EVALUATION OF EVIDENCE BASED EPISIOTOMY PRACTICE BY THE MIDWIVES AT PUMWANI MATERNITY HOSPITAL LABOUR WARD, NAIROBI

A DISSERTATION SUBMITTED IN PART FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING (OBSTETRIC NURSING/ MIDWIFERY) OF THE UNIVERSITY OF NAIROBI

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DECLARATION

I Teckla Kemboi-Ngotie declare that all the work submitted is my original work and has not been presented for a degree in any other university or institution of higher learning.

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DEDICATION

I wish to dedicate this dissertation to my dear husband Walter Ngotie, my children Jackie, Billy, Tuyan and Setei

CERTIFICATE OF APPROVAL

This dissertation has been presented for examination with the approval of the following university supervisors.

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LIST OF ABBREVIATIONS

AIDS-Acquired Immune Deficiency Syndrome

BBI- Better Birth Initiative

BMJ- British Medical Journal

BScN- Bachelors of Science in Nursing

CDC- Centre for Disease Control and prevention

EBP- Evidence Based Practice

ECN- Enrolled Community Nurse

HIV- Human Immunodeficiency Virus.

HPM- Health Promotion Model

ICN- Intensive Care Nursing

JAMA – Journal of American Medical Association

KNH- Kenyatta National Hospital

KRCHN- Kenya Registered Community Health Nurse

MScN- Masters of Science in Nursing

OBG- Obstetrics and Gynaecology

PhD- Doctor of Philosophy

PMH – Pumwani Maternity Hospital

PMTCT- Prevention of Mother to Child Transmission

SPSS- Statistical Package for the Social Sciences

UNAIDS- United Nations Agency for International Development

UNFPA- United Nations Population Fund

UNICEF- United Nations children's education Fund

WHO- World Health Organization

OPERATIONAL DEFINITIONS

Birth attendant –Any member of the health care team who is trained and licensed to attends to the woman during delivery.

Episiotomy- An incision through the perineal tissue that is designed to enlarge the vulval outlet during delivery

Evidence Based Practice-The conscientious, explicit and judicious use of current best evidence in making decisions for best practice

Intrapartum- The time from the onset of true labour until the birth of the infant and the delivery of the placenta

Instrumental delivery- The use of forceps or vacuum to aid in delivery of the foetus by applying traction to the foetal head

Maternal morbidity-Any departure, subjective of objective, from a state of physiological or psychological well-being during pregnancy, childbirth, and post partum period up 1year

Maternal mortality - The death of a mother resulting from obstetrical complications of pregnancy, labour, or the peurperium, and from interventions, omissions, incorrect treatment, or a chain of events resulting from any of these factors

Midwife- A person trained to assist women during pregnancy, birth and after birth.

Multipara- A woman who is pregnant and has been pregnant more than one time before

Perinatal- A period from 22 completed weeks of gestation to 7 days after delivery

Postpartum- The period after delivery

Primigravida- A woman who is pregnant for the first time

Vertical transmission- Also known as mother-to-child-transmission refers to transmission of HIV infection from mother to child during the perinatal period

Recto-Vagina fistula- A small channel that connects the rectum with the vagina

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ABSTRACT

Research based practice in nursing and midwifery is regarded as a means of ensuring that quality care is provided by integrating individual clinical expertise with the best available external clinical evidence from systematic research. There is an increasing pressure on healthcare professionals to ensure that their practice is based on evidence from good quality research. Becoming abreast with the current evidence based information is not enough if the information is not translated into clinical practices. This study was to establish the midwives' level of evidence based information and how much of it is being applied into the clinical practice.

Evidence based episiotomy practice by the midwives in Pumwani Maternity hospital (PMH) was evaluated using cross-sectional qualitative and quantitative descriptive statistical methods. The study population consisted of fifty eight midwives working in the labour ward; only thirty five appropriately completed questionnaires were analyzed. The focus group discussion and the key informants gave their in-depth views and information during the interview on the study subject. Purposive sampling was used to select the midwives who met the inclusion criteria. Data cleaning was done by ensuring the completeness and consistency of responses in the study tools. Quantitative data analyzed using content analysis and processed according to themes using Statistical Package for the Social Sciences version 16. Quantitative data analysis was done by using inferential and descriptive statistics. Correlation coefficient and CHI square was employed to bring out the relationships among variables.

The study sample included 45 midwives which revealed that 46% of the midwives obtained the evidence based practice information on episiotomy through continuing education and personal efforts. The midwives perform an assessment on the patient before giving an episiotomy and different criteria influence their decision to perform an episiotomy. The most prevalent type of episiotomy preferred by the midwives was medio-lateral (86%) unlike the mid-line. These criteria are not exclusively evidence based. The proportions of midwives based their practices on the following criteria: very tight perineum (17%), breech presentation (13%), premature labour (12%), FGM (10%), instrumental delivery (5%), status of the foetus (9%), and (29%) others (big baby, mothers serological status, shoulder dystocia and poor maternal efforts). Despite the

prevalence of HIV/AIDS among the patient population, episiotomy is still performed under unavoidable circumstance. The respondents stated actual and potential barriers to implementation of evidence based practice (EBP) of episiotomy which included lack of specific guidelines on specific procedures, workload due to high patient population, inadequate administration support, poor accessibility of research reports and personal attitudes.

It is evident from the findings that a higher percentage (49%) of midwives rated their knowledge on evidence based episiotomy practice on high level (4-5 points) but the actual practice did not correspond to the application of the knowledge. The study recommends an urgent need for the PMH to put in place modalities to ensure that practice guidelines are developed, used and reviewed appropriately to ensure standardized services especially in an institution which trains the midwifery students.

CHAPTER ONE: INTRODUCTION

1.0 Background information

The birth of a baby is expected to be momentous occasion. Pregnancy and child birth are a natural part of life experienced by most women. Midwives have a role in the achievements of safe motherhood by helping women and their families through pregnancy and childbirth process (Fraser et al 2006).

Research based practice in nursing and midwifery is regarded as a means of ensuring that quality care is provided (Hodnett et al, 1996). Enkin (1989) defines the science involved in care during pregnancy thus: "The extent to which care is based on evidence that is effective and that which achieves the desired effect".

Episiotomy is a surgical cut that is often performed just before birth to enlarge the opening of the vagina. Episiotomy was invented in Europe in 1742 as a procedure that could assist obstetricians in difficult vaginal delivery. It was not until 1920 when deliveries started to move from home to hospital that episiotomy started to become routine (Repke, 2003).

This practice has been used for many decades in the belief that it offers benefits to mothers (Viswanathan et al 2005). Historically, the purpose of this procedure was to facilitate completion of the second stage of labor to improve both maternal and neonatal outcomes. Maternal benefits were thought to include a reduced risk of perineal trauma, subsequent pelvic floor dysfunction and prolapse, urinary incontinence, fecal incontinence, and sexual dysfunction. Potential benefits to the foetus were thought to include a shortened second stage of labor resulting from more rapid spontaneous delivery or from instrumented vaginal delivery (Repke, et al 2006)

The rationale for its use depends largely on the need to minimize the risks of severe spontaneous maternal trauma and to expedite the birth when there is evidence of foetal compromise. However, during a normal birth the indications for its use are few and the midwife should use her skills to avoid this intervention if at all possible (Fraser et al, 2006). Despite the clear rationale for its use it is noted that the rate of routine episiotomy is still significantly higher than the recommended practice for many countries (Caroli and Belizan, 2001).

A study done by Hartmann et el (2005) in the United States on episiotomy recommended that providers with conservative practice style have rates well below 15%. The study highlighted some measures that should be taken to lower the rates of episiotomy to include preparation of guidelines and protocols according to the standard and training for the nurses, midwives, and doctors on the selective use of episiotomy.

Currently, there is an increasing pressure on healthcare professionals to ensure that their practice is based on evidence from good quality research. Cochrane, (1972) identified the lack of scientific rigor in medical clinical decision making, the kind of research grounded on the evidence based practice.

"Evidence based medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research" (Sackett et al, 1996).

1.1 Problem statement

Pumwani maternity hospital is one of the biggest maternity not only in Kenya but also in East Africa (Nicholas, 2004). The hospital serves the majority of the population around Nairobi city and its outskirts. Pumwani houses the school of midwifery that offers training of Kenya Registered and Enrolled midwives according to the Kenya nursing council regulation. According to the records there is an average of sixty (60) deliveries per day and an average of five (5) episiotomies performed daily.

With the HIV/AIDS epidemic still growing rapidly in many countries, and with the most stricken countries having more than one-third of women giving birth being HIV infected, both protection of the health workers and the risk of vertical transmission from episiotomy must be considered (Liljestrand, 2003).

There is an increasing pressure on healthcare professionals to ensure that their practice is based on evidence from good quality research. Despite compelling research evidence, majority of maternal care providers still use episiotomy liberally for different reasons. Women themselves may not be aware of the harm caused by episiotomies and their lack of benefit while providers

may not obtain women's informed consent or informed refusal for the procedures (Vishwanathan et al 2005).

1.1.1 Major issues that were arising from the problem statement.

- The major issues included:-
- Limited access to evidence based information on current literature
- Lack of specific documentation on the type, rate and rationale for episiotomy performed
- Guidelines on evidence based information on episiotomy exist in other facilities but it was to be established in PMH.
- High HIV/AIDS prevalence among women population (Liljestrand, 2003). The rate of HIV positive patients receiving episiotomy was to be established in PMH.

1.2 Purpose

The purpose of this study was to evaluate how evidence based practice influenced midwives' decisions on indications of episiotomy.

1.3 Research question

Does evidence based practice influence midwives' decision on performing an episiotomy?

1.4 Main objective

The study was aimed to evaluate the influence of evidence based practice of midwives on episiotomy in Pumwani Maternity hospital. To achieve this objective, the research was guided by the specific objectives below:

1.5.1 Specific objectives

- To determine the prevalent type of episiotomy at PMH
- To identify sources of evidence based information on current literature for the midwives on episiotomy.
- To establish the criteria influencing the decision on episiotomy

- To establish usage of evidence based approach.
- To identify the barriers to evidence based knowledge, practice and attitude on episiotomy
- To establish the existing guidelines on evidence based practice of episiotomy
- To determine the role of the administrators in PMH in enforcing evidence based practice of episiotomy.
- To establish the rate of episiotomy among the patients with HIV/AIDS at PMH

1.7 Theoretical framework

Many health care facilities have strongly advocated for application of health promotion in all aspects of nursing care practice (Whitehead, 2006). Practicing nurses are in the best position to identify and change practices to improve patient outcome. This health promotion model (HPM) guided the midwives in identifying and implementing evidence based nursing practices to improve childbirth outcomes.

1.7.1 Pender's Heath Promotion Model (HPM) Per Pender (1996)

Assumptions and theoretical propositions of the health promotion model (HPM) were used to guide the study. The HPM is based on the assumptions which reflect both nursing and behavioral science perspectives that a person seek to create conditions of living through which they can express their unique human health potential. Persons have the capacity for reflective self-awareness, including assessment of their own competencies. These enables them to value growth in directions viewed as positive and attempt to achieve a personally acceptable balance between change and stability.

Individuals seek to actively regulate their own behavior and in all their biopsychosocial complexity interact with the environment, progressively transforming the environment and being transformed over time. HPM emphasizes that health professionals constitute a part of the interpersonal environment, which exerts influence on persons throughout their lifespan. Self-initiated reconfiguration of person-environment interactive patterns is essential to behavior change.

Theoretical statements derived from the model provide a basis for investigative work on health behaviors. HPM is based on the theoretical propositions that indicate the fact that prior behavior inherited and acquired characteristics influence beliefs, affect, and enactment of health-promoting behavior. The persons commit to engage in behaviors from which they anticipate to derive personally valued benefits. There are perceived constrains to commitment to action, a mediator of behavior as well as actual behaviour.

Health promotion model lays a foundation for the midwives to know that perceived competence or self-efficacy to execute a given behavior increases the likelihood of commitment to actual performance of evidence base practice. Positive affect toward a behavior results in greater perceived self-efficacy. This can result in greater perceived self-efficacy leading to fewer perceived barriers to a specific health behavior. When positive emotions or affect are associated with a behavior, the probability of commitment and action is increased.

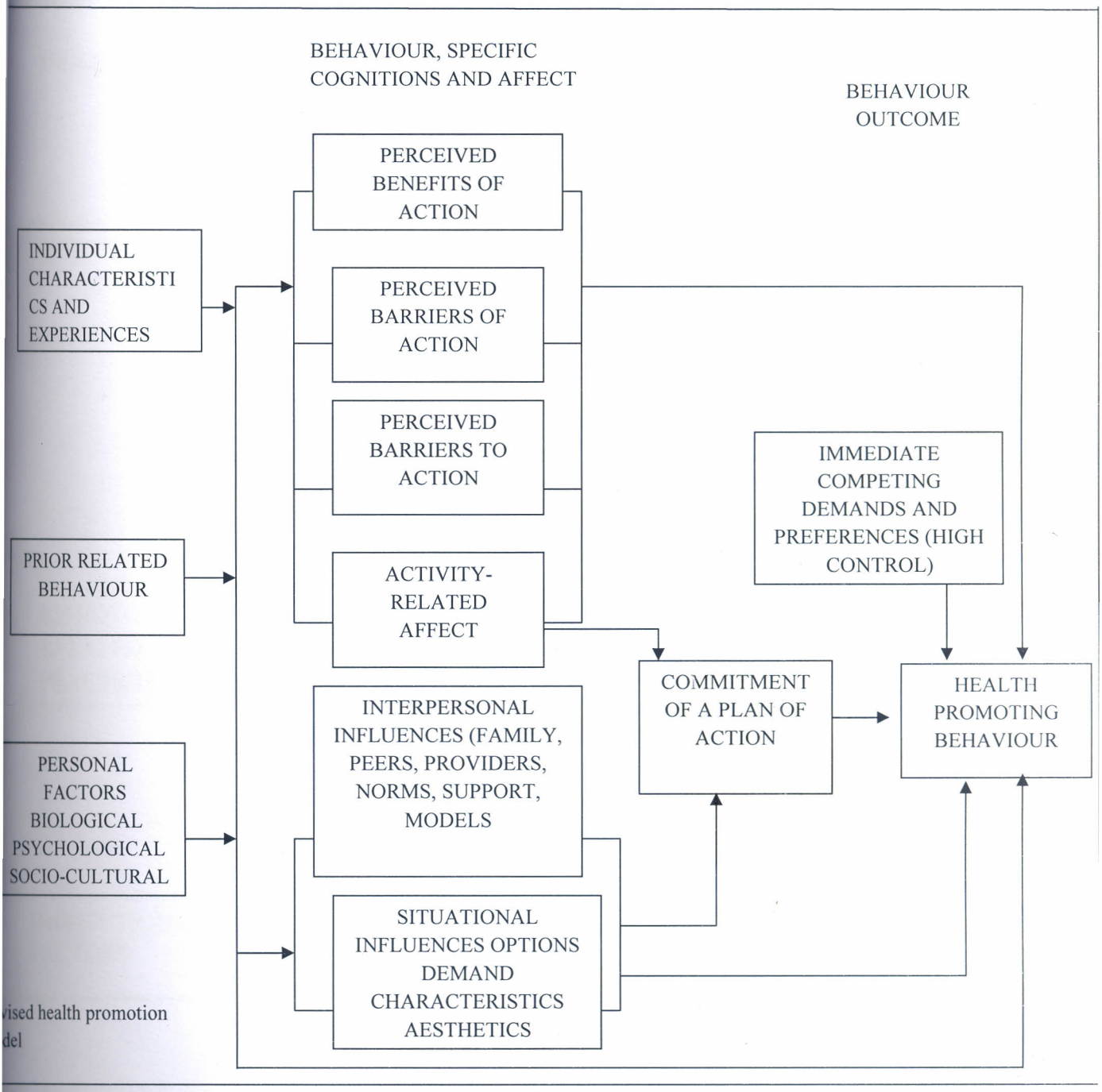
Interpersonal influence plays an important role in encouraging the person to commit to and engage in health-promoting behaviors if significant others model the behavior, expect the behavior to occur, and provide assistance and support to enable the behavior. Positive professional relationships and situational influences in the external environment, influence commitment to an adaptation of new concepts in the dynamic health care system.

Greater commitment by the midwives to evidence based practice of episiotomy without other competing demands, will more likely lead to achievement of health-promoting behaviors that will be sustainable over time. This is achieved through modification of cognitions, affect, and the interpersonal and physical environment that will create incentives for health actions.

Health care setting is the best avenue in promoting health and preventing illnesses. Health promotion and disease prevention can easily be carried out by the midwives compared to the programs that aim to cure disease conditions. Therefore, HPM model can be used as a basis for restructuring nursing protocols and interventions.

Figure 1: Theoretic Fig. 1: Theoretical framework

Pender's Health Promotion model



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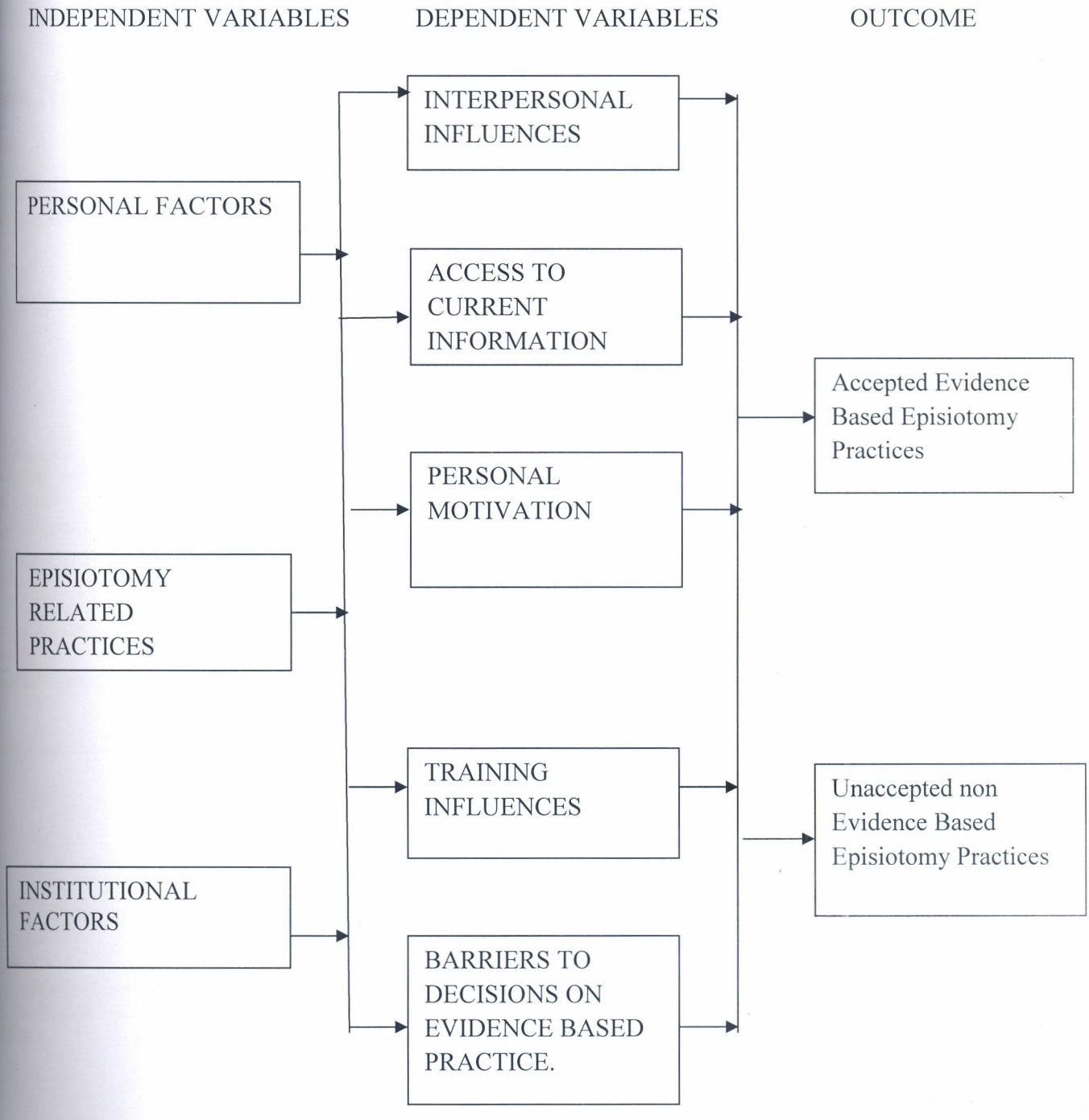
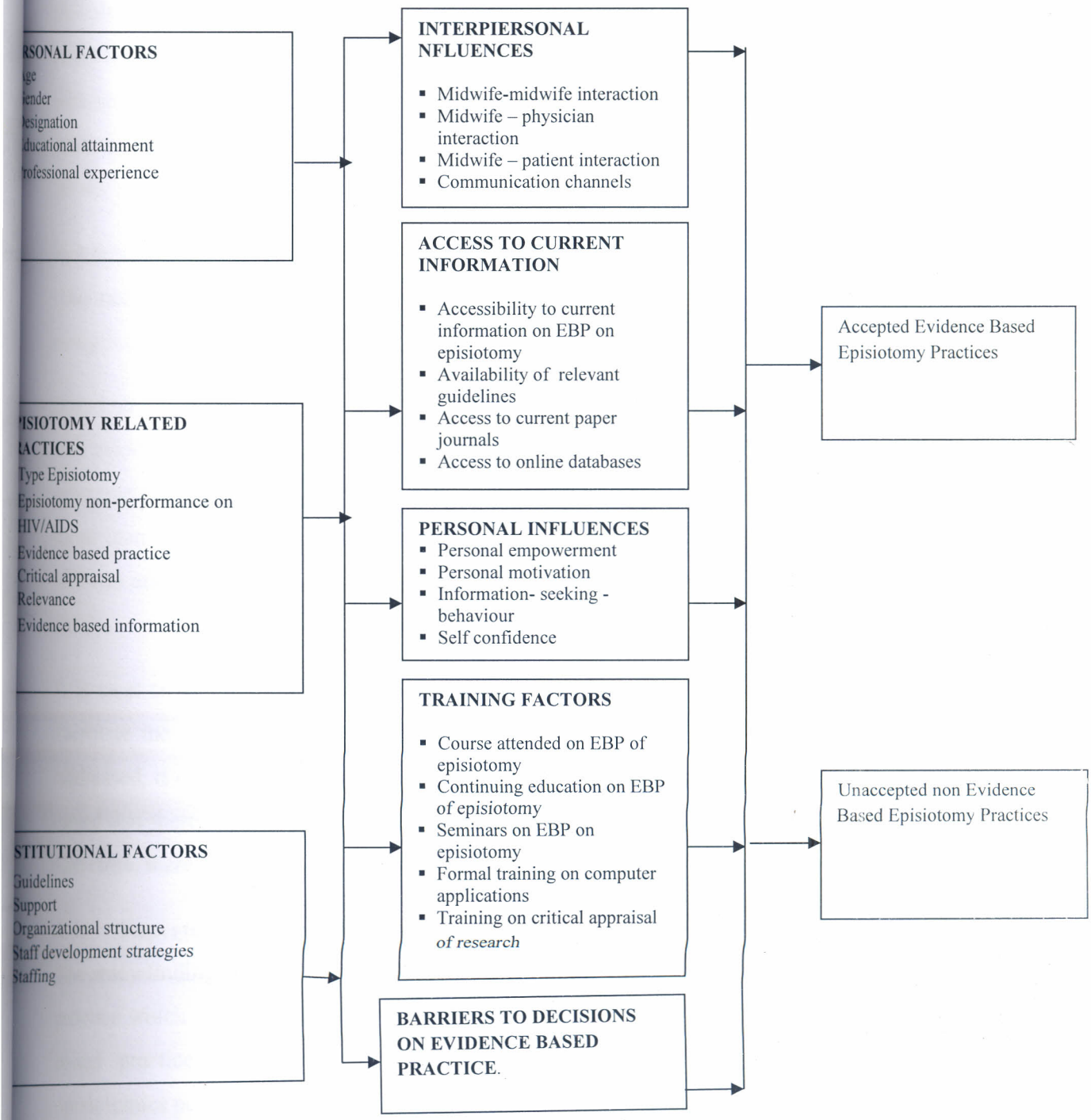
1.8 CONCEPTUAL FRAMEWORK

Fig: 2 Conceptual framework on influence of evidence based practice of episiotomy on the midwives.



1.9 OPERATIONAL FRAMEWORK

Fig: 3 Operational framework on influence of evidence based practice of episiotomy on the midwives.



The operational framework as illustrated by figure 3 above show the interaction of the independent and dependent variables that results to either accepted or unaccepted evidence based episiotomy practice.

1.10 Justification

Episiotomy does not entirely prevent damage to the pelvic floor, and more severe damage may result from an extension of the episiotomy (McCandlish, 2001). Midline episiotomy is associated with an increase of third and fourth- degree tears, with 12% likelihood to extend into the anal sphincter when compared with mediolateral episiotomy (Heit et al, 2006; Sultan & Fernado, 2004).

Restricted use of episiotomy is associated with reduced risk of posterior perineal trauma (Hayman, 2005). Therefore, restricted use of episiotomy is important in reducing these complications.

Based on extensive search of information on evidence based practice of episiotomy in Kenya, it was evident that not much has been done in Kenya on the same. Considering the HIV/AIDS epidemic still growing rapidly in many countries, and with the most stricken countries having more than one-third of women giving birth being HIV infected, both protection of the health workers and the risk of vertical transmission from episiotomy must be considered (Liljestrand, 2003).

It is clear from the nursing literature that there are a number of factors which can impede or facilitate the use of research in clinical practice. It is important that these are identified and addressed, if evidence-based practice is to become a reality (Paraoo, 2000). Hodnett et al (1996) noted that there are many gaps between research evidence and intrapartum nursing practice and therefore, there is need to link research and practice of midwifery.

1.11 Expected benefits of the study

The study findings will be used to develop and improve guidelines on evidence based episiotomy practice which in turn will enhance a better understanding of evidence based practice. Evidence based practice will improve decision making in performing episiotomy. Reduction of episiotomies performed will reduce the risks associated with them.

The patients will benefit from reduced incidences of episiotomy performed which enables them to have fewer complications which could result from perineal traumas. This will reduce the cost incurred while managing the complications and bills from episiotomy services. The new mother after delivery will be in a better psychological and physical state to bond with the newborn which in turn will bring better post partum outcome.

Midwives will benefit from the research findings by embracing more the concept of evidence based nursing practice. This will lead to improved clinical practice, the facility will enjoy a better reputation gained for the quality of care provided. While the cost of services offered will be low and there will less complications after delivery and less time managing these complications.

The process of the research study will be a good learning experience to the researcher because through the extensive search of literature, and research findings there is a lot of knowledge gained in the process. The researcher will have a good experience on conduct of research through active participation in the study process. The study findings will be published to promote accessibility to health care practitioners to promote a better understanding on evidence based practice of episiotomy and to stimulate further research on related issues.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

Episiotomy is a surgical cut that is often performed just before birth to enlarge the opening of the vagina. Episiotomy was invented in Europe in 1742 as a procedure that could assist obstetricians in difficult vaginal delivery. It was not until 1920 when deliveries started to move from home to hospital that episiotomy started to become routine (Repke, 2003).

The rationale for its use depends largely on the need to minimize the risks of severe, spontaneous, maternal trauma and to expedite the birth when there is evidence of foetal compromise. However, during a normal birth the indications for its use are few and the midwife should use her skills to avoid this intervention if at all possible (Fraser et al, 2006).

Despite compelling research evidence, majority of maternal care providers still use this procedure liberally. Women themselves may not be aware of the harm caused by episiotomies and their lack of benefit while providers may not obtain women's informed consent or informed refusal for the procedures (Vishwanathan et al 2005).

Currently, the evidence does not support changing practice, but rather building and fortifying systems of knowing the patient, identifying problems early, and communicating and managing changes in patient status in a timely manner (Pipe et al, 2005).

Enkin (1989) defines the science involved in care during pregnancy thus: "The extent to which care is based on evidence that is effective and that which achieves the desired effect. The great challenge that face every midwife in today's practice is how to utilize the science when appropriate and in ways that do not undermine the complex physiological and sociological aspects of childbirth".

2.1.0 Types of episiotomy

2.1.1 Risks and benefits of episiotomy

Woolley (1995) critically reviewed professional literature material published between 1980 and 1983 on risks and benefits of episiotomy. He highlighted the evidence accumulated during the study period. The benefits include prevention of lacerations, prevention of pelvic floor relaxation, and prevention of foetal injury. The risks that he mentioned include blood loss, morbidity of anal sphincter damage, psychological consequences such dissatisfaction with child birth process, postpartum pain, dyspareunia, infection, frequency of perineal damage. Furthermore, episiotomy increases risks to birth attendants through increased blood exposure and needle stick injuries during repair

A study done by Hodnett et al (1996) in twenty hospitals in Toronto to evaluate the effectiveness of research based nursing care revealed gaps such as knowledge in research evidence and intrapartum nursing practice. It is therefore important for the midwives to have strategies in place to promote research based nursing care.

The two most common types of episiotomy are the midline episiotomy and the medio-lateral episiotomy. Midline episiotomy is by far more common in United States, while medio-lateral episiotomies are more common in other parts of the world (Lingen 2006). A midline episiotomy refers to an episiotomy where the incision of the vaginal opening is directly in the midline, straight down toward the anus. The advantages of a midline episiotomy include easy repair and improved healing. This type is also less painful and is less likely to result in long-term tenderness or problems with pain during intercourse. There is often less blood loss with a midline episiotomy (Lingen 2006).

The main disadvantage of a midline episiotomy is the likelihood for this type of incision to extend and involve the anal sphincter or the lining of the rectum. When this happens, injury to the sphincter can result in long-term problems, such as fecal incontinence or the development of a recto-vaginal fistula (Lingen 2006; Fernando & Sultan, 2004)

A medio-lateral episiotomy begins at the vaginal opening in the midline with the incision directed toward the right or left buttocks at a 45-degree angle. The main advantage of the medio-lateral episiotomy is that it is less likely to extend into or involve the anal sphincter and the rectum. Disadvantages of the medio-lateral episiotomy are significant and include increased blood loss, increased pain, difficult to repair, and an increased risk of long-term discomfort, especially during intercourse (Lingen 2006; Fernando & Sultan, 2004) The severity or extent of a vaginal laceration or episiotomy is often referred to in degree of tear (Lingen, 2006)

First Degree- The smallest or the simplest tear or episiotomy extending only through the vaginal mucosa. It does not involve the underlying tissues.

Second Degree-This is the most common type of tear or episiotomy. It extends through the vaginal mucosa and into the sub mucosal tissues, but does not involve the rectal sphincter or mucosa.

Third Degree-A third degree tear or episiotomy involves the vaginal mucosa, sub mucosal tissues, and a partial or complete transection of the anal sphincter muscle.

Fourth Degree-The most severe type of tear or episiotomy includes incision of the vaginal mucosa, sub mucosal tissues, and anal sphincter, and it also involves of the lining of the rectum.

The severity of the episiotomy is directly associated with the seriousness of postpartum and long-term complications. As the degree of the tear or episiotomy increases, there is more potential for infection, postpartum pain, and other complications, such as leakage of stool and development of recto-vaginal fistula (Lingen, 2006; Eason, 2002).

2.2 Attitudes towards episiotomy

Episiotomy at the time of delivery is common and its practice patterns vary widely, as do professional opinion about maternal risks and benefits associated with routine use. This practice

has been used for many decades in the belief that it offers benefits to mothers (Viswanathan et al 2005).

An interview done on ten Midwives from Zambia , Malawi, Nigeria, Ghana, Kenya and Nepal who were studying in Liverpool, England , showed that none had ever considered the matter of whether routine episiotomy could do more harm than good. Most indicated that health professionals perform episiotomy routinely to a primigravidae to prevent third degree perineal tears. Some are performed to give midwives and medical students opportunity to practice the procedure, however, no sufficient quantitative data to support these anecdotes (Maduma et al, 1998). The information provided by the ten midwives from different countries is subjective and may not be based on evidence from best practice. This study could have involved a focus group discussion to elicit in-depth information from ten midwives from each country and compare the emerging themes using content analysis to bring out common themes.

2.3 Knowledge on episiotomy

Many studies have been done globally on episiotomy. Among them is a study carried out in 65 labor wards in Sweden which showed that the mean incidence of episiotomy for the whole country was 30% with a wide variation (9-77%) from hospital to hospital (Althabe et al, 2008). The study was compared to another study done in Port Harcourt Nigeria by Enyindah et al (2007) which showed that the episiotomy rate in 4720 vaginal deliveries during the period of study was 39.1% in multiparas and 77% in primigravidae. In Ethiopia, a study showed that among 672 Mothers, 270 (40.2%) had episiotomy; of these 208 (75.2%) were primigravidae and multiparas were 21.3% (Kiros and Lakew, 2006).

A study done by Viswanathan et al (2005) in 18 hospitals in Philadelphia in 1990 that used a vigorous systems review found that routine episiotomy offers mothers no benefits and it is associated with harms. It was found that routine episiotomy increased the need for stitching, experience of pain and tenderness, increased healing period, likelihood of leaking stool or gas (bowel incontinence) and pain with intercourse. The research further identified some concerns about traumas that extended into or through the anal muscle to include pain and discomfort, prolonged healing, infection, pain with intercourse bowel incontinence, decreased sexual function, and pressure for cesarean in future births. This study done in 18 hospitals provides

more credibility to the results of this study and thus show that routine episiotomy offers no benefits and is associated with harms. However, this is a reflection of one state in the USA. The study results may be different if the same study would be replicated in a different region such as Africa.

In Kenya, little has been done to explore the rates of routine or restrictive episiotomy. This was noted based on extensive search on the issue which provided very limited information on episiotomy. However a study conducted in clinics and hospitals in Meru district showed that the most common minor operation in Kenyan hospitals were episiotomy, tooth extraction, wound suture, and incision and drainage. These operations are rarely recorded and reported systematically, and thus rates and patterns are poorly known (Nordberg et al, 2001).

2.4 Practice with respect to episiotomy

A systematic review conducted by Sackett et al (1996) revealed that practice of evidence- based medicine means integrating individual clinical expertise with the best available external clinical evidence. Evidence-based practice is widely promoted, but actual obstetric practice is often not evidence-informed. Research has shown large practice variations across facilities in the same country in China, South Africa and the UK, on unnecessary obstetric procedures during normal birth are common and may actually be increasing in some countries (Althabe et al 2002).

Increased numbers of reliable summaries of scientific evidence globally has improved knowledge, but there remains a shortfall in uptake and use of this information. Obstetricians continue to implement practices such as routine episiotomy that have been shown to be harmful, and fail to implement those with demonstrable benefit (Smith et al 2004).

Fraser, et al (2006) noted the importance of the Better Birth Initiative (BBI). The initiative is a change program which has an overall goal to improve the quality of care rendered to the expectant women and their families by eliminating procedures that can be harmful, unpleasant or uncomfortable to the woman. This initiative supports the implementation of procedures and interventions that are based on scientific evidence. Better birth initiative focuses on a set of standards that aim to improve the quality and humanity of obstetric care.

The initiative has four principles: i.e.

- Humanity- women are to be treated with respect.
- Benefit- care based on the available evidence
- Commitment –health professionals committed to improving care.
- Action – effective to change current practices.

Smith et al (2004) conducted research on the use of a focused change program- the BBI, to influence obstetric practice of 10 hospitals in Gauteng, South Africa. The findings showed some important improvements in practice following the implementation of the BBI. For instance, providers at some sites reduced the use of enemas, shaving and episiotomy, and increased use of oral fluids and companionship during labour. The study further suggested that an interactive approach to implementing evidence-based practice can influence health professionals' decisions to change practice. Finally they noted that good working relationship and enthusiastic staff are central to effective change.

2.5 Midwives role in Evidence based practice of episiotomy

Changing long-standing clinical practice is difficult (Leeman et al 2006). Time constrains and increasing nursing care needs are inherent in clinical practice. Nurses face a real challenge when translating best evidence into clinical practice. For example, the relevant research-based databases are not comprehensive in many areas of nursing practice. Also, there is an ongoing explosion in the amount and type of information available (Pipe et al, 2005).

Midwives have a role in the achievements of safe motherhood in their countries. They carry a huge responsibility in helping women and their families through the pregnancy and childbirth process (Kwast, 1990). Enkin (1989) defines the science involved in the care during pregnancy as the extent to which care is based on evidence that is effective and that achieves the desired effect. He added that the great challenge that face every midwife in today's practice is how to utilize the science when appropriate and in ways that do not undermine the complex physiological and sociological aspects of childbirth.

A need exists for accurate and systematic ways to make inferences from the research findings and how they apply to individual patients. Interventions must be adapted to translate evidence-based approaches to new cultures and contexts. Improving information access, use of role models, skill development and improved resources and support may be effective ways to overcome barriers to change of practice (Leeman et al, 2006).

Despite efforts within the nursing profession to promote evidence-based practice, the way that researchers report their findings in journals may not provide information that healthcare providers can use in their clinical care. Providers tend to base their decisions to implement a new intervention on three characteristics: the advantage of the new intervention over current practice, its compatibility with the practice setting and population, and its complexity (Leeman et al 2006)

Belizan et al (2007) in their study noted that many hospitals have not translated their clinical practices to reflect research findings. Barriers noted included limited access to new knowledge, limited time and physical resources and attitudes, resistant to change as factors limiting the adoption of new practices in such hospitals. Lack of skills in performing new practices, lack of medical resources and explicit guidelines and a perceived need to practice defensive medicine were part of the hindrances.

The rationale for episiotomy use depends largely on the need to minimize the risks of severe spontaneous maternal trauma and to expedite the birth when there is evidence of foetal compromise. However, during a normal birth the indications for its use are few and the midwife should use her skills to avoid this intervention if at all possible (Fraser et al 2006). Despite the clear rationale for its use, it is noted that the rate of routine episiotomy is still significantly higher than the recommended practice for many countries (Caroli and Belizan 2001).

From the literature review it is evident episiotomy practice is still carried out despite compelling evidence that discredit its use. This shows that there is need for the midwives to update their knowledge current information on evidence based practice in order to translate the information into clinical practice. This will improve service provision which in turn translate to better maternal-child outcomes.

CHAPTER THREE: METHODS AND MATERIALS

3.0 Study design

This was a cross-sectional qualitative and quantitative descriptive study that sort to evaluate evidence based practice episiotomy by the midwives. Content analysis was used for qualitative data.

3.1 Study area

The study was conducted in Pumwani Maternity Hospital labour ward. Pumwani Maternity Hospital (PMH) was founded in 1926 as the lady Griggs welfare. The Nairobi city council took over the hospital's management in 1944. PMH is an obstetric hospital for delivering expectant mothers and provides post natal, family planning and Kenya Expanded Program on Immunization services. It also provides other medical services.

An average of 60 babies are delivered daily with the number growing over the years to about 27,000 a year. The hospital has a bed capacity of 350.

PMH has a school of midwifery within the hospital which trains Kenya Registered Midwives as well as Kenya Enrolled Midwives in accordance with the syllabus laid down by the Nursing Council of Kenya. PMH is one of the largest maternity hospitals in Kenya and a clinical teaching setting for medical training schools including the university of Nairobi department of Obstetrics and gynaecology, nursing and midwifery.

3.2 Study population

The study population included qualified midwives working in PMH labour ward. There was a total of 58 midwives working in the labour ward. Seven midwives are scheduled for every shift i.e. morning, evening and night shifts. Ten midwives were scheduled to go on leave during the month when data collection was undertaken therefore; the study population remained at 48 midwives.

3.3 Inclusion criteria

The research participant who were included in the study fulfilled all the inclusion criteria as follows

- All practicing midwives at PMH labour ward.
- Qualified midwives in PMH Labour ward
- The midwives who consented to participate
- The midwives who were on duty in labour ward during data collection period.
- Midwives who were above eighteen years.

3.4 Exclusion criteria

Potential participants who had any of the following characteristics were excluded from the study i.e.

- Midwives who were not practicing at PMH labour ward
- Midwives who were not physically present or working in labour ward during data collection
- Midwives who did not consent to participate.

3.5 Sample size determination

The sample size was determined using the following formula By Fisher (1998)

$$n = \frac{Z^2 p (1-p)}{d^2}$$

Where,

n = desired sample size

Z = 95% confidence interval (1.96)

P = estimated proportion of nurses who perform episiotomy using evidence based indications

There was no estimate available from the literature therefore, 50% was used as recommended by Fisher et al (1998).

d = the degree of precision.

When the numbers are substituted in the formula hence:

$$n = \frac{(1.96)^2 (0.50) (0.50)}{(0.05)^2} = 384.16$$

Because the study population of 48 midwives is less than 10,000, the alternative formula was used as below.

Where,

nf = Desired sample population (when population is less than 10,000)

n = Desired sample size (when population is more than 10,000)

N = The estimate of the population size.

$$nf = \frac{n}{1 + n/N}$$

= 384.16/[1+384.16/48]

=384.16/8.02

=47.87

A total of 48 midwives PMH labour ward were included.

3.6 Sampling method

A purposive sampling of all the midwives in PMH labour ward was done. All the midwives who met the inclusion criteria in the labour ward were included because after excluding those who were on leave the number available corresponded to the calculated sample size (48).

3.7 Sample interval

Sample interval n = $\frac{\text{Total study population}}{\text{Sample size}}$

= $\frac{\text{Total number of consenting midwives}}{\text{Sample size}}$

In total the number of midwives in labour ward was 48.

Sample interval (n) = $\frac{\text{Total number of consenting midwives}}{\text{n}}$

Estimated sample interval = 48/384.16

n = 0.124

Therefore; the researcher included all midwives in PMH labour ward.

3.8 Study instruments

Self administered semi structured questionnaires were used. The midwives' questionnaires had closed and open ended questions to elicit qualitative and quantitative data. The focus group discussion guide and the key informants' interview guide had open ended questions. The key researcher orchestrated the discussion and the proceedings were tape recorded for later coding and analysis. The research team helped the respondents to clarify the issues on the questionnaires.

3.9 Pre testing of instruments

The instruments were pre-tested among midwives working at Kenyatta National Hospital labour ward. The results of the pre-test were used to sharpen study tools for reliability and validity. The results are not part of the study findings.

3.10 Key variables

Independent variables: socio-demographic factors, episiotomy related practices and institutional factors.

Dependent variables: Interpersonal influences, access to current information, personal influences, training factors, and barriers to decision on evidence based practice. The influence of independent variables on the dependent variables results to accepted or unaccepted evidence based episiotomy practices.

3.10.1 Definition of key variables

- **Socio-demographics**: Selected population characteristics (gender, age, designation, educational attainment and professional experience).
- **Institutional factors**: Overall institutional actions or omissions that influence the midwives' evidence based practices.
- **Interpersonal influences**: Outcomes from midwife's interactions with members of the health care team
- **Access to current information**: Ability of the midwife to readily access the evidence based information on episiotomy either from the web, hospital library, or in the clinical area.
- **Personal influences**: Individual's self-drive to keep abreast on evidence based practices.
- **Training factors**: All the formal and informal ways of acquiring knowledge on evidence based information on episiotomy.
- **Episiotomy related practices**: All the existing episiotomy practices that are undertaken by the midwives.

- **Barriers to decisions on evidence based practice**. All constraints that influence all the other variables to affect evidence based practices.

3.11 Selection and training of research assistants

One registered nurse with midwifery background was recruited and trained for a day before commencement of the study to be familiarized her with the research tools and methods. The assistant was given the study tools ahead of time prior to the training day. The research team critically reviewed the contents of the questionnaire, interview guide and FGD guide, the study objectives and the consent form to ensure that the assistant was well conversant with the instructions on the questionnaire and the consent forms. The research team discussed privacy and confidentiality of information provided by the respondents.

3.12 Methods used to control confounders.

Questionnaires were pre-tested in KNH labour ward, a location different from the actual study location. The research assistant was trained before commencement of the study. Filled questionnaires were checked for completeness and consistency. All data obtained was coded appropriately.

3.13 Data collection, cleaning, and entry

The research assistant assisted in disbursing the questionnaires and collecting filled ones. Questionnaires filled by the respondents were collected and checked for completeness and consistency by the principal researcher. Data from the completed questionnaires were entered using SPSS version 16 with the help of biostatistician and later analyzed at the end of the study. More data were collected through focus group discussion in June. The researcher chose focus group because she wanted the best method to access the experiences of midwives. The focus group is a special type of group in terms of purpose, size, composition and procedures. A focus group is typically composed of not more than 10 participants who are selected because they have certain characteristics in common that relate to the topic under investigation (Krueger, 1994). Focus groups are defined as:- "a semi-structured group session, moderated by a group leader, held in an informal setting, for the purpose of collecting informal setting, for the purpose of collecting information on a designated topic" (Carey and Smith, 1994, P. 124).

Field notes and tape recordings were analyzed. Each transcript was read word by word several times. The researcher used content analysis (Holsti, 1969) first to understand what it is that the participants were saying. Content analysis is defined as "any technique for making inferences by objectively and systematically identifying specific characteristics of messages" (Holsti, 1969). Key words and phases were highlighted in the text and codes were written on the sight side of the page. The researcher grouped the statements to like statements from the codes recorded. This was the second phase of analysis. Finally the researcher re-grouped the statements narrowing them to themes. These clustered ideas (which are referred to as themes) then became units of structural incoming. These meanings intended in what has been observed and heard (Strubert & Carpenter, 1999). Some themes differed from the transcript but uniformity was ensured in theme terms throughout all transcripts. The tape recorded information was transcribed, coded and analyzed according to themes. All the questionnaires which did not conform to the instructions were discarded.

3.14 Data analysis and presentation

Data was coded according to themes from the variables with exhaustive code categories. Data were summarized using inferential and descriptive statistics. Data input and analysis was done using SPSS version 16. Relationships among some variables were measured using correlation coefficient and CHI square. Data were presented in from of charts, tables and frequency graphs and in narrative form.

3.15 Ethical considerations

Before establishing contact with the potential participants, the proposal was submitted to Kenyatta National Hospital (Ref: KNH/UON-ERC/A/219) and Pumwani Maternity Hospital (Ref: PMH/DMOH/98/09) ethical committees for approval. Permission was granted by the ministry of education, science and technology to conduct research (permit No. NCST/5/002/R/433/5). In compliance with the regulation regard to research for health, informed consent was obtained individually after explaining to the participants the purpose of the research. Confidentiality and privacy was maintained by locking up all the study information provided by the participants. The names of participants were not documented on the questionnaires to ensure anonymity. Key informant's interview was done individually in a private room. Participation was purely voluntary and no one was obliged to answer any question they were not comfortable with.

3.16 Study limitation

The study was conducted in an urban hospital set up and the findings may not be generalized to the hospitals and clinics in a different set up. The hospital serves a majority of Somali population who practice female genital mutilation. This practice influenced the decision made by the midwives before performing an episiotomy. The practice may not be common in other parts of the city and the results of the study may not be applicable in that set up. Majority of the participants consented to participate but a few of them did not complete the questionnaires appropriately. The researcher held two forums to accomplish the FGD interviews. Data collection was done in a time span of three weeks to achieve the required sample because of staffing rotation. This may have biased the responses if the midwives shared the information with the others during the process

3.17 Dissemination plan

Research report will be provided through feedback to the PMH staff. Findings will be published and availed at the library.

CHAPTER FOUR: RESEARCH FINDINGS

4.0 Introduction

This chapter displays the findings from the analyzed data obtained from the respondents on the influence of evidenced based practice of episiotomy by the Midwives at Pumwani Maternity Hospitals (PMH) labour ward. The results were obtained from the responses from the questionnaires, FGD and from the key informants' interviews.

4.1 DEMOGRAPHIC INFORMATION

Table 1: Demographic information

Gender		
	Frequency	**Percent**
Male	4	11.4
Female	31	88.6
Total	**35**	**100**
Age		
18-26	1	2.9
27-35	20	57.1
36-45	11	31.4
Above 45	3	8.6
	35	**100**

A total of 35 respondents gave their responses in relation to socio- demographic information. 11.4% (4) of the respondents were Male, while 88.6 %(31) of the respondents were female. In addition, 22.9 % (8) of the respondents fall in the age bracket of between 18- 26 years, 57.1% (20) were between 27- 35 years of age. 31.3 % (11) were between 36- 45 years and only 8.6%

(3) of the respondents were above the age of 45 years. It is evident that majority of the respondents were female midwives. The category with between 27 years to 35 yrs had 57.1% (20) this being the highest number of respondents.

4.2 MIDWIVES EXPERIENCE AND EDUCATION

Table 2: Midwives experience and education

Training Qualifications		
Highest education level	**Frequency**	**Percent**
KRCHN	20	57.1%
KRM	12	34.3%
ICN	2	5.7%
BScN	1	2.9%
PhD	Nil	0.0%
MScN	Nil	0.0%
Total	**35**	**100%**

Training qualifications and Duration of basic training were part of the questions with a total of 35 respondents. In this group 57.1% (20) of the respondents have trained as KRCHN, 34.3% (12) are KRM, 5.7% (2) of the respondents have trained in ICN and only 2.9% (1) of the respondents have qualifications in BScN. There were no PhD and MScN prepared midwives in the group.

In relation to duration of basic training, 77.1% (27) of the respondents took 2 to 3 years, 14.3% (5) took 5 years, 5.7% (2) of the respondents gave no response to this and only 2.9 % (1) of the respondents had a training lasting for1 year.

Table 3: Years of service Pumwani Maternity Hospital

Professional experience		
Years of practice	**Frequency**	**Percent**
5 to 10 years Below 1 year	19	54.3%
Over 10 years	14	40%
1 to 4 years	2	5.7%
	Nil	nil
Total	**35**	**100%**

54.3% (19) had practiced midwifery for between 5 to 9 years, 40% (14) for over 10 years, while 5.7% (2) had practiced for between 1 to 4 years. **(P value 0.003)**

Table 4: Duration of working

Duration Working at Pumwani labour Ward		
Years	**frequency**	**percentage**
1 to 4 years	16	45.7%
5 to 9 years	12	34.3%
Over 10 years	3	8.6%
Below 1 yr	4	11.4%
Total	**35**	**100%**

45.7% (16) of the respondents reported to have worked in PMH between 1 to 4 years, 34.3% (12) for 5 to 9 years, and 11.4% (4) for less than 1 year and only 8.6% (3) of them reported to have worked for more than 10 years with a **Mean of (2.6) and P value (0.207)**

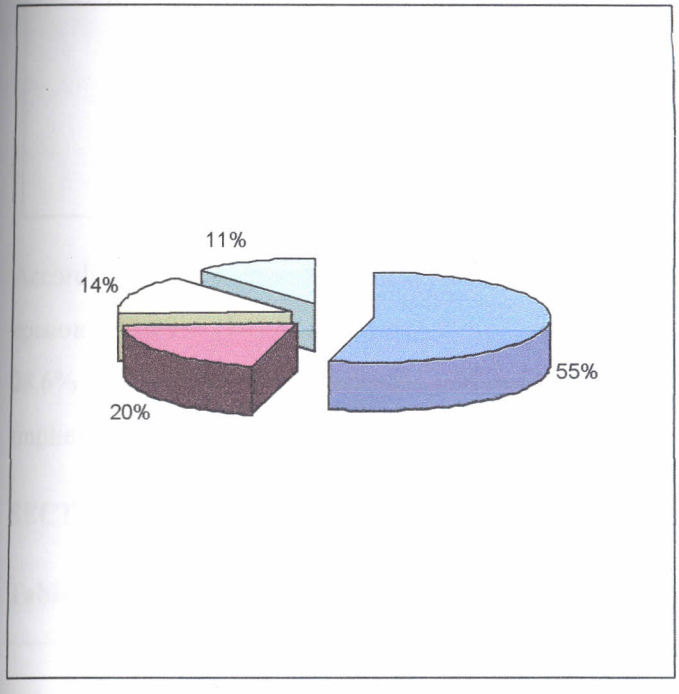
Motivation to working in the Labor ward

Motivation in relation to working in the labor ward are given in figure 1 above, thus 11.4% (4) of the midwives responded to personal choice, while 88.6 % (31) of the respondents were deployed to work in the Labour ward.

Training on evidence based episiotomy practice

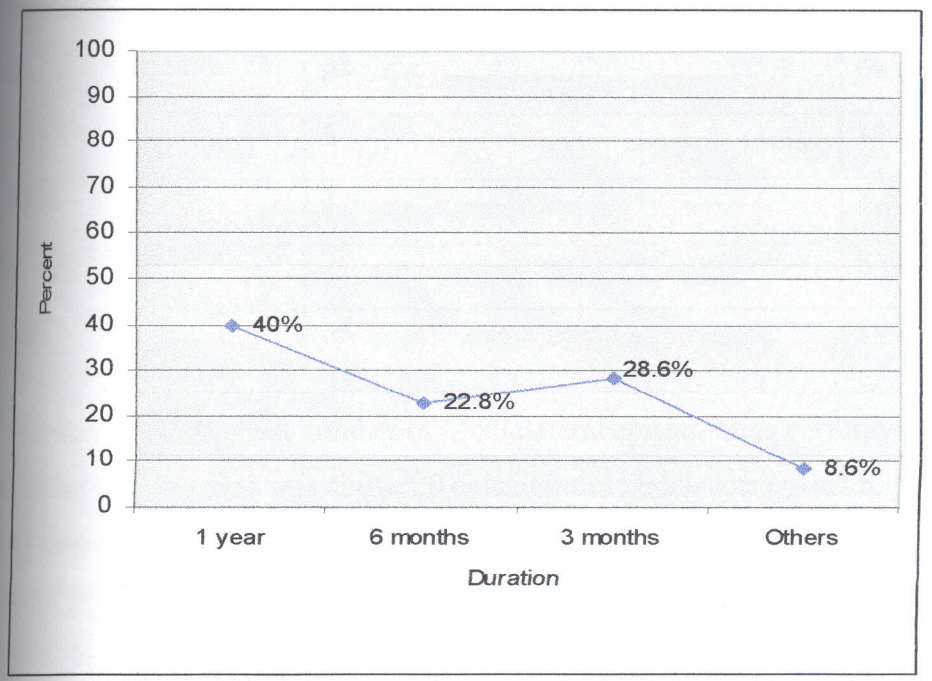
51.4% (18) of the respondents have not received specific training on EBP of episiotomy, while 48.6 % (17) of the respondents have.

Figure 1: How the training was achieved



Concerning how evidence based episiotomy practice training was achieved, 55% (19) of the respondents said they got their training in a nursing school, 20% (n=7) of them from in-service courses, and 14% (5) of them through their personal efforts, while only 11% (4) of the respondents got it through continuing Education at PMH.

Figure 1: Duration of training time on evidence based practice on episiotomy.



According to the respondents in relation to time taken to training on evidence based practice on episiotomy, *40% (14) of the respondents took 1 year, 22.8% (8) of the respondents 6 months,* 28.6% (10) of them took 3 months and only 8.6% (3) of them responded to "other" which implies either none or less than 3 months.

SECTION B. Current practice on evidence Based Practice on Episiotomy

Table 5: Types of Episiotomy practiced (From May 2008 to May 2009)

Type of Episiotomy preferred		
Type	**Frequency**	**Percent**
Mediolateral	30	85.7%
Midline	5	14.3%

Concerning preferred type of episiotomies, 85.7 % (30) of the respondents preferred mediolateral and only 14.3 % (5) of the respondents preferred midline episiotomy.

Table 6: **Mediolateral episiotomy in the last one year**

Number of Mediolateral episiotomies given in the last 1 yr		
Number of episiotomies	**Frequency (number of midwives)**	**Percent**
Above 20	24	68.6%
10 to 15	5	14.2%
15 to 20	3	8.6%
Below 10	3	8.6%
Total	**35**	100

On the other hand, highest number of Mediolateral episiotomies performed by a respondent in the last the last one year was above 20 episiotomies which correspond to 68.6 % (24). 14.3 % (5) of the respondents have given between 10 to 15 Mediolateral episiotomies 8.6 % (3) have given between 15 to 20 and 8.6 % (3) have given below 10 Mediolateral Episiotomies. The mean number was **1.7**

Table 7: **Number of Midline Episiotomies given, duration of time taken to repair And the number of Sutures used to repair Episiotomy**

Number of Midline Episiotomies given		
Number	**Frequency**	**Percent**
10 to 15	12	34.3%
Below 10	9	25.7%
Other	7	20%
15-20	5	14.3%
Above 20	2	5.7%
Total	**35**	**100%**

34.3% (12) of the respondents reported to have given between 10 to 15 midline episiotomies, 25.7% (9) of them below 10 Midline Episiotomies, and 20% (7) responded to others while 14.3

% (5) of them responded to15 to 20 Episiotomies. Only 5.7 % (2) of the respondents have given above 20 midline episiotomies.

Table 8: Time taken to repair an episiotomy

Duration it takes to repair an Episiotomy		
minutes	**Frequency**	**percent**
5 to 10	22	62.9%
2 to 4	9	25.7%
Over 10	3	8.65%
Under 1	1	2.9%
Total	**35**	**100%**

After giving an episiotomy midwives are mandated to repair it promptly as soon as the maternal condition allows. In relation to the duration of time it takes to repair the episiotomy, 62.9% (22) of the respondents took between 5 to 10 minutes, 25.7% (9) of them took between 2 to 4minutes, and 8.65 % (3) took over 10minutes while only 2.9 % (1) of the respondents reported time less than 1minute. According to Pearson correlation, there is a positive correlation between midwifery experiences with the duration it takes to repair an episiotomy (correlation between number of years of experience and the duration of time it takes to repair an episiotomy: **(Correlation 0.790).**

Table 9: Number of sutures

Number of Sutures used to repair Episiotomy.		
Number of sutures used	**Frequency**	**Percent**
1	24	68.6%
2	8	22.9%
3	2	5.7%
More than 3	1	2.9%
Total	**35**	**100%**

In relation to the number of Sutures used to repair Episiotomy, 68.6 % (24) of the respondents used 1suture, 22.9% (8) of the respondents used 2 sutures, 5.7% (2) of the respondents said 3, and only 2.9 % (1) of the more than 3 Sutures. **P value is 0.117**

Table 10: Descriptive statistics

Descriptive Statistics

	Mean	Std. Deviation	N
Years of practice as a midwife	1.6571	.59125	35
Duration of basic training in yrs	2.0000	.65134	35
Duration of time worked in Pumwani labour ward	2.6000	.81168	35
Number of mediolateral episiotomies given in the last 1 year	1.6286	1.03144	35
Number of midline episiotomies having given	3.4000	1.14275	35
Duration of time it takes to repair an episiotomy	2.7714	.64561	35
Number of sutures used on average to repair an episiotomy	1.4286	.73907	35

Table 11: Assessment done before giving an Episiotomy

Midwives' responses	Frequency	Percent
Tightness of perineum	12	24%
Put the patient in lithotomy position	10	20%
Previous episiotomy	7	14%
Poor maternal effort	6	12%
FGM	6	12%
Foetal head presentation	5	10%
Whether the patient is roomy	4	8%
Total	**50**	**100%**

Decision to perform an episiotomy depends on prior or immediate midwives' assessment. The respondents listed down the assessment they carry out before giving an episiotomy and the percentages are thus; 24% (12) of the respondents do check for the tightness of the perineum and 20% (10) of them reported that they put the patient in lithotomy position and thus decide whether episiotomy is indicated. Further 10% (5) of the respondents do check the size of the foetal head presenting, 14% (7) of the respondents would determine if episiotomy was given in prior deliveries and 12% (6) of the respondent would base the decision on poor maternal effort. Patients who have had FGM influenced the decision of 12% (6) of the respondents. Only 8 % (4) of the respondents considered whether the patient was "roomy" before giving an episiotomy.

Table 12: Reasons that Guide to giving an Episiotomy

Criteria	Frequency	Percent
Very tight perineum	15	17.44%
Breech presentation	11	12.79%
Premature labor	10	11.62%
FGM	9	10.46%
Deteriorating baby condition	8	9.30%
Hastening 2nd stage	7	8.13%
Big baby	6	6.97%
Foetal distress	5	5.81%
Instrumental delivery	4	4.65%
Delayed 2nd stage	3	3.48%
Others	3	3.48%
Mother's serological status(HIV negative)	2	2.32%
Shoulder Dystocia	2	2.32%
poor maternal efforts	1	1.16%
Total	**86**	**100%**

The results above were tabulated based on the listed criteria that the midwives use to guide the decision on performing an episiotomy, 17.44% (15) of the respondents based their decision on very tight Perineum, 11.62 % (10) premature labor, 12.79 % (11) on breech presentation and 10.46% (9) of them on whether FGM was performed. Further 9.3 % (8) of the respondents determine the condition of the baby, 8.13 %(7) of them responded to hastening of the 2nd stage of labour, 6.97 % (n=6) based on baby's big size, 5.81% (5) of the respondents based on foetal distress. During instrumental delivery, 4.65 % (4) of the respondents would give an episiotomy, 3.48% (n=1.2) responded to delayed 2nd stage, and 2.32 % (2) of the respondents would consider shoulder dystocia, as an indication. Further 3.48% (3) of the respondents would consider

serological status of the mother and delayed second stage as the criteria for decision respectively. Only 1.16 % (1) of the respondents considered episiotomy whenever there is lowered maternal efforts.

SECTION C: CURRENT KNOWLEDGE OF EVIDENCE BASED NURSING PRACTICE ON EPISIOTOMY

Figure 2: Rating of the knowledge on evidence based episiotomy practice

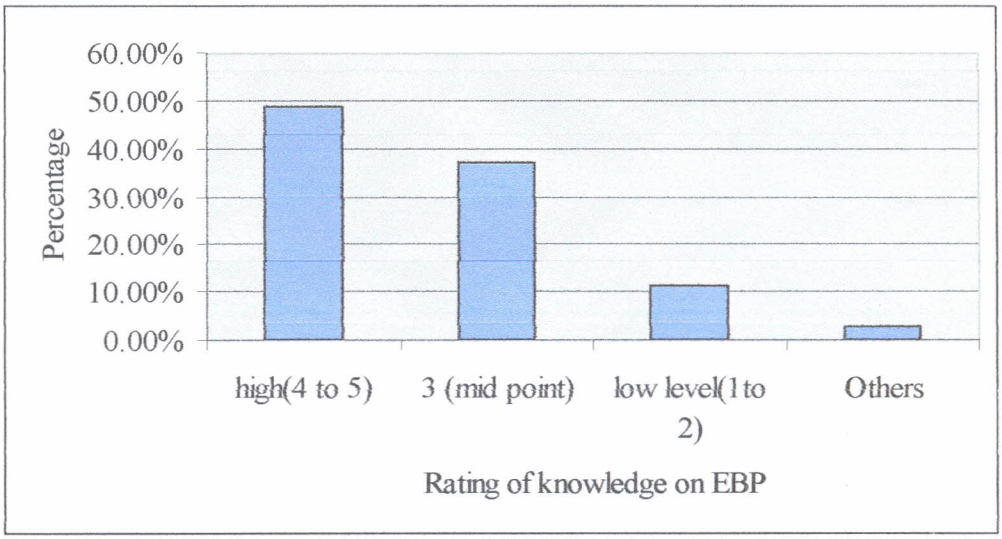
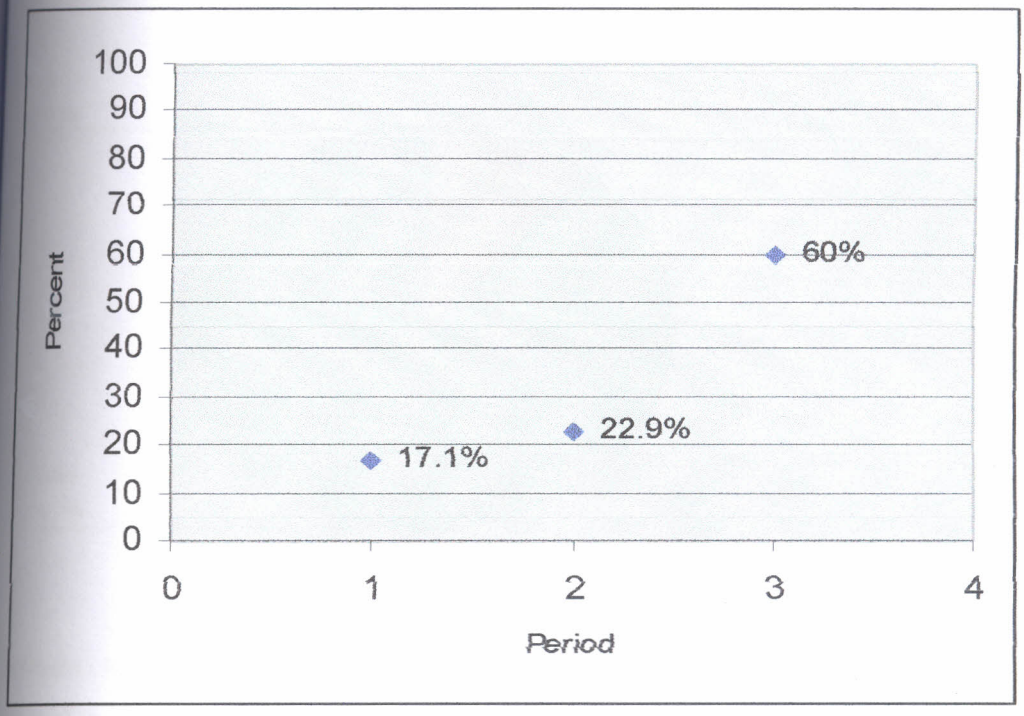


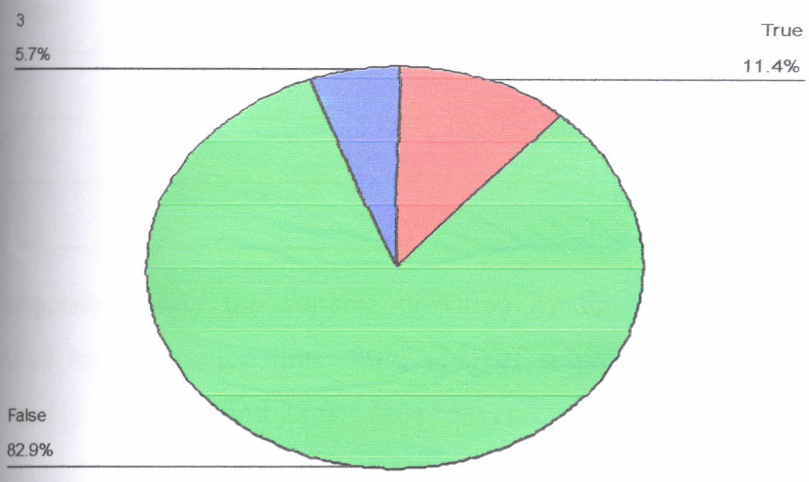
Fig. 5 above shows the rating of the midwives knowledge on evidence based episiotomy practice. According to the respondents, 48.6% (17) of them rated their knowledge on high level (4-5) points, 37.1% (13) at mid point (3) points, 11.4% (4) of the respondents rated their knowledge on low level (1- 2) points and 2.9% (1) of the respondents rated themselves on others.

Figure 3: Last time to update your knowledge on episiotomy



The figure above show when the midwives updated knowledge on evidence based practice of episiotomy. Majority of them being 60% (21) of the respondents have never updated their knowledge on episiotomy, 22.9 % (8) of them updated during the last past 3 months, and 17.1% (6) of the respondents said they did it 6 months ago.

Figure 4: **Whether evidence based practice on episiotomy advocates routine episiotomy**



According to the respondents in relation to whether evidence based practice advocates routine as opposed to selective episiotomy, 82.9% (30) of the midwives disagreed, 11.4 % (4) of them were affirmative and only 5.7% (2) did not give any response.

Table 13: Rating the support provided by the facility and administrators

Rating facility Support for the use of Research Findings		
	Frequency	**Percent**
Agree	20	57.1%
Strongly disagree	5	14.3%
Disagree	5	14.3%
Strongly Agree	5	14.3%
Total	**35**	**100%**

Regarding facility support for the use of research findings on evidence based practice of episiotomy, 57.1 % (20) of the respondents agreed, 14.3% (5) of them disagree, strongly disagree and strongly agree respectively.

Table 14: Administration support

Rating the support provided by the Administrators in enforcing the use of evidence		
	Frequency	**Percent**
Sometime	14	40%
Always	11	31.4%
Never	10	28.6%
	35	**100%**

The respondents rate the support provided by the administrators in enforcing the use of evidenced based practice thus; 40% (14) of responded to "sometimes", 31.4% (11) of the responded to "always", and 28.6% (10) "never".

Responses on evidence based nursing practice on episiotomy

91.4 % (32) of the respondents reported that mediolateral episiotomy is better than midline episiotomy, while 8.6% (3) of the respondents said that midline episiotomy is better than mediolateral episiotomy.

Table 15: Indications of Evidenced based episiotomy

indications	**Frequency**	**Percent**
Tight perineum	33	**28.7%**
Instrumental delivery	25	**21.36%**
Breech presentation	22	**19.1%**
Shoulder Dystocia	17	**14.8%**
Primigravida	9	**7.8%**
Patient's choice	9	**7.82%**
Total	**115**	**100%**

There are many indications which were given by the respondents in relation to evidenced based practice on episiotomy, According to the respondents, 28.7% (33) of them reported that the major indication is a tight perineum, 21.36% (25) of the responded to instrumental delivery,

19.1% (22) of them responded to breech presentation, while 7.8% (9) indication primigravida and patients choice as indications respectively.

Response on if evidenced based practice advocates selective Episiotomy

According to the respondents, 80% (28) responded to 'true' while only 20 % (7) of them responded to 'false' on whether evidence base practice advocates selective episiotomy.

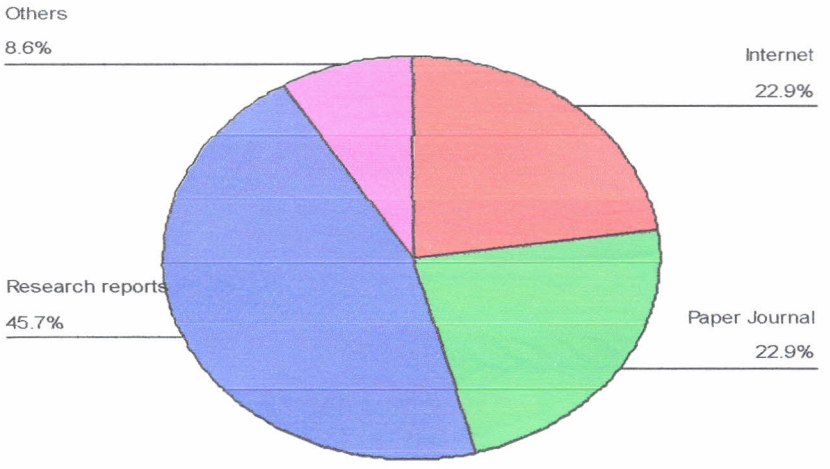
Formal training on computer application

With the current advances in technology it is imperative that health care workers are savvy and are kept abreast on the use of computer applications in their practice. In relation to having a formal training on computer application, 71.4% (25) midwives have not had a formal training on computer application, while 28.6 % (10) of the respondents said they have had a formal training on computer application.

Frequency of accessing and reading literature on evidenced based practice of episiotomy

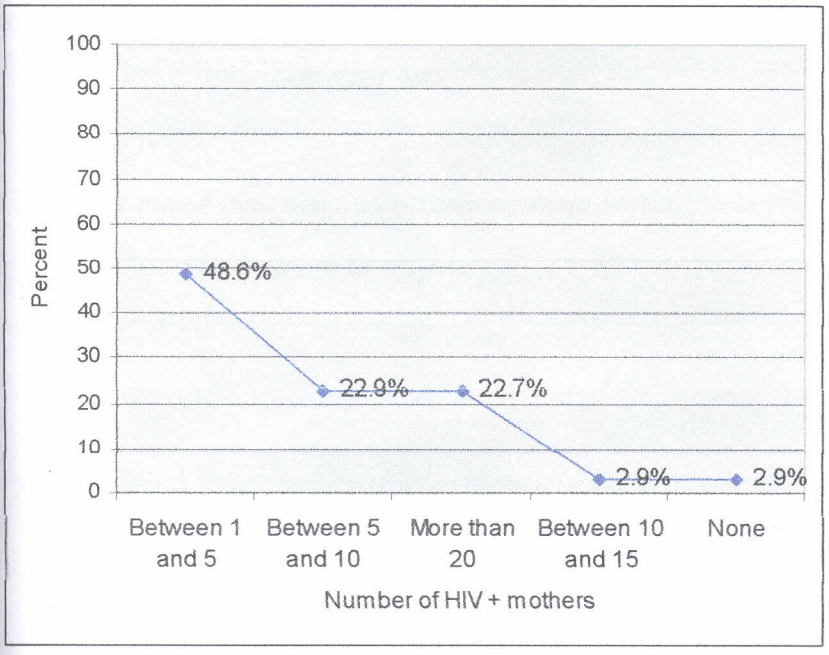
According to the respondents, 82.9% (29) of them accessed less than 2 articles, 11.4% (4) of them accessed 2 articles in a month, and only 5.7% (2) of the respondents said they accessed 3 to 5 articles in a month.

Figure 5: Best source of current EBP information



In relation to the best source of evidence based information, 45.7% (16) of the respondents mentioned the research reports, 22.9 % (8) reported the paper journal and internet respectively, and only 8.6 % (3) of the respondents gave other sources.

Figure 6: The number of HIV Positive mothers under the midwife's care who required an Episiotomy in the past one year



48.6% (17) have given an episiotomy to between 1 and 5 HIV positive mothers, 22.9 % (8) between 5 and 10 mothers, 22.7 % (8) of the respondents reported more than 20 mothers, 2.9 % (10.1) to between 10 and 15 mothers, and none respectively.

SECTION D: ATTITUDE ON EVIDECE BASED PRACTICE OF EPISIOTOMY

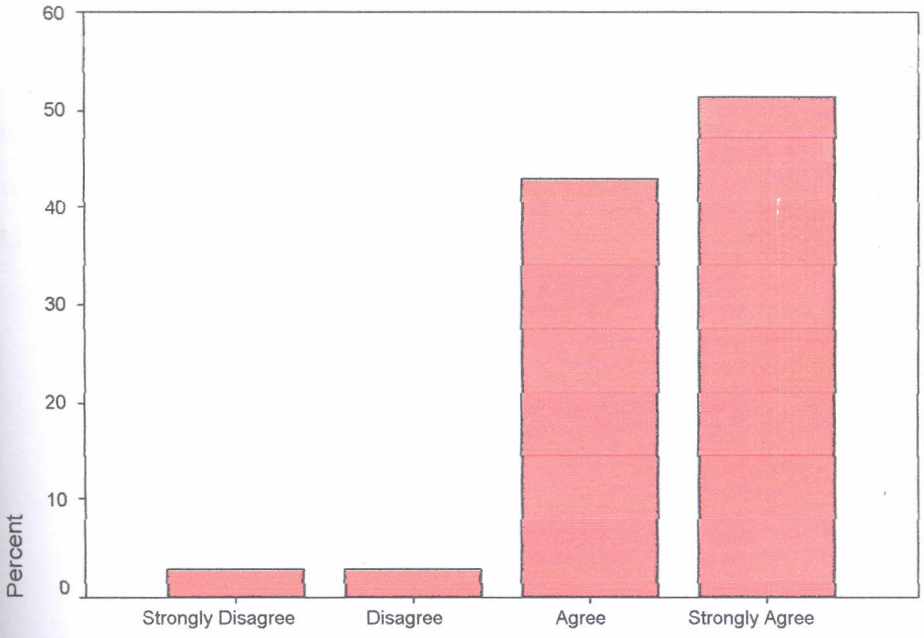
Evidence based practice on episiotomy places unnecessary demands on me

According to the respondents, 54.3% (19) of them disagreed, 28.6% (10) strongly agree, 11.4% (4) agree, and 5.7% (2) strongly agree to the fact that evidence based practice on episiotomy places unnecessary demand on the respondent.

Evidenced based practice on episiotomy is important to my professional practice

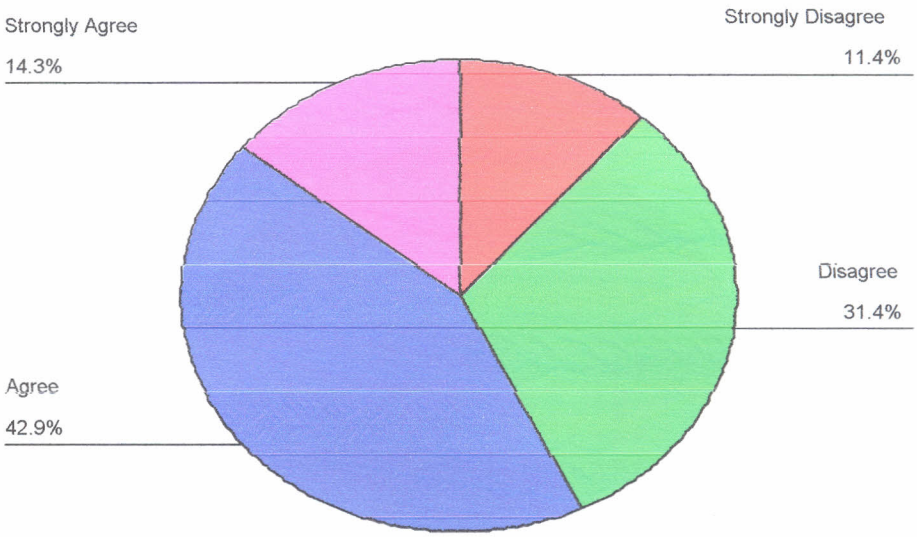
Majority of the respondents 48.6% (18) agreed, 45.7% (16) strongly agreed, 2.9% (1) disagreed and strongly disagreed respectively.

Figure 7: Need to increase use of evidence in daily practice



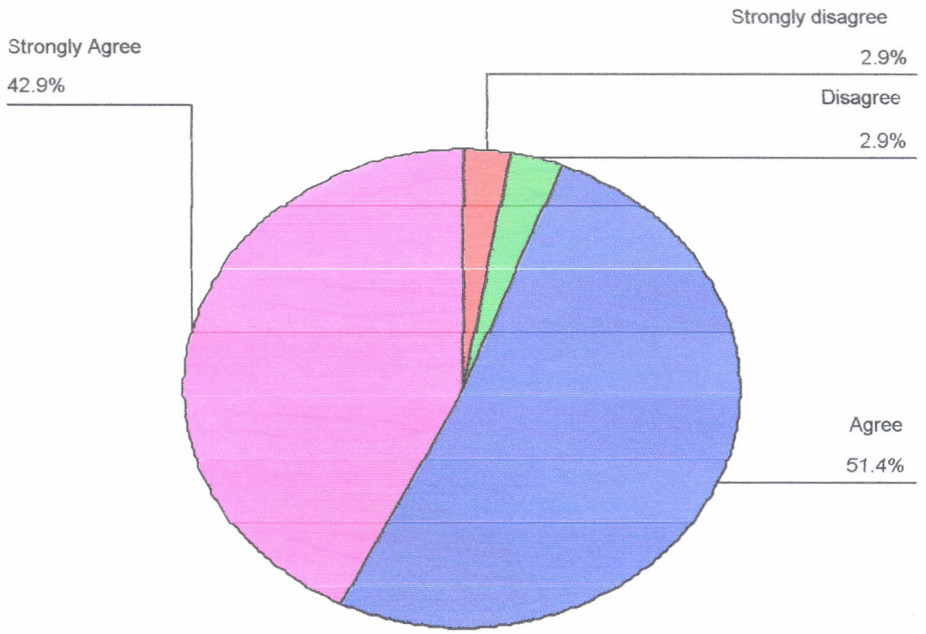
In relation to increasing the use of evidence in the daily practice, 51.4 % (18) of the responded to strongly agree, 42.9% (16) to agreed, and 2.9% (1) of the respondents disagreed and strongly disagreed respectively.

Figure 8: Strong evidence lacking in most interventions used in clinical practice



Majority of the respondents 42.9% (15) agreed to the fact that strong evidence is lacking in most interventions used in clinical practice, 31.4 % (11) disagreed, 14.3 % (5) strongly agreed, and 11.4% (4) of them strongly disagreed.

Figure 9: subject's opinion on evidence based practice being helpful in making decision about patient care



On the question of whether evidence based practice help to make decision about patient care, 51.4 % (18) of the respondents agreed, 42.9 % (16) strongly agreed, and 2.9 % (1) of the respondents strongly disagreed and disagreed respectively.

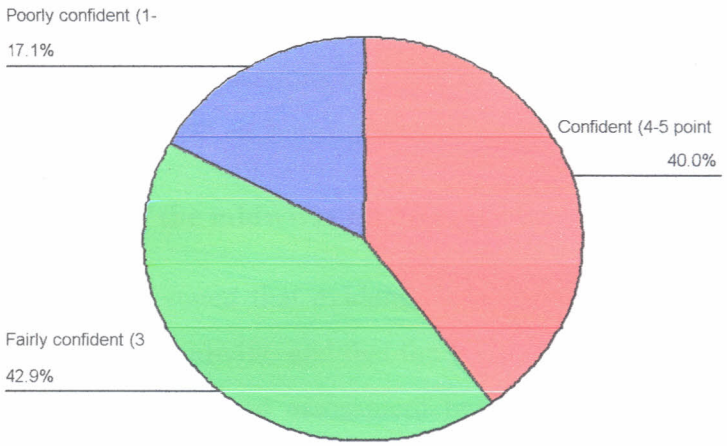
Type of Episiotomy I prefer in terms of faster healing, easy repair, with fewer *complications*

The figure above shows the two types of episiotomies, the respondents gave their responses as follows; 85.7% *(30) of preferred mediolateral, while 14.3 % (5) of them midline episiotomy.*

The form of episiotomy comfortable performing

Majority of the respondents 91.4% (32) are comfortable choosing selective rather than routine episiotomy 8.6% (3).

Figure 10: Rating one self in the ability to critically review professional literature



According to the ability to critically review professional literature, 42.9% (15) are fairly confident (3 points), 40% (14) are confident (4-5 points), 17.1 %(6) are poorly confidents (1-2 points).

SECTION E: DOCUMENTS ON EVIDENCE BASED PRACTICE

Availability of practice guidelines on evidence based practice of episiotomy in the unit

According to the respondents, 42.9% (15) of the respondents said No in relation to practice guidelines on evidence based practice of episiotomy are available in the unit., 28.6 %(10) of the respondents said yes and not sure respectively in relation to practice evidence based practice of episiotomy being available in the unit.

48.6% (17) were not sure on how often the guidelines were reviewed, 17.1 % (6) responded to yearly, 14.3 %(5) to quarterly and as needed respectively and only 5.7% (2) responded to other.

FOCUS GROUP DISCUSSION RESPONSES

Focus group discussion (FGD) was done in the process of evaluating the evidence based practice of Episiotomy. The research targeted ten (10) focus group members who were interviewed according to the set questions to elicit a more in depth information relating to the topic. There were two groups with each group consisting of five (5) respondents.

- **Views of the midwives on evidence based nursing practice on episiotomy**

The respondents stated that evidence based practice tends to improve foetal outcome, helps to save time for the midwife, and that the episiotomy practice should only be done selectively. EBP helps one to make good assessment before giving an episiotomy and some have noted that selective episiotomy is important to maintaining perineal integrity. One of the members stated that "Me I think it should only be given to mothers whenever it is necessary".

- **Evidence based practice on episiotomy practiced at PMH**

Some group members responded that they apply the evidence based knowledge that they know in deciding whether to give an episiotomy or not. Some stated that they may not know what the current practices were and it was hard for them to know if what they were doing was EBP. A member reported that "Evidence based are those indicators which say it is a premature baby or if the perineum is tight"

- **The criteria being applied by the midwives in performing an episiotomy**

This was meant to elicit the various criteria that the midwives base in deciding if the mother needs and episiotomy or not and if the criteria chosen is evidence based. The responses were as follows: Maternal condition, perineal assessment, instrumental delivery, foetal presentation, second stage of labour and the size of presenting part.

- **Accessibility of research reports on evidence based nursing practice of episiotomy**

The respondent reported that they have no reliable way of accessing research reports in the unit. Some midwives reported that they can get information from the school of midwifery library but the information may not be current. Some stated that they depend on the memorandum that is circulated by their leaders whenever there is new information that needed attention but may not be specifically on EBP or episiotomy practice.

- **Barriers to the implementation of evidence based practice of episiotomy**

They reported that poor accessibility to information, lack of guidelines and policies, prevalence of HIV, staffing constraints, lack of interest to update oneself on current information, lack of computer application knowledge, and lack of appropriate equipment e.g. (enough theatre services) as some of the most prevalent barriers.

- **Availability of guidelines addressing evidence based practices of episiotomy**

The respondents said that "somehow we have the information but they are not in written form" and since they are not written down then they do not conduct any reviews and updates and therefore no one is assigned to review the guidelines and policies.

- **Efforts that are put in place by the administrators to uphold the implementation of EBP of episiotomy**

Among the efforts put in place by the administrators that were discussed included continuing education in the unit where by a member of staff picks a topic of interest and conducts it among the staff. The topics are not necessarily on EBP but on any clinical topic relevant to them. Another support is in form of provision of equipment in the unit to facilitate efficiency of work

e.g. (buying new episiotomy scissors) as one member stated "They have now provided very nice scissors, when I was giving episiotomy, I was really enjoying it. So at least the administration has assisted us".

- **How evidence based nursing practice on episiotomy improve clinical practice**

The respondents said that EBP of episiotomy will help in infection control "We have said to avoid infection transmission from the mother to the baby", reduction of work load of repairing an episiotomy and reduction of cost to the patient. In addition, it will lead to a better delivery and post delivery outcome to the mother and baby.

- **Challenges faced by the midwives in the implementation of EBP of episiotomy**

The challenges mentioned included instrument malfunction, increased work load that allows them no time to implement duties and activities effectively, accessibility of the current information, under staffing in relation to increased patient population. Furthermore, majority of the midwives lack computer literacy and some mothers come to labour ward when they are at the second stage of labour and the midwife will have minimal time do conduct the appropriate assessment of give the mother alternative choices.

- **Solutions and recommendations to improving evidence based practice of episiotomy**

The group mentioned some solutions and recommendation to include; increase on the number of midwives in labour ward, organize continuing medical education on EBP of episiotomy, the need for other neighbouring hospitals and health care facilities to reduce costs to allow patients to get services there thus reducing the patient population at PMH. The midwives should be more vigilant in labor monitoring to allow them to make appropriate assessment that will enable them to give episiotomy only when indicated. Another important solution is for the midwives to change personal attitude from old practices to adopting new and evidence based practices which greatly improve practice. Furthermore, the women should attend antenatal clinic in order for them to get more patient education and relevant services in an appropriate time.

To improve the status quo, the respondents felt that the administration be proactive in upholding and reinforcing evidence based practices and to ensure that there are enough resources to handle the patient population, provision of quality service to the patients and a conducive working environment to the staff.

KEY INFORMANTS INTERVIEW

Information was also elicited from the key informants of the institution regarding the study topic. There were a total of four key informants namely, the chief nursing officer, the assistant chief nursing officer, labour ward nurse in charge and assistant labour ward nurse in charge. One on one interview was carried out and the responds documented.

- **Their role in relation to evidence based practice of episiotomy**

The responses included their role in supervision by ensuring that the midwives practice what is expected of them, advocacy for selective form of episiotomy and provision of resources for the services.

- **Policies and guidelines on evidenced based practice of episiotomy**

They concurred with the midwives that they have no written down guidelines but they were working on a modality to have policies and guidelines for every procedure so that they can standardize services in the facility. They reported the fact that the guidelines available are old and out dated and only reflected some information which may not be relevant to the current practice.

- **The plans to be put in place to ensuring midwives get updated information**

They reported that they currently send at least one staff member weekly to attend a seminar and encourages provision of feedback information in the unit. They also mentioned that they encourage continuing education in the unit where by each midwife chooses a topic and leads the discussion. They reported the need to carry out specific continuing education on evidence based practice of episiotomy. They emphasized on the importance of establishing written guidelines, and to organize training on computers for all midwives. One other important report is that they

encourage research studies to be done in their facility to be able to get feedback with recommendations on ways to improve their services.

- **Barriers to evidence based practice of Episiotomy**,

Comments on barriers included the attitude of the midwives towards change with some "sticking" to old practices, computer illiteracy as mentioned that "whether you have the computer or not, unless when you want to find information you will not just get it", and unavailability of internet access in the organization. Other respondents reported that equipment and resources needed to prevent unnecessary episiotomy performance may be inadequate (i.e. enough theatres and staff to attend to elective caesarean sections for HIV positive mothers who opt for it). Lack of written policies and guidelines on current information hinders standardization of practice. Finally, some reported that workload hinders the midwives from getting time to access various research reports in the hospital or otherwise.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter presents the discussions, conclusions and the recommendations in relation to the main objective of the research study which was to evaluate evidenced based practice of episiotomy by the midwives at Pumwani Maternity Hospital. The presentations were done based on the objectives of the study and the research questions. The objectives of the research will be discussed below in relation to the research findings.

5.1 DISCUSSION

The information is presented in descriptive findings only and does not examine the causes of differential findings between the different cadres of the midwives which may in part be explained by the variations in specific categories such as demographic information.

The study participants were the midwives working in Pumwani maternity hospital. Majority of the participants were female. The participants aged between 18 years and above 45 years with a mean age being 31 years.

Majority of the respondents aged between 27 to 35 years had KRCHN level of education, followed by those who had KRM. Most of them had their basic training for a period 2.5 years. These are enrolled nurses/ midwives with a working experience of between 5 to 10 years.

Sources of evidence based information on current literature

The study results show that most midwives got information and knowledge on evidence practice of episiotomy from the nursing school where they received their basic qualifications, and a few of them through continuing education. FGD responded that "the accessibility is hard".

Despite their subjective high rating of themselves on knowledge on EBP there is evidence that specific knowledge on EBP of episiotomy is limited. Information from the nursing school is based on the syllabus that gives basic and introductory information. These findings on sources of current evidence based literature show that midwives need to put a great deal of effort to update themselves on the current issues on episiotomy as an on going practice.

Continuing education is an important source of current information. This is supported by Benard (2009) when she noted that nurses have an ongoing need to expand their professional knowledge and skills due to rapidly changing advances in health care and technology. Nurses who have achieved certification should create a professional development plan that builds on their knowledge and keeps them current about developments in their particular role and specialty area. Selection of continuing education activities should be based on the individual's self assessment and should foster individual's professional growth.

It is essential to be knowledgeable about the rapidly changing health care environment and of new evidence-based practices. An excellent source of information related to evolving evidence reports is the Agency for Healthcare Research and Quality (AHRQ) (Reeves, 2006). To meet its mission of promoting the practice of evidence-based health care, AHRQ collaborates with various organizations to develop evidence reports and technology assessments on priority topics important to health care delivery in the United States. AHRQ provides a list of topics in progress to alert the public and health care professionals that work has begun in developing evidence reports about topics of significant interest (AHRQ, 2006). Some of the studies which have been conducted by the agency include a systematic review of all published research on episiotomies. hestudy found that routine use of episiotomy for uncomplicated vaginal births does not provide ny immediate or long term benefits to the mother. The midwives at PMH can plan to access this ite and get information on evidence based episiotomy practice.

Criteria influencing the decision on episiotomy

was evident from the responses that midwives make assessment before giving an episiotomy lthough the responses given did not entirely indicate that the criteria influencing the decision is rongly evidence based. Various responses showed that majority of them check the tightness of

the perineum, some will put the patient in lithotomy position and thus decide whether they will give the episiotomy, others will check the foetal head presenting to determine if at all it is at the right position. FGD responded that the criteria being applied by the midwives in performing an episiotomy is based on the maternal condition, perineal assessment, instrumental delivery, foetal presentation, and second stage of labour and the size of presenting part. Some FGD responses will depend on "if the doctors tell you to do it" It is evident that some criteria employed by the midwives at PMH are consistent with those applied by different health care practitioners in different parts of the world. This is evidenced by the results from a study which was done by the U.S citizens commission on human rights team (2005) which showed the results based on the exploratory study aimed at identifying the frequency, the types and the criteria adopted to recommend episiotomy. The most frequent indications from their study were: perineal rigidity (28.7 per cent), primiparity (23.7 percent), macrosomic infant (11.9 percent) and prematurity (10.2 percent). The team concluded that the practices for attending women giving birth must be revised taking into account scientific evidences and individualized conducts.

Barriers to evidence based practice of episiotomy.

There is still a problem in incorporating evidence based information into practice. The problem is seen when the results show midwives' lack the skills to critically review research findings thus unable to frequently update their knowledge on the research findings relevant to their practice. Therefore, lack of accessibility of current information on EBP of episiotomy is a big barrier to the midwives in the facility.

The key informants and the FGD members reported their responses with some mentioning that "I think we have quite a lot of the barriers" some of the barriers to evidence based practice of episiotomy that were reported included unfavorable attitude of some midwives towards change, computer illiteracy, no internet accessibility in the organization, lack of written policies and guidelines on current information and workload as one mentioned that "how are you going to practice it when you are one with ten mothers?"

The findings at PMH are echoed by Belizan et al (2007) in their study which noted that many hospitals have not translated their clinical practices to reflect research findings. Barriers noted included limited access to new knowledge, limited time and physical resources and attitudes, resistance to change as factors limiting the adoption of new practices in such hospitals. Lack of skills in performing new practices, lack of medical resources and explicit guidelines and a perceived need to practice defensive medicine were part of the hindrances.

As noted in the findings, attitude towards change was one of the barriers, it is important to understand that changing long-standing clinical practice is difficult (Leeman et al 2006). Time constrains and increasing nursing care needs are inherent in clinical practice. Nurses face a real challenge when translating best evidence into clinical practice. For example, the relevant research-based databases are not comprehensive in many areas of nursing practice. Also, there is an ongoing explosion in the amount and type of information available (Pipe et al, 2005).

Without a strong and consistent institutional support it is hard for the midwives to achieve the goals for improving practice. In relation to rating the support provided by the administrators in enforcing the use of evidence based episiotomy practice, there is need to emphasize more the support by the administration in order to foster the culture of embracing change.

Grol and Wensing (2004) noted that one of the most consistent finding in health services research is the gap between best practice, on the one hand, and actual clinical care, on the other. Studies in countries such as the United States and the Netherlands suggest that at least 30%–40% of patients do not receive care according to current scientific evidence, while 20% or more of the care provided is not needed or potentially harmful to patients. Reflecting on this failure of implementation, most experts in healthcare improvement now emphasize the crucial importance of acquiring a good understanding of the problem, the target group, its setting and the obstacles to change in order to develop more effective strategies for change.

Some more potential barriers were outlined by the NICS barrier tool. Some of the highlighted barriers are experienced by the midwives at PMH.

- **Patient-** Volume and patients expectations of certain care process

- **EBP process-** Identification and implementation of EBP is a difficult process (What is evidence? How and where is it accessed)
- **Team issues-** Too many practitioners and hence will require a uniform approach, and working in multidisciplinary teams means all the members should be for the idea at hand.
- **Care process-** Wide ranging service models of care delivery even for one patient and lack of uniformity
- **Management interest and support -**No recognized clinical champions in this field, continual changes in leadership , and executive do not see it as an issue…their focus is the funding shortfall
- **Time/facilities/cost-**Time pressure, cost effectiveness and structural limitations.

Prevalent type of episiotomy at PMH

Medio-lateral is the most preferred by the midwives than midline episiotomy. These findings are consistent with the observation made by Lingen (2006) stating that midline episiotomy is by far more common in United States, while medio-lateral episiotomies are more common in other parts of the world. The midwives are aware that evidence based practice on episiotomy advocates selective episiotomy rather than routine type. The study findings from the U.S citizens commission on human rights team (2005) showed that the most mentioned type was the right medium-lateral (92.0 percent), and the justifications were: it was learned during academic formation (25.9 percent); it is adopted routinely (19.4 percent); with it there is a lesser chance for causing lesions to the anal sphincter (16.1 percent); with it there is a lesser risk of complications (16.1 percent)

Guidelines on evidence based practice of episiotomy.

There was strong evidence that showed that there were no written guidelines available on EBP of episiotomy in PMH labour ward. FGD reported that "In fact in case they have, they are not up to date"

Fraser, et al (2006) noted the importance of the Better Birth Initiative (BBI) in relation to the guidelines which needs to be put in place for episiotomy. This initiative supports the implementation of procedures and interventions that are based on scientific evidence. Better birth initiative focuses on a set of standards that aim to improve the quality and humanity of obstetric care. The initiative has four principles: i.e. Humanity- women are to be treated with respect, Benefit- care based on the available evidence, Commitment –health professionals committed to improving care, Action – effective to change current practices.

Clinical practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. They define the role of specific diagnostic and treatment modalities in the diagnosis and management of patients. The statements contain recommendations that are based on evidence from a rigorous systematic review and synthesis of the published medical literature (Field and Lohr, 2009)

The purpose of guidelines is to help clinicians and patients make appropriate decisions about health care by describing a range of generally accepted approaches for the diagnosis, management, or prevention of specific diseases or conditions and by defining practices that meet the needs of most patients in most circumstances (Field and Lohr, 2009).

The recent surge of interest on guidelines is not new. Professional organizations have been developing guidelines for at least half a century, and recommendations about appropriate care can be found in ancient writings. What is new is the emphasis on systematic, evidence-based guidelines and the interest in processes, structures, and incentives that support the effective use and evaluation of such guidelines (US department of health, ND).

Current guidelines are those that were developed, reviewed, or revised within the last five years. Expert panels are formed to write clinical practice guidelines. An expert panel is a committee of appointed by the institution (Field and Lohr, 2009).

Role of the administrators

According to the responses from the FGD, the respondents reported that, the administrators organize continuing education and provide equipments. Concerning the plans to be put in place

to ensuring midwives getting updated information, the administrators plan and send a representative midwife for a seminar weekly although not necessarily on evidence based practice. They advocate for selective episiotomy instead of routine one.

The administrators plays an important and a forefront role in ensuring that the goals to reduce rates of episiotomy. This is evident from the study which was done by Hyer in conjunction with the ACOG in (1997) which revealed that episiotomies were performed in over 30 percent of deliveries, but the decline had already begun. This was accelerated by various factors i.e. the hospital adopted the performance-management tool known as the Balanced Scorecard, the obstetric chiefs made reducing episiotomy a priority, articles were published recommending against routine episiotomies, and suggesting that the rate be less than 15%. A 50 % decrease in episiotomies following these recommendations was achieved.

Rate of episiotomy among the patients with HIV/AIDS

The study findings revealed a decline in routine episiotomy among women who are HIV positive. The midwives avoided the practice whenever possible but there were incidences where they were forced by unavoidable circumstances to give an episiotomy to this group of women.

It is important to restrict routine episiotomy practice because the risk of HIV transmission from mother to infant during pregnancy, labour and delivery together is about 20 percent if antiretroviral treatment is not used. The risk of HIV transmission during labour and delivery is about 15 percent. Therefore, most of this transmission takes place during labour and delivery. Efforts to reduce HIV transmission during labour and delivery are, very important. The management of all women in labour needs to be modified as it is often not known which women are HIV positive (Perinatal education Program 2004).

Whether a woman is HIV positive or not an episiotomy should only be done if there is a good clinical indication. It should not be a routine procedure. HIV in maternal blood from an episiotomy may be swallowed and, thereby, infect the infant during delivery. Healing of the episiotomy may also be delayed if the woman has depressed immunity (Perinatal education Program 2004).

As their prime duty to mothers before, during and after childbirth, Midwives have a role in the achievements of safe motherhood. They carry a huge responsibility in helping women and their families through pregnancy and childbirth process (Kwast, 1990).

A study done in western Kenya on 512 mother-infant pairs, to determine maternal malaria and perinatal HIV transmission showed that HIV viral load (log 10) and episiotomy or perineal tear were associated with increased perinatal HIV transmission (Ayisi et al, 2004)

Lijestrand (2003) notes that there are increased risks of HIV transmission to the midwives during suturing of episiotomies due to the risk of a finger-prick injury which is high, especially if a small needle is used. Current data indicate that the role of mother-to-child HIV transmission at birth may have been underestimated. Thus, any invasive intervention may increase the risk of vertical transmission.

It is further evident that healthcare workers are at risk of infection as noted in a study done on a total of 416 gloves that were tested for punctures after 200 episiotomy repairs. Evidence of perforation was found in 34 (8 percent) of the gloves used and in only half the cases did the surgeon actually realize that a perforation had occurred. The left index finger and thumb were more often perforated than other parts of the gloves (Arena, 1992).

The literature and study findings show that there is a need to reduce those interventions that increase the rate of HIV transmission. This will in turn reduce vertical transmission and risks to the health care professionals.

5.2 CONCLUSION

Most midwives in PMH have high academic qualifications (KRCHN and KRM) that are specific to midwifery practice however, this practice does not translate to evidence based practice of episiotomy in clinical practice. Majority of them feel that they are well versed with current information on evidence based episiotomy practice which may be impeding their pursuit for this information.

The Pumwani maternity hospital does not have current guidelines and policies on evidence based practice of episiotomy. The midwives understand what is expected of them but there are no written down policies and guidelines to standardize their practice.

The factors influencing the nurses decision on episiotomy practice is based on their basic education, the experience they have received and their knowledge update through continuing education. The results showed that some of the factors influencing the decision on performing episiotomy evidence based and some are not e.g. some midwives avoided episiotomy to avoid more work of repairing it.

Some midwives still adhere to outdated episiotomy practices and techniques. They have not fully implemented and embraced the modern techniques of operation and service provision based on evidence based reports. A good percentage of the nurses do not have knowledge and skills on the use of computer operations and thus it is difficult to access relevant information influencing their practice.

The most prevalent type of episiotomy preferred at Pumwani is medio lateral more than the midline episiotomy.

The midwives appreciate evidence based practice of episiotomy and they expect a total support from their administration to provide accessible research report in the units. They would appreciate new equipment, materials and good governance, and computer training to improve their practice.

It is evidenced that despite the HIV status of the patient there are instances that the midwives are forced by circumstances to give an episiotomy. For instance, when a patient is admitted in second stage of labour and has an indication for an episiotomy.

5.3 RECOMENDATIONS

- There is an urgent need to form a committee of experts who can develop clinical practice guidelines which should be reviewed every five years and updated as needed when there is new information.
- There is a need to provide computer training for the midwives and other employees in the facility to enable them to be up to date with the current technology and information.
- The administrators should provide more support based on the identified needs of the employees especially on current evidence based practices.
- Awareness should be created and enhanced among the community on the importance of antenatal care. This will allow the health care workers and the clients to make a birth plan in a timely manner to avoid crisis management type of care.
- Formal training on the evidenced based practice of episiotomy should be enhanced through continuing education, seminars, etc, to allow midwives to keep abreast with the new information. In addition, research reports should be availed in the clinical area to facilitate accessibility by the midwives for review.
- The administration should consider adjusting staffing needs to avoid work overload which restrain the midwives from getting some opportunities to update themselves by attending seminars, workshops and continuing education and ward rounds.
- In the long term planning, the administration should consider additional theatres and staff to cater for elective caesarean sections especially for the clients who are HIV positive for PMCTC purposes.
- To be able to move on with implementation of change which will influence clinical practice, there is a need to strengthen communication management because effective propagation of current practices, information from literature if adopted by the team will result to positive outcomes

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APPENDICES

APPENDIX I: Questionnaire

MIDWIVES RESEARCH QUESTIONNAIRE

EVALUATION OF EVIDENCE BASED EPISIOTOMY PRACTICE BY THE MIDWIVES.

Questionnaire no: _____ **Research assistants' initials ----------**

INSTRUCTIONS

(Please answer the following questions. Write in the spaces provided or tick the appropriate option in the box provided. DO NOT write your name or any information that can identify you as an individual. Answer all the questions).

SECTION A (i). DEMOGRAPHIC INFORMATION.

1. Gender	Male	Female					
2. Age in completed years	18-26	27-35	36-45	Above 45			
SECTION A (ii): MIDWIVES EXPERIENCE AND EDUCATION							
3. Training qualification	PhD	MScN	BScN	KRCHN	ICN	KRM	Other
4. Indicate current title							
5. Duration of basic training in yrs	Above 4	2-3	1				
6. Years of practice as a midwifes	Over 10 yrs	5-10 yrs	1-4 yrs	Below 1 yr			
7. How long have you worked in Pumwani Labour ward	Over 10 yrs	5-9 yrs	1-4 yrs	Below 1 yr			

8. What motivated you to start working in the labour ward?

1. Personal choice ☐
2. Deployment ☐

Others (specify) _____

9. Have you had any formal training on evidence based practice (EBP) on episiotomy?

1. Yes ☐
2. No ☐

10. If yes how did you get your training?

1. Nursing school ☐
2. In-service ☐
3. Continuing education ☐
4. Self taught ☐

Others (specify) _____

11. How long did the training on evidence based practice on episiotomy) take?

1. 1 year ☐
2. 6 months ☐
3. 3 months ☐

Others (specify) _____

SECTION B: CURRENT PRACTICE ON EVIDENCE BASED PRACTICE ON EPISIOTOMY

	1	2	3	4	5
12. Which type of episiotomy do you prefer to give	Medio-lateral	Midline			
13. How many mediolateral episiotomies have you given in the last 1 year	Above 20	15-20	10-15	Below 10	Othe
14. How many midline episiotomies have you given	Above 20	15-20	10-15	Below 10	Othe
15. On average how long does it take you to repair an episiotomy? (Minutes)	Under 1	2-4	5-10	Over 10	
16. How many sutures do you use on average to repair an episiotomy?	1	2	3	More than 3	

17. What assessment do you do before giving an episiotomy
Explain-_____

_____

_____

18. Give reasons that guide you to give an episiotomy

a. _____

b. _____

c. _____

d. _____

e. _____

SECTION C: CURRENT KNOWLEDGE OF EVIDENCE BASED NURSING PRACTICE ON EPISIOTOMY

	1	2	3	4
19. Where do you rate your knowledge on evidence based nursing practice on episiotomy?	High level (4-5) points	Mid point (3) points	Low level (1-2) points	
20. When did you last update your knowledge on episiotomy? (Ages)	Never	3 months	6 months	Other
21. Evidence based practice on episiotomy advocates routine episiotomy	True	False		
22. How do you rate your facility support for the use of research findings on evidence based practice of episiotomy?	Strongly disagree	Disagree	Agree	Strongly agree
23. How do you rate the support provided by the administrators in enforcing the use of evidence based nursing practice?	Not sure	Yes	No	
24. How do you rate the support provided by the administrators in enforcing the use of evidence based nursing practice?	Always	Never	sometime	

25. According to evidence based nursing practice on episiotomy

1. Mediolateral episiotomy is better than midline episiotomy ☐

2. Midline episiotomy is better than mediolateral episiotomy ☐

3. There are no differences between them ☐

26. The following are evidence based indications of episiotomy. Check all that apply

1. Tight perineum ☐

2. Primigravida ☐

3. Shoulder dystocia ☐

4. Breech presentation ☐

5. Instrumental delivery ☐

6. Patient's choice ☐

Evidence based practice on episiotomy advocates selective episiotomy

1. True ☐

2. False ☐

27. Have you had a formal training on computer applications?

1. Yes ☐

2. No ☐

29. How often do you access and read literature on evidence based practice of episiotomy?

1. Fewer than 2 articles in a month ☐

2. Articles in a month ☐

3. 3-5 articles in a month ☐

30. What is your best source of current EBP information?

1. Internet ☐

2. Paper journal ☐
3. Research reports ☐

Other (specify)_____

31. In the last one-year how many HIV positive mothers under your care required an episiotomy

1. More than 20 ☐
2. 15-20 years ☐
3. 10-15 ☐
4. 5-10
5. 1-5 ☐
6. 0 ☐

SECTION D: ATTITUDE ON EVIDENCE BASED PRACTICE OF EPISIOTOMY

	1	2	3	4
32. Evidence based practice on episiotomy places unnecessary demands on me	Strongly disagree	Disagree	Agree	Strongly agree
33. Evidence based practice on episiotomy is important to my professional practice: I	Strongly disagree	Disagree	Agree	Strongly agree
34. I need to increase the use of evidence in my daily practice	Strongly disagree	Disagree	Agree	Strongly agree
35. Strong evidence is lacking in most interventions used in clinical practice	Strongly disagree	Disagree	Agree	Strongly agree
36. In my opinion evidence based practice help to make decisions about patient care.	Strongly disagree	Disagree	Agree	Strongly agree

37. In your opinion which episiotomy do you prefer (in terms of faster healing, easy to repair, with fewer complications)?

1. Mediolateral ☐
2. Midline ☐

38. In your opinion which form of episiotomy are you comfortable performing

1. Routine episiotomy ☐
2. Selective episiotomy ☐

39. How do you rate yourself in the ability to critically review professional literature?

1) Confident (4-5 points) ☐
2) Fairly confident (3 points) ☐
3) Poorly confident (1-2) points ☐
4) Not confident (0) points ☐

SECTION E: DOCUMENTS ON EVIDENCE BASED PRACTICE.

40. Practice guidelines on evidence based practice of episiotomy are available in the unit.

1) Yes ☐ 2) No ☐ 3) not sure ☐

41. If yes, how often are they reviewed and updated?

1) Quarterly ☐ 2) yearly ☐ 3) As needed 4) Not sure ☐ 5) other_____

THANK YOU FOR YOUR COOPERATION

APPENDIX II: Consent form

Title of the study: Evaluation evidence based episiotomy practice by the midwives.

My name is Teckla Kemboi Ngotie. I am a level II Masters Student at the University of Nairobi, School of Nursing Sciences. I request you to participate in the medical study. The main objective of the study is to evaluate evidence based practice of episiotomy by the midwives.

You will be required to respond to questions in a given questionnaire or participate in a Focus Group Discussion: your participation is entirely voluntary. Your participation will help in providing information that will assist in improving the quality of nursing practice and patient care. Note that there are no risks related to participation in the study.

Your confidentiality will be safeguarded i.e. your identity and records relating to your participation will remain confidential. Names of the participants will not appear in any final reports. Feel free to ask the investigator for any clarifications for any unclear information on this sheet.

In case of any concerns or problem, please contact any of my supervisors or myself using the following number: 0722 154 500 or KNH Research and Ethics Committee at 2726300 extension 44102.

Participant

_____ have fully understood the objectives of the research and I hereby voluntarily sign as a show of willingness to participate in the study.

Signature: _____ Date: _____

Witnessed by: _____ Date: _____

APPENDIX III: Focus group discussion guide

The aim of this study is to evaluate evidence based episiotomy practice by the midwives.

This is an interactive participation. Please note that, the stated facts shall be confidential and shall be used only for the purpose of research. No name shall be mentioned anywhere to promote confidentiality.

There are some sensitive and personal information that you are encouraged to share, these will be held with respect and shall never be divulged to anyone. We shall be very grateful for your cooperation. Your participation will contribute to improvement of reproductive health in PMH and in Kenya. There is no risk involved in the participation of the study. There will be total confidentiality in handling information provided.

I have been clearly explained and fully understand the purpose of the study and freely consent to participate. I have signed to confirm this.

Signature.....Date.....

I, the undersigning have fully explained the relevant details of this study to persons whose signatures have been given above.

Name .....Signature.....Date.....

Date of FGD.....

Venue of FGD.....

Mode of recording information.....

No. of recruited FGD discussants.....

Questions for discussion

1. What are the views of the midwives on evidence based nursing practice on episiotomy
2. How much of EBP on episiotomy is being practiced at PMH
3. What are some of the criteria being applied by the midwives in performing an episiotomy?
4. How is the accessibility of research reports on evidence based nursing practice of episiotomy?
5. What are the barriers to implementation evidence based practice of episiotomy?
6. Does the facility have guidelines addressing evidence based practice of episiotomy?
7. How often are they reviewed to reflect current practice?
8. Who reviews the evidence based guidelines that are available in the unit?
9. What are some of the efforts being put by the administrators to uphold implementation of evidence based practice of episiotomy?
10. How will evidence based nursing practice on episiotomy clinical improve practice?
11. What are the challenges faced by the midwives in implementation of EBP of episiotomy
12. What are some of the solutions and recommendations to improving evidence based practice of episiotomy?
13. What should be done to improve the status quo?

APPENDIX IV: Key informant guide

The aim of this study is to evaluate evidence based episiotomy practice by the midwives.

This is an interactive participation. Please note that, the stated facts shall be confidential and shall be used only for the purpose of research. No name shall be mentioned anywhere to promote confidentiality.

There are some sensitive and personal information that you are encouraged to share, these will be held with respect and shall never be divulged to anyone. We shall be very grateful for your cooperation. Your participation will contribute to improvement of reproductive health in PMH and in Kenya. Please note that there is no risk involved in the participation of the study. There will be total confidentiality in handling information provided.

I have been clearly explained and fully understand the purpose of the study and freely consent to participate. I have signed to confirm this.

Signature.....Date.....

I, the undersigning have fully explained the relevant details of this study to persons whose signatures have been given above.

Name .....Signature.....Date.....

Questions

1) What is your role in relation to evidence based practice of episiotomy?

2) Does the facility have policies and guidelines on evidence based practice of episiotomy?

3) What are some of the plans put in place to ensure that the midwives get updated information on evidence based practice of episiotomy?

4) What are some of the barriers to evidence based practice of episiotomy?

APPENDIX V: Letter of approval from Pumwani Maternity Hospital ethics committee

PUMWANI MATERNITY HOSPITAL

PUMWANI MATERNITY HOSPITAL
QUALITY MATERNAL CARE

Tel: 02/6763291– 4
Fax: 02/6762965

P.O. Box 42849
Code: 00100- GPO
Nairobi.

PMH/DMOH/98/09

24TH JUNE 2009

TO: Ms. TECKLA KEMBOI - NGOTIE
SCHOOL OF NURSING, UoN

RE: APPROVAL FOR RESEARCH

This is to inform you that the Pumwani Maternity Hospital Ethical and Research Committee has reviewed and approved your research proposal entitled **"Evaluation of Evidence Based Episiotomy Practice by the Midwives at PMH, Labour Ward, Nairobi"** .

By this letter authority is hereby granted for you to begin your research undertakings here at Pumwani Maternity Hospital. However, rules governing the Hospital should be observed and upon completion of your study you are expected to submit a copy of your research findings.

We wish you all the best.

DEPUTY MEDICAL OFFICER
OF HEALTH
PUMWANI MATERNITY HOSPITAL

DR C. WANYONYI
MEDICAL SUPERINTENDENT

APPENDIX VI: Letter of approval from KNH research and ethics committee

KENYATTA NATIONAL HOSPITAL
Hospital Rd. along, Ngong Rd.
P.O. Box 20723, Nairobi.
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP", Nairobi.
Email: KNHplan@Ken.Healthnet.org

Ref: KNH/UON-ERC/ A/219

14th May 2009

Teckla Kemboi-Ngotie
Dept. of Nursing Sciences
School of Medicine
University of Nairobi

Dear Teckla

Research proposal: "Evaluation of Evidence Based Episiotomy Practice by the Midwives at Pumwani Maternity Hospital, Labour ward, Nairobi" (P63/3/2009)

This is to inform you that the Kenyatta National Hospital Ethics and Research Committee has reviewed and **approved** your above revised research proposal for the period 14th May 2009 –13th May 2010.

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given. Clearance for export of biological specimen must also be obtained from KNH-ERC for each batch.

On behalf of the Committee, I wish you fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of database that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely

DR. L. MUCHIRI
AG. SECRETARY, KNH/UON-ERC

c.c. The Chairperson, KNH/UON-ERC
The Deputy Director CS, KNH
The Dean, School of Medicine, UON
The Chairman, Dept. of Nursing Sciences, UON
Supervisors: Dr. Grace Omoni, Dept.of Nursing Sciences, UON
Dr. Blasio Omuga, Dept.of Nursing Sciences, UON
Dr. James Mwaura, Dept.of Nursing Sciences, UON

APPENDIX VII: Letter of clearance from the ministry of education

REPUBLIC OF KENYA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telegrams: "SCIENCETECH", Nairobi
Telephone: 254-020-241349, 2213102
254-020 310571, 2213123
Fax: 254-020-2213215, 318245, 318249
When replying please quote
Our Ref: *NCST/5/002/R/433/5*

P. O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Date: *15th June 2009*

Ngotie Tecla Kemboi
University of Nairobi
P.O. Box 30197
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on, ***Evaluation of Evidence Based Episiotomy Practice by the Midwives at Pumwani Maternity Hospital Labour Ward, Nairobi'***

I am pleased to inform you that you have been authorized to carry out research in Pumwani Maternity Hospital, Nairobi for a period ending 30th August 2009.

You are advised to report to the Director Pumwani Maternity Hospital before embarking on your research.

On completion of your research, you are expected to submit two copies of your research report/thesis to this office.

PROF. S. A. ABDULRAZAK Ph.D, MBS
SECRETARY

Copy to:

The Director
Pumwani Maternity Hospital
NAIROBI

APPENDIX VIII: Overview of the study area

Pumwani Maternity Hospital (PMH) was founded in 1926 as the lad Griggs welfare. The Nairobi city council took over the hospital's management in 1944. PMH is located in Pumwani division, Kamukunji constituency on the Eastern part of Nairobi city, Kenya. Pumwani has a total population of 29,616 out of a total of 201, 783 people in the entire constituency.

PMH is an obstetric hospital for delivering expectant mothers and provides post natal, family planning and Kenya Expanded Program on Immunization services. It also provides other medical services.

An average of 60 babies are delivered daily with the number growing over the years to about 27,000 a year. The hospital has a bed capacity of 350. The hospital employs about 90 midwives with 14 of them on duty during every shift working in the labour ward ant surgical theatre. There are 150 bed nursery that is supervised by two paediatricians.

PMH has a school of midwifery within the hospital which trains Kenya Registered Midwives as well as Kenya Enrolled Midwives in accordance with the syllabus laid down by the Nursing Council of Kenya. PMH is one of the largest maternity hospitals in Kenya and a clinical teaching setting for medical training schools including the university of Nairobi department of Obstetrics and Gynaecology.