



UNIVERSITI PUTRA MALAYSIA

***AWARENESS ON LABOUR PAIN RELIEF AMONG POST-PARTUM
WOMEN IN KWARA STATE, NORTH-CENTRAL NIGERIA***

ABUBAKAR AYINLA BILIKISU

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By

ABUBAKAR AYINLA BILIKISU

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Master of Science**

February 2020

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DEDICATION

I dedicate this thesis to my Husband Dr Habeeb Ayinla and my Children Sheikh-Ahmad, Nana-Aisha and Hikmah



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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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By

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February 2020

Chairman : Associate Professor Soh Kim Lam, PhD, MHSc, RN
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Delivery is very painful and most severe experience women undergo in life. Intrapartum analgesia can be employed to relieve the pain of child labour. Despite this, the use of intrapartum analgesia is controversial, as some advocate for normal delivery without analgesia which deprived women the fundamental right of pain relief in labour.

The objective of this study is to assess women's awareness on labour pain relief in Kwara State, North-Central, Nigeria.

A cross-sectional study was conducted among 685 post-partum women at Kwara State Hospitals. A structured questionnaire was used to collect information from women within six weeks of post-delivery. The data collected were analyzed using the Statistical Package for Social Sciences (SPSS) software version 23. Chi-square test and Logistic regression were used to confirm the association between the socio-demographic characteristics of the respondents' awareness.

The study revealed that less than half of the respondents (46.4%) were aware of labour pain relief whereas 486 are willing to accept pain relief in their subsequent delivery. Chi-square test revealed that occupation and level of education was significantly associated with awareness of labour pain relief with p-value 0.001 and 0.000 respectively. Result of logistic regression shows that level of education significantly predicts awareness.

The outcome of this study reveals that post-partum women need to be enlightened on labour pain relief. The women can be educated by dissemination of information at the antenatal classes and by the distribution of pamphlets on labour pain relief. Thus, the facilities required for the administration and monitoring of intrapartum analgesia should also be provided at the delivery suits.

Keywords: Awareness, Post-partum, Labour pain, Intrapartum analgesia.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**KESEDARAN TERHADAP KESAKITAN SEMASA LABOR DI KALANGAN
WANITA POST-PARTUM DI NEGARA KWARA, NIGERIA TENGAH-
UTARA**

Oleh

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Proses kelahiran sangat menyakitkan dan merupakan pengalaman paling teruk yang ditempuhi oleh wanita dalam hidup. Semasa bersalin, analgesia intrapartum boleh digunakan untuk melegakan kesakitan. Namun begitu, penggunaannya menjadi kontroversi kerana ada sesetengah pihak menghalang hak asasi wanita untuk mendapatkan analgesia melegakan kesakitan semasa bersalin.

Objektif kajian ini untuk menilai kesedaran wanita terhadap analgesia melegakan kesakitan semasa bersalin di negeri Kwara, Nigeria Tengah-Utara.

Kajian keratan rentas telah dilakukan di kalangan 685 wanita pospartum di hospital-hospital Negara Kwara. Soal selidik berstruktur digunakan untuk mengumpul maklumat dari wanita pospartum dalam tempoh enam minggu selepas bersalin. Data telah dianalisis menggunakan perisian *Statistical Package for Social Sciences (SPSS)* versi 23. Ujian Chi-square dan regresi logistik digunakan untuk mengesahkan kaitan di antara ciri-ciri sosio-demografi dan kesedaran responden.

Keputusan kajian menunjukkan kurang daripada separuh responden (46.4%) menyedari analgesia melegakan kesakitan ketika bersalin. Manakala, 486 orang sanggup menerima analgesia melegakan kesakitan ketika bersalin. Ujian Chi-square menunjukkan pekerjaan dan tahap pendidikan adalah signifikan apabila dikaitkan dengan kesedaran mengenai analgesia melegakan kesakitan semasa bersalin dengan nilai p masing-masing adalah kurang dari 0.001 ($p < 0.001$). Hasil signifikan regresi logistik ini menunjukkan tahap pendidikan boleh meramalkan kesedaran.

Hasil kajian ini menunjukkan bahawa wanita selepas bersalin adalah perlu diberi kesedaran mengenai analgesia melegakan kesakitan ketika bersalin sebagai persediaan akan datang. Wanita boleh dididik dengan menyampaikan maklumat semasa di kelas antenatal dan melalui risalah mengenai analgesia melegakan kesakitan semasa bersalin. Oleh itu, analgesia ini sepatutnya disediakan beserta dengan kemudahan untuk pengurusan dan pemantauan analgesia intrapartum di semua dewan bersalin.



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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the supervisory committee were as follows:

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LIST OF ABBREVIATIONS

ACOG	American College of Gynecology and Obstetricians
CI	Confidence interval
CS	Caesarean Section
DF	Degree of Freedom
DV	Dependent Variable
IV	Independent Variable
MOH	Ministry of Health
NICE	National Institute for Clinical Excellence
PIS	Participant Information Sheet
SD	Standard Deviation
SPSS	Statistical Package for Social Science
SOGON	Society of Gynecology and Obstetrics of Nigeria
SVD	Spontaneous Vaginal Delivery
UPM	Universiti Putra Malaysia
WHO	World Health Organization
χ^2	Chi-square

CHAPTER 1

INTRODUCTION

1.1 Background

It is not an understatement that natural labour is associated with severe pain experienced by women all over the world right from ancient time (Whitfield, 2014). The complex nature of childbirth comprises an intense physical, emotional, psychological and spiritual elements that may be critical to a woman's experience throughout major life events (Van der Gucht & Lewis, 2015). Studies show that perception of pain during labour varies in the onset, duration, and severity. The variations in pain perception are related to socio-demographic and biological variables such as age, parity, race, religious affiliation, and ethnicity (Ogboli-Nwasor, Adaji, Bature, & Shittu, 2011). Pregnancy and labour are fundamental miracles that includes dramatic changes in the concentrations of ovarian hormones in the body. It is hypothesized that during pregnancy, the pain perception threshold is increased to prepare for labour (Hapidou, 2003), which lead women to fear labour. Fear of labour was found to be the primary reason for the increase in women refusing spontaneous vaginal delivery and requesting for caesarean section (Aksoy, Aksoy, Dostbil, Celik, & Ince, 2014; Hamdamian, Nazarpour, Simbar, Hajian, & Mojab, 2018). While nulliparous women fear the unknown, labour pain, and lose control while fear of parous women is based on previous obstetric experience (Størksen, Garthus-niegel, Vangen, & Eberhard-, 2013).

In order to relieve or reduce the pain, intrapartum analgesia is usually given (Lawani, Eze, Anozie, Iyoke, & Ekem, 2014). The American College of Gynaecology and Obstetricians (ACOG) defined labour pain as severe pain women experience in life and no situation should a woman be made to pass through pain which are manageable under the care of a physician, thus recommended that pain relief should be included in the management of labour and delivery if medically indicated (Lawani et al., 2014). The National Institute for Clinical Excellence (NICE) recommends educating expectant mothers on the various types and availability of intrapartum analgesia as a means to manage their pain optimally during labour and delivery (Karn, Yu, Karna, Chen, & Qiao, 2016). On the contrary, the Society of Gynaecology and Obstetrics of Nigeria (SOGON) not only failed to state principles for pain relief during labour, but also reported poor utilization of analgesia despite requests from parturient (Lawani et al., 2014).

Effective and satisfactory pain relief needs to be individualized for each woman and may be influenced by two paradigms that is working-with-pain, or pain relief. Working-with-pain include the belief that there are long-term benefits to promote normal birth, and that pain plays crucial role in this process. This approach offers support and encouragement to women, advocate the use of intervention such as water birth, comfortable positions and self-help techniques to facilitate women to cope with

the labour pain well. The pain-relief paradigms are characterized by the administration of pharmacological pain relief to relieve labour pain, as it advocates no woman needs to suffer the unbearable pain of labour (Anim-Somuah, Smyth, Cyna, & Cuthbert, 2018a). Two models for managing labour pain were developed by Roberts and his colleagues (2010) were the pharmacological model also referred to as the medical model, which uses drugs to relieve pain and the non-pharmacological model known as the midwifery model, which focuses on strategies to cope with labour pain (Roberts, Gulliver, Fisher, & Cloyes, 2010).

The development of modern analgesia especially the regional analgesia is by far one of the greatest achievements in medicine to manage pain in labour and delivery. That makes epidural analgesia known as the most effective method of relieving pain, thus the first choice of analgesia recommended during labour and delivery (Anozie et al., 2018). Administration of effective analgesia is one of the actively practiced management of labour pain and its use is included in many labour management protocols, particularly in developed countries (Oladokun et al., 2009). In countries such as the US and UK, intrapartum analgesia is an important attribute of obstetric care, where the choice of methods is emphasized as well as its complications associated with it. The various methods are not only available, but the parturient is aware of them and goes for their choice (Iliyasu, Galadanci, Abubakar, Isah, & Aliyu, 2012). Data from maternity care in NHS in England shows that up to 93% of parturient received pain relief during labour. In developed countries, epidural analgesia was received by 51% of women in hospitals that perform a minimum of 1,500 deliveries yearly. in France, 75% at Lucile Package Children's Hospital, and about 80% parturient in California also received epidural analgesia (Ponnusamy, Kumar, & Reddy, 2018). Conversely, developing countries such as Nigeria, Chad, Ghana and Kenya "painless labour" is still new and is gradually gaining popularity as far as awareness and acceptability are concerned as reported by studies from Ibadan, Lagos and Enugu states (Iliyasu et al., 2012).

Administration of pain relief during labour facilitates to create an emotionally satisfying experience with the delivery of a healthy baby without much stress, pain and exhaustion for the mother as well as negligible effect to both mother and the neonate (Iliyasu et al., 2012). Most women desire painless labour irrespective of race or creed, which without doubt can contribute greatly to their satisfaction of delivery (Ogboli-Nwasor et al., 2011). Women who receive adequate care during labour will likely to deliver unassisted and unlikely to use intrapartum pain relief, especially if there is moral support during labour (Schrock, Harraway-smith, Health, Francis, & Medicine, 2012). Currently, epidural analgesia is deemed the most effective intrapartum analgesia but it's not routinely available in most obstetric units in Nigeria due to lack of skills for administration, cost of epidural analgesia, and ignorance of parturient. These made the use of systemic opioids for analgesic common in some units, since it is cheap, easy to administer and readily available (Kuti, Faponle, Adeyemi, & Owolabi, 2008)

Despite introducing several intrapartum analgesia methods, there are some who believe in natural delivery without pain relief medication. This concurs the idea of labour pain relief being controversial even today (Mohamed, Alqahtani, Almobaya, Aldosary, & Alnajay, 2013). Women's acceptance of intrapartum analgesia can be influenced by their awareness of intrapartum analgesia, some woman may understand the pain leading to childbirth and view it positively as a sign of progress. Although labour is usually associated with severe pain, a sense of accomplishment and enjoyment are also experienced during this crucial period, making some of the mothers reluctant to receive pain relief (Owa, Alao, Fatureti, Temenu, & Lemadoro, 2015). Moreover, religion, culture, and ethnic beliefs too can also greatly influence women perception and acceptance towards intrapartum analgesia. In this case, pain is seen as innate and should run its natural course, therefore refusing intrapartum analgesia (Lawani et al., 2014).

1.2 Maternal Health Care in Nigeria

Nigeria is faced with the challenge of poor maternal and child healthcare. Although interventions has been put in place to achieve the Millennium Development Goals (MDGs), however various findings which impedes attaining MDGs 4 and 5 (Child and maternal mortality reduction respectively) to improve the health of its citizens remains unresolved (Kana, Doctor, Peleteiro, Lunet, & Barros, 2015). Studies revealed emerging inequalities faced by developing countries to access proper healthcare services to enhance maternal health as the maternal mortality rate in Africa is tops the list when it comes to the rate of maternal death which is reported 1 in 2,800 (Obiyan & Kumar, 2015). According to Wollum, Burstein, Fullman, Dwyer-lindgren, & Gakidou, (2015) maternal mortality in Nigeria has improved slightly in 25 years with the maternal mortality ratio of 500 deaths per 100,000 live birth since 1990. Various national initiatives are being implemented in the country both at national and state levels to enhance the maternal healthcare system as well as to reduce maternal mortality such as health insurance programs, community healthcare worker development and improvements in midwifery services. Antenatal Care (ANC) is care that is rendered by healthcare workers i.e. doctors, midwiferies, and nurses to parturient till delivery. ANC also foresees early detection of life-threatening cases for both the mothers and neonates, thus and manages these conditions of conditions that could be threatening to both the mother and foetus. Mothers are screened for infection and malaria, which helps not only to reduce incidence of perinatal illness and death, but also prepares for the delivery, identifies signs of danger during pregnancy and also plan to handle possible delivery complications through early treatment and referrals if deemed necessary (Fagbamigbe & Idemudia, 2015).

A review by (Hussein et al., 2016) identified four types of barriers for maternal healthcare success in Nigeria. First being transporting and referrals due to poor management prior to arrival at the referral facilities. Ineffective ambulance services and poor transportation between the health facilities. Insufficient qualified personals in the healthcare systems such as nurses, midwives and medical officers compared the number of patients were not balanced as well as their questionable morals were reported. Inadequate facility such as operating theatres, suboptimal operating theatres

and intensive care units as well as poor record keeping, procedural norms and change in planning. At present, there are some women do not use the ANC facilities during pregnancy in Nigeria. Fagbamigbe & Idemudia, (2015) suggested three possibilities of this phenomenon which are financial burden, distance to commute as well as unavailable transportation.

Presently, effort to improve the health status of mothers and children in Nigeria has been put in place by the Nigeria Federal Government in collaboration with the international donors and partners as well as the integrated Maternal, Newborn and Child Health strategy was adopted in year 2007 (Hussein et al., 2016).

Labour pain relief is still new and has not been introduced to the maternal health management policy in Nigeria and there is poor awareness among the parturient. Owa et al., (2015) revealed poor awareness of labour pain relief among women while most desired to have painless labour despite their lack of awareness. Parturient are usually offered the non-pharmacological forms of pain relief during labour and are more aware of it. Ekweani & Avidime., (2016) reported music and hypnosis as the most common form of analgesia known by the parturient in their study. Chigbu & Onyeka., (2011) also reported that among the respondents aware of labour pain relief, 54.8% were aware of only the non-pharmacological method (Breathing exercise and low-back massage). According to the present study non-pharmacological method are used in the kwara state hospitals as the majority of the respondents were aware of this methods (massage and breathing exercise) and were given during their previous labour.

Pharmacological method has been introduced in certain hospitals like Ahmadu Bello Teaching Hospital in Zaria, it has been included in the antenatal health talk and epidural analgesia also introduced during labour, this make significant amount of their respondents (56%) aware of labour pain relief (Ekweani & Avidime, 2016).

1.3 Problem Statement

Despite the advancement in the use of intrapartum analgesia all over the world, it is astounding that in some parts of the world, women are deprived from their fundamental right to pain relief and endure severe delivery pains (Chigbu & Onyeka, 2011). Although it is noted that labour pains may not be life-threatening to a healthy parturient, however it can cause distress which may undesirably affect the wellbeing of the mother and neonate as labour pains are associated with increased blood pressure and oxygen consumption as well as release of catecholamines, which affects uterine blood flow, thus reducing uterine contractions efficiency that may lead to dystocia (Lawani et al., 2014; Rooks, 2012). While in prolonging painful labour, mothers may become fatigued, worried, hysterical resulting them to not able make a proper decisions leading to emotional disturbance which may jeopardise the maternal-neonatal affection and future sexual relationship (Lawani et al., 2014). It may also contribute to post-delivery depression and irregular post-traumatic stress disorder (Karn et al., 2016). Labour pains can also cause premature bearing down by the

parturient while the cervix is not fully dilated which can lead to postpartum haemorrhage following cervical tear – one of the main causes for maternal mortality (Ekweani & Avidime, 2016). Due to this occurrence in labour and delivery, NICE of the United Kingdom recommended educating of women in the various types and the availability of effective analgesia to manage labour pain (Lawani et al., 2014).

Diversities in pharmacological and non-pharmacological methods are now in use with varying degrees of effectiveness. Epidural analgesia is considered the gold standard for labour pain relief in modern obstetrics as so far it's the most effective method of intrapartum analgesia (Onyekwulu, Ugwu, Aniwada, & Okeke, 2017). In developed countries, 51% parturient receive epidural analgesia at the hospital carrying out not less than 1,500 deliveries per annum, 75% and 80% of women in France and California, USA receive epidural analgesia respectively (Ponnusamy et al., 2018). A study on awareness and utilization of epidural analgesia among 150 women in Nigeria reported that it is with only 58 (38.7%) of the respondents knew about epidural analgesia while just 3 (4.8%) had received epidural analgesia in their previous delivery. Despite having little knowledge, 109 (72.7%) women revealed that they would like to receive intrapartum analgesia, whereas 83(53.3%) desired epidural analgesia in their delivery (Onyekwulu et al., 2017). A study on knowledge, attitude and use of intrapartum analgesia among women in Uganda showed that only 7% have knowledge of intrapartum analgesia and about 87.7% want to have intrapartum analgesia in their delivery. Although more than half of them (54.5%) feared their infant may be affected and another 23.4% expressed concerned that the method may not likely be effective (Nabukenya, Kintu, Wabule, Musingo, & Kwizera, 2015).

Findings in India among providers and parturient show that epidural analgesia was the first choice for anesthesiology while parental drugs especially tramadol is the choice of analgesia among obstetricians. The provider is mostly concerned about the increased incidence of instrumental vaginal delivery, which is more time consuming and risks that may arise from the procedure with 49% of parturient feared the ill effect for the neonate, while 82% were concerned about back pain effect and 52% considered the additional charges for the epidural (Ponnusamy et al., 2018).

Though studies on intrapartum analgesia have been conducted mostly in other regions of Nigeria, there are scarce studies performed in Kwara state specifically. This study is necessary due to the differences in potential respondent demographic characteristics compared to other regions as kwara state is in the North Central region and comprises of different ethnic groups.

1.4 Significance of the study

It is expected that the following significance will be achieved from the findings of this study.

Policymaker: The study findings will guide policymakers on planning, modifying and implementing health policies concerning intrapartum analgesia and improve the quality of delivery of the healthcare service of the society by disseminating information among parturient.

Nursing: Create awareness of post-partum women intrapartum analgesia among nurses and passing on the information to women effectively during antenatal classes and correcting the misconceptions while considering the socio-demographic factors that contribute to a woman's awareness of intrapartum analgesia.

Research: These findings along with other related studies when integrated would yield more result on awareness of labour pain relief and will serve as a baseline for further research.

Women: This will assist in improving the quality of health care delivery in the society and the agony of labour pain will be addressed as the women will be more aware of intrapartum analgesia and those who desire to have it can be given.

1.5 Research Questions

1. What is the description of the post-partum women socio-demography characteristics?
2. What is the awareness of labour pain relief among post-partum women?
3. What are the post-partum women desire for labour pain relief?
4. There is an association between the socio-demographic characteristics and awareness of labour pain relief among post-partum women.
5. What are the predictors of awareness of labour pain relief among post-partum women?
6. There is an association between the socio-demographic characteristics and desire for labour pain relief among post-partum women.
7. There is an association between post-partum women awareness and desire for labour pain relief.

1.6 Research Objectives

1.6.1 General Objective

The general objective of this study is to assess the awareness of labour pain relief among post-partum women in Kwara State North-Central Nigeria.

1.6.2 Specific Objectives

1. To examine the socio-demographic characteristics of post-partum women regarding labour pain relief.
2. To determine the awareness of labour pain relief among post-partum women.
3. To assess post-partum women desire for labour pain relief
4. To assess the association between socio-demographic characteristics and awareness of labour pain relief among post-partum women.
5. To determine the predictors of awareness of labour pain relief among post-partum women.
6. To assess the association between socio-demographic characteristics and desire for labour pain relief among post-partum women.
7. To assess the association between awareness and desire for labour pain relief.

1.7 Conceptual Definition of Terms

Awareness

Someone knowing that something exist and it is important (*Collins Pocket English Dictionary and Thesaurus*, 2012).

Desire

Is a strong feeling of wanting to have something or wishing for something to happen (Oxford Online Dictionary)

Labour pain relief

is a multidisciplinary method for relieving the suffering and improving the quality of life of patients experiencing pain (Ministry of Health Malaysia, 2013).

Post-partum

Postpartum is the period that begins immediately after childbirth as the mother's body, hormone levels and size of the uterus, returns to a non-pregnant state. (Romano et al., 2010).

Intrapartum Analgesia

Is the eradication of pain sensibility without the loss of cognizance during child labour, delivery and possibly the post-partum period (Iliyasu et al., 2012).

1.8 Thesis overview

Chapter 2 through 6 of this thesis is organized as follows; Chapter 2 presents the literature review related to the study, Chapter 3 describe the research materials and methodology used for the analysis. Chapter 4 presents the results from the data analysis, Chapter 5 discusses the results and finally, Chapter 6 presents the conclusion, the strengths and limitations of the study as well as recommendations for future work.

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