oyo state, Nigeria. The hospital is located along Queen Elizabeth road in Ibadan North Local Government Area of Oyo state. Ibadan is reputed to be the largest indigenous city in Africa, South of the Sahara (Postgraduate School, 2012). It is the capital of Oyo State, and situated in the South-Western geo-political zone of Nigeria. It is about 145 km north eastwards from Lagos and is directly connected to many towns in Nigeria via its rural hinterland by a system of roads, railways and air route. It is a prominent transport point between the coastal region and the areas of the North. Ibadan has one of the highest population densities in Nigeria. Its estimated population was 5.6 million inhabitants (National Population Census, 2006) and made up of 1,125,843 urban and 1,132,782 rural population sizes (Omonijo et al., 2007). The city occupies a total land area of 3,243.4 square kilometers and is 130 kilometers from Lagos. It is made up of 11 local government areas. The principal inhabitants of the city are the Yorubas.

University College Hospital, Ibadan

University College Hospital, Ibadan is the first teaching hospital in Nigeria, established by an Act of Parliament in November 1952 and officially commissioned in 1957 with 500 bed spaces. Presently, the hospital has 862 bed spaces. The hospital offers primary, secondary and tertiary care services and it serves as a referral centre to other health care facilities in the south-western Nigeria. It performs three main functions: training, health care services and research.

The labour ward is staffed with 36 midwives who cover all cadres and running the three shifts: morning, afternoon and night shifts with average of 10 midwives, nine midwives and eight midwives in each shift respectively. There are usually one senior registrar, two registrars and two house officers on duty during the day duty and call hours. The ward has 22 beds and partitioned into five sections: reception/admission section, first stage section (bay 1), second and third stage sections (delivery suites), fourth stage section (bay 2) and labour ward theatre. On the average, the ward has 112 spontaneous vertex deliveries (SVDs) per month.

3.2 Study Population

The pregnant women who had spontaneous vaginal delivery (SVD) at the labour ward of the University College Hospital, Ibadan, constituted the study population. Labour ward has average of 112 spontaneous vertex deliveries monthly as calculated from a six-month review of delivery register.

3.3 Study Design

This is a descriptive cohort cross-sectional study.

3.4 Inclusion Criteria

All consented booked and un-booked parturient who reached full cervical dilatation (10 cm) one hour and above from the time of admission into the labour ward and delivered at the labour ward of University College Hospital, Ibadan.

3.5 Exclusion Criteria

All parturient who reached full cervical dilatation (10 cm) less than an hour from the time of admission into the labour ward were excluded from the study.

3.6 Sample Size Estimation

Leslie Kish formula for determining single proportion (for descriptive studies) was used to determine sample size.

$$\text{Formula, } n = \frac{Z_{\alpha}^2 Pq}{d^2}$$

Where,

n = Minimum sample size

Z_{α} = Standard normal deviate corresponding to the probability α i.e. the probability of making a type I error at 5% = 1.96

P = Proportion of parturient that had optimal vaginal examination.

q = $1 - p$

d = Degree of precision (5 % = 0.05)

Therefore, $P = 71.9\%$, proportion of parturient that had optimal vaginal examination
Osungbade et al. (2010).

$P = 71.9\% = 0.719$

$q = 1 - 0.719 = 0.281$

$Z_{\alpha}^2 = 1.96^2 = 3.841$

$d^2 = 0.05^2 = 0.0025$

$$n = \frac{Z_{\alpha}^2 pq}{d^2} = \frac{3.8416 \times 0.719 \times 0.281}{0.0025} = \frac{0.77615302}{0.0025}$$

Sample size = 310.46

Allowance for 10% non-response rate

Formula,

$$N = \frac{n}{1 - NR}$$

Where,

N = new sample size

n = old sample size

NR = non-response rate = 10% = 0.1

$$N = \frac{n}{1 - NR}$$
$$= \frac{310.46}{1 - 10\%} = \frac{310.46}{1 - 0.1} = \frac{310.46}{0.9}$$

N (New sample size) = 344.95

This was approximated to 345 respondents

3.7 Sampling Technique

Delivery register in the labour ward of the health facility in the six months preceding the study was reviewed and an average of 112 SVDs per month was calculated. In anticipating about 112 SVDs per month, all consecutive parturient who presented, reached full cervical dilatation (10 cm) one hour and above from the time of admission and delivered in the labour ward of UCH during three and a half months of data collection were recruited for the study.

3.8 Instruments for Data Collection

Two instruments were used for data collection. These included a checklist and a self-administered questionnaire.

1. **Checklist:** Adapted from review of literature (Oginni, 2005) and developed by the researcher based on the standard procedures and practices of care for pregnant women in active phase of first stage of labour in the labour ward. It consists of two sections: designated A and B.

➤ **Section A** was used to capture information on four domains of care which include frequencies of foetal heart rate, blood pressure and pulse rate monitoring and frequency of vaginal examinations conducted on the parturient during active phase of first stage of labour. Each domain was assigned scores ranging from 0-2 depending on the frequencies of the procedures performed on parturient. Participants whose FHR were adequately/timely/consistently recorded scored 2 points, those whose FHR were not adequately/timely/consistently recorded scored 1 point and those whose FHR were not recorded at all scored zero point. The same pattern was followed for blood pressure, pulse rate and vaginal examination depending on the frequency of the procedure performed on the parturient. Total maximum obtainable score for each parturient was 8 (100%) while the minimum obtainable score was 0 (0%).

➤ **Section B** was used to assess one domain of care such as adequacy of documentation of parameters used to monitor the progress of active phase of first stage of labour on the partograms (labour records) of the parturient. The parameters contained in this domain of care included: condition of the membranes i.e. (R) Ruptured or (I) Intact at most every 4 hours; fetal heart rate readings at most every 30 minutes; condition of the liquor/amniotic fluid such as: Clear (C), Meconium stained (M) or Intact (I) every 4 hours; degree of moulding i.e. No moulding (0), Small moulding (+), Moderate moulding (++) or Severe moulding (+++) every 4 hours; cervical dilatation plotted with an X every 4 hours; descent of the presenting part every 4 hours; frequency, strength and duration of uterine contractions every hour; medication and intravenous

fluid whenever given; temperature reading every 4 hours; volume of urine each time the woman passes urine; urine test for protein and ketones at each micturition.

There were 13 items in this domain. The score ascribed to the adequacy of each item in giving information about progress of labour recorded on the partogram of parturient during active phase of first stage of labour assessed by this study ranged between zero and 2 points. Parturient whose information about progress of active phase of first stage of labour was recorded adequately/consistently/timely scored 2 points, those whose information was not recorded adequately/consistently/timely scored 1 and those with information not recorded at all scored zero. The maximum obtainable score for each parturient was 26 (100%) while the minimum obtainable score was 0 (0 %).

2. **Interviewer-administered Questionnaire:** Adapted from Copenhagen Psychosocial Questionnaire (COPSOQ) by Tage, (2003). It consists of two sections designated as A and B.

- Section A focused on the socio-demographic characteristics of the respondents.
- While, Section B was used to assess one domain of care; the psychosocial support received by parturient from the labour ward staff during active phase of first stage of labour.

The adequacy of psychosocial care received by participants was assessed on an 18-items Likert scale in which participants ticked options that ranged from agree, disagree and undecided. In computing the scores, it was taken into consideration whether or not a statement is "positive" or "negative". Participants who agreed to a positive statement were given a point and those who disagree did not get any point. The reverse was done for a negative statement. Also, participants who were undecided to any of the statements did not get any point. Overall, the maximum obtainable score for each participant was 18 (100%) while minimum obtainable score was 0 (0 %). Participants with a total score of zero point

were grouped as not receiving any psychosocial care, those that scored between 1 and 8 points were classified as receiving sub-optimal psycho-social support while respondents that scored between 9 and 18 points were classified as receiving adequate psycho-social support.

Serial numbers/codes were assigned to each checklist and questionnaire for easy identification, correct data entry and analysis.

3.9 Data Collection Procedure

Two research assistants who were paramedical personnel were recruited and used for data collection. They were trained on the filling of the checklist, administration and retrieval of the questionnaires. The training was focussed on the objectives of the study, sampling process, how to secure respondents' informed consent, review of questions for completeness, and how to fill the checklist. Before data collection, the investigator met with the Assistant Directors of labour ward and lying-in wards, introduced herself and the research assistants, explained her mission and presented the letter of approval to conduct the research obtained from the management of the hospital. During data collection, the respondents were assured of confidentiality of any given information. Self-administered questionnaires were administered on the patients with SVDs as soon as possible after delivery while they were still in-patients in the labour ward or postnatal wards. Their labour records of active phase of first stage of labour were also reviewed carefully to fill the checklists. Data collection took place 24 hours daily i.e. during morning, afternoon and night shifts for a period of three and a half months of study.

In UCH, patients who have SVD usually spend a minimum of 48 hours in the lying-in wards before being discharged home. Hence, the data were obtained from the respondents as soon as possible after delivery, before discharge from the lying-in wards.

- ✓ **Interviewer Administered Questionnaire** was administered on those women who had spontaneous vaginal delivery. Information such as allowing a patient's relation to stay with her; respected her privacy and opinion; giving encouraging, calming and reassuring words to her; keeping her informed about the progress of labour; providing clean and conducive environment; staying with her while in labour; gaining informed consent from her before a procedure/test was carried out and verbal expression of satisfaction from the patient were assessed using this tool.
- ✓ **Checklist** was used to extract information from the vital signs charts and labour records of the parturient. Information on the frequency of blood pressure and pulse monitoring, frequency of fetal heart rates monitoring, frequency of vaginal examinations conducted on the parturient as well as proper and timely documentation of information about the progress of the active phase of first stage of labour on the partogram of the parturient during active phase of first stage of labour were collected between June and September, 2013.

3.10 Variables

The independent variables are demographic characteristics of participants such as age, parity, booking status, marital status, occupation, educational background, religion and ethnicity. While, dependent variable is the level of intra-partum care received by the participants.

3.11 Validation and Reliability of Study Instruments

The instrument was reviewed among experts in the Departments of Health Policy and Management, and Community Medicine. A pre-test was carried out in the labour ward of

University College Hospital, Ibadan. Cronbach Alpha test was used on the data collected during the pre-test to check the reliability (Cronbach Alpha of 0.713) before final administration.

3.12 Data Management and Analysis

Data obtained were manually sorted out, cleaned, edited and coded. The data were entered into the computer and analysed using Statistical Packages for Social Sciences (SPSS) version 15.0. Descriptive statistics was used to summarize data using proportions, frequency tables, means and standard deviation.

Computation of Scores on Adequacy of Care Received By Participants during Active Phase of First Stage of Labor

A scoring system was developed to compute the level of adequacy of the six domains of care assessed by this study. A description of the scoring system is shown below:

Observational Checklist

Section A of observational checklist was used to assess 4 domains of care, which include half-hourly fetal heart rate monitoring, hourly blood pressure monitoring, hourly pulse rate monitoring and four-hourly vaginal examinations as performed on parturient within a time period stipulated by the Safe Motherhood Initiative Standard.

The scores ascribed to each domain of care ranged between 0 and 2 with participants whose FHR was adequately/timely/consistently recorded scoring 2 points, those whose FHR were not adequately/timely/consistently recorded scoring 1 point and those whose FHR were not recorded at all scoring zero point. The same pattern was followed for blood pressure, pulse rate and vaginal examination depending on the frequency of the procedure performed on the parturient. Maximum obtainable score for each parturient was 8 (100%). Percentage was used

to report the quality of intra-partum care received by parturient. Using a 50% mark point, optimal care/quality care was assumed to have been provided when the score obtained was $\geq 50\%$ (≥ 4) and sub-optimal care/poor quality care if $< 50\%$ (< 4).

Section B of the checklist was used to assess one domain of care; adequacy of information about progress of labour recorded on the partogram of the parturient. There were 13 items in this domain. The score ascribed to the adequacy of information recorded on each item about progress of labour on the partogram of parturient during active phase of first stage of labour assessed by this study ranged between zero and 2 points. Parturient whose information about progress of active phase of first stage of labour was recorded adequately/consistently/timely scored 2 points, those whose information was not recorded adequately/consistently/timely scored 1 and those with information not recorded at all scored zero. The maximum obtainable score for each parturient was 26 (100%). Percentage was used to report the quality of intra-partum care received by parturient. Participants' total score on the adequacy of information recorded on the partogram was classified as adequate, inadequate or poor depending on their scores on scoring system described above. Participants with total score of zero points were classified as having no information recorded on the partogram, those with scores that ranged between 1 and 12 points were classified as having their information inadequately recorded while participants with scores between 13 and 26 points were classified as having their information recorded frequently. Using a 50% mark point, optimal care/quality care for parturient was assumed to have been provided when the score obtained was $\geq 50\%$ (≥ 13) and sub-optimal care/poor quality care if $< 50\%$ (< 13).

Questionnaire

Section B of the Questionnaire was used to assess a domain of care; adequacy of psychosocial support received by parturient during active phase of first stage of labour. The adequacy of psychosocial care received by participants was assessed on an 18-items Likert scale in which participants ticked options that ranged from agree, disagree and undecided. In computing the scores, it was taken into consideration whether or not a statement is "positive" or "negative". Participants who agreed to a positive statement were given a point and those who disagree did not get any point. The reverse was done for a negative statement. Also, participants who were undecided to any of the statements did not get any point. Overall, the maximum obtainable score for each participant was 18 (100%). Participants with a total score of zero point were grouped as not receiving any psychosocial care, those that scored between 1 and 8 points were classified as receiving sub-optimal psycho-social support while respondents that received between 9 and 18 points were classified as receiving adequate psycho-social support. Using a 50% mark point, aggregate score of intra-partum care for parturient was classified as poor quality/sub-optimal when the score obtained was $< 50\%$ (< 9) and good quality/optimal if $\geq 50\%$ (≥ 9).

Questionnaire

Section B of the Questionnaire was used to assess a domain of care; adequacy of psychosocial support received by parturient during active phase of first stage of labour. The adequacy of psychosocial care received by participants was assessed on an 18-items Likert scale in which participants ticked options that ranged from agree, disagree and undecided. In computing the scores, it was taken into consideration whether or not a statement is "positive" or "negative". Participants who agreed to a positive statement were given a point and those who disagree did not get any point. The reverse was done for a negative statement. Also, participants who were undecided to any of the statements did not get any point. Overall, the maximum obtainable score for each participant was 18 (100%). Participants with a total score of zero point were grouped as not receiving any psychosocial care, those that scored between 1 and 8 points were classified as receiving sub-optimal psycho-social support while respondents that received between 9 and 18 points were classified as receiving adequate psycho-social support. Using a 50% mark point, aggregate score of intra-partum care for parturient was classified as poor quality/sub-optimal when the score obtained was $< 50\%$ (< 9) and good quality/optimal if $\geq 50\%$ (≥ 9).

**Overall Assessment of Adequacy of Intra-partum Care Received by Participants during
Active Phase of First Stage of Labour**

The overall adequacy of intra-partum care received was determined by computing the points from each of the six domains of care assessed by this study. A breakdown of the maximum points attainable by each participant from each of the care assessed is shown below:

Domain	Maximum Points
Fetal Heart Rate Monitoring	2
Blood Pressure Monitoring	2
Pulse Rate Monitoring	2
Vaginal Examination	2
Documentation of Information about labour progress on the partogram	26
Psycho-social Support	18
Total	52

Overall assessment of all the six domains of care was done. A maximum score of 52 points and minimum score of 0 point on overall adequacy of care could be obtained by a participant. Based on 50% mark point, the overall score for each participant was further classified into sub-optimal/inadequate care = 0-25 points and optimal/adequate care = 26-52 points. Participants with overall score ranging between 1 and 25 were classified as receiving sub-optimal/inadequate intra-partum care while those with scores ranging between 26 and 52 were classified as receiving optimal/adequate intra-partum care during active phase of first stage of labour at the labour ward of the University College Hospital, Ibadan, Nigeria.

Inferential statistics such as Chi-square test was used to test association between demographic characteristics and adequacy of hourly blood pressure monitoring, association between demographic characteristics and adequacy of pulse rate monitoring, association between demographic characteristics and adequacy of fetal heart rate monitoring, association between demographic characteristics and adequacy of vaginal examination, association between demographic characteristics and adequacy of documentation of information about progress of active phase of first stage of labour on the partogram as well as association between demographic characteristics and psycho social support received during active phase of first stage of labour. Level of Significance, $p < 0.05$ was adopted.

3.13 Ethical Considerations

The ethical principles guiding the use of human participants in research were taken into consideration in the design and conduct of the study. Ethical approval was provided by the University of Ibadan/University College Hospital Joint Ethical Review Committee. Permission was obtained from the Chief Medical Director, University College Hospital, Ibadan (see appendices III and IV for the approval letters). Permission was obtained from the Assistant Directors of Nursing (ADNs) in-charge of labour ward and lying-in wards of the University College Hospital, Ibadan. Participation in the study was voluntary; each participant received detailed information on the objectives of the study, study methodology, inconveniences that might be experienced and the potential benefits of the study to the society. A written informed consent was obtained from each respondent before interview was conducted (see appendix V). No identifier such as name of participant was required and all information provided was kept confidential.

3.14 Limitations of the study

There was dearth of information in both Nigerian and international literatures on the six domains of intra-partum care during active phase of first stage of labour examined by this study. This posed a serious challenge in respect of relevant literatures which could be used in this study. The problem was ameliorated through the review of general literatures on studies on intra-partum care conducted in Nigeria and outside Nigeria. Some of the respondents were not willing to give true information, but they were encouraged to be as truthful as possible since their names, would neither be recorded on the questionnaire and checklist nor linked with any information provided as absolute confidentiality was maintained by coding the questionnaire and checklist.

CHAPTER FOUR

RESULTS

A total of 345 parturient were recruited into the study with 100% response rate.

4.1: Socio Demographic Characteristics of Respondents

The ages of respondents ranged from 16 to 43 years with a mean age of 30.4 ± 3.8 years (Table 4.1). Most of the participants 192 (55.7%) participants were in the 30-39 years age category followed by 141 (40.9%) who were between 20-29 years old. One hundred and thirty-two (38.3%) participants were nulliparous while 167 (48.4%) and 46 (13.3%) had 1-2 and 3-5 deliveries in the past respectively. The median number of births recorded among participants was 1. Majority of the participants 291 (84.3%) were booked patients. Majority, 332 (96.2%) of participants were married; few were either single 10 (2.9%) or separated/divorced 3 (0.9%). Two hundred and nine participants (60.6%) had a University degree, 54 (15.7%) had National Diploma/Colleges of Education certificates, 68 (19.7%) participants had at most secondary education, 11 (3.2%) had primary education while 3 (0.9%) participants had no formal education. Most of the participants, 159 (46.1%) participants were civil servants, 78 (22.6%) were traders, 55 (15.9%) were self-employed, 24 (7%) were students, 20 (5.8%) were full-time housewives while only 9 (2.6%) participants were artisans. Participants belonged to two religious faiths which include Christianity 239 (69.3%) and Islam 106 (30.7%). Majority of the participants, 286 (82.9%) belonged to Yoruba ethnic group followed by Igbo 34 (9.9%) and Hausas 4 (1.2%).

Table 4.1: Showing Socio-demographic Characteristics of Participants

Characteristics	(N=345)	
	Frequency	%
Age (years)		
< 20	6	1.7
20-29	141	40.9
30-39	192	55.7
40-49	6	1.7
Mean age (30.4±3.8 years)		
Parity		
Zero		
1-2	132	38.3
3-5	167	48.4
Median no of births (1)	46	13.3
Booking status		
Booked		
Un-booked	291	84.3
Occupation	54	15.7
Civil servant		
Trading	159	46.1
Self-employed	78	22.6
Student	55	15.9
Full-time housewife	24	7.0
Artisan	20	5.8
	9	2.6
Highest educational attainment		
No formal education		
Primary	3	0.9
Secondary	11	3.2
OND/NCE	68	19.7
University degree	54	15.7
	207	60.6
Marital status		
Married	332	96.2
Single	10	2.9
Separated/divorced	3	0.9
Religion		
Islam	106	30.7
Christianity	239	69.3
Ethnicity		
Yoruba	286	82.9
Igbo	34	9.9
Others	4	1.2
	21	6.0

Mean age of participants = 30.4±3.8 years, Age range = 16-43 years

Median number of births = 1.

Range of births = 0-5

Others (Iv, Ijaw, Esan, Urobo, Eflk, Isoko and Idoma)

4.2 Frequency of Hourly Blood Pressure Monitoring on Parturient during Active Phase of First Stage of Labour

Out of 345 parturient, 143(41.4%) had their blood pressure monitored frequently and timely, 190 (55.1%) had blood pressure monitored but not frequently and timely. Twelve (3.5%) parturient did not have their blood pressure monitored at all (Table 4.2).

Table 4.2: Showing Frequency of Hourly Blood Pressure Monitoring during Active Phase of First Stage of Labour

(N=345)

Frequency and timeliness of hourly blood pressure monitoring on the parturient	Frequency	(%)
Recorded frequently and timely	143	41.4
Recorded but not frequent and timely	190	55.1
Not recorded/monitored at all	12	3.5
Total	345	100.0

4.3 Frequency of Hourly Pulse Rate Monitoring on Parturient during Active Phase of First Stage of Labour

Out of 345 parturient, 142 (41.2%) had their pulse rate (PR) monitored frequently and timely; 192 (55.7%) had PR monitored not frequently. Eleven (3.2%) parturient did not have their PR monitored at all (Table 4.3).

Table 4.3: Showing Frequency of Hourly Pulse Rate Monitoring on the Parturient

Frequency and timeliness of hourly pulse rate monitoring on the parturient	Frequency	(%)
Recorded frequently and timely	142	41.2
Recorded but not frequent and timely	192	55.7
Not recorded/monitored at all	11	3.2
Total	345	100.0

4.4 Frequency of Half-hourly Fetal Heart Rate Monitoring on the Parturient during Active Phase of First Stage of Labour

Out of 345 parturient, 212 (61.4%) had their fetal heart rate (FHR) monitored frequently and timely, 127 (36.8%) had FHR monitored but not Frequent. Six (1.7%) parturient did not have their FHR monitored at all (Table 4.4).

Table 4.4: Showing Frequency of Half-hourly Fetal Heart Rate Monitoring on the Parturient during Active Phase of First Stage of Labour

Frequency and timeliness of half-hourly fetal heart rate monitoring on the parturient	Frequency	(%)
Recorded frequently and timely	212	61.4
Recorded but not frequent and timely	127	36.8
Not recorded/monitored at all	6	1.7
Total	345	100.0

4.4 Frequency of Half-hourly Fetal Heart Rate Monitoring on the Parturient during Active Phase of First Stage of Labour

Out of 345 parturient, 212 (61.4%) had their fetal heart rate (FHR) monitored frequently and timely, 127 (36.8%) had FHR monitored but not Frequent. Six (1.7%) parturient did not have their FHR monitored at all (Table 4.4).

Table 4.4: Showing Frequency of Half-hourly Fetal Heart Rate Monitoring on the Parturient during Active Phase of First Stage of Labour

Frequency and timeliness of half-hourly fetal heart rate monitoring on the parturient	Frequency	(%)
Recorded frequently and timely	212	61.4
Recorded but not frequent and timely	127	36.8
Not recorded/monitored at all	6	1.7
Total	345	100.0

4.5 Frequency of Four-hourly Vaginal Examination Conducted on the Parturient during Active Phase of First Stage of Labour

Out of 345 parturient, 294 (85.2%) had vaginal examination (VE) conducted on them frequently and timely, 27 (7.8%) had VE not done frequently and timely. Twenty-four (7.0%) parturient did not have VE done at all (Table 4.5).

Table 4.5: Frequency of Four-hourly Vaginal Examination Conducted on the Parturient during Active Phase of First Stage of Labour

Frequency of four-hourly vaginal examination conducted on parturient	Frequency	(%)
Recorded frequently/timely	294	85.2
Recorded but not frequent/timely	27	7.8
Not recorded/done at all	24	7.0
Total	345	100.0

4.6 Frequency of Documentation of Parameters Used to Assess Active Phase of First Stage of Labour on the Partogram of Parturient

The Parameters most frequently documented were condition of membranes 129 (37.4%), cervical dilatation 116 (33.6%), uterine contractions 106 (30.7%), descent of presenting part 80 (23.2%) and fetal heart rate 70 (20.3%). The parameters most frequently not documented included volume of urine passed 333 (96.5%), urine test for ketones 322 (93.3%), urine test for protein 318 (82.2%), blood pressure and pulse measurement 201 (58.3%) and temperature readings 304 (88.1%) (Table 4.6)

Table 4.6.1: Showing Frequency of Documentation of Parameters Used to Assess Active First Stage of Labour on the Partogram of Parturient

Information to be recorded on the partogram of parturient during active phase of first stage of labour	Frequency of documentation of parameters		
	Documented	Documented	Not
	Frequently	but not	Documented
	N (%)	Frequently N (%)	at all N (%)

Condition of membranes	129(37.4)	33(9.6)	183(53.0)
Fetal heart rate	70(20.3)	128(37.1)	47(42.6)
Condition of the liquor/amniotic fluid	37(10.7)	74(21.4)	234(67.8)
Degree of moulding	35(10.1)	75(21.7)	235(68.1)
Cervical dilation	116(33.6)	87(25.2)	142(41.2)
Decent of the presenting part	80(23.2)	94(27.2)	171(49.6)
Frequency, strength and duration of uterine contractions	106(30.7)	90(26.1)	149(43.2)
Medications and Intravenous fluids	50(14.5)	37(10.7)	258(74.8)
Blood Pressure and Pulse Measurements, every hour	15(4.3)	129(37.4)	201(58.3)
Temperature readings	22(6.4)	19(5.5)	304(88.1)
Volume of urine	6(1.7)	6(1.7)	333(96.5)
Urine test for protein at each micturition	14(4.1)	13(3.8)	318(82.2)
Urine test for ketones at each micturition	11(3.2)	12(3.5)	322(93.3)

Table 4.6.2: Rating of Frequency and Timeliness of Documentation of Parameters Used to Assess Progress of Active Phase of First Stage of Labour Recorded on the Partogram of Participants

Rating of frequency and timeliness of documentation of parameters used to assess progress of active phase of first stage of labour	Frequency	Percentage
Frequently documentation of parameters	63	18.2
Parameters documented but not frequent	150	43.5
Parameters not documented at all	132	38.3
Total	345	100.0

The rating of frequency of documentation of parameters used to assess progress of active first stage of labour recorded on the partogram of participants is shown in table 4.7. Only in 63 (18.2%) respondents were the progress parameters frequently and timely recorded while in 150 (43.5%) and 132 (38.3 %) they were not frequently recorded and not documented at all respectively.

4.7 Adequacy of Psycho-Social Support Received by Parturient during Active Phase of First Stage of Labour

According to table 4.7, most 326 (94.5%) participants agreed that midwives/doctors treated them with respect and respected their privacy. Three hundred and fifteen representing 91.3% participants agreed that labour ward staff were readily available whenever they called on them during labour. About three-quarters of the participants 248 (71.9%) agreed that they were allowed to contribute their opinion about their management during labour. A majority of the participants, 316 (91.6%) received encouraging, calming and re-assuring words during labour. However, a higher proportion 232 (67.0%) of participants disagreed that they were allowed to have someone with them during labour. Findings on opinions of participants about other psycho-social support received during active phase of first stage of labour are shown in table 4.7.

**Table 4.7.1: Participants' Assessment of Psycho-social Support Received during Active
—Phase of First Stage of Labour**

Indicator		Agree N (%)	Disagree N (%)	Undecided N (%)
1.	I was allowed by the midwife/ doctor to have someone (such as partner / friend / relation) with me during labour	99(28.7)	232(67.0)	15(4.3)
2.	The midwife / doctor treated me with respect and respected my privacy.	326(94.5)	15(4.3)	4(1.2)
3.	Labour ward staff were readily available whenever I called for them during labour.	315(91.3)	27(7.8)	3(0.9)
4.	I was allowed to contribute my opinion about my management during labour	248(71.9)	64(18.6)	33(9.6)
5.	Encouraging, calming and re-assuring words were given to me during labour	316(91.6)	19(5.5)	10(2.9)
6.	Midwives/doctors were nagging at me and or my relation while I was in labour	42(12.2)	296(85.8)	7(2.0)
7.	The midwife/doctor kept me informed about how my labour was progressing	314(91.0)	23(6.7)	8(2.3)
8.	Midwives/doctors always answered my questions during labour	300(87.0)	26(7.5)	19(5.5)
9.	Willingness to listen to my concern during labour was not enough	201(58.3)	114(33.0)	30(8.7)
10.	Midwife stayed with me throughout labour	199(57.7)	140(40.6)	6(1.7)
11.	The environment/atmosphere that I was kept during labour was conducive	318(92.2)	21(6.1)	6(1.7)
12.	I was not allowed to get out of bed or move around during labour	251(72.8)	89(25.8)	5(1.4)
13.	Massages were given to me to relieve me of pain while in labour	150(43.5)	182(52.8)	13(3.8)
14.	Communication with midwives / doctors during labour did not make me feel lonely	161(46.7)	168(48.7)	16(4.6)
15.	Midwife / doctor always explained to me each time any procedure/ test was to be conducted on me	298(86.4)	40(11.6)	7(2.0)
16.	After any procedure/test, the result was always explained to me	265(76.8)	65(18.8)	15(4.3)
17.	In general, I was satisfied with the labour ward staff	325(94.2)	17(4.9)	3(0.9)
18.	I would like to deliver in this hospital, if I am in labour again	321(93.0)	14(4.1)	10(2.9)

**Figure 4.7.2: Rating of Participants According to Adequacy of Psycho-social Support
Received during Active Phase of First Stage of Labour**

Rating of participants according to adequacy of psycho-social support received during active phase of first stage of labour	Frequency	Percentage
Adequate psycho-social support	333	96.5
Inadequate psycho-social support	12	3.5
Total	345	100.0

The rating of participants according to adequacy of psycho-social support received during active phase of first stage of labour is shown in figure 4.7.2. Majority 333 (96.5%) of the participants were adjudged to receive adequate psycho-social support compared to 12 (3.5%) who received inadequate psycho-social support.

Table 4.8: Assessment of Intra-partum Care Received by Parturient during Active Phase of First Stage of Labour using Six Actions/Domains of Care

Action/Domain of Care	Optimal care (%)	Sub-optimal care (%)
Hourly Blood Pressure Measurement	143 (41.4)	202 (58.6)
Hourly Pulse Rate Monitoring	142 (41.2)	203 (58.9)
Half Hourly Fetal Heart Rate Monitoring	212 (61.4)	133 (38.5)
Four Hourly Vaginal Examination	294 (85.2)	51 (14.8)
Documentation of Information on the Partogram	63 (18.3)	282 (81.7)
Psycho-social Support	333 (96.5)	12 (3.5)

Table 4.9: Overall Quality of Intra-partum Care Received by Parturient during Active Phase of First Stage of Labour

Overall Intra-partum Care	Frequency	Percentage
Optimal care	198	57.3
Sub-optimal care	147	42.7
Total	345	100.0

In overall, 198 (57.3%) participants received optimal intra-partum care while intra-partum care was sub-optimal in 147 (42.7%) participants during active phase of first stage of labour at the labour ward of the University College Hospital, Ibadan, Nigeria (Table 4.9).

Table 4.10: Socio-demographic Characteristics and Frequency of Hourly Blood Pressure Monitoring of Participants during Active Phase of First Stage of Labour

		Hourly Blood Pressure Monitoring		N=345
Socio-demographic Characteristics	Frequently Done N (%)	Not Frequently/Not Done at all N (%)	P-value	
Age (years)				
≤30	71 (35.9)	127 (64.1)	0.01	
>30	72 (49.0)	75 (51.0)		
Parity				
None	116 (46.4)	144 (53.6)	0.081	
1-5	229 (53.3)	201 (46.7)		
Booking status				
Booked	118 (40.5)	173 (59.5)	0.261	
Un-booked	25 (46.3)	29 (53.7)		
Marital status				
Married	137 (41.3)	195 (58.7)	0.468	
Single/Divorced	6 (46.2)	7 (53.8)		
Level of education *				
Primary & Secondary education	33 (40.2)	49 (59.8)	0.452	
Tertiary level education	110 (41.8)	153 (58.2)		
Occupational status				
Civil servants	65 (44.8)	80 (55.2)	0.191	
Trading/artisans	60 (42.3)	82 (57.7)		
Housewives/students/unemployed	18 (31.0)	40 (69.0)		
Religion				
Christianity	45 (42.5)	61 (57.5)	0.446	
Islam	98 (41.0)	141 (59.0)		
Ethnicity				
Yoruba	119 (41.6)	167 (58.4)	0.507	
Others*	24 (40.7)	35 (59.3)		

Others*: Tiv, Ijaw, Etsan, Urobo, Eka, Ioko, Idoma

The association between the socio-demographic characteristics of participants and frequency of monitoring their blood pressure is shown in table 4.10. The table shows that blood pressure monitoring of parturient was significantly associated with age. However, there was no significant association between blood pressure monitoring and booking status, marital status, educational status, type of occupation, religion and ethnic groups of participants.

Table 4.10: Socio-demographic Characteristics and Frequency of Hourly Blood Pressure Monitoring of Participants during Active Phase of First Stage of Labour

N=345			
Hourly Blood Pressure Monitoring			
Socio-demographic Characteristics	Frequently Done N (%)	Not Frequently/Not Done at all N (%)	P-value
Age (years)			
≤30	71 (35.9)	127 (64.1)	0.01
>30	72 (49.0)	75 (51.0)	
Parity			
None	116 (46.4)	144 (53.6)	0.081
1-5	229 (53.3)	201 (46.7)	
Booking status			
Booked	118 (40.5)	173 (59.5)	0.261
Un-booked	25 (46.3)	29 (53.7)	
Marital status			
Married	137 (41.3)	195 (58.7)	0.468
Single/Divorced	6 (46.2)	7 (53.8)	
Level of education*			
Primary & Secondary education	33 (40.2)	49 (59.8)	0.452
Tertiary level education	110 (41.8)	153 (58.2)	
Occupational status			
Civil servants	65 (44.8)	80 (55.2)	0.191
Trading/artisans	60 (42.3)	82 (57.7)	
Housewives/students/unemployed	18 (31.0)	40 (69.0)	
Religion			
Christianity	45 (42.5)	61 (57.5)	0.446
Islam	98 (41.0)	141 (59.0)	
Ethnicity			
Yoruba	119 (41.6)	167 (58.4)	0.507
Others*	24 (40.7)	35 (59.3)	

Others*: Tiv, Ijaw, Etsa, Urobo, Edo, Iseke, Idoma.

The association between the socio-demographic characteristics of participants and frequency of monitoring their blood pressure is shown in table 4.10. The table shows that blood pressure monitoring of parturient was significantly associated with age. However, there was no significant association between blood pressure monitoring and booking status, marital status, educational status, type of occupation, religion and ethnic groups of participants.

Table 4.11: Socio-demographic Characteristics and Adequacy of Hourly Pulse Rate Monitoring of Participants during Active Phase of First Stage of Labour

Socio-demographic Characteristics	Frequently Done N (%)	Not Frequently done/Not Done at all N (%)	N=345 P-value
Age (years)			
≤30	70 (47.6)	77 (52.4)	0.023
>30	72 (36.4)	126 (63.6)	
Parity			
None	119 (45.8)	141 (54.2)	0.138
1-5	226 (52.6)	204 (47.4)	
Booking status			
Booked	119 (40.9)	172 (59.1)	0.465
Un-booked	23 (42.6)	31 (57.4)	
Marital status			
Married	137 (41.3)	195 (58.7)	0.540
Single/divorced/married	5 (38.5)	8 (61.5)	
Level of education			
Primary and Secondary education	31 (37.8)	51 (62.2)	0.282
Tertiary level education	111 (42.2)	152 (57.8)	
Occupational status			
Civil servant	63 (43.4)	82 (56.6)	0.355
Trading/artisans	60 (42.3)	82 (57.7)	
Housewives/students/unemployed	19 (32.8)	39 (67.2)	
Religion			
Christianity	101 (42.3)	138 (57.7)	0.308
Islam	41 (38.7)	65 (61.3)	
Ethnicity			
Yoruba	120 (42.0)	166 (58.0)	0.304
Others*	22 (37.3)	37 (62.7)	

Others*: Tiv, Ijaw, Esan, Urobo, Eflk, Isoko, Idoma.

The association between the socio-demographic characteristics of participants and frequency of monitoring their pulse rate hourly is shown in table 4.11. The table shows that pulse rate monitoring was significantly associated with age of participants. However, pulse rate monitoring was not significantly associated with booking status, marital status, level of education, type of occupation, religion and ethnic groups of participants.

Table 4.12: Socio-demographic Characteristics and Frequency of Half-Hourly Fetal Heart Rate Monitoring on Participants during Active Phase of First Stage of Labour

N=345

Socio-demographic Characteristics	Half-hourly Fetal Heart Rate Monitoring		p-value
	Frequently Done N (%)	Not Frequently Done/Not Done at all N (%)	
Age (years)			
≤30	119(60.1)	79(39.9)	0.314
>30	93(63.3)	54(36.7)	
Parity			
None	137 (52.3)	125 (47.7)	0.294
1-5	208 (48.6)	220 (51.4)	
Booking status			
Booked	178 (61.2)	113(38.8)	0.465
Un-booked	34(63.0)	20(37.0)	
Marital status			
Married	202(60.8)	130(45.5)	0.192
Single/divorced/married	10(76.9)	3(23.1)	
Level of education			
Primary and Secondary education	50(61.0)	32(39.0)	0.509
Tertiary level education	162(61.6)	101(38.4)	
Occupational status			
Civil servant	83(57.2)	62(42.8)	0.389
Trading/artisans	92(64.8)	50(35.2)	
Housewives/students/unemployed	37(63.8)	21(36.2)	
Religion			
Christianity	153(64.0)	86(34.0)	0.089
Islam	59(55.7)	47(44.3)	
Ethnicity			
Yoruba	173(60.5)	113(39.5)	0.256
Others*	39(66.1)	20(33.9)	

Others*: Tiv, Ijaw, Egan, Urobo, Efik, Isoko, Idoma

Socio-demographic characteristics and frequency of fetal heart rate monitoring of Participants during active phase of first stage of labour is shown in table 4.12. The table shows that age, booking status, marital status, educational status, type of occupation, religion and ethnicity had no significant association with adequacy and timeliness of monitoring fetal heart rate in the participants.

Table 4.13: Socio-demographic Characteristics and Frequency of Four-Hourly Vaginal Examination Conducted on the Participants during Active Phase of First Stage of Labour
N=345

Socio-demographic Characteristics	Four-hourly Vaginal Examination		p-values
	Adequate N (%)	Inadequate/Not recorded at all N (%)	
Age (years)			
≤30	171(86.4)	27(13.6)	0.292
>30	123(83.7)	24(16.3)	
Parity			
None	134 (52.3)	122 (47.7)	0.379
1-5	211 (48.6)	223 (51.4)	
Booking status			
Booked	250(85.9)	41(14.1)	0.257
Un-booked	44(81.5)	10(18.5)	
Marital status			
Married	283(85.2)	49(14.8)	0.598
Single/divorced	11(84.6)	2(15.4)	
Level of education			
Primary and Secondary education	69(84.1)	13(15.9)	0.438
Tertiary level education	225(85.6)	38(14.4)	
Occupational status			
Civil servant	125(86.2)	20(13.8)	0.907
Trading/artisans	120(84.5)	22(15.5)	
Housewives/students/unemployed	49(84.5)	9(15.5)	
Religion			
Christianity	206(83.0)	33(17.0)	0.271
Islam	88(86.2)	18(13.8)	
Ethnicity			
Yoruba	242(84.6)	44(15.4)	0.320
Others*	52(88.1)	7(11.9)	

Others*: Tiv, Ijaw, Eson, Urobo, Efik, Ioko, Idoma

Socio-demographic characteristics and frequency of vaginal examination conducted on the parturient during active phase of first stage of labour is shown in table 4.13. The table shows that vaginal examination was not significantly associated with age, booking status, marital status, and educational status, type of occupation, religion and ethnic group of participants.

Table 4.14: Socio-demographic Characteristics and Frequency of Documentation of Parameters Used to Assess Progress of Active Phase of First Stage of Labour on the Partogram of Participants during Active First Stage of Labour
N=345

Socio-demographic Characteristics	Documentation of Parameters			p-value
	Frequently Documented N (%)	Documented but not Frequent N (%)	Not Documented at all N (%)	
Age (years)				
≤ 30	7(20.2)	58(41.4)	133(38.4)	0.387
> 30	3(15.6)	52(46.3)	92(38.1)	
Parity				
None	148 (36.4)	127 (31.2)	132 (32.4)	0.693
1-5	197 (31.3)	218 (34.7)	214 (34.0)	
Booking status				
Booked	56(19.2)	130(44.7)	105(36.1)	0.374
Un-booked	7(13.0)	20(37.0)	27(50.0)	
Marital status				
Married	9(2.7)	105(31.6)	218(65.7)	0.467
Single/divorced/widowed	1(7.7)	5(38.5)	7(53.8)	
Level of education				
Primary and Secondary education	3(3.7)	23(28.0)	56(68.3)	0.648
Tertiary level education	7(2.7)	87(33.1)	169(64.3)	
Occupational status				
Civil servant	3(2.1)	53(36.6)	89(61.4)	0.416
Trading/artisans	6(4.2)	39(27.5)	97(68.3)	
Housewives/students/unemployed	1(1.7)	18(31.0)	39(67.2)	
Religion				
Christianity	5(4.7)	28(26.4)	73(68.9)	0.174
Islam	5(2.1)	82(34.3)	152(63.6)	
Ethnicity				
Yoruba	54(18.9)	121(42.3)	111(38.8)	0.305
Others*	9(15.3)	29(42.9)	21(35.6)	

Others*: Tiv, Ijaw, Etsu, Urobo, Enk, Ijoko, and Idoma

Socio-demographic characteristics and documentation of parameters used to assess progress of active phase of first stage of labour on partograms of participants is shown in table 4.14. According to the table, documentation of parameters used to assess the progress of active first stage of labour was not significantly associated with age, booking status, marital status, and educational status, type of occupation, religion and ethnic groups of participants.

Table 4.15: Socio-demographic Characteristics of Participants and Psycho-social Support Received during Active Phase of First Stage of Labour

Socio-demographic Characteristics	Optimal N (%)	Sub-optimal N (%)	p-value
Age (years)			
≤30			
>30	184(92.9) 123(83.7)	14(7.1) 24(16.3)	0.06
Parity			
None			
1-5	131 (47.6) 214 (51.6)	144 (52.4) 201 (48.4)	0.513
Booking status			
Booked			
Un-booked	258(88.7) 49(90.7)	33(11.3) 5(9.3)	0.433
Marital status			
Married			
Single/divorced/married	294(88.6) 11(100)	38(11.4) 0(0.0)	0.643
Level of education			
Primary and Secondary education			
Diploma/NCE	76(92.7) 51(94.4)	6(7.3) 3(5.6)	0.104
University degree	180(86.1)	29(13.9)	
Occupational status			
Civil servant			
Trading/artisans	129(89.0) 125(96.9)	16(11.0) 4(3.1)	0.790
Housewives/students/unemployed	53(91.4)	5(8.6)	
Religion			
Christianity			
Islam	205(85.8) 102(96.2)	34(14.2) 4(3.8)	0.002
Ethnicity			
Yoruba			
Others*	261(91.3) 46(78.0)	25(8.7) 13(22.0)	0.005

Others*: Tiv, Ijaw, Esan, Urobo, Edo, Ibo, Idoma

The association between socio-demographic characteristics and psycho-social support received by participants during active phase of first stage of labour is shown in table 4.15. According to the table, participants of Yoruba origin received significantly higher optimal psycho-social support than those from other ethnic groups. Participants who were Christians also received significantly higher optimal psycho-social support than Muslims. However, there was no significant association between age, booking status, marital status, level of education and types of occupation of participants and adequacy of psycho-social support received.

Table 4.15: Socio-demographic Characteristics of Participants and Psycho-social Support Received during Active Phase of First Stage of Labour

Socio-demographic Characteristics	Optimal N (%)	Sub-optimal N (%)	p-value
Age (years)			
≤30	184(92.9)	14(7.1)	0.06
>30	123(83.7)	24(16.3)	
Parity			
None	131 (47.6)	144 (52.4)	0.513
1-5	214 (51.6)	201 (48.4)	
Booking status			
Booked	258(88.7)	33(11.3)	0.433
Un-booked	49(90.7)	5(9.3)	
Marital status			
Married	294(88.6)	38(11.4)	0.643
Single/divorced/widowed	11(100)	0(0.0)	
Level of education			
Primary and Secondary education	76(92.7)	6(7.3)	0.104
Diploma/NCE	51(94.4)	3(5.6)	
University degree	180(86.1)	29(13.9)	
Occupational status			
Civil servant	129(89.0)	16(11.0)	0.790
Trading/artisans	125(96.9)	4(3.1)	
Housewives/students/unemployed	53(91.4)	5(8.6)	
Religion			
Christianity	205(85.8)	34(14.2)	0.002
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Others*: Ijaw, Edo, Esan, Uroba, Ewe, Isoko, Idoma

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CHAPTER FIVE

DISCUSSION

The study was a cross sectional study conducted to assess quality of intra-partum care received by parturient during active phase of first stage of labour at labour ward of University College Hospital, Ibadan, Nigeria. The participants were 345 women who had spontaneous vaginal deliveries in the labour ward of the hospital. The study revealed that quality of intra-partum care from the participants' perspective and review of their labour records during active phase of first stage of labour was optimal.

The findings of the study tripled the findings from the earlier studies conducted on the quality of intra-partum care. The study revealed hourly record of blood pressure and pulse rate monitoring at 143 (41.4%) and 142 (41.2) % respectively which at the same time triple the results with Osungbade et al (2010). In hourly blood pressure monitoring, the findings showed that 143 (41.4%) parturient received optimal/adequate intra-partum care while the care is sub-optimal/inadequate in 202 (58.8%) parturient. Similarly, it was affirmed that 212 (61.4%) of the participants had fetal heart rate recorded half-hourly which triple the rate demonstrated in Osungbade et al, (2010) study. Two hundred and twelve (61.4%) parturient received optimal care in half-hourly fetal heart rate monitoring while the care is sub-optimal in 133 (38.6%) parturient. Two hundred and ninety four parturient (85.2%) received adequate four-hourly vaginal examination. This was in tandem with the study by Osungbade et al, (2010) on assessment of frequency of four-hourly vaginal examination. On the documentation of information about progress of active phase of first stage of labour in the partogram of the parturient, only 63 (18.2%) of parturient had the information about the progress of labour frequently documented on their partograms.

Furthermore, findings in a study carried out by Osungbade et al (2010) in 12-selected secondary health facilities in Nigeria where 338 intra-partum monitoring records of four-hourly vaginal examinations that were categorized into optimal and sub-optimal care, based on the frequency of the procedure performed on parturient within a time period in the Safe Motherhood Initiative were reviewed, the findings showed that two hundred and forty-three (71.9 %) parturient received optimal care, while, the care was sub-optimal in ninety-five (28.1%) parturient which corroborates the findings in the current study on four-hourly vaginal examination where 294 (85.2%) parturient received optimal care on four-hourly vaginal examination while the care is sub-optimal in 51 (14.8%) parturient.

Again, it was shown in the current study that the documentation process was poor as the progress report on active phase of first stage of labour for most participants was not recorded on the partograms. Concerning this, only 63 (18.2%) parturient received optimal care while, 282 (81.7%) parturient received sub-optimal care. This at the same time is in tandem to the views of (Buchmann, 2001; Greenfield, 2003; Fahdhy and Chongsuvivatwong, 2005; Fawole, et al., 2010) on their discoveries about poor documentation/record of progress of labour on partogram which could be due to variables like poor knowledge on the filling of partogram, lack of clinical skills, low staff morale, shortage of staff and poor remuneration among the attending midwives and the obstetricians.

Current study further supports the assertion of (Halldorsdottir and Karlsdottir, 1996; WHO, 1999; Villar and Belizan, 2002; McCormick, 2005) as demonstrated on psycho-social support from the medical caregivers to parturient while in labour. On the psycho-social support in the current study, 333 (96.5%) parturient received optimal psycho-social support while, the care was sub-optimal in 12 (4.5%) parturient. In overall, 198 (57.3%) participants received

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optimal intra-partum care while intra-partum care was sub-optimal in 147 (42.7%) participants during active phase of first stage of labour at the labour ward of the University College Hospital, Ibadan, Nigeria.

5.2 Implications of the Findings to Policy and Practice

Findings from this study have health promotion and prevention of maternal morbidity and mortality implications and suggest the need for multiple interventions directed at tackling the phenomenon. Countries with high maternal mortality have a large burden of pregnancy-related complications associated disabilities. It is estimated that "for every woman who dies from a pregnancy-related cause, about 20 more-roughly 7 million women yearly experience injury, infection, disease or disability (Paxton, et al 2011).

Because most maternal deaths occur around the time of delivery (Hurt et al 2008), the maternal health strategy throughout the world has long emphasised intra-partum care. This include skilled birth attendance for all women and emergency obstetric care to prevent maternal deaths from direct causes such as haemorrhage, obstructed labour, hypertension, infection and anaemia (Campbell and Graham, 2006). It has become evident in recent years that a well-functioning health-care system and the provision of a continuum of care are essential for achieving the United Nations Millennium Development Goals pertaining to health (Kerber, et al 2007). Such a continuum would include quality intra-partum care and maternal health-care (Friel and Marmot, 2011). Midwives and obstetricians should intensify their efforts in effective monitoring of parturient in labour in all areas related to intra-partum care which include adequate monitoring of parturient blood pressure, pulse rate monitoring, fetal heart rate monitoring, vagina examination, timely documentation of information of progress of active phase of first stage of labour on the partogram and provision of optimal

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psycho-social supports for parturient. More efforts on healthcare services in these areas can help in providing extreme quality and excellent intra-partum care which tends to improve maternal health.

5.3 Conclusion

The research explored the frequency of blood pressure and pulse rate monitoring, fetal heart rate monitoring, vagina examination, timely documentation about progress of active phase of labour on the partogram and psycho-social support received by the parturient during active phase of first stage of labour from the labour ward staff of University College Hospital, Ibadan, Nigeria. The study showed that optimal intra-partum care was given in half-hourly fetal heart rate monitoring and four-hourly vagina examinations conducted on the parturient as well as psycho-social support rendered to the parturient during active phase of first stage of labour. However, it revealed deficiencies in the performance of hourly blood pressure and pulse rate monitoring of the parturient. It also revealed a gross inadequacy in the filling/documentation of information about progress of active phase of first stage of labour on the partograms of the parturient. These could be due to poor knowledge on the filling of partogram, lack of clinical skills, shortage of staff in relation to large client load at the labour ward and low staff morale. Improving the health services in these areas of deficiency could help providing excellent intra-partum care.

In overall this study showed that the quality of intra-partum care to parturient was optimal during active phase of first stage of labour at labour ward of the University College hospital, Ibadan, Nigeria. More than 50% (57.3 %) of the parturient received adequate intra-partum care during active phase of first stage of labour which is tending towards the achievement of the fifth Millennium Development Goal of the World Health organisation.

5.4 Recommendations

Based on this study, the following are recommended:

1. Effective blood pressure and pulse rate monitoring should be implored to improve labour monitoring on parturient.
2. It is recommended that there should be a thorough training for obstetricians in labour ward on timely and proper partogram recording.
3. More personnel should be recruited into the labour ward to reduce the work load on the present staff so as to ensure the proper monitoring of women in labour.
4. There should be effective supervision of the labour ward staff by their senior colleagues to ensure compliance with standard protocols in monitoring women in labour.

5.5 Suggestions for Further Study

It is suggested that further studies be carried out, to explore some aspects of intra-partum care, which the scope of this study did not cover.

1. Research is needed to determine the relationship between the quality of intra-partum care among parturient and outcome of delivery.
2. There is a need to carry out research on factors that influence level of intra-partum care among parturient in the labour ward.
3. Research is also needed to assess the relationship between intra-partum care and clients' satisfaction.

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APPENDIX 1
QUESTIONNAIRE

Serial Number _____

**QUALITY OF INTRA-PARTUM CARE RECEIVED BY PARTURIENT DURING
ACTIVE PHASE OF FIRST STAGE OF LABOUR AT UNIVERSITY COLLEGE
HOSPITAL, IBADAN, NIGERIA**

Dear Respondent,

Good day, this study is being conducted by a Master student of the Department of Health Policy and Management in the Faculty of Public Health, University of Ibadan. The study is, aimed at assessing the quality of intra-partum care received by parturient during active phase of first stage of labour at University College Hospital, Ibadan.

I hereby request your voluntary participation in the research by providing answers to the questions below. Information provided by you will only be used for research purpose and absolute confidentiality will be maintained. However, your honest answers to these questions will be highly appreciated.

Please, indicate by ticking (✓) the appropriate box if you will like to participate in the study.

Thank you.

Yes

☐

No

☐

APPENDIX 1
QUESTIONNAIRE

Serial Number _____

**QUALITY OF INTRA-PARTUM CARE RECEIVED BY PARTURIENT DURING
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Please, indicate by ticking (✓) the appropriate box if you will like to participate in the study.

Thank you.

Yes

☐

No

☐

Section A: Socio-Demographic Characteristics of Respondent

Instruction: Please tick (✓) the appropriate option. For some questions, simply provide the answer in the space provided.

1. Age of respondent _____
2. Parity _____
3. Booking status (a) Booked ☐ (b) Un-booked ☐
4. Marital status
(a) Married ☐ (b) Single ☐ (c) Widow ☐ (d) Divorced ☐
(e) Separated ☐ (f) other (specify) _____
5. Occupation
(a) Civil Servant ☐ (b) Trading ☐ (c) House wife ☐ (d) Artisan ☐
(e) Self-employed ☐ (f) Applicant / Unemployed ☐ (g) Workers in Private sector ☐
6. Highest Educational Level ☐
(a) No formal education ☐ (b) Primary School ☐ (c) Junior Secondary School ☐
(d) Senior Secondary School ☐ (e) Technical School ☐ (f) OND ☐
(g) First degree ☐ (h) Masters ☐ (i) Ph.D ☐
7. Religion
(a) Islam ☐ (b) Christianity ☐ (c) Traditional ☐
(d) Other (Specify) _____
8. Ethnicity
(a) Yoruba ☐ (b) Igbo ☐ (c) Hausa ☐
(d) TIV ☐ (e) Ijaw ☐ (f) Other (Specify) _____

Section B: Measure of Psycho-Social Support Received By Parturient During Active

Phase of First Stage of Labour

Instruction: Please tick (✓) the box that best describes your feeling regarding the psycho-social support you received while in labour.

S/N	Statements	Agree	Disagree	Undecided
9	I was allowed by the midwife / doctor to have someone (such as partner / friend / relation) with me during labour.			
10	The midwife / doctor treated me with respect and respected my privacy.			
11	Labour ward staff were readily available whenever I called for them during labour.			
12	I was allowed to contribute my opinion about my management during labour			
13	Encouraging, calming and re-assuring words were given to me during labour			
14	Midwives / doctors were nagging at me and or my relation while I was in labour			
15	The midwife / doctor kept me informed about how my labour was progressing			
16	Midwives / doctors always answered my questions during labour.			
17	Willingness to listen to my concern during labour was not enough			
18	Midwife stayed with me throughout labour			
19	The environment / atmosphere that I was kept during labour was conducive			
20	I was not allowed to get out of bed or move around during labour.			
21	Massages were given to me to relieve me of pain while in labour			

Section B: Measure of Psycho-Social Support Received By Parturient During Active

Phase of First Stage of Labour

Instruction: Please tick (✓) the box that best describes your feeling regarding the Psycho-social support you received while in labour.

S/N	Statements	Agree	Disagree	Undecided
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16	Midwives / doctors always answered my questions during labour.			
17	Willingness to listen to my concern during labour was not enough			
18	Midwife stayed with me throughout labour			
19	The environment / atmosphere that I was kept during labour was conducive			
20	I was not allowed to get out of bed or move around during labour.			
21	Massages were given to me to relieve me of pain while in labour			

22	Communication with midwives / doctors during labour did not make me feel lonely			
23	Midwife / doctor always explained to me each time any procedure/ test was to be conducted on me			
24	After any procedure / test, the result was always explained to me			
25	In general, I was satisfied with the labour ward staff			
26	I would like to deliver in this hospital if I am in labour again			

UNIVERSITY OF IBADAN LIBRARY

**IRU ITOJU TI O PEYE TI AWON ALABOYUN TI O N ROBI MA N RIGBA NI
ASIKO IROBI NI ILE IWOSAN ORITA MEFA, NI ILU IBADAN, NIGERIA**

Oiukopa mi owon,

Èkú lkalé, a gbé ètò iwádí yí kalé nípasẹ àkẹkọ onípèlẹ kejí tí ẹkà tí Health Policy and Management ní àbẹ Faculty of Public Health, tí lẹ́ ẹ̀kọ́ gíga Unlfasití tí Ilú Ibadan.

Ètò yí wá láti lẹ́ mọ́ iye itojú tí awon alaboyun tí o n robi n rí gba ní asiko tí wón n robi lowo ní ilé iwosan Orita-mefa tí ilú Ibadan.

Èjowo, moro yin láti kópá tí o bá wu yin nipa didahun awon lẹ́cẹ́ tí o wá ní isafẹ́ yí. Idahun tí ẹ́ bá fun wá yó wá fún ètò iwádí nikan, yíó sì wá láarin awa àlì ẹyín nikan. Nitorí idi ẹyí, má fẹ́kí ẹ́ bá wá sí otító inu dahun awon lẹ́cẹ́ yí.

È jowo, ẹ́ mu ẹyíkẹyí nípasẹ́ lífá líá (/) sí inu apoti kekere ísáfẹ́ yí tí o bá fẹ́ kó pá nínú ètò iwádí yí.

È sẹ́ pupọ́.

Beeni

Beeko

A: Socio-Demographic Characteristics of the Respondent

Itanl: E jowo e fa,ila (/) si idahun ti e ba ro wipe o dara julo. Fun awon ibeere kookan, e ko idahun won si ibi ila ti a fa si lwaju ibeere naa.

1 E to omo odun melo?

2 E jowo omo melo ni olofin ti yon da fun yin?

3 Nje e fi oruko sile fun itoju oyun yi ni ile lwasan yii?

(a) Fi oruko sile fun itoju oyun (b) Ko fi oruko sile fun itoju oyun

4 Ipowo le wa nipa loko-laya?

(a) Loko (b) Kolokori (d) Opo (e) Korasile
(c) Yapa (f) Omiran (E so fun wa ni pato).....

5 Inu isewo ni e nse?

(a) Osise ijoba (b) Onisowo (d) Iyawo ile (e) Onise owo
(c) Onise adani (f) Akeko (g) On waso
(gb) Osise ni ile ise adani

6 Iwe melo ni eka?

(a) koka we rara (b) Iwe alakobere (d) Pari ipele kini iwe girama
(c) Iwe girama (e) Ile iwe ikoso owo (f) Ile iwe awon olukoni
(g) Ipele kinni ile iwe gbogbonse (gb) Pari ni ile iwe gbogbonse
(h) Akeko jade ile eko giga (i) Ipele keji ni ile eko giga
(j) Akeko gboye dokita

7 Esin wo ni e n sin? (a) Musulumi (b) Onigbagbo (d) Elesin abalaye
(e) Omiran (E so fun wa ni pato).....

8 Eya Orile ede wo ni yin? (a) Yoruba (b) Igbo (d) Hausa
(c) Tiv (e) Ijaw (f) Omiran (E so fun wa ni pato).....

**Section B: Agbeyewo Osunwon Itoju / Ikaramasiki Ti O Peye Ti Awon Alaboyun Ti O
N Robi Gba Ni Asiko Irobi**

**ITONI: E jowo e fa iia (/) si idahun ti e bawo wipe o dara juo ti ylo so bi o se ri lara yin nipa
itoju ti eri gba ni asiko Irobi**

SN		BEENI	BEEKO	NKO MO
9	Agbebi / Dokita gba mi laye lati je ki enkan (bi iololufe / ore / ebi mi) wa pelu mi ni ibiti mo ti n robi			
10	Towotowo ni Agbebi / Dokita ti toju mi, won o si si asiri mi han sita			
11	Awon osise wa larowoto, ni Igbakigba limo ba pe won nigba ti mo n robi			
12	A gba mi laaye lati mu aba temi wa nipa bi a o se toju mi nigbati mo n robi			
13	Won fun mi ni oro iwuri, oro itunu ati oro idanl toju nigbati mo n robi			
14	Awon Agbebi ati Dokita okara mo mi ati, tabi awon ebi mi nigbati mo n robi			
15	Gbogbo bi nkan se nlo ni awon Agbebi ati Dokita n jo kin mo nipa Irobi mi			
16	Awon Agbebi/Dokita ma n saba dahun awon lbeere ti mo ba bi won nigbati mo n robi lowo			
17	Akitiyan lati tati si awon edun okan mi ko to nigba limo n robi			
18	Agbebi wa pelu mi ni gbogbo igba ti mo si n robi			
19	Ayika ati agbegbe ti won si mi si nigbati mo n robi se fara mo			

20	Won o gbami laye lati dide kuro lori ibusun mi tabi rin kiri nigbati mo n robi			
21	Won n liowo pa mi lara tabi ieyin fun inura nigbati mo n robi			
22	Iforowero laarin emi ati awon Agbebi / Dokita nigbati mo n robi ko je ki n ro wipe emi nikan ni mo da wa			
23	Awon Agbebi / Dokita ma n salaye fun mi nigbakugba ti won ba se gbe igbese tabi se ayewo kankan lara mi			
24	Won ma if salaye esi igbese tabi ayewo kankan ti won ba se fun mi			
25	Lapapo, Isesi awon osise ile igbebi te mi lorun gidi gan			
26	Mo fe lati wa bi omo si bi yi ti mo ba tun n robi ni igbamiran ni ojo lwasu			

APPENDIX II

OBSERVATIONAL CHECKLIST

Serial Number _____

QUALITY OF INTRA-PARTUM CARE RECEIVED BY PARTURIENT DURING ACTIVE PHASE OF FIRST STAGE OF LABOUR AT UNIVERSITY COLLEGE HOSPITAL, IBADAN, NIGERIA

Section A: Frequency of Fetal Heart Rates Monitoring, Blood Pressure and Pulse Monitoring and Vaginal Examinations Conducted on Parturient During Active Phase of First Stage of Labour

(To be completed by the researcher / trained research assistant)

Below are set of information about the parturient to be recorded in the vital signs charts and nursing records of the parturient during active phase of first stage of labour.

Please, tick (✓) the appropriate option as regards the following care processes as carried out and recorded by midwives on the vital signs charts and nursing records of the parturient.

S/N	Care To Be Given	Recorded Frequently/Timely 2	Recorded but not Frequently/Timely 1	Not Recorded at all 0
1.	Fetal Heart Rate (FHR) monitoring half-hourly			
2.	Blood Pressure (BP) monitoring hourly			
3.	Pulse Rate (PR) monitoring hourly			
4.	Vaginal Examination (VE) four-hourly			

Section B: Timely Documentation of Information about Progress of Active Phase of Labour on the Partogram of Parturient During Active Phase of First Stage of Labour

(To be completed by the researcher/ trained research assistant)

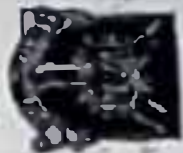
Below is information about progress of active first stage of labour to be recorded / indicated or charted on the partogram of the parturient. Information recorded timely will be awarded (2), information recorded but not timely will be awarded (1) while information not recorded at all will be awarded (0).

Please tick (✓) the appropriate option by ticking "information recorded timely", "information recorded but not adequately/consistently/timely", or "information not recorded at all".

S/N	Information to be recorded/indicated in the partogram of the parturient	Recorded Frequently/Timely (2)	Recorded but not Frequently/Timely (1)	Not recorded at all (0)
10	Condition of the membranes i.e. Ruptured (R) or I (Intact) at most every 4 hours			
11	Fetal heart rate readings at most every 30 minutes			
12	Condition of the liquor / amniotic fluid such as: Clear (C), Meconium stained (M) or Intact (I) if the membranes are not ruptured, every 4 hours			
13	Degree of moulding such as: No moulding (0), Small moulding (+), Moderate moulding (++) or Severe moulding (+++), every 4 hours			
14	Cervical dilation, should be plotted with an X, at most every 4 hours			
15	Descent of the presenting part, should be plotted with an O, at most every 4 hours			
16	Frequency, strength and duration of uterine contractions, every hour			
17	Medications and Intravenous fluids			

	whenever given			
18	Blood Pressure and Pulse Measurements, every hour			
19	Temperature readings, every 4 hours			
20	Volume of urine, each time the woman passes urine			
21	Presence of protein, each time the woman passes urine			
22	Presence of ketones, each time the woman passes urine			

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INSTITUTE FOR ADVANCED MEDICAL RESEARCH AND INNOVATION (IAMRI)
COLLEGE OF MEDICINE, UNIVERSITY OF RWANDA
Director Prof. A. Ogunniyi, Kampala Road A, P.O. Box 1000, Kigali
Tel: 01023038543, 01023034173
E-mail: aogunniyi@coi.ac.rw



UNUCHI EC Registration Number: NIREC/025/012004

NOTICE OF FULL APPROVAL AFTER P.A. COMMITTEE REVIEW

For Quality of Research in Core research by Postgraduate students under First State of
Liberal of the University (Jabur Hospital Studies, Rwanda)

UNUCHI Ethics Committee: assigned number: UGEC/0001

Name of Principal Investigator: Lyabake A. Chabwani

Address of Principal Investigator:

Department of Health Policy & Management
College of Health Sciences
University of Rwanda, Kigali

Date of receipt of full approval: 17/12/2012

Copy of approval was sent to the principal investigator on 17/12/2012

This is to inform you that the research described in the attached protocol has been approved by the UNUCHI Ethics Committee and you are free to proceed with the study as approved by the UNUCHI Ethics Committee.

This approval does not mean that the research is automatically approved - it means that the research plan submitted to the UNUCHI Ethics Committee has been approved and the research may be carried out. However, you must ensure that the research is carried out in accordance with the ethical standards of the UNUCHI EC and that you submit a final report to the UNUCHI EC upon completion of the study. If the research is not carried out in accordance with the ethical standards of the UNUCHI EC, the UNUCHI EC reserves the right to conduct an investigation into the research and to take appropriate action.

The attached Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and to ensure that the research is carried out in accordance with the ethical standards of the UNUCHI EC. No changes are permitted to the research without prior approval by the UNUCHI EC. Any breach of the ethical standards of the UNUCHI EC will result in the UNUCHI EC taking appropriate action.



For and on behalf of the University of Rwanda: **Entirement Sciences & Technology** - **Research & Innovation** - **University of Rwanda**

**DEPARTMENT OF HEALTH POLICY AND MANAGEMENT
COLLEGE OF MEDICINE**

**UNIVERSITY OF IBADAN, IBADAN,
NIGERIA**

Telephone: 8101100-8101119(20 Lines)
College of Medicine Fax: 8101119



Mailing Address:
UNIVERSITY COLLEGE
HOSPITAL, IBADAN, NIGERIA
Telephone: 2410088, 2410270,
2411099, 24113683
Private Email: 24113683, 24113683
24113545
E-mail: com_medu@yahoo.com

ACTING HEAD: Dr. K.O. Osungbade

December 17, 2012

The Chief Medical Director
University College Hospital
Ibadan



Dear Sir,

Letter of Introduction: Irinbo A. GRADAMQSI

The Doctor, Irinbo A. is a postgraduate student (Health Services Administration) in the Department of Health Policy and Management, University of Ibadan. She is requesting for your approval to carry out a study titled "Quality of Intrapartum Care Received by Parturients During Active First Stage of Labour at Labour Ward of University College Hospital, Ibadan".

Kindly accord her all necessary assistance.

Thank you.

Yours faithfully,

[Signature]
Dr. K.O. Osungbade

*refer to MAC
m/lmg
20/12/12*

*Dr. Osungbade
As oral IRB approval
21/12/12*

*CMAC
IRB approval is herewith
attached. Docs.
205-2013*



UNIVERSITY COLLEGE HOSPITAL, IBADAN

The Hospital is open to all patients, whether or not they are members of the University of Ife, and to all who are referred to it by the various medical and health authorities in the region.

Ref. No. 100/1000/100

15th Nov. 1963

Mr. Oluwole O. Oluwole A.
Department of Public Health and Management,
University of Ife,
College of Medicine,
University of Ife,
Ibadan.

Dear Mr. Oluwole,

RE: 100/1000/100-1000/1000

With reference to your letter of the 15th Nov. 1963, in the above subject, I wish to inform you that the Hospital is happy to have you and your party participate in the various work of the Hospital for your research work. The Hospital is happy to have you and your party participate in the various work of the Hospital for your research work.

Please take with you the Hospital's letter and the Hospital's letter to you by a copy of the Hospital's letter to you to give you the Hospital's assistance in this regard.

Yours Sincerely,

Prof. L.A. Ogburne

Chairman, Medical Advisory Committee

Director of Clinical Services, Research & Training

First Chief Medical Director



11th April, 2013

Mrs. Gbadamosi Ayobode A.,
Department of Health Policy and Management,
Faculty of Public Health,
College of Medicine,
University of Ibadan,
Ibadan.

Dear Mrs. Gbadamosi,

RE: REQUEST FOR DATA COLLECTION

With reference to your letter dated 7th April, 2013 on the above subject, I wish to inform you that approval is hereby given for you to collect data using questionnaire in the Labour Ward of the Hospital for your project work titled "Quality of Inpatient Care Received by Suspect Cases from First Stage of Labour at Labour Ward of the University College Hospital, Ibadan".

Please confer with the Head of Obstetrics and Gynaecology Department who is in charge of the ward to ensure that the need to give you necessary assistance is met.

Yours sincerely,

[Signature]

Prof. L.A. Olayinka

Chairman, Medical Advisory Committee
Obstetrics and Gynaecology Department
University College Hospital, Ibadan

cc: *[Signature]*
Head,
Obstetrics and Gynaecology Department,
University College Hospital,
Ibadan.

Above is for your information and necessary action please.

[Signature]

Prof. L.A. Olayinka

Chairman, Medical Advisory Committee
Obstetrics and Gynaecology Department
University College Hospital, Ibadan

cc: *[Signature]*
Head,
Obstetrics and Gynaecology Department,
University College Hospital,
Ibadan.