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List of Abbreviations and Acronyms

CTG	Continuous Tocographic
ICM	International Confederation of Midwives
MDG	Millennium Development Goal
MNH	Maternal and Neonatal Health
MRC	Medical Research Council
NCCEMD	National Committee on Confidential Enquiry into Maternal Deaths
SANC	South African Nursing Council
TPB	Theory of Planned Behaviour
UN	United Nations
UNFPA	United Nations Population Fund
WHO	World Health Organization

Annexures

CHAPTER 1

ORIENTATION AND OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Labour and childbirth are regarded as periods of risk for the mother and the foetus which makes care of a woman in labour a core business for midwives and doctors. Partogram is regarded as a vital tool for clinicians in monitoring the progress of labour, identifying complications of childbirth in a timely manner and referring women to an appropriate facility for treatment (Maternal and Neonatal Health (MNH) 2002:1).

Globally, maternal and perinatal deaths together add up to 6.3 million lives that are lost every year due to eclampsia, asphyxia, infections and obstructed labour (World Health Organization (WHO) 2005:3). The WHO recommends the use of the partogram as a clinical guideline in monitoring women during labour in order to improve health care and reduce maternal and foetal deaths.

An impact study that was conducted by the WHO between 1990 and 1991 in Indonesia, Malaysia and Thailand indicated that the introduction of partograph, along with management protocol, improves labour outcomes. The study revealed that the use of a partograph reduced the number of prolonged labours, the need for argumentation of labour with oxytocin, the rates of caesarean section, asphyxia and infection (MNH 2002:1; De Kock & Van der Walt 2004:13).

1.2 BACKGROUND TO THE RESEARCH PROBLEM

Though it is assumed that women are being monitored and cared for during labour, reports show that globally, 536 000 women die as a result of complications during pregnancy and childbirth or during the six weeks period following delivery (United Nations (UN) 2009:27). Furthermore, it is reported that 99% of maternal deaths occur in developing countries (United Nations Population Fund (UNFPA) 2011: vii).

UNFPA further indicates that half of these deaths occur in sub-Saharan Africa, and a third of the deaths occur in Southern Asia, with most of the reported deaths occurring during labour and births (UNFPA 2011:vii).

Following the high rates of maternal deaths, numerous initiatives and programmes have been formulated to try and improve the health and well-being of pregnant women and their unborn babies. The increase in maternal and perinatal mortality rates led to the launch of the partogram by the Safe Motherhood Initiative in 1887 as an effective tool for the monitoring of a woman during labour (Fraser, Cooper & Nolte 2006:953). The latest effort is the eight Millennium Development Goals (MDGs) that were adopted by the international community at the Millennium Summit in 2000. The aim of MDG 5 is to inspire countries to drastically reduce maternal mortality rates by 75% between 1990 and 2015. However, between 1990 and 2005, the maternal mortality ratio declined by only 5% (Mhlanga & Pinho 2006:1).

According to a 2009 report of the UN, there has been little progress in developing countries, where 480 maternal deaths per 100.000 births in 1990 occurred as compared to 450 maternal deaths per 100.000 births that occurred in 2005 (UN 2009:27). Several studies on the documentation of the partogram by clinicians were conducted nationally, and poor recording of the partogram by midwives during labour was reported.

Ogwang, Karyabakabo and Rutebemberwa (2009:27) conducted a study on the assessment of partogram use during labour in Uganda. They found that there is poor use of the partogram during labour and that its use was affected by lack of guidelines, attitudes of health workers, and training of health workers on how to use it, and the availability of the partograms in all health facilities. Furthermore, Nyamtema, Urassa, Massawe, Massawe, Lindmark and Roosmalen (2007:40) conducted a perinatal care study on partogram use in Tanzania Dar es Salaam and the results revealed that the partogram was sub optimally used even though midwives were trained on its use. In support to the findings of Nyamtema et al, a study conducted in 2002 in Botswana in Mareka (2001:115) indicates that some partograms were not been filled in completely by midwives during labour.

In South Africa, maternity care forms an integral component of primary health care and free health care services for pregnant women. The South African government demonstrated its commitment to improve maternal health by making maternal deaths a notifiable condition and by the formation of the National Committee on Confidential Enquiry into Maternal Deaths (NCCEMD) in 1997 (WHO 2008:18).

The process of maternal death notification and enquiry is aimed at promoting examination of maternal deaths, and it is an indispensable review tool for the quality of care provided at the institutional level (Mhlanga 2008:2). Saving Mothers report on maternal deaths is regarded as a major step towards improving the quality of maternity care. The process identifies the deficiencies in response to pregnancy and its complications, and affords the opportunity to learn from the adverse outcome. Complications of hypertension and obstetric haemorrhage mostly occur during labour and deliveries were midwives represent the greater number of staff members providing maternal care (Mhlanga 2008:2).

The most frequent health care provider avoidable factors that were reported as leading to maternal deaths in South Africa were failure to follow standard protocols, poor problem recognition and failure to perform an initial assessment (South Africa 2011:18).

According to De Kock and Van der Walt (2004:2), no change in maternal deaths was reported in both the 2002-2004 and 2005-2007 NCCEMD Saving Mothers reports except a significant increase in substandard care due to lack of adherence to standard protocols for level 1 and level 2 hospitals.

Furthermore, in the Saving Mothers Report 2008-2010, which is the fifth substantive publication by the NCCEMD, more maternal deaths were reported in 2008-2010 than in other previous years, and the deaths were still increasing. According to the findings of the report, patients at district hospitals are not being timeously referred to higher levels of care and, as a result, poor management of patients occurred at the level 1 hospitals due to lack of training of health practitioners (South Africa 2012:28).

The recommendations that were made on the fifth report were summarised into five key points. These comprised HIV, haemorrhage, hypertension, health worker training, and health system strengthening (South Africa 2012:24). Some of the recommendations documented on the fifth report are as follows:

- The emphasis on standardised observation and monitoring practices which stipulate the frequency of observations and aid the interpretation of severity of the condition.

- Taking into consideration the skills of safe labour practices, use and interpretation of the partogram (South Africa 2012:27).

- The emphasis on provision of adequately trained staff, transport system referral criteria and maternal mortality and morbidity audit meetings which should be conducted regularly.

The neonatal mortality rates are roughly midway between the generally accepted rates for developed countries. According to a technical report by Day, Barron, Haynes, Smith and Sello (2010:118), there was stillbirths' rate of 22.3% and perinatal mortality rate of 31.4/1000 during the period 2008/09 in South Africa. Consequently, Vhembe District was reportedly having a stillbirth rate of 16.0% and a perinatal mortality rate in a facility of 24.6/1000, which is slightly lower than the national rate of 22.3%.

The 2008 Saving Babies Report indicates that fresh stillbirths were frequent, and most of the unborn babies were alive when their mothers were admitted before delivery (South Africa 2008:13). These deaths were most frequent at district hospitals and were mainly patient and health care provider associated factors. Some of the health care provider avoidable factors that were documented in the report that led to the high perinatal rate were inadequate monitoring of foetal heart rate during labour, inappropriate management of poor progress during the first stage of labour, poor management of prolonged second stage of labour, and failure to refer the woman for assistance (South Africa 2008:13).

According to Pattison, Woods, Greenfields and Velaphi (2005:6), almost half of the neonatal deaths in South Africa are due to intrapartum asphyxia and trauma, which

are regarded as preventable. The commonest areas of suboptimal care were in monitoring the foetal heart rate, the progress of labour, and in managing the second stage of labour. There is a high recording rate of suboptimal care in labour; this is probably an indication that knowledge on how to manage labour correctly is available but not being adequately applied.

These findings were also supported in Kidanto, Mogren, Roosmalen, Thomas, Massawe, Nystrom and Lindmark (2009:1), where it was reported that there was poor recording on the partogram. Similar findings were reported by Mathibe-Neke (2009:34), that registered clinical midwives are utilising the partogram partly correctly and to a limited extent.

The South African government demonstrated its commitment to improve maternal health by making maternal death a notifiable condition and by the formation of the NCCEMD. The evidence-based Guidelines for Maternity Care in South Africa was developed for health care providers and was modified to suit the South African context, based on the recommendations in the Third Report on Confidential Enquiries into Maternal death (South Africa 2006a:24; South Africa 2007a). The guideline on the use of the partogram, which is included in the manual, is regarded as a norm at each institution conducting births in South Africa. By the end of 2007/2008, 87% of health institutions in South Africa were implementing the recommendations from the Third NCCED Report of 2002-2004, which include the clinical guidelines of addressing leading causes of maternal death and improving the quality of health services (South Africa 2007b:2).

1.3 STATEMENT OF THE RESEARCH PROBLEM

The problem statement articulates the problem to be addressed and indicates the need for a study through the development of an argument (Polit & Beck 2008:81).

Problems on the use of the partogram are found in many countries throughout the world. The study conducted by Ogwang et al in 2009 at Uganda on the use of partogram during labour reported only 30% of its use. Cheater and Closs (1997) in Parahoo (2006: 407) observed that although much attention is given to the development of guidelines, little is known about the effectiveness of the different

communication strategies that are used to communicate them to the clinicians and making sure that they are incorporated into practice. Hence, qualitative methods of enquiry were used to discover the views of midwives on the use of the partogram which includes the aspect of dissemination of guidelines.

Lavender, Hart and Smyth (2009:1) searched the Cochrane Pregnancy and child birth Groups Trials Register in 2008 and recommended that evidence is required to establish the efficacy of partogram use. Furthermore, the Cochrane Review by Soni in 2009 did not show sufficient evidence that the use of partogram improves clinical outcomes (Soni 2009:1).

In South Africa, despite the implementation of the maternity care guidelines, which include the use of the partogram, an increase of 20.1% in the number of deaths was reported in the NCCED fourth triennium report of 2005-2007, as compared to the previous triennium report of 2002-2004. The most frequent health care provider avoidable factors that were reported were failure to follow standard protocols and poor problem recognition (De Kock & Van der Walt 2004:2; South Africa 2007a:3).

Although the use of the partogram would have allowed early identification of prolonged labour and timely intervention, lack of use of the partogram was clearly indicated as a significant avoidable factor in women dying as a result of puerperal sepsis and postpartum haemorrhage (Fraser et al 2006:970). The partogram is regarded as an easy, effective, available, inexpensive, and the best graphical tool for midwives to use in order to monitor the mother and the foetus during labour. However, failure to follow standard protocols such as the partogram at primary and secondary levels of care was identified as one of the common problems in South Africa (South Africa 2007b:3). Furthermore, the fourth NCCED report of 2005-2007 indicates that there were 163 maternal deaths that could be directly ascribed to obstructed labour, which can be detected early by using the partogram (South Africa 2007a:17).

Various research results in South Africa indicate that partograms were not plotted according to standards that have been set on Maternity Care Guidelines in South Africa. A study conducted on the use of the partogram at one of the hospitals in South Arica found that the partogram is a poorly used monitoring tool (Basu,

Hoosain, Leballo, Masango, Mercer, Mohapi, Petkar & Tshiovhe 2009:578). A quantitative study conducted in Vhembe on evaluation of quality of obstetric nursing records revealed gaps in recording on the partogram (Rampfumedzi 2009:50). There is a need for qualitative research to explore the challenges experienced by midwives on the use of the partogram in order to develop implementation strategies that may improve the use of the partogram. It is against this problem statement that participants were required to answer the following broad research question:

The general question

How do you experience the implementation of the partogram as the intrapartum guideline in managing a woman during labour?

Some of the probing questions that were asked were the following:

- What is your perception on the implementation of the partogram as a guideline in monitoring a woman during labour?
- What are the benefits of using the partogram?
- What challenges have you experienced when implementing the partogram?
- What is your attitude towards the implementation of the partogram during labour?
- What can be done to improve the implementation of the partogram?

1.4 THE PURPOSE OF THE RESEARCH STUDY

The statement of purpose summarises the overall study goal and identifies the key concepts (Polit & Beck 2004:85). The purpose of this study is to explore and describe the implementation of the partogram as an intrapartum clinical guideline in monitoring and managing a woman during labour.

1.5 THE RESEARCH OBJECTIVES

The objectives of the study are to:

- Analyse the documentation of the partogram according to the Guidelines for Maternity Care in South Africa.

- Explore the experiences of midwives in implementation of a partogram as a guideline during labour.
- Describe the challenges experienced by midwives in the implementation of the partogram as a clinical guideline.
- Develop strategies to support midwives in the use of the partograms in order to manage a pregnant woman appropriately and refer the patient timeously, should complications occur.

1.6 SIGNIFICANCE OF THE STUDY

This qualitative study may add to the body of knowledge on nursing and midwifery, specifically related to how midwives experience the implementation of the partogram.

The strategies that are developed may assist in improving the use of the guideline in monitoring a woman during labour and reduce neonatal and maternal deaths. The World Health Organization recommends the use of the partogram in monitoring labour and delivery in order to improve health care and assist in achievement of MDG 4 and MDG 5.

Midwifery managers may use the results to plan and implement appropriate support systems for midwives when monitoring women during labour, thereby improving their performance in rendering quality care and reducing maternal and neonatal death during delivery.

The study findings may assist lecturers in the development and review of midwifery and medical clinical training curriculum. Furthermore, the results of the study may assist to inform policymakers on key aspects to be considered on guideline development, implementation and evaluation in order to improve maternity services.

1.7 DEFINITIONS OF KEY CONCEPTS

For the purpose of this study, the concepts that follow will carry particular meanings as defined below.

1.7.1 Document analysis

Document analysis is defined a systematic procedure for reviewing or evaluating electronic and printed material (Bowen 2009:27).

In this research study, document analysis is used as a research method in combination with qualitative research method. Documentation on the partograms were analysed if it was done according to Maternity Care Guidelines in South Africa.

1.7.2 Clinical guideline

According to the Collins English Dictionary (2003:726), a guideline is defined as a principle put forward to set standards or determine a course of action.

In this research study, guidelines would mean The Guidelines for Maternity Care in South Africa 2007, which is a manual for clinics, community health centres and district hospitals (South Africa 2007a).

1.7.3 Experience

Experience refers to an event or occurrence which leaves an impression on an individual because the person has either seen it or done it (South African Concise Oxford Dictionary 2002:406).

In this study, experience refers to the observation, documentation on the partogram and management of a woman in labour by midwives in the labour ward.

1.7.4 Implementation

Implementation is the carrying out, or practise of a plan, a method or any design for doing something. Implementation can also be defined as an action that must follow any preliminary thinking in order for something to actually happen (http://www.searchcrm.com).

In this research study, implementation means the use of a partogram by midwives in monitoring and documenting the condition and care of a woman during labour.

1.7.5 Intrapartum

Intrapartum is described as the stage that occur to the pregnant woman and their babies during childbirth or delivery (http:www.mondofacto.com/facts/dictionary?Intrapartum).

In this research study, intrapartum stage means the period during the first stage of labour.

1.7.6 Labour

Labour is regarded as the process of giving birth, which is divided into first, second and third stage (Chang 2012:1). Medforth, Battersby, Evans, Mash and Walker (2011:200) further define labour as the physiological process by which the foetus, placenta and membranes are expelled through the birth canal.

In this research study, labour period means the first stage of labour which starts from the onset of regular uterine contractions until the full dilatation of the cervix.

1.7.7 Management

Management is defined as generating, planning, organising and administering medical and nursing care and services for the patient (Taber's Cyclopaedic Medical Dictionary 2005:1608).

In this research study, management means the activities that are done by midwives in order to maintain normal labour and to address specific problems.

1.7.8 Midwife

A midwife is a person who, having been admitted to a midwifery educational programme and duly recognised in the country in which the programme is located, has successfully completed the prescribed course of studies in midwifery and has acquired the requisite qualifications to be registered and/or legally licensed to practise midwifery (International Confederation of Midwives (ICM) 2005:1; Fraser et

al 2006:5; Medforth et al 2011:3). According to the Nursing Act No. 33 of 2005, a midwife is a person registered in terms of section 31 of the Act.

A midwife in this study refers to a professional nurse who is a qualified midwife and working in a labour ward (South Africa 2006b).

1.7.9 Monitoring

To monitor is to observe and check the progress or quality of something over a period of time (http://english.oxforddictionaries.com).

In this research study, to monitor means to observe or check a woman in labour until the cervix is fully dilated.

1.7.10 Partogram

A partogram is defined as a graphical overview of the physical elements and events that take place in an individual woman's labour (Medforth et al 2011:234). It is a pre-printed paper on which labour observations are recorded.

In this research study, a partogram refers to the form that is used by midwives in South Africa and which is depicted in the Maternity Guidelines for South Africa (2007a:37).

1.8 PARADIGMATIC PERSPECTIVES

In this section, the research paradigm and the conceptual framework will be discussed.

1.8.1 Research paradigm

A paradigm is described as the beliefs and values which research communities share about the type of phenomena which can or cannot be researched and methodologies to be adopted (Parahoo 2006:471). Furthermore, Polit and Beck (2008:761) describe a paradigm as a way of looking at natural phenomena that encompass a set of philosophical assumptions and that guide one's approach to an enquiry. Paradigms influence the nature of a phenomenon, the way they can be

studied, and the designs and methods which are most appropriate to answer the research question.

According to Polit and Beck (2004:263), some qualitative studies claim no particular discipline or methodological roots and are called descriptive qualitative studies. The researcher employed a generic qualitative approach to describe and explore midwives' experiences on the implementation of the partogram as a guideline in monitoring women in labour.

A qualitative paradigm has been chosen with the belief that knowledge and experience on the use of the partograms by midwives cannot only be studied through observation. The main purpose of qualitative research is to develop themes by making use of an inductive approach from face-to-face interviews with midwives. Blumer (1969) in Parahoo (2006:64) describes an inductive approach as a constant reflection and analysis of the data from and between participants and of the researcher's preconceived ideas. Furthermore, Babbie (2001) in De Vos, Strydom, Fouche and Delport (2005:47) states that inductive reasoning moves from the particular to the general or from the specific observations to the discovery of a pattern that represents some degree of order among all the given events. The researcher interviewed midwives and drew conclusions about their experiences. An in-depth discussion on qualitative research is presented in Chapter 3.

1.8.2 Paradigmatic assumptions

The researcher formulated the ontological, the epistemological and the theoretical assumptions that are related to this research study.

1.8.2.1 Ontological assumptions

Denscombe (2010:118) describes ontology as the nature of social phenomena and beliefs that researchers hold about the nature of social reality. The researcher formulated the ontological assumptions based on the interpretivist philosophy, which is an umbrella term for a range of approaches that reject some of the basic premises of positivism. The following ontological assumptions were formulated:

- The complexity of understanding midwives' intentions to use the partogram can be explored by investigating their own experiences on its use.
- Midwives' experiences on the use of the partogram can only be investigated within the labour ward context.

1.8.2.2 Epistemological assumptions

Epistemology is defined as an area of philosophy concerned with the nature of human knowledge (Holloway 2005:290). Epistemological assumptions are based on the knowledge that midwives are expected to have when monitoring a woman in labour. The knowledge that midwives need to have is based on the South African Nursing Council (SANC) Regulation R2488 of 26 October 1990 and R254 of 14 February as amended that guide the practice of registered and enrolled midwives (SANC 1990). The regulation determines the conduct of registered midwives and the conditions under which they pursue their profession. According to Regulation R2488 Annexure A, a registered midwife is expected to record the date and time of commencement of labour; maternal pulse; temperature and blood pressure; foetal heart rate; beginning of established labour; internal examinations; ruptured membranes; beginning of the second stage; birth of the child; and completion of the third stage.

Doctors and midwives form the core of a team with diverse members responsible for the care of the mother and the baby. On that account, midwives are regarded as experts in leading normal child birth and are working as independent practitioners in a multidisciplinary team. It is evident that midwives need to learn to cope with uncertainty, be knowledgeable about developments, and have the confidence to engage with the multidisciplinary team as advocates of patients (Fraser et al 2006:4).

Furthermore, midwives are regarded as autonomous with respect to freedom to act on behalf of a childbearing woman (Fraser et al 2006:6). According to the ICM code of practice of midwifery, midwives should ensure safe birthing practices in all environments and cultures and are responsible for decisions and actions taken as well as the outcomes of the care that has been provided for the woman (ICM 2011:4). For midwives to practise as expected, autonomy, appropriate support and a positive organisational culture is needed (Fraser et al 2006:33).

In addition to being autonomous, midwives are expected to be independent and accountable for their acts and omissions. The following are the epistemological assumptions related to a midwife as indicated in Fraser et al (2006:5):

- To decide whether he or she has enough knowledge and skills to act as a member of the health team and to carry out certain prescriptions.
- To be familiar with the professional-ethical and legal framework within which the midwifery practice has been authorised. Midwives are expected to assess, plan, implement, evaluate and record all aspects of care (Fraser 2006:14; MNH 2002:1).
- To be accountable for clinical decisions and actions, act in accordance with clinical ethics and human rights, and work collaboratively with other members of the health team.
- To have the ability to record and interpret relevant findings for services provided, including interpreting the partogram to ensure that appropriate action is taken.

Midwives are expected have knowledge and skill, to work harmoniously with other members of the health care team and to be familiar with the professional-legal aspects of their profession.

1.8.3 Theoretical framework

According Parahoo (2006:157), theoretical framework and conceptual framework are abstractions that may shape perceptions, reality and an enquiry and are used to identify how concepts and theories are related and the propositions that explain the relationships between concepts (George 2010:4). Furthermore, Henning, van Rensburg and Smit (2004:14) describe theoretical perspectives as interrelated sets of assumptions, concepts and propositions that constitute a view of the world. People view the world differently and hence the three main positions that articulate the different views of the world. These three positions are as follows:

- The researcher and the researched are mutually and exclusively working independently of each other, where each can be studied as an entity.

- The researcher and the researched work in an interrelated dialogical fashion, the one trying to understand how the other one lives.
- The researcher and the researched have a mutual aim in mind regarding research.

In this research study, the researcher explained the purpose of the research and entered into a dialogue with midwives in order to understand their experiences on the use of the partogram. The Theory of Planned Behaviour is chosen to explain the link between attitude and behaviour which was proposed by Icek Ajzen in 1985 (Ceccato, Ferris, Manuel & Grimshaw 2007:202). The theory states that personal attitude, subjective norms and perceived behavioural control together shape an individual's behavioural intentions and behaviour as indicated in Figure 1.1.

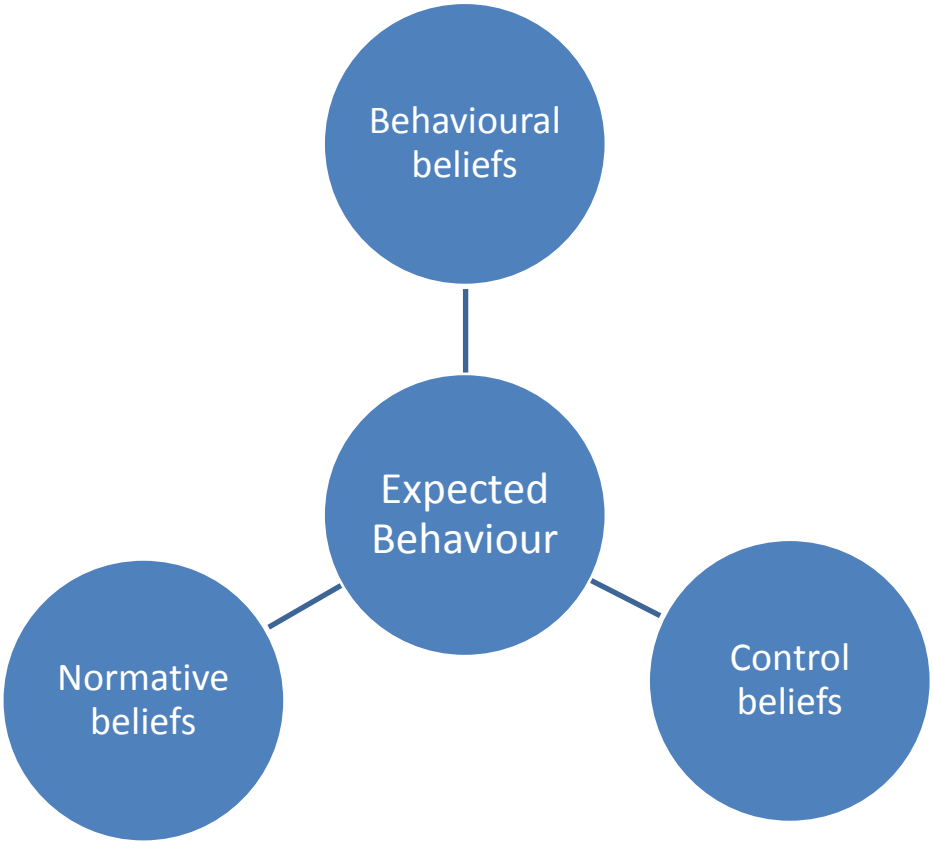

Figure 1.1: Theory of Planned Behaviour (TPB)

(Adapted from: Ceccato et al 2007:203)

1.8.3.1 Behavioural beliefs

Behavioural belief is an individual's belief about consequences of particular behaviour, which relates to the outcome of performing such an act. In this research, behavioural beliefs refer to midwives' belief that using a partogram has benefits and include the positive or negative value that midwives attach to the use of the partogram (Ceccato et al 2007:203).

1.8.3.2 Normative beliefs

Normative beliefs refer to an individual midwife's perception about using the partogram, which is influenced by the judgement of significant others (supervisors, doctors and colleagues). One of the normative beliefs is subjective norm, which refers to the perception of social normative pressures or relevant others beliefs that he or she should use or not use the partogram (Ceccato et al 2007:203).

1.8.3.3 Control beliefs

Control beliefs are beliefs about the presence of factors that may facilitate or impede the correct use of the partogram. External variables such as availability of policy or guidelines may have an impact on midwives' use of the partogram.

The TPB guided the researcher in explaining how the lack of documentation on the partogram occurred and how the factors that affect the implementation of the partogram are connected to each other in the labour ward context. Furthermore, the researcher developed assumptions based on the theory.

1.8.4 The theoretical assumptions of the research study

The theoretical assumptions for this research study are as follows:

- Midwives have knowledge of labour and how to monitor a woman during labour.
- Midwives have skills to assess a woman and document correctly on the partogram.

- The experiences of midwives on the use of the partogram can be explored and described by making use of qualitative research methods.
- The use of the partogram is influenced by the knowledge of the midwife on the partogram and the outcome or benefit of its use.
- Judgement of significant others such as the manager, colleagues and doctors influence the use of the partogram.
- The labour ward environment has an impact on the use of the partogram.
- Appropriate strategies to support midwives can be developed from the results of the study, which can ultimately improve maternal care and documentation on the partogram.

The following theoretical assumptions which relate to the TPB were formulated:

- Midwives' positive or negative value of the partogram influences their intentions to use it in monitoring women during labour.
- Midwives' attitudes towards the partogram impact on the correct implementation of the tool.
- Judgement of supervisors, doctors and colleagues influence midwives attitude towards the use of the partogram.
- The labour ward environment including availability of facilities in the labour ward can influence the use of the partogram

The Theory of Planned Behaviour (TPB) was used to explore, understand and address factors affecting the use of the partogram by midwives in monitoring women during labour.

1.9 RESEARCH DESIGN AND METHOD

The types of research design and various aspects of methodology are described in this section.

1.9.1 Research design

Research design refers to an overall structure or plan of the research in order to enhance the study's integrity, which includes the approach to be taken, the method of data collection, ethical considerations, time, place, source of data and the method of data analyses (Bowling 2009:158; Parahoo 2006:183; Polit & Beck 2008:765).

1.9.1.1 Qualitative research design

A qualitative research design was used to achieve the study objectives, which is more concerned with understanding social phenomenon from the perspective of the participants (White 2005:80). De Vos et al (2005:314) regards observation, study of documents and secondary analysis being within the context of qualitative research.

In order to answer the research questions, the researcher chose interviews and document analysis. Document analysis was chosen to validate and cross-check the research findings from interviews with midwives. According to Patton (2002) in De Vos et al (2005:314), each data source has its strengths and weaknesses, hence the need for triangulation of these data collection procedures so that the strength of one procedure can compensate for the weakness of the other.

1.9.1.2 Exploratory design

Exploratory research investigates the full nature of the phenomenon, the manner in which it is it is manifested, and the other factors to which it is related (Polit & Beck 2008:20). The experiences of midwives on the use of the partogram will be explored in order to gain an understanding and develop strategies to improve the implementation of the partogram.

1.9.1.3 Descriptive design

Qualitative researchers focus on the description of dimensions, variations and the importance of a phenomenon as opposed to quantitative studies that focus on the prevalence, incidence, size and measurable attributes (Polit & Beck 2008:19). Description of findings was done, and some important verbal statements were included to enhance the reader's understanding.

1.9.1.4 Contextual design

Data were collected in the labour wards of three selected hospitals in Vhembe District of Limpopo province, where midwives experience the implementation of the partogram. A qualitative approach is appropriate in this research study, as the topic needed to be explored, and it also involves the researcher entering the field of study, which included assessment on how partograms were documented.

1.9.2 Research methodology

In this research study, triangulation of data collection methods was used, which includes the study of the documentation on the partograms and face-to-face semi-structured interviews with midwives. In this section, the study setting, population, sampling, data collection and data analysis are discussed.

1.9.2.1 Study setting

Limpopo province is one of the nine provinces situated in the northern side of South Africa. It shares borders with Gauteng province in the south, the Republic of Mozambique in the east, Zimbabwe in the north and Botswana in the west. It covers 123 910 km^2 with an estimated population of 5.4 million. Limpopo is the fourth most populated province in South Africa, and approximately 80% of the population in Limpopo province is rural based (South Africa 2012:272). Limpopo province is divided into five districts, which are Vhembe, Mopani, Greater Sekhukhune, Waterberg and Capricorn as indicated in Figure 1.1. There are 443 clinics, 27 community health centres, 30 district hospitals, four regional hospitals and one tertiary hospital, which is a complex of two hospitals (Limpopo Provincial Government 2008:40).

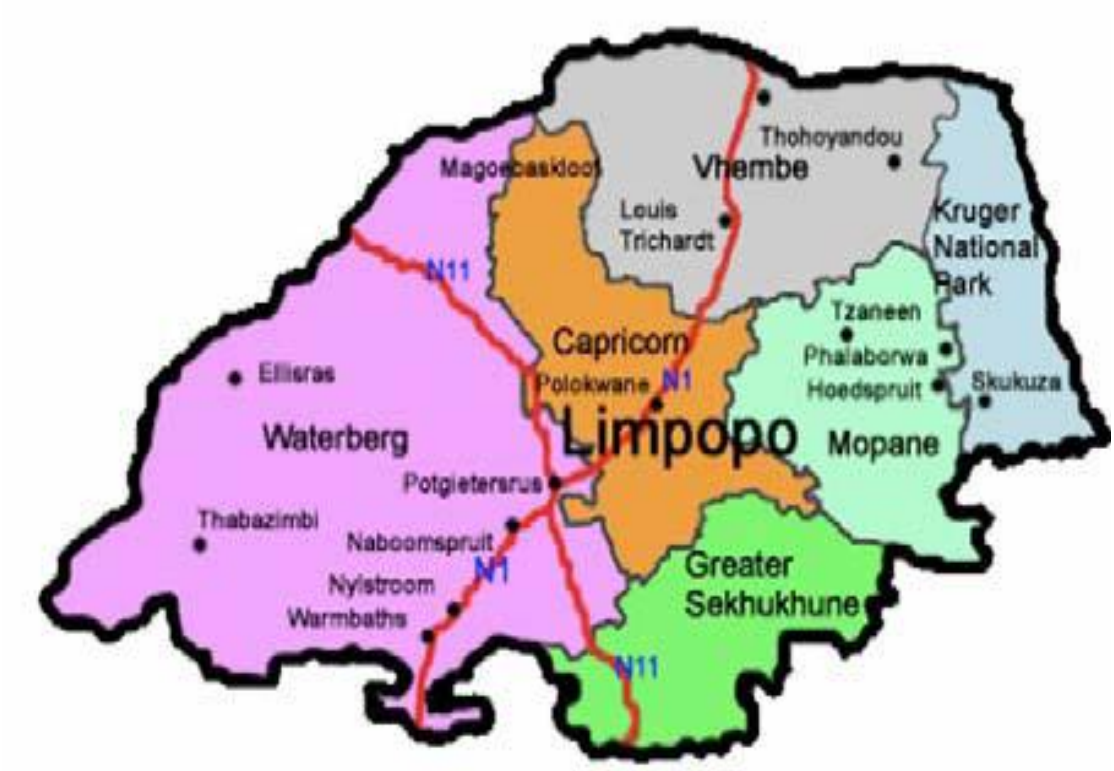

Figure 1.2: Map of Limpopo Province with districts

Retrieved from http://www.tvep.org.za/media

There are different levels of maternity care to ensure the efficient functioning of the health service in Limpopo. Common and low-risk problems are managed at the clinic level, whereas more difficult complications are managed at the hospitals. Because of this, there is a need for a referral system with protocols of management and the availability of transport to the next level of care. In a properly coordinated system of perinatal facilities, low-risk women in labour should be attended to by a midwife at a primary care level hospital (level 1), which is composed of clinics, community health centres and district hospitals. Women can be transferred to a regional (level 2) or tertiary (level 3) hospital in cases of more serious complications.

Participants in this study are midwives who were selected from two district hospitals (level 1) and one regional hospital (level 2) in Vhembe District. Vhembe consists of

one regional Hospital and hence its inclusion as a referral institution. The other two district hospitals were purposefully chosen from the five hospitals in order to obtain information from midwives of both regional and district hospitals.

1.9.2.2 Phase 1: Document review

Phase 1 address the first objective, which is document review. Document review was conducted at the three hospitals in order to assess the manner in which midwives were implementing the partogram as a guideline in monitoring a woman during labour.

1.9.2.2.1 Population for document review

For document review, the population included all maternity records of mothers who delivered at Vhembe District hospitals.

1.9.2.2.2 Sampling for document review

All partograms of patients that were available on the day that interviews were conducted were studied. Convenience sampling was used to obtain 24 partograms that were available during the interview sessions in the labour wards of the three hospitals.

1.9.2.2.3 Data collection instrument for document review

A checklist was designed to assess the aspects that midwives have plotted on the partogram from the information indicated on the Guidelines for Maternity Care in South Africa (South Africa 2007a:36) (see Annexure L). The document of the study was prepared before the interviews were started in all the three hospitals. The purpose of document review was to validate and cross-check the findings on midwives' experiences on the use of the partogram.

1.9.2.2.4 Pretesting of the checklist

The checklist was reviewed by supervisors, and alterations on the questions were made. Pretesting of the checklist was done on two partograms in Hospital A, and alterations on the instrument were made according to the results of the pre-test.

1.9.2.2.5 Data analysis of information from the checklists

The results from the document analysis were analysed using simple frequencies and were displayed in a table.

1.9.2.3 Phase 2: Face-to-face semi-structured interviews with midwives

Phase 2 addressed the second and the third objectives, which are to explore and describe the experiences and challenges in the implementation of the partogram as a guideline in monitoring and management of women in labour by midwives. Face-to-face semi-structured interviews were conducted with seventeen midwives in order to understand their experiences and challenges in using the partogram as a guideline in monitoring and managing a woman during labour. Interviews were conducted in the months of February and March 2012 which lasted for 25-35 minutes each. Interviews with midwives were tape recorded and then transcribed by an independent transcriber. Co-coding was done with an experienced researcher on qualitative research, and the findings were discussed.

1.9.2.3.1 Study population for face-to-face semi-structured interviews

The study population for face-to-face interviews is all qualified midwives who are caring for mothers in the maternity wards of three hospitals in Vhembe District.

1.9.2.3.2 Sampling for face-to-face semi-structured interviews

Convenience sampling was used to obtain 17 qualified midwives working in the labour wards of one regional and two district hospitals in Vhembe District.

1.9.2.3.3 Testing of interview questions

Interview questions were reviewed by a more experienced qualitative researcher in order to ensure that the questions yield the expected answers. During the interview process, the researcher elicited participants' general views and their responses on specific concerns. The questions were pretested on two midwives who were available in Hospital A, after which modifications on the wording of the questions were done. These midwives were not included in the final interviews. See Annexure K for interview questions.

1.9.2.3.4 Data analysis of information from face-to-face semi-structured interviews

Tesch's (1990) eight-step model (in Creswell 1994:154) of qualitative data analysis was used to analyse the data. The results from the document review were used to substantiate the results from face-to-face interviews, where it was relevant. The researcher used the data to develop implementation strategies to improve the use of the partogram in monitoring a woman during labour.

1.9.3 Phase 3: Development of strategies to improve the implementation of the partogram

Phase 3 addresses the last objective, which relates to the development of strategies based on the findings from phase 1 and phase 2. Phase 3 is discussed in detail in Chapter 6

1.9.3.1 Ethical considerations

Ethical aspects related to institutions, participants and the researcher, including measures of trustworthiness in qualitative research, are explained in detail in Chapter 3.

1.10 THE SCOPE OF THE STUDY

The study is limited to one of the five districts of Limpopo province. Data were collected from one regional hospital (level 2) and two community hospitals (level 1). Face-to-face semi-structured interviews were conducted with 17 midwives who were working in the labour wards of the three hospitals.

1.11 STRUCTURE OF THE RESEARCH STUDY

The figure that follows illustrates the thesis in sequence.

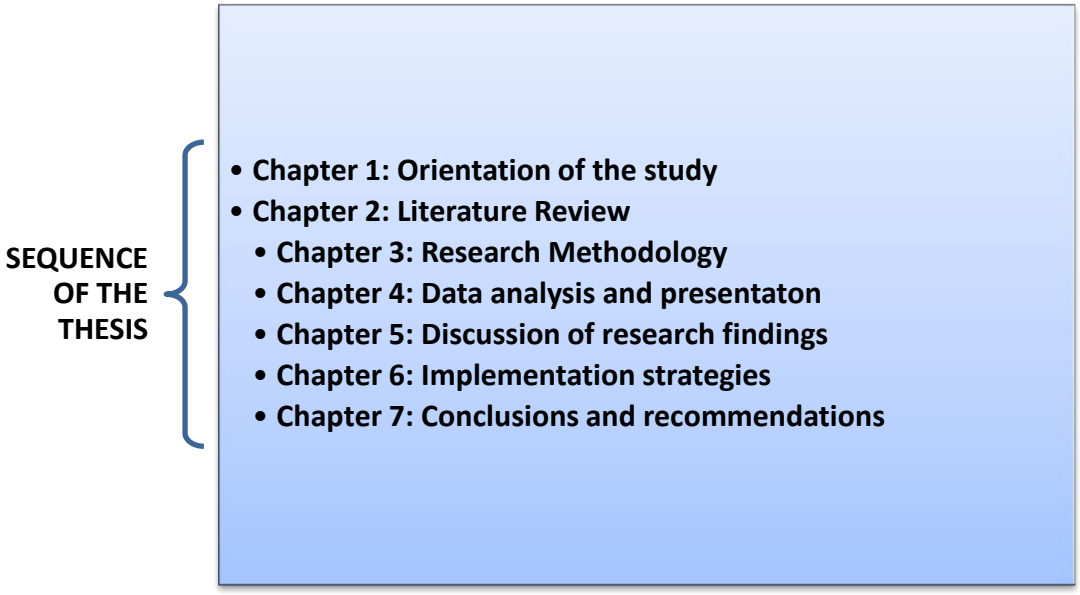

Figure 1.3: Thesis sequence

1.12 CONCLUSION

This chapter briefly described the background to the problem, the problem statement, the purpose and objectives of the study, significance of the study, definition of keywords, summary of research design and methods, and the scope of the study. In Chapter 2, the findings on literature review are discussed in detail.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 1 explained the general orientation of the research study. In this chapter, a literature review is discussed. Literature review is regarded as a critical summary of research on a topic of interest (Polit and Beck 2008:757). The purpose of conducting a literature review in qualitative research has been stated by De Vos et al (2006: 263) as the following:

- To demonstrate the underlying assumptions behind the general research questions. Furthermore, Parahoo (2006:127) indicates that literature review is conducted to put the current study into context, to stimulate the researcher's thinking, and to identify, refine and formulate questions.
- To demonstrate that the researcher is thoroughly knowledgeable about related research and the intellectual traditions that support and surround the study.
- To show gaps in previous research studies, and that the proposed study may fill a gap in midwifery practice.

Literature review was conducted in order to provide a rationale for the study, formulate questions for interviews, and explain concepts relevant to this study, which include clinical practice guidelines and the partogram. The researcher conducted the literature search using University of South Africa Library facilities, reference list from the librarian and other useful articles from the Internet, and relevant documents from the National Department of Health in South Africa.

2.2 CLINICAL GUIDELINES

Clinical practice guidelines are defined as systematically developed statements to assist practitioners and patient decisions about appropriate health care for a specific

clinical circumstance (Waters 2008:1; Parahoo 2006:427). A number of terms such as protocols, procedures and standards have been used interchangeably to mean a set of instructions that are intended to guide clinical decisions by providing practitioners with procedures to follow when faced with clinical problems. Moreover, Graham, Mancher, Wolman, Greenfield and Steinberg (2011:4) define guidelines as statements that include recommendations that are intended to optimise patient care, which are informed by a systemic review of evidence and an assessment of advantages and disadvantages of alternative care options.

In this section on clinical guidelines, the importance of clinical guidelines, development, dissemination, implementation, benefits and legal implications are discussed.

2.2.1 Importance of clinical guidelines

The partograph is of little use without management protocols that give clear directives about the actions that need to be taken. Hence, clinical practice guidelines are commonly used to support midwives so that they can improve practice including patient outcomes, the process of care, standardise practice and to reduce costs. Filed and Lohr (1992) in Van der Wees and Mead (2004:5) described the key characteristics of guidelines as:

- Presenting a clear picture of the best available evidence of effectiveness for a particular condition or set of clinical circumstances which, in turn, reduce variations, enhance consistency and stimulate collaboration in midwifery practice. The tasks and responsibilities that a midwife needs to perform in case there are deviations from normal are clearly indicated on the partogram.
- Providing recommendations for the most effective interventions in particular circumstances in the context of clinical practice.
- Providing a resource for decision-making for health care professionals and for patients about the most effective care in a particular clinical circumstance. According to Turner (2009:3), guidelines should be clear, well written, short and provide a quick answer to clinical decisions of interest. The hospital needs these set of rules to guide decision-making in the health setting so that

midwives know what action to take when the partograph shows that a woman needs additional care including the need for referral.

- Standardised protocols that are developed in a rigorous and systemic way in order to minimise bias and maximise the validity of their recommendations.

The clinical guideline in this research study refers to the partogram that has been developed by the National Department of Health in consultation with experts in the field for presenting a clear picture of a woman in labour. The most effective interventions that are indicated on the partogram guide midwives on clinical decisions when managing a pregnant woman in labour. Nevertheless, clinical guidelines have been viewed as having disadvantages such as oversimplifying decisions, failing to identify variations in individual needs of patients and reducing practitioners' autonomy (Graham, Brouwers, Davies and Tetroe 2006:607). In addition, Parahoo (2006:427) indicated the potential limitation of guidelines being the wrong interpretation of evidence on which the guideline is based.

In addition, Turner (2009:3) revealed that clinicians rely too much on guidelines without thinking. Over and above that, Van der Wees and Mead (2004:5) argue that clinical guidelines are not to be regarded as recipes for practice that must be followed in all circumstances, hence the need for midwives to use their reasoning skills.

2.2.2 Development of clinical guidelines

Clinical guidelines need to be developed systematically in order to be clear, simple and usable. Onion and Whalley (1998) in Parahoo (2006:427) indicated that there are two schools of thought on guideline development. First, there are those who think guidelines should incorporate only the best evidence. Secondly, there are others who believe that guidelines should be simple and practical, taking into account local resources, priorities as well as local opinion and experience. This section discusses the development of guidelines at national, regional and local level including the South African context.

2.2.2.1 Guideline development at national, regional and local level

The development of guidelines is a complex process requiring skills, resources and time, and involving a multidisciplinary team. Guidelines are developed at local, regional and national level to ensure that expertise of a wider range of professionals can be drawn to participate in the process.

Local team members are important in adapting the guidelines to the local circumstances (Parahoo 2006:427). Furthermore, Worrall et al (1997) in Parahoo (2006:407) state that local guidelines have produced significant improvements in practice as compared to national guidelines, hence the importance of adapting national guidelines to local use. End-user involvement increases ownership and improves the implementation of clinical guidelines.

The validity of guidelines can be checked by making use of focus group discussions, postal questionnaires, peer group consensus and literature review. Van der Wees and Mead (2004:6) recommend that there should be a certain degree of central coordination in developing guidelines even if individual groups are involved in the process of development and should be endorsed by the relevant professional body.

Graham et al (2011:5) summarised the most important aspects to be considered if the guideline is to be trustworthy, which include:

- systematic review of existing evidence
- involvement of knowledgeable, multidisciplinary panel of experts and representatives from key affected groups
- consideration of important patient subgroups and patient preferences as appropriate
- explicit and transparent process that minimises distortions, biases and conflicts of interest
- a clear explanation of the logical relationships between alternative care options

- a revision when important new evidence warrants modifications of recommendations

The team that is involved in the process of guideline development should consider these aspects in order to ensure that quality guidelines are developed. A document on guideline implementation that has been developed by Nuffield Institute for Health (1994:4) at University of Leads described the desirable attributes of clinical practice guidelines as indicated in Table 2.1.

Table 2.1: Desirable attributes of Clinical Practice Guidelines

Attribute	**Meaning**
Validity	Available evidence should be interpreted correctly so that when clinicians adhere to guidelines, an improvement in practice can occur
Cost-effective	The guideline should lead to improvements in health with reasonable cost
Reproducibility	Given the same evidence, another group should be able to produce similar recommendations
Reliability	Given the same circumstance, another clinician should be able to apply the guideline in the same way
Representative development	All key stakeholders, including patients, should contribute to the development of the guideline
Clinical applicability	The target population should be defined in accordance with scientific evidence
Clinical flexibility	Guideline should identify how patient preferences are to be incorporated in decision-making
Clarity	Guidelines use precise definitions, unambiguous language and user-friendly formats
Meticulous documentation	Guidelines record participants, assumptions and methods, and link recommendations to the available evidence
Utilisation review	Ways to monitor adherence to recommendations can be monitored should be indicated.

Adapted from Grimshaw and Russell (1999) and Filed and Lohr (1992) in Nuffield Institute for Health (1994:4)

The characteristics and attributes of guidelines are important in ensuring that the guidelines are of quality and are acceptable to end-users such as midwives and doctors.

2.2.2.2 Development of clinical guidelines for maternity care in South Africa

The South African government demonstrated its commitment to improving maternal health by making maternal death a notifiable condition and by formation of the NCCEMD. One of the ten key recommendations made by the NCCEMD in the Saving Mothers Report 2002-2004 is to update and strengthen the guidelines on the management of conditions which may commonly result in maternal deaths. The correct use of the partogram as a norm in each institution conducting births was recommended in order to improve quality of care and pregnancy outcome. The purpose of developing guidelines on maternity care was to give guidance to health care workers providing obstetric and anaesthetic services in clinics, community health centres and district hospitals.

A vast review of literature was conducted before the development, and guidelines were reviewed by many experts and programme managers in the field. The South African Nursing Council support the partogram as a guideline in monitoring a woman during labour, hence its inclusion in the curriculum of all midwifery courses that are offered in South Africa.

2.2.3 Disseminating guidelines

After the guidelines have been developed, they need to be disseminated to those for whom they were intended. There are a number of strategies to distribute guidelines as indicated in Parahoo (2006:407) and Van der Wees and Mead (2004:12) such as:

- Distributing hard copies of guidelines to practitioners. Printing and distributing is one of the most commonly used methods to disseminate clinical guidelines.
- Computer-generated reminders in patients' notes. Computerised or automated reminder systems were discovered to be more effective than clinician's recall.

- Educational initiatives that focus on the guideline. Apart from printing hard copies, lectures or training sessions were the most commonly used method of disseminating guidelines to the users.

In this research study, midwives indicated their experiences on the use of the partogram as a guideline in monitoring a woman during labour, which includes how the partograms were disseminated at Vhembe District hospitals.

2.2.4 Implementation of guidelines

The involvement of staff in the process of development is important to ensure that the guideline is implemented. Davis and Tailor (1997) in Parahoo (2006:407) indicate that the development of guidelines without taking into consideration their adoption waste intellectual and human resources. The dissemination and implementation strategies are regarded as interdependent and are graded as

- weak interventions which consist of educational and distribution of guidelines in paper form;
- moderately effective interventions that include audit and feedback as well as the involvement of peers and opinion leaders; and
- strong interventions include the use of reminder systems that are available in patients' notes, educational initiatives and multiple interventions.

These strategies confirm the relationship between the dissemination and the implementation stage of clinical guidelines. In this research study, midwives described their experiences on how the partogram is being implemented in the maternity wards of the three hospitals at Vhembe District.

2.2.5 Benefits of using guidelines

Benefits of using the partogram need to be highlighted to motivate clinicians to have an interest in using them. Grimshaw and Russell (1993) in Parahoo (2006:431) reviewed 59 articles on guideline dissemination and implementation and found that in most of the guidelines, there was an improvement in the process of care that was measured by

- a change in the practice of doctors, especially compliance with the recommendations of guidelines;
- in the 11 of the studies reviewed, there was an improvement in terms of fewer admissions, fewer complications, reduction in symptoms or more patient compliance with treatment; and
- Organisational change, which may include provision of equipment and human resources.

However, there is little evidence that clinical guidelines are effective in improving patient outcomes in primary care settings. Cheater and Closs (1997) in Parahoo (2006:431) reviewed studies on dissemination and implementation of guidelines in nursing practice, and none was readily available, which further prompted the researcher to conduct research in midwifery practice.

2.2.6 Legal implications for guideline users

Clinical guidelines that are developed systematically are regarded as legal documents. Van der Wees and Mead (2004:13) indicate that nationally approved clinical guidelines become a recognised source of evidence of best practice and can be used in court by an expert witness as the benchmark of good practice. According to Van der Wees and Mead, clinicians (midwives) are expected to use their experience and clinical reasoning skills to consider the relevance of a guideline (partogram) to a particular patient, taking into account the patient's condition and circumstances. It is recommended by Van der Wees and Mead that if a highly recommended guideline such as a partogram is not implemented for a particular patient, a rationale for failure to do so should be documented.

2.3 THE PARTOGRAM AS A CLINICAL GUIDELINE FOR THE MANAGEMENT OF A WOMAN DURING LABOUR

Clinical guidelines are valuable resources for effective clinical practice and are important tools for evidence-based practice with the potential to improve the quality and consistency of patient care. This section discusses the history of a partogram, the information that needs to be recorded on the partogram and its importance.

2.3.1 Importance of the partogram

The use of the partogram is critical in preventing maternal and perinatal morbidity and mortality. Partogram is a vital tool for providers who need to be able to identify complications in childbirth in a timely manner and refer a woman to an appropriate facility for treatment (MNH 2002:1). Tharpe (2006:14) also indicates that the record provides a clear picture of the client presentation, concerns and response to treatment in the event of legal action.

2.3.2 History of the partograph

The Safe Motherhood Initiative launched the partogram in 1887 as an effective tool for monitoring a woman during labour (Fraser et al 2006:953). The partograph originated in 1954, following a study on a large number of women in the United States of America by Friedman, who designed a graphic representation of the normal progress of labour which describes an s-shaped curve of typical cervical dilatation as plotted against time (WHO 1994:2).

According to a document by WHO (1994:3), Friedman divided the labour functionally into two parts, which are

- the latent phase, which extends over eight to ten hours and up to 3cm dilatation; and
- the active phase, which is characterised by acceleration from 3cm to 10cm dilatation, and then deceleration occurs as shown in Figure 2.1.

Hendricks in WHO (1994:1) demonstrated that the active phase of normal labour and the rate of dilatation of the cervix in primigravida and multiparas vary. He further discovered that there is no deceleration phase at the end of the first stage as was indicated by Friedman.

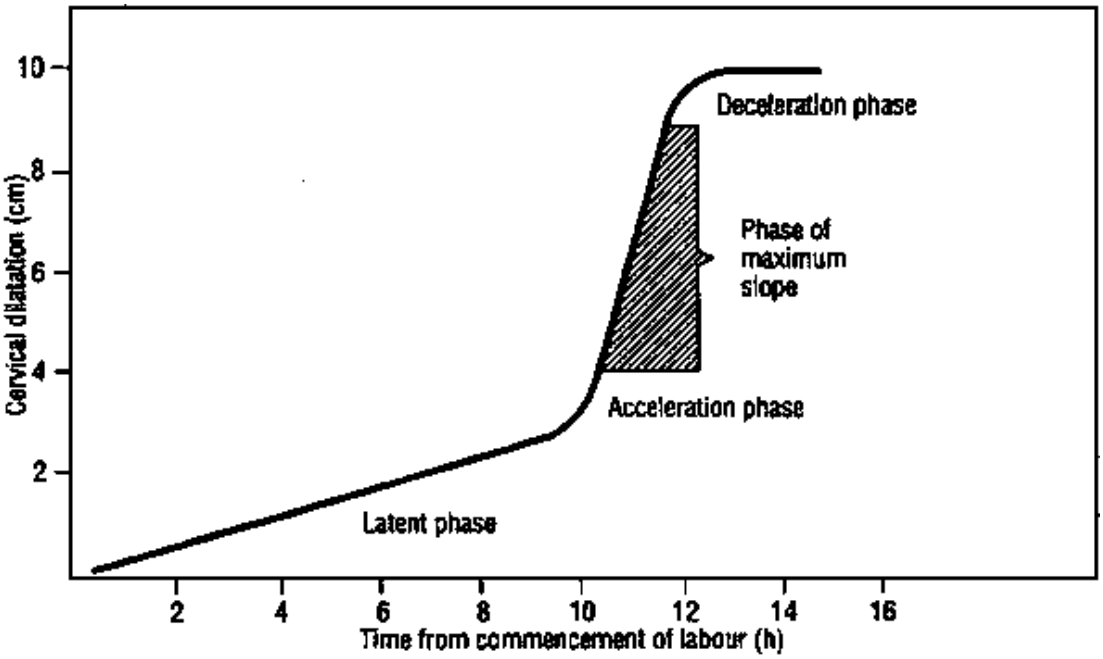

Figure 2.1: Friedman's curve showing phase of maximum slope

(Source: WHO 1994:4)

Dr Philpot did extensive studies on primigravida in Central and Southern Africa in 1971. He identified that dilatation of the cervix and descent of the presenting part of the baby are major clinical observable factors in the assessment of the progress of labour and the mode of delivery. The partogram was initially used in Zimbabwe in 1972, and it is currently used globally and nationally as a standard means of documenting the progress of labour (Windrim, Seaward, Hodnett, Akoury, Kingdom, Salenieks, Fallah & Ryan 2007:30; WHO 1994:3).

The WHO conducted an impact study between 1990 and 1991 in Indonesia, Malaysia and Thailand which showed that the introduction of a partograph along with management protocol improves labour outcomes. The study revealed that the use of a partograph reduced the number of prolonged labours, the need for argumentation of labour with oxytocin, the rates of caesarean section, asphyxia and infection. As a result of this study, the WHO recommended that the partogram be used in monitoring labour to help in identifying abnormal progress of labour and to identify women who might need specialised care (MNH 2002; De Kock & Van der Walt 2004: 13-6). The WHO partogram is depicted in Figure 2.2.

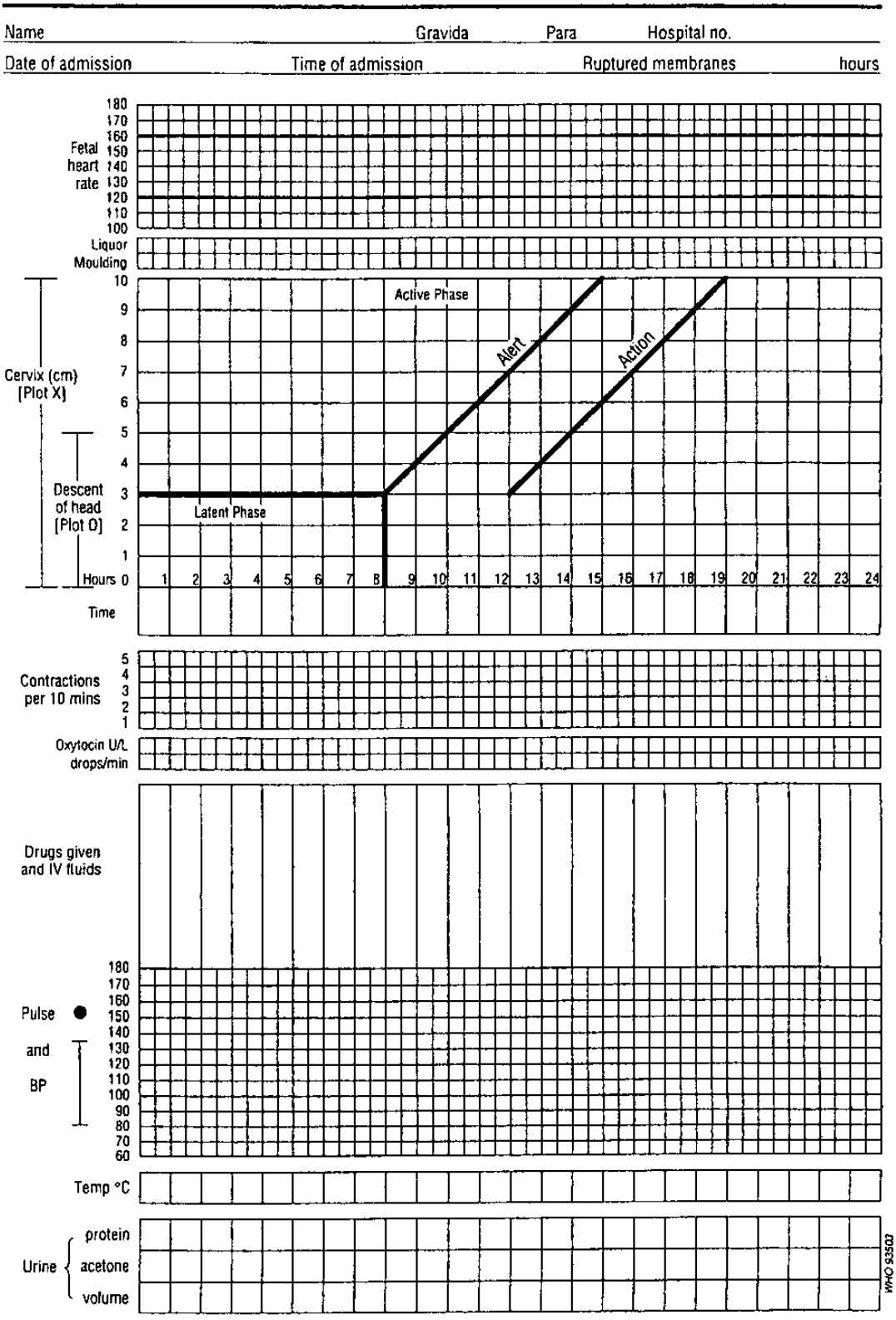

Figure 2.2: The WHO partograph

(Source: WHO 1994:5)

The National Department of Health in South Africa made some adjustments on the WHO partogram to suit their context. The following subsection describes the differences between the WHO partogram and the one that is used in South Africa.

2.3.3 Differences between the WHO partogram and the one used in South Africa

The partogram that is used in South Africa differs with the WHO partogram on the aspects discussed below.

2.3.3.1 Personal information of the patient

In the partogram that is used in South Africa, the information on adequacy of the pelvis, duration of labour, duration of ruptured membranes and whether the patient is high or low risk were added as compared to the WHO partogram as depicted on Figure 2.2.

2.3.3.2 Progress of labour

The partogram that is used in South Africa has only two hours instead of four in between the alert and action lines. Furthermore, a key to indicate whether contractions are mild, moderate or strong, including space for a signature of a person monitoring contractions, has also been added.

2.3.3.3 Foetal condition

Instead of only plotting the foetal heart rate, as indicated on the WHO partogram, the information on baseline of the foetal heart rate, the variability and decelerations were added in the partogram that is used in South Africa. Moreover, instead of indicating the presence of moulding only, the presence of caput was added.

2.3.3.4 Maternal condition

The partogram that is used in South Africa includes aspects such as the presence of protein, acetone and volume of urine, which is the same as in the WHO partogram, but it added the presence of glucose in urine.

A space has also been included for practitioners to write the management of the assessment time, problems identified and the plan of care to be rendered, which is not included in the WHO partogram (South Africa 2007b:36; WHO 1994:1). The WHO partogram does not provide a space for recording decelerations, whereas it is included in the partogram used in South Africa.

From the description of the changes on the partogram, it is evident that there were various developments that were made on the partogram that is being used in South Africa from the WHO partogram.

2.3.4 Description of aspects that need to be recorded on the partogram

The partogram has been developed with relevant information that is to be monitored and recorded according to the standard set in the Maternity Care Guidelines of South Africa (South Africa 2007a:36). Aspects such as the general information of the patient, the maternal condition, the foetal condition, the progress of labour and the management aspects are discussed.

2.3.4.1 General information

Midwives are expected to document the name of the patient and the parity of the women. Schempf, Branum, Lukacs and Schoendorf (2007:34) conducted a study on the effect of maternal age and parity and discovered that women with advanced maternal age have an increased risk of stillbirth. The midwife should ascertain the size of the pelvis to ensure that no cephalo-pelvic disproportion occurs. The time of labour should be recorded in order to determine when the women start to have prolonged labour. In addition, risk factors that were mentioned by the mother should be documented to have baseline information on the patient in order to assist midwives in monitoring the patient further (South Africa 2007a:36).

2.3.4.2 Foetal condition

Midwives are expected to record the foetal heart rate, condition of membranes and liquor, progress of labour, maternal condition and the management that has been done.

2.3.4.2.1 Foetal heart rate

The foetal heart rate is assessed intermittently by means of a Pinard stethoscope or handheld Doppler device, or it may be assessed continuously by a Continuous Topographic (CTG) machine. The foetal heart rate should be taken over a complete minute in order to listen to beat-to-beat variation. Auscultation must be performed before, during and after a contraction. The baseline rate should be between 110 and 160 beats per minute. During late labour, some decelerations during contractions may occur and should be recorded so that action may be taken if they become worse. The CTG machine provides a graphic record of the response of the foetal heart to uterine activity as well as the heart rate and variability (Nolte 2008:19).

2.3.4.2.2 Membranes and condition of liquor

Amniotic fluid can assist in assessing foetal condition. Early rupture of membranes days before the onset of labour may lead to infection and decelerations (Fraser et al 2006:422). In South Africa, early rupture of membranes is discouraged because it increases the incidence of maternal to child transmission of the HI virus.

Observations of the liquor are to be recorded on the partogram in the following manner:

- I – Intact membranes
- C – Clear liquor
- M – Meconium-stained liquor

Amniotic fluid escapes from the uterus continuously, following the rupture of the membranes. The fluid should normally remain clear, but if the foetus is experiencing hypoxia, meconium may be passed due to the relaxation of the anal sphincter of the foetus, which subsequently leads to green amniotic fluid (Nolte 2008:19). If the foetus is in breech position, it may pass meconium due to the compression that occurs on the abdomen, leading to passage of meconium.

2.3.4.2.3 Moulding

Moulding is described as the overlapping of skull bones and can give additional information about the position of the foetus. It is also important in determining how well the maternal pelvis will accommodate the foetal head. The following key is used to record moulding:

0 = the sutures can be felt easily and the bones are separated

+ = the bones are just touching each other

++ = the bones are overlapping but can be separated easily with one's fingers

+++ = the bones are overlapping and cannot be separated with one's fingers

2.3.4.2.4 Caput

Caput succedaneum is the swelling of the tissues over the presenting part of the foetal head which is caused by pressure during labour (De Kock & De Walt 2004:13-25). The results of the assessment are indicated as negative if no swelling and then as +, ++ or +++, depending on the severity of the caput.

2.3.4.3 Progress of labour

The progress of labour is determined by the frequency and strength of contractions, the cervical dilatation and effacement, the descent of the presenting part, and the level of the foetal head in relation to the pelvic brim.

2.3.4.3.1 Frequency and strength of contractions

Midwives are expected to monitor contractions half hourly for 10 minutes during the active phase as follows:

- Greater than 40 seconds = strong
- 20-40 seconds = moderate
- Less than 20 seconds = mild

2.3.4.3.2 Cervical dilatation

Dilatation of the cervix is regarded as the process of enlargement of the uterine os from a tightly closed aperture to an opening large enough to permit passage of the foetal head. Cervical dilatation is measured in centimetres, and full dilatation is equated to 10cm. Dilatation of the cervix occurs as a result of uterine action and the counter pressure applied by either the intact bag of membranes or the presenting part of the foetus, or both. A well-flexed head which is closely applied to the cervix favours efficient dilatation (Nolte 2008:8).

2.3.4.3.3 Cervical effacement

Effacement is described as the inclusion of the cervical canal into the lower uterine segment. Effacement may occur late in pregnancy or may not take place until labour begins. In the nulliparous woman, the cervix will usually not dilate until effacement is complete, whereas in the multiparous woman, effacement and dilatation may occur simultaneously (Nolte 2008:8).

2.3.4.3.4 Descent of the presenting part

The presenting part of the foetus is defined as the part of the foetus lying over the uterine os during labour. Vaginally, the level or station of the presenting part of the foetus is estimated in relation to the ischial spines, which are fixed points at the outlet of the bony pelvis (Nolte 2008:8).

2.3.4.3.5 Level of the head

The circumference of the foetal head is divided into fifths, and the number of fifths palpable above the symphysis pubis is determined by a deep pelvic palpation. If the whole foetal head is palpable above the symphysis, the level of the head is 5/5, and if three-fifths of the head is palpable above the symphysis pubis, the level of the foetal head is 3/5 (Nolte 2008:14). The level of the head is helpful because there is a relationship between the station, the presenting part and the engagement, which also determines the progress of labour.

2.3.4.4 Maternal condition

A midwife is expected to monitor the condition of the mother during labour in order to detect any abnormalities and refer where necessary. The aspects that follow need to be monitored and recorded.

2.3.4.4.1 Vital signs (blood pressure, temperature and pulse)

The pulse rate is a good indicator of the general physical condition of the woman. If the rate increases to more than 100 beats per minute, it can be an indication that the woman is anxious, feeling pain or is having an infection, ketosis or haemorrhage (Fraser et al 2006:438; Nolte 2008:23).

2.3.4.4.2 Temperature

The patient's temperature should remain within the normal range. Pyrexia is an indication of infection or ketosis (Nolte 2008:23). A midwife is expected to report high temperature, which may be an indication of infection of the amniotic fluid.

2.3.4.4.3 Blood pressure

Blood pressure is an important indicator to diagnose pre-eclampsia and raised blood pressure, which may complicate to eclampsia. The blood pressure is measured four hourly during the latent phase and hourly during the active phase of labour (Fraser et al 2006:438).

2.3.4.4.4 Urine

Urine passed during labour should be tested for glucose, ketones and protein (Fraser et al 2006:439). Ketones may occur as a result of starvation or maternal distress when all available energy has been utilised. Trace of protein may indicate contamination following rupture of membranes or a sign of urinary infection, but more significant proteinuria may indicate pre-eclampsia.

2.3.4.5 Management

The midwife is also expected to record the problems identified and indicate the plan of action to be taken and document the actions that have been implemented. The following subsection describes the observations that a midwife is expected to perform during the latent and active stage of labour.

2.3.5 Standard observations during labour

The criteria for diagnosing labour are when there are regular, painful contractions and rupture of membranes or show (Pattison 2006:5). Labour is divided into active and latent phase.

2.3.5.1 Latent phase of labour

Labour is established when regular, painful contractions and sometimes rupture of membranes have occurred. The latent phase is a stage when the cervical dilatation is less or equal to 3cm. The latent stage lasts from the onset of labour (cervical dilatation of 0cm to 3cm until the onset of the active phase of labour, when rapid dilatation of the cervix takes place (Nolte 2008:9). During the latent phase, uterine contractions are not yet strong. The duration of the latent phase should not be longer than eight hours in both multiparous and primigravida women. Table 2.2 indicates the observations to be done by midwives and the frequency of observations during the latent phase.

Table 2.2: Standard observations during latent phase

Observations	**Monitoring interval**
Blood pressure, pulse and respiration	**4 hourly**
Uterine contractions	**2 hourly**
Foetal heart rate	**2 hourly**
Vaginal examination	**4 hourly**

According to a document on Guidelines for Maternity Care in South Africa (South Africa 2007a:36), any change in the condition of the mother or the foetus warrants more frequent observations.

2.3.5.2 Active phase of labour

The active phase of labour is described as the stage when rapid dilatation takes place from 3cm to 10cm. The active phase is a stage when the cervix is greater or equal to 4cm (South Africa 2007a:36). During the active phase of labour, the contractions are expected to be regular and frequent (Pattison 2005:5). In normal labour, a multipara woman is expected to dilate 1.5cm per hour, and a primigravida is expected to dilate at least 1cm per hour. Table 2.3 indicates the observations and the frequencies of observations that are done by midwives during the active stage phase of labour.

Table 2.3: Standard observations during the active phase

Observations		**Monitoring interval**
Maternal condition	Blood pressure and pulse	**Hourly**
	Temperature	**4 hourly**
	Urine test and volume	**2 hourly**
Foetal condition	Foetal heart rate	**Half hourly**
	Colour and odour of liquor	**2 hourly if membranes have ruptured**
Progress of labour	Frequency and strength of uterine contractions	**Hourly**
	Level of the presenting part	**2 hourly**
	Cervical dilatation	**2 hourly**
	Caput and moulding	**2 hourly**
Treatment given	All medications and fluids administered	
Management	Identified problems	
	Proposed management	

(Source: South Africa 2007a:36)

Spaces for recording observations during the latent and active phase are provided in the partogram as indicated in Table 2.2 and Table 2.3. In addition to these observations, midwives and doctors are expected to document any complications that may arise during monitoring and the specific management that has been implemented (South Africa 2007a:36; De Kock & Van der Walt 2004:13-7).

2.4 CONCLUSION

The main purpose of reviewing literature was to sensitise the researcher to aspects related to clinical guidelines and general information on the partogram. The major themes that emerged from the literature review were

- guideline development, dissemination, implementation, legal aspects and benefits of clinical guidelines; and
- the history of partogram, the main aspects that are included in the partogram and the standard observations that need to be done and documented on the partogram.

In Chapter 3, research design, data collection techniques, methods to ensure trustworthiness and ethical considerations are discussed.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In the preceding chapter, the orientation to the study was discussed. This chapter entails a description of the research design and methodology. The research design focused on the population, sample, measurement instrument, data collection and data processing using qualitative approaches.

3.2 RESEARCH SETTING

The research was conducted at Vhembe District in Limpopo province as described in section 1.9.2.1. Three hospitals were selected as study sites from six hospitals of Vhembe District. Two of the five are district hospitals (community hospital – level1), and one is a regional hospital (referral hospital – level 2). The hospitals were purposefully selected because most of the women receive maternal care from these institutions. Clinics refer their complicated maternal cases to these hospitals. Another reason for choosing the sites was the fact that lack of adherence to standard protocols and gaps in recording of the partograms were reported to be found in level 1 and level 2 hospitals in South Africa (South Africa 2012:28).

For the purpose of this research, the hospitals are categorised into Hospital A, Hospital B and Hospital C. Hospital A and Hospital C, are district hospitals and Hospital B is a regional hospital.

3.2.1 Hospital A

Hospital A is a community hospital. The maternity ward in this hospital was very busy during the period of data collection. Five midwives were allocated for both active and latent phase of labour during the day, and four midwives were allocated in the whole of the maternity ward during the night, which includes nursery, postnatal, antenatal and labour ward. The hospital had eight to twenty deliveries in 24 hours. A midwife is expected to monitor three or more women according to the number of patients that are available in the labour ward. Midwives were expected to screen high-risk

antenatal cases at the outpatient department and the labour ward remained with one midwife and ten students on the day that interviews were done.

The hospital caters for three categories of students, which are the four-year integrated course, the one-year midwifery programme and the university students. Only one midwife with five students was allocated in the admission area, which was very busy on the day that the researcher visited the hospital. The researcher was offered a private room to use for conducting interviews and five midwives were interviewed from Hospital A.

3.2.2 Hospital B

Hospital B is a regional hospital for the district; it acts as a referral hospital for the community hospitals. Hospital B had approximately 25-30 deliveries in 24 hours. There were no students available during the period when interviews were conducted. Midwives indicated that six of them worked during the day in the labour ward, including admission and latent phase, and four midwives for the whole of maternity during the night. The labour ward was not too busy, and six midwives were interviewed from this hospital. The researcher was offered a private room which had no telephone and was away from the noise of delivery rooms.

3.2.3 Hospital C

Hospital C is also a community hospital. Midwives indicated that six of them are usually allocated in the maternity ward, which include labour ward, admission and antenatal ward during the day and only four midwives during the night. Hospital C is a clinical area for students from the local university and those from the nursing college. The researcher was offered a private room to use for conducting interviews. There was minimal disturbance during interviews as the scheduled drugs for the maternity ward is also kept in the same room and midwives had to come in to collect the drugs when necessary. Six midwives were interviewed from this hospital.

3.3 RESEARCH DESIGN

Polit and Beck (2008:219) regard the research design as the researcher's overall plan for answering the research question. Furthermore, Babbie and Mouton (2007:74) describe research design as a plan of how one intends to conduct research. The selection of a research design is based on the nature of the research problem or issue that is being addressed. Research design is also described as the beliefs and values which particular research communities share about the type of phenomenon – which can or cannot be researched – and the methodologies to be adopted (Parahoo 2006:471). Research design sets the logic by which researchers interpret the results of their studies.

Qualitative research focuses on the meaning and understanding of a phenomenon, which entails the provision of a version of a picture as it naturally occurs (Green & Thorogood 2004:30; Burns & Grove 2009:237). Thus, observation as a method of data collection, study of documents and secondary analysis are within the context of qualitative research (De Vos et al 2005:314).

Parahoo (2006:63) describes qualitative research as an approach which seeks to understand human experiences, perceptions, motivations, intentions and behaviour using interactive, inductive, flexible and reflexive methods of data collection and analysis. Qualitative research is also regarded as a method of inquiry which is less obtrusive than quantitative investigations and which does not manipulate the research setting (Bowling 2009:380).

In order to explore midwives' experiences in using the partogram when monitoring a woman in labour, the researcher employed a qualitative, exploratory, descriptive and contextual research design as an appropriate method of investigation (Parahoo 2006:76).

3.3.1 Attributes of qualitative research

There are significant characteristics of a qualitative approach. These characteristics are discussed as follows:

3.3.1.1 Multiple realities exist when trying to understand a phenomenon

Qualitative researchers have the fundamental belief that multiple realities exist in trying to fully understand and create meaning for the individuals being studied. The belief is based on the fact that individuals actively participate in social actions, subscribe to many truths and understand phenomena in different ways through previous experiences (Speziale & Carpenter 2007:21; Polit & Beck 2008:17). Qualitative face-to-face semi-structured interviews were conducted with midwives in order to understand their experiences in using the partogram.

3.3.1.2 Discovery through the use of multiple ways of understanding

More than one data collection strategy may be used to fully understand a phenomenon (Speziale & Carpenter 2007:21). In this research study, interviews with midwives, observation and document review were employed to fully understand the use of the partogram by midwives. The interviews provided the researcher with individual midwives' experiences on the use of the partograms. Field notes provided additional data to further the understanding of the labour ward environment. The researcher assessed the documentation on the partogram by making use of a checklist.

3.3.1.3 The researcher is committed to participants' viewpoints

Qualitative researchers are mostly concerned with participants' viewpoints that are captured comprehensively within the context of those who are experiencing them (Polit & Beck 2004:17). Participants have more open-ended ways of giving their views, which grounds researchers to the real life of study participants. Consequently, meaning and searching for truths is regarded as only possible through social observation and interaction (Henning et al 2004:1). Open-ended questions that were used by the researcher to elicit responses prompted midwives to share their experiences in their own words rather than being forced into pre-established lines of thinking, which are developed by the researcher.

3.3.1.4 Researcher as an instrument in the research process

Humanistic scientists support qualitative research because they also value subjectivity of the researcher, who is expected to interact with participants and interpret data (Speziale & Carpenter 2007:13). Recognition that the researcher is part of the process of producing data and their meanings, and reflecting consciously on the meaning of the data is regarded as reflexivity (Green and Thorogood 2004:194). In qualitative research, the researcher is regarded as an instrument because he or she conducts interviews and interprets various aspects of the enquiry; therefore, it should be accepted that all qualitative research is conducted with subjective bias. The subjectivity of the researcher in the enquiry adds to the richness of data collection and analysis (Speziale & Carpenter 2007:23). Researchers are also viewed as co-constructors of the meaning of data despite the fact that they are doing it intentionally or not. Encouraging words such as 'Hmmm' were used to encourage participants to continue to explain their experience. In this research study, knowledge and experience of the researcher related to midwifery is believed to have had a certain influence on the research process.

3.3.1.5 Study findings are reported in a rich literary style

In qualitative research, study findings are characterised by facts that are reported from the perspective of participants, hence the inclusion of quotations, which adds to the richness of the report and an understanding of the experience of participants (Speziale & Carpenter 2007:23). In this research study, the researcher reported the findings in a factual style and included quotations to add to the richness of the data and an understanding of the labour ward environment.

3.3.1.6 Qualitative research uses inductive reasoning

The purpose of a qualitative approach is to develop concepts and themes from observations, interviews and interpretations of information from documents, hence the relevance of an inductive reasoning approach. The researcher is open to ideas that can emerge out of listening or observing people and from examining and re-examining the subject during and after data collection (Parahoo 2006:64). Thereafter, inductive reasoning is employed in which the researcher starts with the

details of the experience and moves to a more general picture of the phenomenon of interest (Speziale & Carpenter 2007:10). In addition to the description of Parahoo, Babbie (2001) in De Vos et al (2005:47) and Polit and Beck (2008:755) further reiterate that induction moves from a particular to a general, from a set of specific observations to the discovery of a pattern that represents some degree of order among all the given events. An inductive approach is useful when little is known about the topics one wants to study.

3.3.1.7 Sample selection in qualitative research

Qualitative researchers believe that the phenomena they study are culture specific and time bound and that the findings are a result of the interaction between the researcher and the researched (Parahoo 2006:73). The researcher can get into the personal, intimate and private world of participants by making use of interviews and analysis of tape recordings, field notes and other documents (Parahoo 2006:66).

Selective sampling is regarded as the method of choice in qualitative research because researchers use subjective judgement to purposely choose participants based on their experiences. It is possible to increase the size of the sample in purposive sampling in the event that the data is not enough and also to stop sampling if the same data is repeated (saturation) (Parahoo 2006:276). The researcher is not bound by a fixed sample as they can decide during the study to interview more participants, which are purposely chosen, based on their experience of the phenomenon. Seventeen midwives from the three hospitals at Vhembe District of Limpopo were purposely selected and interviewed.

3.3.2 The nature of qualitative research

The research design followed in this study can be described as qualitative research with an exploratory, descriptive and contextual focus.

3.3.2.1 Qualitative research is exploratory in nature

Explorative research explores the full nature of the phenomenon, the manner in which it is manifested and the factors to which it is related (Polit & Beck 2008:20). According to Babbie (2010:92), qualitative exploratory research is done when a change is needed and to develop methods to be employed in order to address a problem. In addition, Parahoo (2006:63) indicates that exploration is used in order to understand the participant's behaviour and perceptions from their own perspectives, described in their own words, and in the context in which they work. Midwives' views of the partogram may differ, and the difference in understanding can affect the manner in which they use it. By conducting a qualitative study on midwives' experiences, challenges when implementing the partogram were discovered, and midwives' responses were put in context.

As a result of the foregoing, a qualitative exploratory research was conducted to explore midwives' experiences on partogram use during labour. Babbie and Mouton (2007:79) state that explorative research is done when the subject of the study is relatively new in a situation, hence new knowledge related to midwives' experiences were explored, classified, and strategies to improve practice were developed.

3.3.2.2 Qualitative research is descriptive in nature

Qualitative research focuses on process, meaning and understanding. The findings obtained from qualitative research are richly descriptive, using words and pictures rather than numbers. The aim of descriptive research is to describe real-life situations and identify relationships (White 2005:98). The researcher embarked on a descriptive analysis of the results obtained from exploring the deeper meanings that midwives ascribed to their experiences on using the partogram in order to develop strategies to enhance the use of the partogram based on research findings.

3.3.2.3 Qualitative research is contextual in nature

Research findings need to be contextualised within the parameters of the phenomenon being studied. Qualitative research is contextual in that events are described within the natural contexts in which they occur (Babbie & Mouton 2004:272). Additionally, Speziale and Carpenter (2007:22) indicate that qualitative

research is conducted in a way that considers the natural context of the phenomenon being studied and involves understanding the phenomena as a whole.

The study is contextually based on the fact that data were collected in the labour wards of the selected hospitals at Vhembe District of Limpopo province, where midwives' experiences took place. A qualitative approach is appropriate in this research study – as the topic needed to be explored – and it also involves the researcher entering the field of study, which includes their experiences and how they plot the partogram. In view of the discussions on the nature of the qualitative research, it is evident that the purpose and objectives of this research study can be realised by making use of the qualitative research approach.

3.4 RESEARCH METHODS

Research methods are the practices and techniques used to collect and analyse the data, sample size, methods of sampling, method of data collection, the choice of measurement instruments and data analyses techniques (Bowling 2009:158).

In order to answer the research questions, the researcher chose interviews and document analysis as methods of data collection. Though research on quality of obstetric nursing records that have been done at Vhembe already indicated gaps (Rampfumedzi 2009:50), the researcher wanted to validate the findings of this research by using current information from the partograms at the hospitals where face-to-face semi-structured interviews were conducted. The data collection was conducted in two phases, which are the following: the first phase addressed the first research objective, which was an analysis of the documentation on the partogram. The second phase addressed the next two objectives, which are to explore and describe the experiences and challenges in the implementation of the partogram. The third phase, which is the development of strategies, was done based on the findings from the first phase and the second phase.

3.4.1 Phase 1: Document review

Documents are referred to as written sources that might be available and relating to a topic under study. They may include newspapers, government reports, personal and work diaries, letters, research articles, primary data from other projects,

organisational charts, manuals, medical records, film photographs and medical instruments (Green and Thorogood 2004:155). Over and above that, Bowen (2009:27) described document analysis as the systemic procedure for reviewing or evaluating documents that are printed or electronic. The collection of documents and other artefacts is often neglected in qualitative research, yet they are valuable sources of information if they are included in the research design (Henning et al 2004:99).

3.4.1.1 Reason for including document review as one of the research methods

Most documents such as a partograms are not written for research purposes, but when they are studied and analysed for the purposes of scientific research, the document review as a method of data analysis becomes relevant (De Vos et al 2005:315). According to Parahoo (2006:351), document review is termed structured observation where the activities that are specified in advance to be observed are broken down into categories or units. The researcher explores issues that reveal more about the data that they have acquired through interviews.

What is more, Henning et al (2004:87) suggests that a researcher needs to draw up an observation schedule or protocol to identify specific indicators and then analyse the data. According to Parahoo (2006:352), a checklist or a schedule should be similar to a questionnaire and that questions may be highly or loosely structured. A highly structured observation schedule does not provide an observer an opportunity to interpret the information, but only to tick on the appropriate columns.

Document review is often used in combination with qualitative research methods as a means of triangulation, where the researcher seeks to converge and corroborate information through the use of different data sources in order to enhance credibility and reduce bias of a single data source (Bowen 2009:28).

Document review was chosen in order to validate and cross-check the research findings. De Vos et al (2005:314) indicate that each data source has its strengths and weaknesses, hence the need for triangulation of the two data collection

procedures so that the strength of one procedure can compensate for the weakness of the other.

In this research study, the researcher developed a checklist to assess the aspects that midwives have plotted on the partogram.

3.4.1.2 Characteristics of document review

In this subsection, advantages and disadvantages of document analysis will be discussed.

3.4.1.2.1 Advantages of document review

Document review has the following advantages as indicated in Bowen (2009:29) and De Vos et al (2005:318):

- Document review is more affordable as documents are readily available. The researcher studied partograms of patients that were available in the maternity wards during the period of the interview. Records were available for the researcher to use as primary data sources.
- Documents provide data on the context within which research participants operate, thereby indicating the conditions that affect the phenomena currently under study. The researcher employed document analysis to obtain information on aspects that were monitored and those that were not monitored as indicated on the Maternity Care guideline for South Africa.
- Midwives were available for clarifying some of the aspects that are documented.
- The contents of the documents are not affected by the activities of the researcher because the documents were recorded in the researcher's absence.
- The researcher does not have to make personal contact with the participants. In this research study, the researcher studied the documents in the postnatal ward of maternity, away from the labour ward, where midwives who documented the information are working.

- Information that is contained in documents can suggest some questions that need to be asked and situations that need to be observed as part of the research study.
- Documents are a means of tracking change and development. The researcher discovered that midwives are using a new partogram, and the responses reflected a challenge on that part of midwives that is related to changes that were effected on the partogram.
- Documents can be analysed as a way of verifying findings of other research data. Document analysis assisted the researcher to verify what midwives said during interviews, which is related to the use of the partogram in monitoring a woman during labour.

3.4.1.2.2 Disadvantages of document review

Though document analysis has many advantages and some disadvantages. The following are the disadvantages of document review:

- Documents are usually incomplete and are produced for other purposes other than research. In this research study, the researcher is interested in assessing the completeness and the manner in which recording was done on the partogram. The researcher has no control over or knowledge of how the observations were conducted on patients (De Vos et al 2005:318-319; Bowen 2009:31).
- Lack of availability – the researcher is limited to what is available and accessible. The researcher discovered that, in two of the institutions, there were fewer partograms because the photocopying machine was not working. Availability of time to plot on the partograms is also based on the time at which a pregnant woman arrives at the hospital (Green & Thorogood 2004:166).
- Documents may not be accessible due to the record keeping policy of the institution. In this research study, the researcher requested permission timeously and was granted permission to study the documents.
- Lack of linguistic skills may negatively influence the contents of the documents and their being researchable. In this research study, the

researcher discovered that there was a misunderstanding amongst midwives related to abbreviations that are used when recording on the partogram.

- Some documents lack standard format, which makes comparison difficult. The research study revealed that there were misunderstandings amongst midwives with regard to the new and the old partogram.
- It is often impossible to ascertain critical factors such as the origin and the date of documents. The partogram that was used in these hospitals did not have the date when the document was developed.
- Records may not totally represent what has been done. In the case of the partogram, midwives may fail to record some of the information on the partogram due to other hindrances such as time. The researcher added criteria on the checklist in order to cover aspects that were not done or not recorded. The researcher has no knowledge of how midwives came to the decisions on some of the aspects that are being recorded (Green and Thorogood 2004:168).

Triangulation of data collection methods is essential in this research study in order to fill the gaps that are available on face-to-face interviews. Standardised observation of documents does not yield rich, complex and interpretive data that a qualitative researcher may wish to capture, but organises the researchers' work while bringing to attention small details. In this research study, the researcher chose standardised observation of documents as a complementary method to interviews that were conducted with midwives with the aim of validating and cross-checking the findings.

3.4.1.3 Development of the checklist for document review

A checklist for document review was developed from the information indicated on the Guidelines for Maternity Care in South Africa (South Africa 2007a:36). See Annexure L.

The main aspects included in the checklist are as follows:

- General information, which include the age of the woman, the parity of the woman, the date of admission, and risk factors on admission.

- The hours of labour, which include the duration of labour on admission, duration of ruptured membranes, and hours of labour until the time of delivery.
- Maternal condition, which include blood pressure, pulse, respiration and urinalysis, pain relief, and medications that were given.
- The foetal condition, which includes the foetal heart rate, moulding, caput, and condition of membranes or liquor.
- The progress of labour, which includes contractions and cervical dilatation.

These aspects were assessed to determine whether they have been documented according to the standard as indicated in Maternity Care Guidelines for South Africa (South Africa 2007a:36). Records were judged as recorded according to standard, not recorded according to standard, or not recorded or monitored.

3.4.1.4 Pretesting of the checklist

The checklist for document review was reviewed by two promoters, and alterations on the questions were made. Pretesting of the checklist was performed on two partograms in Hospital A, and alterations on the instrument were made according to the results of the pre-test. The findings from the two partograms were not included in the final document review sample. During pretesting of the checklist, the researcher discovered that the design of the partogram was changed three months ago, and the researcher restructured the questions according to the way the new partogram was designed.

3.4.1.5 Population for document review

A population is regarded as the entire aggregation of cases in which a researcher is interested, or the group that the researcher is interested in generalising about (Polit & Beck 2008:337; Babbie 2010:199). For document review technique, the population included all partograms of mothers who delivered at Vhembe District hospitals in the months of February and March 2012.

3.4.1.5.1 Sampling for document review

Sampling is the process of selecting a portion of the population to represent the entire population so that inferences about the entire population can be made without the expense of conducting a census (Polit & Beck 2008:339; Bowling 2009:468). Qualitative researchers use non-probability sampling techniques. According to Babbie (2010:192), non-probability sampling is any technique in which samples are selected in some way that does not permit a chance for every member of the population to be included in the sample.

The researcher used convenience sampling and studied 24 partograms that were available in the labour wards of the three hospitals. Convenience sampling is regarded as the selection of the most readily available people (Polit & Beck 2008:750). The researcher assessed the documentation of the partograms that were available during the period of data collection. The document review was done before the interviews were started in all the three hospitals. Triangulation of qualitative data collection methods was used to validate and cross-check the findings.

3.4.1.5.2 The sample for document review

According to Parahoo (2006:258), a sample is defined as a subset of the target population. Twenty-four partograms of women who were available on the days that interviews were conducted were selected for document review from the three hospitals as follows:

- In Hospital A – nine partograms were reviewed.
- In Hospital B – five partograms were reviewed.
- In Hospital C – ten partograms were reviewed.

Inclusion criteria

The researcher used the following inclusion criteria to only select partograms of mothers who

- are still in the maternity ward (even though discharged);

- were admitted in the labour with cervix from 0-8cm dilated; and
- delivered vaginally

Exclusion criteria

- Partograms of mothers who came with cervix being fully dilated were not reviewed because there was not enough evidence of observations that were done and recorded by midwives during labour.
- Partograms of mothers who ended up being operated due to complications.

3.4.1.6 Data collection process for document review

According to Cronje and Grobler (2003:691), document review in obstetrics means to examine and check systematically and officially in order to improve the care of the mother and the baby. Twenty-four partograms of mothers from the three hospitals were reviewed before interviews were conducted with the participants. The information that is recorded on the patients' partograms was not exactly the same as reflected on the checklists because midwives were still adjusting to the new partogram that has been introduced for the past three months. The researcher was requested to come in uniform and to wear a name tag to avoid misunderstandings with the patients when the partograms are being reviewed.

In Hospital A, the researcher moved from bed to bed, reviewing the partograms of patients who had already delivered but not yet discharged. In Hospital B and C, the researcher was offered a table and chair, and all the partograms of patients who were available were brought to the researcher for reviewing. The results from document review were analysed manually by using frequencies to evaluate the plotting of the partograms against the checklist that has been developed based on information from the Maternity Care Guidelines for South Africa (South Africa 2007a:36). In Hospital A, nine partograms were reviewed; in Hospital B, only five partograms were reviewed; and in Hospital C, ten partograms were reviewed.

3.4.1.7 Organisation of data from document review

The data gathered from the partograms of the three hospitals were analysed. The researcher counted the frequencies according to specific elements. The frequencies were then added together in order to determine which aspects were mostly recorded according to standard and those that were least recorded. Specific aspects that were outstanding from a specific hospital were noted, such as gaps in some of the partograms, and questions related to those aspects were added during interviews.

3.4.1.8 Data analysis from document review

The data from the partograms were analysed using simple, descriptive statistics. Samples were described in terms of frequencies and percentages and were reported in the form of a table. Frequencies involve counting the number of times a value appears on the data, and the numbers were converted into percentages (Parahoo 2006:380).

3.4.1.9 Reliability and validity in document review

From an interpretive perspective, the aim of the research study is to understand the subjective experience. However, in the case of document review, few aspects that are relevant are described.

3.4.1.9.1 Reliability of information written on the partograms

Reliability refers to the consistency of a particular method in measuring or observing the same phenomenon (Parahoo 2006:475). Green and Thorogood (2004:168) indicate that selective deposit, which means that not everything gets recorded, is one of the threats to reliability of the records. The researcher cannot guarantee the reliability of the information on the partograms as the information was recorded in her absence. It is possible that midwives may have provided care or assessed a woman and failed to record due to various reasons such as lack of time or resources. The partograms that were reviewed are not representative of all the partograms that were recorded at that time in the labour wards of the three hospitals. Only 24 partograms of mothers who were still available in the ward during the interviews were studied. The researcher guarded against conclusions based on this set of data.

3.4.1.9.2 Validity of checklists

Validity is described as the degree or extent to which an observation schedule or any other data collection tool measures the phenomenon under investigation (Parahoo 2006:475). The researcher ensured that the elements that are included in the checklist are the same as those indicated on the Maternity Care Guidelines for South Africa (see Annexure L)

3.4.2 Phase 2: Face-to-face semi-structured interviews

Face-to-face interviews were conducted with 17 midwives in three hospitals at Vhembe District.

3.4.2.1 Reason for the choice of face-to-face semi-structured interviews

The researcher employed semi-structured interviews as a method of data collection to explore midwives' experiences in using the partograms. Interviews are described in Kvale (1996) cited in De Vos et al (2005:287) as an attempt to understand the world from the participant's point of view in order to unfold the meaning of their experiences. Furthermore, Green and Thorogood (2004:79) define an interview as a conversation that is directed towards the particular researcher's needs for data. In addition, Polit and Beck (2008:757) define an interview as a data collection method in which an interviewer asks questions to a participant, either face to face or by telephone.

Interviews are useful for evaluating programmes that are aimed at individual outcomes, capturing and describing clinical guideline processes, exploring individual differences between participants' experiences and outcomes, understanding the meaning of guidelines to participants and documenting variations in guideline implementation at different settings.

The researcher employed semi-structured interviews to gather data on aspects of interest. Semi-structured interviews are defined as those interviews that are organised around areas of particular interest while allowing considerable flexibility in scope and depth (De Vos 2005:296). In semi-structured interviews, the researcher decides on the topics that are supposed to be covered, but the interviewee's

responses determine the type of information that will be produced and their importance. Qualitative semi-structured interviews provided the opportunity to change the words, but not the meaning of questions, by making use of an interview guide (Parahoo 2006:329; Green and Thorogood 2004:80).

Furthermore, Robinson (2000) in Speziale and Carpenter (2006:36) defines a semi-structured interview as a formal qualitative interview and describes it as an unstructured conversation with a purpose that usually features an audio tape and verbatim transcription of data and the use of an interview guide rather than an interview schedule of questions.

3.4.2.2 Advantages and disadvantages of interviews

Interviews are mostly used in qualitative research. In this subsection, advantages and disadvantages of interviews are discussed.

3.4.2.2.1 Advantages of using qualitative interviews

- Response rate is high because people rarely refuse to talk to an interviewer who is cooperating well with them. The researcher was welcomed warmly in the labour wards of the three hospitals, and all midwives who were approached were willing to be interviewed.
- Confusing questions are clarified during interviews, leading to reliable data. The researcher was able to explain further in cases of misunderstanding.
- Interviews enhance the quality of self-report data through probing. Hence, probing was used to obtain more information from the participant to explain further where necessary.
- There is no missing information or unanswered questions in interviews. All the questions that were formulated by the researcher were answered, as the researcher was able to ask all the questions indicated on the interview guide.
- Researchers have control over question ordering. One of the advantages of using interviews is that the researcher was able to ask questions as they appear on the interview guide, which makes it easier to analyse the

information. The researcher used the interview guide as a reminder of the main topics that need to be asked during the interview.

- Interviews permit greater control over the sample and ensure that only those who meet the criteria are interviewed. The researcher managed to interview 17 experienced midwives who were available and were willing to be interviewed at all the three hospitals.
- Interviews make it possible to have supplementary data through observation, which is useful in interpreting responses. It was possible for the researcher to check the birth register and the activities of the midwives on the days when the maternity wards were visited (Polit & Beck 2004:351).

3.4.2.2.2 Disadvantages of using qualitative interviews

- Interviews may be regarded as infringing on the privacy of participants.
- Conducting interviews may be more expensive, especially when training of interviewers is involved.
- Analysing and interpreting qualitative interviews is much more time-consuming than analysing and interpreting quantitative interviews. It took the researcher more than six months to analyse the data.
- It is more subjective as the researcher decides on which quotes or examples to report. The researcher is regarded as an instrument, and the subjectivity in analysis and interpretation cannot be ignored (Polit & Beck 2004:351).

3.4.2.3 Development of interview questions

A literature study was done to guide the researcher in understanding a phenomenon and to know which questions to ask midwives. De Vos (2005:297) indicates that when drafting the guide, the first questions might be too explicit, and then when redrafting, they become simpler and less loaded. Interview questions were reviewed by a more experienced qualitative researcher in order to ensure that the questions yield the expected answers. During the interview process, the researcher elicited participants' general views and their responses on specific concerns; this process is termed funnelling (De Vos et al 2005:297).

The general question

How do you experience the implementation of the partogram as the intrapartum guideline in managing a woman during labour?

Some of the probing questions that were asked were the following:

- What is your perception on the implementation of the partogram as a guideline in monitoring a woman during labour?
- What are the benefits of using the partogram?
- What challenges have you experienced when implementing the partogram?
- What is your attitude towards the implementation of the partogram during labour?
- What can be done to improve the implementation of the partogram?

Qualitative research process cannot be tightly prescribed, and all phases of the process may change after the researcher has entered the field and starts collecting data (Creswell 2009:176).

3.4.2.4 Pretesting of the interview questions

Pretesting of the interview questions were done with two participants at Hospital A; one was a lecturer from the college doing accompaniment of midwifery students and the other participant was a midwife working in the labour ward. The purpose of pretesting of the questions was to sharpen the researcher's interviewing skills and to alter questions where necessary. The information obtained from the pretesting of the questions was included in the analysis of data.

3.4.2.5 Study population for face-to-face interviews

The study population is all qualified midwives who are caring for mothers in the maternity wards at regional and district hospitals of Vhembe District in Limpopo province.

3.4.2.6 Sampling of study participants

In qualitative studies, individuals who are cooperating in the study play an active rather than passive role and are referred to as informants or study participants. Speziale and Carpenter (2007:29) indicate that individuals who are selected to participate in qualitative research should have the experience of the phenomenon of interest. Therefore, participants' active involvement in the enquiry assists researchers to understand their experiences better.

In phase 2, a non-probability convenience sampling method was chosen in order to select 17 midwives who were working in the labour wards at the three hospitals in Vhembe District at the time of data collection. The researcher selected midwives based on the fact that they have knowledge and experience of the partogram as indicated in Table 3.2. In order to avoid interfering with the ward activities, the researcher interviewed midwives individually instead of using focus group discussions (Polit & Beck 2008:71-72).

Seventeen qualified midwives working in the labour wards of one regional hospital and two district hospitals in Vhembe District participated in the research study as follows:

- In Hospital A (Level 1) – five midwives were interviewed.
- In Hospital B (Level 11) – six midwives were interviewed.
- In Hospital C (Level 1) - six midwives were interviewed.

Inclusion criteria

The researcher used the following inclusion criteria to only purposefully select midwives who

- have been working in the maternity ward for at least six months;
- had experience of using the partograms; and
- are willing to participate in the research study.

Exclusion criteria

All midwives with experience of less than six months were excluded from the study.

3.4.2.7 Data collection process for face-to-face interviews

Face-to-face semi-structured interviews were conducted with 14 midwives and three midwife managers in the maternity wards of three hospitals that are located at Vhembe District of Limpopo province in the months of February and March 2012. Midwives were given an opportunity to ask any preliminary questions before the actual interview and to negotiate an appropriate time for the interview. Information related to the purpose and process of the interview was explained, and informed written consent was obtained.

A high-quality tape recorder was used to increase the accuracy of the data collection (Speziale & Carpenter 2007:96). Permission was obtained from participants to record the interviews on tape so that the researcher could concentrate on the proceedings of the interview.

The researcher sat at a place where it was possible to establish eye contact with the participants. During all interviews, the researcher adopted an open, friendly and professional manner and concluded the interviews by thanking the interviewees for their time and participation. Specific interviewing techniques were used to acquire more information, such as exploring, clarifying, focusing, using silence, summarising and listening (Babbie & Mouton 2004:289).

3.4.2.8 Data organisation for face-to-face interviews

Direct observation was another method of gathering data, as the researcher went physically into the clinical environment where the midwives implemented the partogram. Field notes were written during and immediately after the interview sessions as an aid to enrich the data that had been collected. The researcher kept the personal notes to gain both a deeper understanding of own experiences and a deeper insight into the study being conducted.

The most basic type of qualitative analysis is an analysis of the content of the data in order to categorise the recurrent or common themes with the aim of reporting the key elements of the participant's' accounts from the interviews. The researcher read through the transcripts and categorised them in ways that can be summarised (Green and Thorogood 2004:177). This process is comparative in that various statements are compared with one another in order to classify those statements that recur or are common.

The researcher obtained a data coder with good command of English to transcribe the information from the tape recorder. The word processor was used to cut and paste transcripts on screen into a new document with themes using a different font. A case identifier was typed opposite the relevant quote in order to ensure that the process is not ruined as there were 17 participants.

3.4.2.9 Data analysis for face-to-face interviews

Major categories and subcategories and their relationships were reflected as themes. According to Green and Thorogood (2004:190), a good qualitative analysis should include aspects related to the social life of the participants. Therefore, besides listing specific responses related to categories, the researcher also looked at the hospital from which participants were most likely to report certain problems in order to provide a complete description of the labour ward environment. The eight steps of data analysis provided in Tesch (1990) cited in Creswell (1994:154-155) were used to analyse the data as follows:

- Get a sense of the whole by reading carefully through all transcriptions of the recorded data.
- Pick one interesting document that is the shortest and try getting the underlying meaning and writing thoughts in the margin.
- Analyse the rest of the documents and make a list of topics, cluster similar topics together and write them in columns. The topics were arranged in themes.
- Formulate codes and merge new categories with codes; write the codes next to the relative segment of the text while checking if new categories or themes emerge.

- Find the most descriptive wording for the topics and turn them into categories that relate to each other.
- Abbreviate each category and place codes in alphabetical order.
- Assemble the data material that belong to each category in one place and perform a preliminary analysis.
- Record the existing data if necessary and conduct a preliminary analysis.

Co-coding was done with an experienced researcher in qualitative research. Findings were described using participants' quotations in order to describe their experiences. The results of the study were discussed and supported by means of relevant literature and information obtained from similar studies in order to verify the study results and highlight similarities and differences between this study and other similar studies conducted in the past. The study findings were analysed in relation to the TPB and strategies were developed to improve the implementation of the partogram in South Africa.

3.4.3 Field notes during data collection

Direct observation was another method of gathering data. The researcher went physically into the clinical environment where the midwives implemented the partogram. Field notes were written during and immediately after the interview sessions as an aid of enriching the data that had been collected.

3.4.3.1 Observational notes

These are notes that contain a description of events that were experienced through watching and listening. In this study, observational notes were recorded events that occurred on the day of the interview and non-verbal communication of midwives.

3.4.3.2 Theoretical notes

Theoretical notes are notes written with a purpose in order to derive meaning from the observational notes. The researcher used the notes to make her own interpretation and inferences upon which to build analytic themes.

3.4.3.3 Methodological notes

Methodological notes are instructions to the researcher, critiques of own tactics, and reminders about methodological approaches that may be fruitful. In this research study, the researcher remained mindful of her own conduct during the interviews and kept the research design and method in mind.

3.4.3.4 Personal notes

These notes serve as a memo about the researcher's reactions, reflections and experiences during the fieldwork.

3.4.3.5 The researcher as the instrument for data collection

Field work also involved relationships and personal feelings, which the researcher documented down in order to be aware of her personal feelings. Parahoo (2006:64) indicates that the researcher is an instrument of data collection; that being so, the researcher has to think of questions during the interview to get as close a view as possible to the experiences of midwives. The researcher uses her intuition to facilitate responses and to read the situation. Subjectivity contributes towards the richness of the findings of a qualitative inquiry (Speziale & Carpenter 2007:18).

3.4.4 Ethical considerations in the research study

Ethics is a set of moral principles that are suggested by an individual or group and that is widely accepted and offers rules and behavioural expectations about the most correct conduct towards subjects, employers, sponsors, other researchers, assistants and students (White 2005:210; Polit & Beck 2006:753).

3.4.4.1 Protecting the rights of the institutions

The research proposal was submitted to the Ethics Committee of the Department of Health Studies, University of South Africa, for ethical approval to ensure that the rights of participants were considered. See Annexure A.

A written letter of approval to collect data was obtained from the Limpopo Department of Health before the actual data were collected (see Annexures B and

C). Written permission to collect data was also obtained from chief executive officers of the three hospitals at Vhembe District before the data were collected (see Annexures D, E, F, G, H and I). Moreover, permission to conduct interviews was also obtained from the managers of the maternity wards of the three hospitals.

3.4.4.2 Protecting the rights of participants

In this subsection, informed consent, voluntary participation, principle of beneficence and non-maleficence, confidentiality, justice, and respect for autonomy will be discussed.

3.4.4.2.1 Informed consent

According to Polit and Beck (2006:176), informed consent means that participants have adequate information regarding the research, are capable of comprehending the information, and have the power of free choice to consent or decline participation voluntarily. The participants were informed about the nature of the research, the purpose of the study and that the estimated time of the interview is 25-35 minutes. In addition, participants were informed that participation is voluntary and that failure to volunteer will not result in any penalty. Informed, written and signed consent was obtained from each midwife before being interviewed (see Annexure J).

3.4.4.2.2 Voluntary participation

Burns and Grove (2009:190) explain that in order to conduct research ethically, research participants' right to self-determination must be preserved, and they must not be coerced into being involved in the study. The participants involved in this study did so voluntarily and were advised in writing that they could withdraw from the study at any time (see Annexure J).

3.4.4.2.3 Principle of beneficence or non-maleficence

The principle of beneficence and non-maleficence relates to an obligation to provide benefits to participants and to balance the benefits against risks and requires that the researcher protect the participants from harm (Townsend, Cox & Li 2010:623).

According to Burns and Grove (2009:198), the researcher should do good and protect the participants from harm and discomfort.

The researcher ensured that the participants were comfortable during the interview process by conducting interviews in a private room where disturbances were minimal. Information on the purpose and benefits of the research was explained to participants before the actual investigation. Furthermore, the researcher considered honesty and openness, which promoted the development of a trusting relationship between the researcher and the participants.

Since the researcher was not part of the hospital staff; the participants were free to voice their opinions without fear of being victimised. The researcher took into cognisance the fact that midwives are working in an environment which is unpredictable and hence affects their emotions. Individual face-to-face interviews were conducted to ensure that some midwives remain with patients while the researcher is interviewing one participant. Participants' wishes were taken into consideration; for an example, one participant did not want to be recorded, and the researcher had to write notes during the process.

In order to cater for midwives' wishes, the interviewer used the language that participants preferred, which is English. The researcher attempted to recognise when it was inappropriate to probe further in order to be sensitive to the midwife's emotional well-being despite the need for the rich data. Participants were protected from exploitation by managers of maternity wards in that the researcher did not disclose the views of participants that relate to them.

3.4.4.2.4 Confidentiality

The researcher is expected to protect the information that participants have provided. According to Burns and Groove (2009:197), confidentiality is refraining from sharing private information shared by a participant unless it is with the consent of the participant.

Anonymity is the most secure means of protecting confidentiality and occurs when even the researcher cannot link the participants to their data (Polit & Beck 2008:180; Speziale & Carpenter 2007:62-66; Babbie & Mouton 2007:523). In-depth interviews

in qualitative research makes anonymity impossible to attain as the personal interactions makes the researcher get to know the participants.

Permission to use direct quotes was acquired, and examples of raw data did not reveal participants' identity. The identity of participants was protected by using codes such as PA-1 (participant number 1 in Hospital A) instead of names when transcribing the data from the tape recorder. The researcher also explained to the participants the reason for using the tape recorder and that the audio tape recordings would be destroyed after completion of the study. A private room with no telephone was offered to the researcher in all the three hospitals in order to maintain privacy and avoid disturbances during the interviews. Permission from each participant was obtained before the beginning of the interview to use the tape recorder (see Annexure J).

3.4.4.2.5 Justice

Justice is explained in terms of what an individual deserves and is entitled to without partiality with the aim of treating individuals equally (Townsend et al 2010:622). Participants hope to benefit from the research study, and in this research study, participants benefited in that they obtained the opportunity to share their experiences.

The research results of this study will be communicated to the three hospitals and the research report will be published. The researcher developed strategies based on the findings from midwives' experiences, which will assist in improving the use of the partogram in monitoring women during labour.

Furthermore, justice refers to the right of a participant to privacy. The researcher used the private rooms that were available in the hospitals to ensure that participants' privacy is respected (Polit & Beck 2008:174).

3.4.4.2.6 Respect for autonomy

Pera and Van Tonder (2005:46) describe autonomy as having the freedom to make informed choices. Townsend et al (2010:620) further defined autonomy as the capacity to think, decide and act on the basis of freely made decisions, which include

liberty on the capacity for intentional action. Respect for autonomy is linked to the principle of moral rule of veracity, which means truth telling.

Midwives have the right to information about the study and to refuse or agree to participate in the research study, and they agreed to participate without threat after thorough explanation regarding the nature of the research was done. According to Burns and Groove (2009:194), autonomy is the individual's right to determine the time, extent and general circumstances under which personal information will be shared with or withheld from others. The interview time and preferences were considered, and midwives were assured that the information will not be linked to their names.

3.4.4.3 Researcher integrity

Researchers are ethically compelled to ensure that they are competent and sufficiently skilled to undertake the proposed study (De Vos et al 2005:63). Babbie and Mouton (2007:526) state that researchers should strive to maintain objectivity and integrity when conducting scientific research by adhering to a high level of technical standards, indicating the limitations of the study and its methodology, not falsifying or changing data and at all times be being prepared to make known the methodology and techniques of analysis.

In this research study, the researcher worked competently, was not biased, and delivered only genuine unaltered data. In addition, the researcher described the limitations of the study as well as the data analysis methods that were employed.

3.4.5 Measures of trustworthiness in qualitative research

Trustworthiness is the method of establishing validity and reliability of qualitative research, which is achieved when results represent the experience of the study participants (Speziale & Carpenter 2007:460). Trustworthiness is further described as ensuring that the study is worth paying attention to, worth taking account of, and that the findings are to be trusted. Trustworthiness encompasses credibility, transferability, conformability and dependability (Polit & Beck 2008:196).

3.4.5.1 Credibility

According to Efstathiou, Papastavrou, Raftopoulos and Merkouris (2011:4), credibility refers to the confidence in the truth of the data produced. Credibility is a term that relates to the trustworthiness of the findings in a qualitative research study and is demonstrated when participants recognise the reported research findings as their own experiences (Speziale & Carpenter 2007:458). Credibility includes prolonged engagement, referential adequacy, and authority of the researcher.

3.4.5.2 Prolonged engagement

Prolonged engagement is described as the investment of sufficient time during data collection in order to have an in-depth understanding of the group under study (Polit & Beck 2008:762). Over and above that, Creswell (2007:207) indicates that prolonged engagement involves building trust with the participants and learning the culture of the participants. The researcher invested sufficient time to establish rapport and trust with participants by being in the labour wards of the three institutions for the whole day.

Interviews were conducted until data saturation occurred. Further, the researcher is an advanced midwife and has personal experience of utilising the partogram in labour. The questions were reviewed by an expert in midwifery and a promoter who is experienced in qualitative research. Questions were pretested on two midwives who were available in Hospital A, after which modifications on the wording of the questions were done (Polit & Beck 2008:71).

3.4.5.3 Triangulation

Triangulation involves the use of multiple sources or referents to draw conclusions about what constitute the truth (Polit & Beck 2008:196; Speziale & Carpenter 2007:460). The researcher used interviews and document analysis in order to corroborate evidence. In addition to interviews and document review, a literature study was conducted to ensure that appropriate questions were asked (Efstathiou et al 2011:4).

The researcher tape recorded interviews with study participants except for one who requested not to be recorded. Partograms that were available on the days when interviews were conducted were studied for completeness. Interviews were supplemented by field notes and literature control in order to contextualise the findings within existing research.

3.4.5.4 Conformability

Efstathiou et al (2011:4) regard conformability as the characteristics of the data, mainly their objectivity and neutrality. Conformability is further described in Speziale and Carpenter (2007:49) as the degree to which study results are derived, the characteristics of participants, and the study context. Conformability assisted the external auditor to understand the process that led the researcher to come up with the conclusion, and determine whether another researcher will arrive at the comparable conclusions (Speziale & Carpenter 2007:49).

The questions were reviewed by peers and the promoter before being asked to participants. A detailed record of raw data was obtained using various methods, an audit trail was kept, and the research data were audited by an independent expert in order to ensure that conformability is accounted for.

Co-coding was electronically done by the researcher and an expert in qualitative research. To achieve the goal, each coder read the transcripts independently and coded the manuscripts, and then the results were discussed to reach consensus (Creswell 2007:2010).

3.4.5.5 Dependability

Dependability refers to the stability of data that emerged over time and over conditions (Efstathiou et al 2011:4). Triangulation of data collection methods was used to ensure that the findings are dependable. Data were obtained through field notes, interviews, and review of partograms. Co-coding was done by the researcher and an expert in qualitative research. There can be no dependability without credibility (Speziale & Carpenter 2007:49).

3.4.5.6 Transferability

Generalisability is mostly related to quantitative research, which refers to the extent to which findings are applied to a wider population, and the study sample is representative of the wider population (Green and Thorogood 2004:197). However, in qualitative work, study participants are rarely randomly selected. The researcher needs to think of the kind of relationship that the study findings will have with other populations and settings and what inferences can be drawn from the data analysis. Sensitising readers of new ways of thinking is another method of addressing generalizability in qualitative research, not considering how representative their sample was of the whole population. In Chapter 1, most of the research that were stated concentrated on assessment of how the partogram has been plotted by midwives and not on their experiences on using the partogram. This research study will sensitise managers, supervisors, teams that develop guidelines, and policymakers on the views of end-users of clinical guidelines.

In addition, Speziale and Carpenter (2007:49) and Efstathiou et al (2011:4) regard transferability as the probability that the study findings have meaning to others in a similar situation. A purposive sample of midwives who are working in the labour wards of the three hospitals and are using the partogram was used to ensure that the meaning of the study findings is transferable to other midwives in other hospitals.

3.4.5.7 Authority of the researcher

The researcher was trained in research aspects and attended various research courses to update knowledge. The researcher is further supervised by experienced qualitative researchers who have doctorates in nursing. Therefore, the researcher had appropriate support in conducting and completing the research study. The researcher has also been a tutor for student midwives for a number of years and has already done research in the field of midwifery. A researcher is also expected to demonstrate reflexive awareness. Green and Thorogood (2004:195) suggest four ways in which the researcher can develop reflective awareness, which are as follows:

- Methodological openness – being able to be explicit about the steps that are taken in the data production and analysis. Steps that were followed in data analysis were described clearly for the reader to understand the methodology that has been followed.
- Theoretical openness – the assumptions that were made in Chapter 1 were addressed and an explanation on how these assumptions have shaped the study is indicated in Chapter 7).
- Awareness of the social setting of the research itself – the researcher needs to be aware of the environment in which the research is being undertaken. In this research study, the social setting is the labour ward environment
- Awareness of the wider social context – it includes how political and social values have an impact on the research study and how the policy context shapes the data. The researcher is aware of the South African legal and policy framework related to health and specifically midwifery practice.

3.5 CONCLUSION

Detailed descriptions of the research design, methodology and trustworthiness of the data, as well as ethical considerations, have been discussed in this chapter. The next chapter discusses data analysis and data presentation.

CHAPTER 4

DATA ANALYSIS AND DATA PRESENTATION

4.1 INTRODUCTION

The foregoing chapter discussed the research design and methods. This chapter describes the analysis and presentation of data obtained through a review of partograms and the interviews that were conducted with midwives. Data was analysed using the eight steps of Tesch (See 3.4.2.9).

The purpose of the research study

The statement of purpose summarises the overall study goal and identifies the key concepts (Polit & Beck 2004:85). The purpose of this study was to explore and describe the implementation of the partogram as an intrapartum clinical guideline in monitoring and managing a woman during labour.

The objectives of the study are to

- analyse the documentation of the partogram in the labour ward;
- explore the experiences of midwives in the implementation of a partogram as a guideline during labour;
- describe the challenges experienced by midwives in the implementation of the partogram as a clinical guideline; and
- develop strategies to support midwives in the use of the partograms in order to manage a pregnant woman appropriately and refer the patient timeously, should complications occur.

Data was collected through face-to-face unstructured interviews from 17 midwives and document analysis from 24 partograms at the three hospitals in Vhembe District of Limpopo province.

For face-to-face interviews, the participants had to answer the following broad question:

How do you experience the implementation of the partogram as the intrapartum guideline in managing a woman during labour?

Some of the probing questions that were asked were the following:

- What is your perception on the implementation of the partogram as a guideline in monitoring a woman during labour?
- What are the benefits of using the partogram?
- What challenges have you experienced when implementing the partogram?
- What is your attitude towards the implementation of the partogram during labour?
- What can be done to improve the implementation of the partogram?

Before the interviews were conducted at each hospital, documentation on the partograms was analysed using the following variables: parity, age of the patient, date of admission, duration of labour, maternal condition, foetal condition and the progress of labour.

4.2 FINDINGS ON DOCUMENTS REVIEW

Manual calculation of frequencies and percentages was done on the 24 partograms that were reviewed on the days when face-to-face interviews were conducted. Table 4.1 indicates the frequencies and percentages of the variables from the highest to the smallest percentage of those that were recorded according to standard. Quantitative data analysis of the findings obtained in reviewing of the partograms was done. For the purpose of analysis, recorded according to standard as indicated in the Guidelines for Maternity Care in South Africa (2007a:36) = 2; not recorded according to standard = 1; and not recorded = 0 were used. Patients' particulars and date of admission were recorded as done or not done as indicated in Table 4.1.

Table 4.1: Frequencies and percentages of observations on the partograms (N = 24)

	Recorded according to standard		Not recorded according to standard		Not done or not recorded		
Variables	**Frequency (N =24)**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Total**
Parity	**24**	**100.0%**	**0**	**0.0%**	**0**	**0.0%**	**100%**
Age	**23**	**95.8%**	**1**	**4.2%**	**0**	**0.0%**	**100%**
Date of admission	**22**	**91.7%**	**2**	**8.3%**	**0**	**0.0%**	**100%**
Pelvis adequacy	**21**	**87.5%**	**2**	**8.3%**	**1**	**4.2%**	**100%**
Caput	**19**	**79.2%**	**4**	**16.7%**	**1**	**4.2%**	**100%**
Medications given	**19**	**79.2%**	**3**	**12.5%**	**2**	**8.3%**	**100%**
Moulding	**18**	**75.0%**	**5**	**20.8%**	**1**	**4.2%**	**100%**
Duration of ruptured membranes	**17**	**70.8%**	**1**	**4.2%**	**6**	**25.0%**	**100%**
Name, signature and designation	**17**	**70.8%**	**7**	**29.2%**	**0**	**0.0%**	**100%**
Blood pressure	**17**	**70.8%**	**6**	**25.0%**	**1**	**4.2%**	**100%**
Cervical dilatation	**17**	**70.8%**	**7**	**29.2%**	**0**	**0%**	**100%**
Pain relief during labour	**17**	**70.8%**	**5**	**20.8%**	**2**	**8.3%**	**100%**
Membranes/ liquor	**16**	**66.7%**	**7**	**29.1 %**	**1**	**4.2%**	**100%**
Risk factors	**14**	**58.3%**	**1**	**4.2%**	**9**	**37.5%**	**100%**
Pulse	**13**	**54.1%**	**10**	**41.7%**	**1**	**4.2%**	**100%**
Duration of labour on admission	**12**	**50.0%**	**2**	**8.3%**	**10**	**41.7%**	**100%**
Duration of labour/time	**11**	**45.8%**	**6**	**25.0%**	**7**	**29.2%**	**100%**
FHR	**8**	**33.3%**	**14**	**58.3%**	**2**	**8.3%**	**100%**
Contractions	**8**	**33.3%**	**16**	**66.7%**	**0**	**0%**	**100%**
Urine testing	**8**	**33.3%**	**6**	**25.0%**	**10**	**41.7%**	**100%**

4.2.1 Parity

According to Fraser et al (2006:244), parity refers to the number of times that a woman has given birth to a child, live or stillborn, excluding abortions. Midwives are expected to record the number of live births that the woman had, as high parity leads to maternal deaths. It is impressive to note that in all three hospitals, parity was recorded in all 24 (100.0%) partograms that were audited.

4.2.2 Age

The age of the woman is important in midwifery. Complications may arise if the mother is 16 years and younger and older than 35 years. It is commendable that in almost all (95.8%; n = 23) of the partograms that were audited in this study, the age of the woman was recorded, and on only 4.2% (n = 1) the age was not recorded.

4.2.3 The date of admission

According to the South African Regulation (R2488 of 26 October 1990 Annexure A), a registered midwife is expected to record the date and time of the commencement of labour which assists in determining the duration of labour. Of the 24 partograms that were audited, the date of admission was recorded in 22 (91.7%), and in two (8.3%), the date of admission was not recorded.

4.2.4 The duration of labour on admission

Midwives are expected to ask the woman the date and time when labour started and then calculate the duration of labour at the time of admission. This is done to ensure that prolonged labour is avoided or managed appropriately.

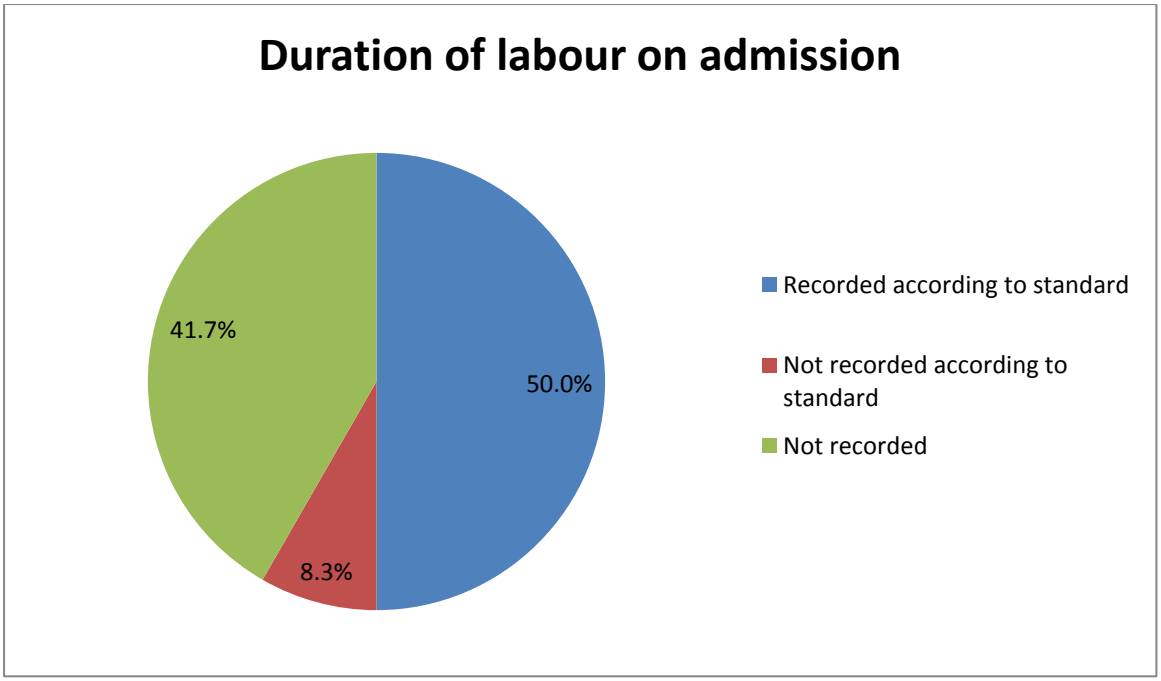

Figure 4.1: Duration of labour on admission

The duration of labour on admission was recorded as indicated on the Guideline for Maternity Care in South Africa (2007a:36) on 12 (50.0%) of the partograms; on two (8.3%) of the partograms, the duration of labour was not recorded according to standard; and on 10 (41.7%) of the partograms, the duration of labour on admission was not calculated or not recorded as indicated in Figure 4.1.

4.2.5 Time indicating the duration of labour

Prolonged labour plays a significant part in deaths of women due to puerperal sepsis, obstetric haemorrhage, anaesthetic complications and embolism (South Africa 2012:15). Midwives are expected to write the time that indicates the duration of labour on an hourly basis as labour progresses in order to diagnose prolonged labour earlier. When the time of labour is not recorded, midwives and doctors will be unable calculate the hours of labour as it progresses, in order to diagnose prolonged labour which may lead to maternal and foetal death.

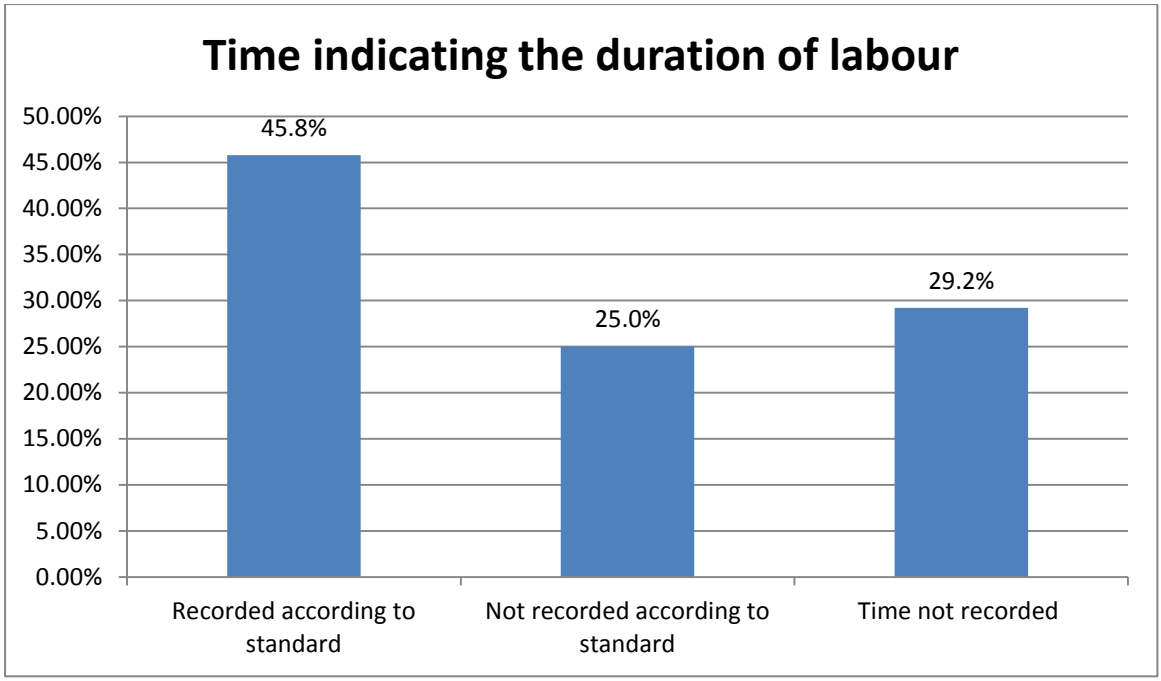

Figure 4.2: Time indicating the duration of labour

Only on 11 (45.8%) of the 24 partograms, the time that indicates the duration of labour was recorded according to standard; on six (25.0%), the duration of labour was not recorded according to standard; and on seven (29.2%), the duration of labour was not recorded. The time of labour is important for doctors and midwives in order to calculate the hours of labour and then diagnose prolonged labour.

4.2.6 Risk factors

A midwife is expected to indicate risk factors on the partogram so that necessary attention can be given to the woman. On just above half, i.e. 58.3% (n = 14), of the partograms, risk factors were indicated according to standard; on 4% (n = 1), risk factors were not indicated according to standard; and on 37.5% (n = 9), the risk factors were not recorded.

4.2.7 Medication given

Midwives are expected to give medications as prescribed or according to the condition of the patient.

Of the 24 partograms that were audited, medications that were given were recorded according to standard on 19 (79.2%) partograms; on three (12.5%) partograms, the medications that were given were not recorded according standard; and on two (8.3%), the medications were not given or not recorded.

4.2.8 Pain relief during labour

Midwives are expected to provide pain relief methods that are available according to a woman's wishes and are also expected to record such measures on the partogram.

Pain relief during labour was recorded according to standard on 17 (70.8%) of the partograms; not recorded according to standard on five (20.8%); and pain relief was not given or recorded on two (8.3%) of the 24 partograms.

4.2.9 Rupture of membranes

Midwives are expected to record whether membranes have ruptured and whether the liquor is clear of meconium stain and also to calculate the duration of ruptured membranes. The colour of the liquor is important, as green colour signifies meconium and is associated with foetal distress and low Apgar score.

On 16 (66.6%) of the 24 partograms, recording of ruptured membranes was done according to standard; on seven (29.1%), recording was not done according to standard; and on one (4.2%), the membranes were not observed or not recorded.

4.2.10 Duration of ruptured membranes

If membranes rupture early, i.e. before labour has started or is in latent phase, there may be a risk of infection.

Of the 24 partograms that were audited, the duration of ruptured membranes was calculated and recorded according to standard on 17 (70.8%) of the partograms; on one (4.2%), the duration of ruptured membranes was not recorded according to standard; and on six (25.0%), the duration of ruptured membranes was not calculated or recorded.

4.2.11 Names, signatures and designation

On 70.8% (n = 17) of the partograms, names, signatures and designations were written according to standard; and on 29.2% (n = 7) of the partograms, names, signatures and designations were not written according to standard. Names, signatures or designations were recorded in all 24 partograms that were audited.

4.2.12 Condition of the mother during labour

The maternal condition needs to be observed to detect any abnormalities in order to manage or refer the woman to the next level of care if necessary. According to Fraser et al (2006:439), the blood pressure of a woman who is in labour must be monitored closely in order to detect any variation from normal.

4.2.12.1 Blood pressure

The blood pressure of the mother was recorded according to standard on 17 (70.8%) of the partograms; not recorded according to standard in six (25.0%) of the partograms; and on one (4.2%), the blood pressure was not checked or recorded.

4.2.12.2 Maternal pulse

On just above half, 54.2% (n = 13) of the partograms that were audited, recording of the pulse of the mother during labour was done according to standard; on 41.6% (n = 10), recording was not done according to standard; and on 4.2% (n = 1) of the partograms, pulse was not checked or recorded as depicted in Figure 4.3.

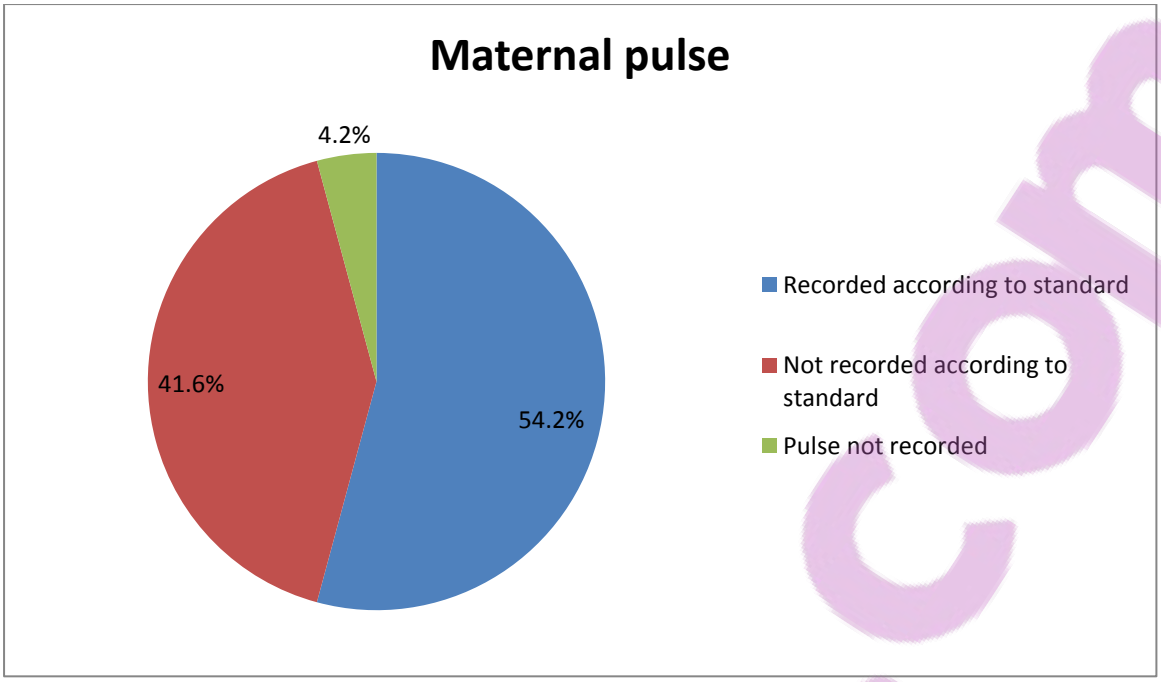

Figure 4.3: Maternal pulse

4.2.12.3 Urine testing during labour

Emptying the bladder is important, as a full bladder may delay engagement of the presenting part and cause prolonged labour. Urinalysis during labour also assists midwives and doctors in detecting ketones, glucose and protein (Fraser et al 2006:439).

Of the 24 partograms that were audited, urine results were recorded according to standard on eight (33.3%); they were not recorded according to standard on six (25.0%); and were not checked or recorded on 10 (41.7%) partograms.

Monitoring the pregnant woman's condition should be done frequently to detect abnormalities earlier and refer to the next level of care when necessary. The findings of this research study reveal that monitoring a woman during labour needs to be improved, especially pulse and recording of urinalysis results.

4.2.13 Foetal condition

In this section, the foetal condition which includes the foetal heart rate, caput and moulding of the foetal head are discussed.

4.2.13.1 Foetal heart rate

Foetal heart rate is assessed before, during and after a contraction in order to detect abnormalities in the progress of labour.

Of the 24 partograms that were audited, the foetal heart rate was checked and recorded according to standard on only eight (33.3%) partograms; it was not checked according to standard on 14 (58.3%); and it was not checked or recorded on two (8.3%) partograms.

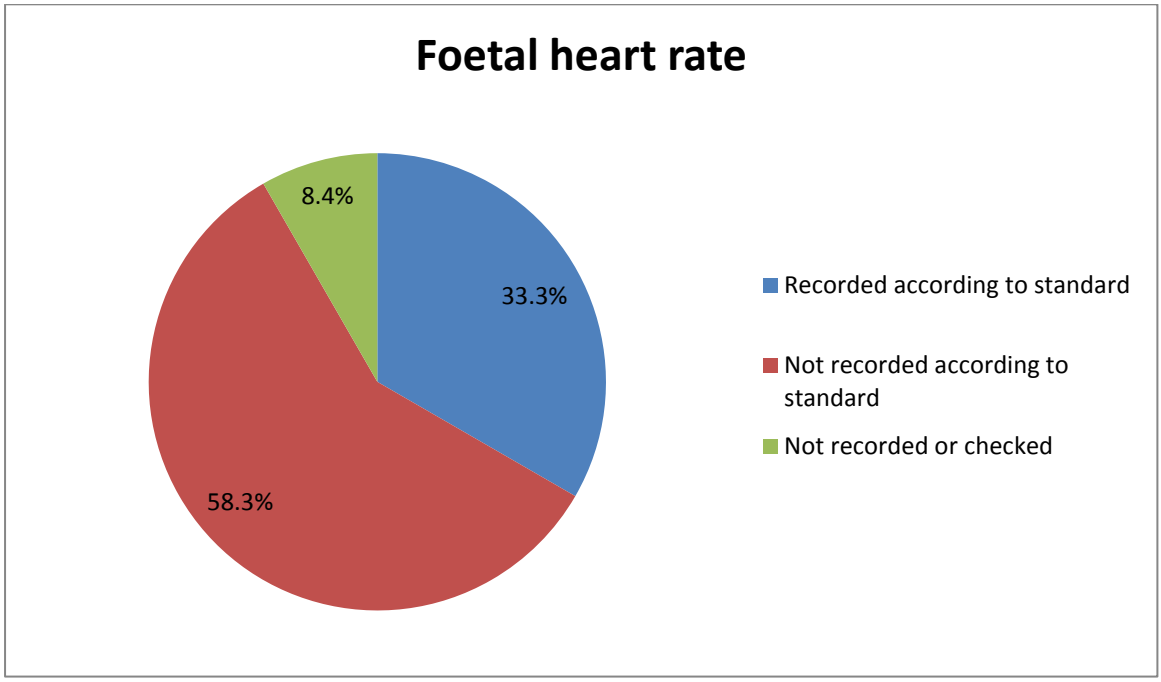

Figure 4.4: Foetal heart rate

4.2.13.2 Caput

Caput is the swelling of the tissues over the presenting part of the foetal head, which is caused by pressure during labour (De Kock & Van der Walt 2004:13-25). Midwives are expected to assess caput formation every time they do vaginal examinations.

Observations on the presence of caput was recorded according to standard on 79.2% (n = 19) of the partograms; it was not recorded according to standard on 16.6% (n = 4); and caput was not checked or not recorded on 4.2% (n = 1) of the partograms.

4.2.13.3 Moulding

According to De Kock and Van der Walt (2004:13-25), moulding is defined as the ability of the bones of the skull of the foetus to overlap in order to pass through the birth canal. Of the 24 partograms that were audited, findings on observations of moulding on the head of the foetus were recorded according to standard on 18 (75.0%) partograms; they were not recorded according to standard on five (20.8%) partograms; and on one (4.2%), moulding was not checked or not recorded.

The condition of the foetus – whether healthy or compromised – assessed through monitoring of FHR, moulding and liquor can influence the choice of delivery of the baby.

4.2.14 Progress of labour

Midwives assess progress of labour through cervical dilatation, the adequacy of the pelvis, and contractions.

4.2.14.1 Cervical dilatation

Nolte (2008:8) describes dilatation of the cervix as the process of enlargement of the uterine opening from a tightly closed aperture to an opening large enough to permit the passage of the foetal head, and which determines the progress of labour.

Of the 24 partograms that were audited, cervical dilatation was recorded according to standard on 17 (70.8%) partograms but was not recorded according to standard on seven (29.2%) partograms. On all partograms that were audited, the cervical dilatation was recorded.

4.2.14.2 The adequacy of the pelvis

According to ICM (2010:9), a midwife is expected to determine the size of the pelvis in relation to the size of the presenting part. The adequacy of the pelvis was recorded according to standard on 21 (87.5%) of the 24 partograms; it was not recorded according to standard on two (8.3%) partograms; and on one partogram (4.2%), the recording was not done.

4.2.14.3 Contractions

In order to track progress of labour, the strength of contractions are supposed to be monitored two hourly during the latent phase and half hourly during the active phase of labour (South Africa 2007a:36).

On eight (33.3%) of the 24 partograms, observations of contractions were recorded according to standard; but on 16 (66.7%) partograms, observations of contractions were not recorded according to the standard. On all 24 partograms that were audited, observations of contractions were recorded. The findings reveal that in the highest percentage of 66.7% (n = 16) of partograms, contractions were not recorded according to standard.

Aspects such as the adequacy of the pelvis, caput, duration of ruptured membranes and moulding were mostly recorded according to standard. On the other hand, the time indicating the duration of labour, the foetal heart rate, the contractions and urine testing were least recorded according to standard as indicated on Table 4.1.

4.3 PHASE 2: FACE-TO-FACE SEMI-STRUCTURED INTERVIEWS WITH MIDWIVES

The researcher conducted face-to-face interviews with midwives in order to identify their experiences in using the partogram as a guideline in monitoring a woman during labour. The sample, profile of participants and themes that emerged from the data is discussed in this section.

4.3.1 The sample

Face-to-face semi-structured interviews were conducted with 14 midwives and three midwife managers in the maternity wards of three hospitals that are located at Vhembe District. The three hospitals were chosen purposefully to ensure that at least midwives from a regional hospital and those from a community hospital have been interviewed to obtain comprehensive information.

All midwives who were available and who met the criteria on the day that interviews were conducted were included in the study. Table 4.2 provides a description of the participants according to gender, age, professional qualifications and experience of working in the maternity ward.

The participants readily agreed to be interviewed to participate and welcomed the researcher warmly. The researcher explained the purpose of the research, and the participants gave informed consent to participate voluntarily. See Annexure J for a consent form for midwives. Interviews in the labour ward are disruptive as labour is unpredictable; hence, the semi-structured open-ended interviews were used instead of focus group discussions. The researcher applied facilitative communication skills effectively and managed to gather rich comprehensive data.

Data transcribing was done by an independent transcriber and the researcher verified the data with the voice recorded data. The process of data transcribing was time-consuming but yielded workable data. A detailed description of data analysis has been discussed in Chapter 3. Co-coding was used to ensure that there is objectivity in data analysis. Similar topics that were obtained in coding were grouped together into categories and, from each category, five themes emerged.

4.3.2 Profile of the participants

Profile of midwives were discussed under the hospital at which the midwife is allocated, the age, the type of midwifery training programme, the position held in the labour ward, and the years of experience of working in the labour ward.

Table 4.2: Sample characteristics

Hospital	Number	Gender	Age	Midwifery training programme	Position in the labour ward	Years of experience
Hospital A	1	Female	52 years	Two-Year Diploma in Midwifery	Midwife	15 years
	2	Female	53 years	Two-Year Diploma in Midwifery	Midwife	17 years
	3	Female	58 years	Two-Year Diploma in Midwifery	Midwife	19 years
	4	Female	51 years	Two-Year Diploma in Midwifery	Midwife	13 years
	5	Female	40 years	R425	Operational Manager	10 years
Hospital B	1	Female	45 years	R425	Midwife	5 years
	2	Female	31 years	R425	Midwife	4 years
	3	Female	33 years	BCUR and Advanced Midwifery	Midwife	6 years
	4	Female	49 years	One-year Diploma in Midwifery	Midwife	23 years
	5	Female	48 years	R425	Midwife	13 years
	6	Female	35 years	R425	Midwife	6 years
Hospital C	1	Female	64 years	Two-Year Diploma in Midwifery	Operational Manager	35 years
	2	Female	51 years	Two-Year Diploma in Midwifery	Midwife	14 years
	3	Female	49 years	One-Year Diploma and Advanced Diploma in Midwifery	Midwife	15 years
	4	Female	51 years	Two-Year Diploma in Midwifery	Midwife	24 years
	5	Female	47 years	One-Year Diploma in Midwifery	Midwife	13 years
	6	Female	51 years	One-Year Diploma in Midwifery	Operational Manager	12 years
TOTAL	17 midwives					

4.3.2.1 Participants' ages

All 17 participants were females with ages ranging from 31 to 64 years. Just below a quarter, i.e. 7.6% (n = 3) of the participants' age range from 30-39; 35.3% (n = 6) from 40-49 years; 41.2% (n = 7) from 50-59 years; and only 5.9% (n = 1) was above 60 years.

4.3.2.2 Midwifery training programme

Midwives were asked the type of midwifery programme that they were trained for. Most of the midwives, i.e. 41.2% (n = 7) attended the two-year Midwifery Programme; 29.4% (n = 5) attended the four-year Diploma in Nursing (Diploma in nursing (general, community, psychiatry) and midwifery); 23.5% (n = 4) attended the one-year Diploma in Midwifery; and 5.9% (n = 1) did the degree in nursing. Two (17.2%) of 17 participants were trained for an Advanced Diploma in Midwifery.

4.3.2.3 Years of experience as midwife

Experience in one's field of work may have a certain influence on the level of performance of such an individual.

Only 5.9% (n = 1) of the 17 midwives had less than five years of experience, 23.5% (n = 4) had 5-10 years, while 41.2% (n = 7) had 11-15 years. On the other hand, 11.8% (n = 2) had 16-20 years; 11.8% (n = 2) had 21-30 years; and only 5.9 % (n = 1) had experience of above 30 years.

4.3.2.4 Position held in the labour ward

Of the 17 participants, 14 (82.4%) that were interviewed were midwives who are not in a managerial position, and only three (17.6%) were operational managers in the maternity wards of the three hospitals.

4.4 THEMES, CATEGORIES AND SUBCATEGORIES

Data were analysed using Tesch's (1992:117) method of data analysis for qualitative research. A detailed method of data analysis was described in Chapter 3. In this

section, the findings from the interviews with midwives are presented in themes, categories and subcategories.

Four themes emerged from the data as indicated in Table 4.3. These are outlined below.

- Theme 1: Benefits experienced by midwives on implementation of the partogram.
- Theme 2: Challenges experienced by midwives on implementation of the partogram.
- Theme 3: Attitudes of staff on implementation of the partogram.
- Theme 4: Feedback to midwives on the implementation of the partogram.

Table 4.3: Themes, categories and subcategories

Theme	Category	Subcategory
4.4.1 Benefits experienced by midwives on implementing the partogram	***4.4.1.1 General usefulness of the partogram***	*4.4.1.1.1 The partogram acts as a guide for midwives.* *4.4.1.1.2 The partogram assists midwives in tracking the progress of labour.* *4.4.1.1.3 The partogram saves time.* *4.4.1.1.4 The partogram is important for report giving and for further management.* *4.4.1.1.5 The partogram acts as evidence in the case of a lawsuit.* *4.4.1.1.6 The partogram is a national requirement, a policy and a standard.*
4.4.2 Challenges experienced by midwives on implementing the partogram	***4.4.2.1 Shortage of midwives***	*4.4.2.1.1 Allocating many patients who are in labour at the same time.*

	4.4.2.2 Challenges with allocation of midwives	*4.4.2.2.1 Allocating many midwives to one patient* *4.4.2.2.2 Allocation of two or more women to one midwife* *4.4.2.2.3 Problems with categorisation of patients according to stages of labour.*
	4.4.2.3 Lack of time	*4.4.2.3.1 Lack of time to observe and plot on the partogram due to patients who arrive in the labour ward at an advanced stage of labour.* *4.4.2.3.2 Perceived lack of time associated with the use of partogram and recording simultaneously.*
	4.4.2.4 Lack of resources	*4.4.2.4.1 Lack of case books and photocopying machines and CTG machine.*
	4.4.2.5 Lack of knowledge and skill	*4.4.2.5.1 Lack of understanding of the partogram by students.* *4.4.2.5.2 Lack of understanding of the partogram by midwives at the hospital.* *4.4.2.5.3 Lack of understanding of the partogram by clinic nurses*
	4.4.2.6 Misinterpretation of the partogram	*4.4.2.6.1 The use of abbreviations.* *4.4.2.6.2 The use of small blocks in recording on the partogram.* *4.4.2.6.3 The absence of a care plan on the new partogram.* *4.4.2.6.4 The introduction of a new maternity case record.* *4.4.2.6.5 Misunderstanding related to when the partogram should be started.* *4.4.2.6.6 Different interpretations of alert and action lines.* *4.4.2.6.7 Lack of communication when introducing the new partogram.*
	4.4.2.7 Lack of support for midwives in the labour ward	*4.4.2.7.1 Lack of support by managers.*

4.4.3 Attitudes of staff on implementing the partogram	***4.4.3.1 Attitudes of doctors towards the implementation of the partogram***	*4.4.3.1.1 Lack of interest in the partogram.* *4.4.3.1.2 Reluctance of doctors to act on midwives' findings.* *4.4.3.1.3 Poor relationship of doctors with midwives.*
	4.4.3.2 Attitudes of midwives towards the implementation of the partogram	*4.4.3.2.1 Positive attitudes of midwives towards the implementation of the partogram.* *4.4.3.2.2 Negative attitudes of midwives towards the implementation of the partogram.*
	4.4.3.3 Attitudes of student midwives towards the implementation of the partogram	*4.4.3.3.1 Negative attitudes of students towards the implementation of the partogram.*
	4.4.3.4 Attitudes of managers towards the implementation of the partogram	*4.4.3.4.1 Positive attitudes of managers towards the implementation of the partogram.* *4.4.3.4.2 Negative attitudes of managers towards the implementation of the partogram.*
4.4.4 Evaluation of midwives' implementation of the partogram and provision of feedback	***4.4.4.1 Evaluation of midwives' implementation of the partograms***	*4.4.4.1.1 Evaluation of midwives on the implementation of the partograms by labour ward supervisors.* *4.4.4.1.2 Midwives' self-evaluation on the implementation of the partogram.* *4.4.4.1.3 Evaluation of midwives on the implementation of partograms by district managers.* *4.4.4.1.4 Evaluators' lack of knowledge on the implementation of the partogram.*
	4.4.4.2 Providing feedback to midwives on implementation of the partogram	*4.4.4.2.1 Positive feedback on the implementation of the partogram.* *4.4.4.2.2 Negative feedback on the implementation of the partogram.*

4.4.1 Theme 1: Benefits experienced by midwives on implementing the partogram

Most of the participants were positive on the use of the partogram and cited several benefits of using the partogram, which are indicated as subcategories on Table 4.4.

Table 4.4: Benefits experienced by midwives on implementing the partogram

Theme	Category	Subcategory
4.4.1 Benefits experienced by midwives on implementation of the partogram	***4.4.1.1 General usefulness of the labour graph***	*4.4.1.1.1 The partogram acts as a guide for midwives.* *4.4.1.1.2 The partogram assists midwives in tracking the progress of labour.* *4.4.1.1.3 The partogram saves time.* *4.4.1.1.4 The partogram is important for report giving and for further management.* *4.4.1.1.5 The partogram acts as evidence in cases of a lawsuit.* *4.4.1.1.6 The partogram is a national requirement, a policy and a standard.*

4.4.1.1 Category: General usefulness of the partogram

In this research study, midwives indicated the general usefulness of the partogram, and some of the statements that were verbalised are discussed in this section.

4.4.1.1.1 Subcategory: The partogram acts as a guide for midwives

Most of the midwives that were interviewed indicated that the partogram is useful in that they are able to visualise the patients' information comprehensively on one page; it reminds them of what to observe and the progress of the patient. Evidence to this statement is verified in the responses from midwives that follow.

"… as far as I'm concerned, my experience is that it [partogram] is useful … because a partogram appears like a guide that indicates at least everything that should be

needed to manage the patient during labour … starting from the maternal condition, the foetal heart rate …, the variability, the caput, the moulding and also as far as liquor, which is classified under meconium stained or is clear. It is easy to follow because is [written] on one page" (PA-4).

Another participant indicated the benefit of using the partogram as assisting them in avoiding reading many charts:

"… everything will be plotted there [on the partogram] unlike going to the cardex [chart] reading the first report and the second report about the progress of the woman, but on the graph everything is appearing" (PC-3).

4.4.1.1.2 Subcategory: The partogram assists midwives in tracking the progress of labour

One of the aspects that motivated participants to use the partogram was the fact that it assisted them in monitoring the progress of labour. One of the participants remarked:

"With my experience, I can say that it [partogram] is a valuable tool when you are managing a woman during labour, the maternal, foetal data and the progress of labour will be appearing in the graph, so it is very easy for one to see if maybe the labour is not progressing well and any deviation from normal" (PA-4).

A midwife also emphasised the usefulness of the partogram in tracking the progress of labour by verbalising the following statements*:*

"… I think it [partogram] is good to us [midwives] because it gives you a direction whether the patient is progressing well or slowly or needs attention immediately, unlike writing all the information which other staff members can be lazy to read" (PC-4).

A manager concurs with what midwives said by saying the following statements:

"I'm a manager; I'm no longer using it [partogram]. I'm just supervising, but as a professional nurse, by the time I was working in the ward, to me using a labour graph is very good because it directs you; we are able to manage the complications easily, because the labour graph will show you if the patient is not progressing well and if the woman is having problems, you will be able to pick them quickly and then report them to the doctor in time. But if you are not using the labour graph, you will be monitoring the patient blindly. By the time I was working in the labour ward, it was good for me because I learnt a lot out of it ..." (PA-5).

4.4.1.1.3 Subcategory: The partogram saves time

The findings of this study indicate that a partogram saves time for staff members if they only plot on the partogram instead of rewriting the same lengthy information again on other charts. One of the participants remarked:

"To me [midwife] I can say it saves time unlike writing a lot of stories in the chart of the patient, because if it is foetal heart rate, I just plot, and if it is a cervical dilation, I just plot" (PC-3).

4.4.1.1.4 Subcategory: The partogram is important for report giving and for further management

Midwives also highlighted that a partogram is crucial for report giving and for further management. Some participants stated the following about the importance of the partogram on report giving and further management:

"… automatically, if you look into that graph, it will tell you that the woman is in danger and needs intervention or needs to be reported to another level of management" (PA-4).

"… progress of labour can be seen clearly and is easy even when another person comes to continue to monitor that person [woman] ..." (PC-3).

4.4.1.1.5 Subcategory: The partogram acts as evidence in cases of a lawsuit

Patients' records are legal documents that can be used in cases of a lawsuit. The participant verbalised the following statements on the importance of records in case of a lawsuit:

"… if you don't use a partogram when monitoring a woman during labour, that woman may have a lawsuit against the hospital. You'll find that obviously the evidence is there to indicate that you didn't do [plot] anything on that partogram, so failure to use the partogram if the patient can claim that she wasn't managed well during labour, obviously the evidence will be there because they will just pursue on the bed letter and see that the patient wasn't monitored … and they also check the progress in latent stage ..." (PC-3).

4.4.1.1.6 Subcategory: The partogram is a national requirement, a policy and a standard

Participants indicated that a partogram is a norm; a policy, a standard and a national requirement which makes them comply in using it.

One of the participants verbalised the following statement related to the partogram as a national document:

"A partogram is a national requirement" (PA-2).

The other midwives stated the following statements on the partogram as a norm and a standard:

"…It is a norm that each and every patient who is in labour should be monitored using a partogram" (PA-4).

"…they do like it because now it falls under our tool and it is compulsory to use the partogram" (PA-5).

"I think it [partogram] is from our policy, or like a standard of working of which we are expected to do" (PA-4).

4.4.2 Theme 2: Challenges experienced by midwives when implementing the partogram

Midwives verbalised a number of challenges that they are experiencing on the use of the partogram and in the maternity ward in general as indicated in Table 4.5.

Table 4.5: Challenges experienced by midwives when implementing the partogram

Theme	Category	Subcategory
4.4.2 Challenges experienced by midwives when implementing the partogram	***4.4.2.1 Shortage of midwives***	*4.4.2.1.1 Allocating many patients who are in labour at the same time.*
	4.4.2.2 Challenges with allocation of midwives	*4.4.2.2.1 Allocating many midwives to one patient.* *4.4.2.2.2 Allocation of two or more women to one midwife.* *4.4.2.2.3 Problems with categorisation of patients according to stages of labour.*
	4.4.2.3 Lack of time	*4.4.2.3.1 Lack of time to observe and plot on the partogram due to patients who arrive in the labour ward at an advanced stage of labour.* *4.4.2.3.2 Perceived lack of time associated with the use of partogram and recording simultaneously.*
	4.4.2.4 Lack of resources	*4.4.2.4.1 Lack of case books and photocopying machines and CTG machines.*
	4.4.2.5 Lack of knowledge and skill	*4.4.2.5.1 Lack of understanding of the partogram by students.* *4.4.2.5.2 Lack of understanding of the partogram by midwives at the hospital.* *4.4.2.5.3 Lack of understanding of the partogram by clinic nurses.*
	4.4.2.6 Misinterpretation of the partogram	*4.4.2.6.1 The use of abbreviations.* *4.4.2.6.2 The use of small blocks in recording on the partogram.* *4.4.2.6.3 The absence of a care plan on the new*

		partogram. *4.4.2.6.4 The introduction of a new maternity case record.* *4.4.2.6.5 Misunderstanding related to when the partogram should be started.* *4.4.2.6.6 Different interpretations related to different approaches that are used.* *4.4.2.6.7 Lack of communication when introducing the new partogram.*
	4.4.2.7 Lack of support for midwives in the labour ward	*4.4.2.7.1 Lack of support by managers.*

4.4.2.1 Category: Shortage of midwives

Shortage of staff was indicated as one of the main problems that hinder midwives in implementing the partogram according to the standards stipulated in the Guideline for Maternity Care in South Africa (2007a:37). Some of the problems related to shortage that were indicated include the overcrowding of patients and not categorising patients according to the different stages of labour.

4.4.2.1.1 Many patients in labour at the same time

Participants indicated that there is a severe shortage of midwives in the labour ward, which makes them not to plot on the partogram correctly, and they mentioned the following statements related to the shortage of staff:

"… is only four midwives during the night and there is this issue of picking [patients who are in labour from home or from the clinic, making patient flow too much per one night. You may find that we have admitted maybe 30 patients per night with 4 nurses on duty and 15-16 deliveries per night" (PA-4).

One of the managers in the maternity ward also confirms that there is a shortage in the labour ward, which causes stress by indicating the following statements:

"It's a barrier, you see, because maybe to share with you how it's like in this institution, I [manager] was trying to do the statistics for January and our deliveries were four hundred and something, can you imagine … four nurses, if you divide you will find that one nurse delivers more than 60 patients … really, no one can cope with that. But the other thing that I see we will have a total of 100 deliveries per month while the clinic which is performing deliveries is having less than 10 per month with the same staff that we are having, but they will have less than 10 because most of deliveries are referred to the hospitals even those that can be delivered at the clinic. They transfer their patients to the hospital, so is the problem really, it is a very big challenge ... because if 400 patients deliver at the hospital and they complicate, and Caesarean section is done, it becomes very strenuous" (PA-5).

4.4.2.2 Category: Challenges with allocation of midwives

Allocating many midwives to one patient, allocation of two or more women to one midwife, and placing patients in different stages of labour in one area were challenges expressed by midwives related to allocation.

4.4.2.2.1 Subcategory: Allocating many midwives to one patient

Participants indicated that when many midwives are monitoring the same patient, they obtain different findings, which leads to a patient being mismanaged. A midwife had the following comment on allocating more than one midwife to monitor one patient:

"… the disadvantage of the partogram is: if the patient went through many people [staff] during the progress of labour, and our findings are different, the patient may end up going for unnecessary Caesarean section or may be delayed because somebody will say the cervical dilatation is four centimetres now, and next two hours another midwife's finding is not four centimetres. Inserting different sizes of fingers in and out of the vagina will bring different results … especially the PV's, that's what I'm referring to; because, your findings are your findings, if I say is three [centimetres], so somebody will say 'No, It is not three centimetre, is one centimetre' ..." (PB-2).

4.4.2.2.2 Subcategory: Allocating two or more women to one midwife

According to Regulation R2488 of 26 October 1990 chapter 2 (subsection 7), a midwife is expected not to leave the woman throughout the process of labour until delivery.

Participants indicated that it is impossible to monitor two or more women at the same time during labour and verbalised the following:

"The difficulties are that…, you cannot complete the partogram if you are monitoring more than two women at the same time because of the shortage, so you can find that the partogram can sometimes be incomplete" (PC-2).

4.4.2.2.3 Subcategory: Problems with categorisation of patients according to stages of labour

According to a document on intrapartum care in MRC (2005:13), the design and functioning of labour wards in the South African public health sector contributes to their inefficiency. This inefficiency is due to the fact that many labour wards are not dedicated management areas, such as admission and first stage, and patients are housed where they are infrequently monitored or totally neglected until the second stage, when they are in labour.

In one of the hospitals, patients who were in the latent and active phase of labour were placed in one area, and one participant indicated the problem of such categorisation as follows:

"… like in one of the hospitals in Gauteng, when they are working in the maternity ward, there is a separate place where they admit the patients; when the patient is in active stage of labour, it is then that they are transferring that patient to labour ward … so here patients who are on the latent phase and the active phase are all in one place so it is very much difficult … here the same number of staff [midwives] work being four, two in the latent phase and two in the active phase you see …" (PA-3).

4.4.2.3 Category: Lack of time

Lack of time to observe and record findings after monitoring women in labour were cited by midwives as one of the challenges that negatively affects the correct use of the partogram as a guideline.

4.4.2.3.1 Subcategory: Lack of time to observe and plot on the partogram due to patients who arrive at an advanced stage of labour

Enough time to monitor and record findings is vital in enhancing quality in maternity care. Patients need to arrive at the institution earlier to make sure that midwives have the opportunity to check them. One participant said the following statements related to lack of time:

"… maybe the problem is the time factor, especially when the patient comes in being at advanced stage of labour that you are not able to check the patient and record there and there [at that time]" (PA-1).

4.4.2.3.2 Lack of time due to frequency of observations

Midwives indicated that they failed to observe and chart on the partogram because of the frequency in which some of the aspects should be observed. One of the participants said the following statements:

"The difficulties are only when you've got a patient; you'll find that you cannot attend to the patient as you are supposed to do it, like you're supposed to check the patient half-hourly. Sometimes it is not possible to check the patient hourly, you'll wake up and realise that the half hour is over, maybe is one and half hour or two hours and you have not observed the patient" (PA-1).

4.4.2.3.3 Subcategory: Lack of time associated with the use of partogram and recording simultaneously on progress charts

Participants indicated that recording on both the partogram and other charts is repetition and a waste of time. One of the participants said the following statements:

"… because you are expected to plot on the partogram and also to write the notes on the charts, it is time-consuming and is repetition … everything is supposed to be checked and you'll find that the information is not written on the partogram, but only written on the charts" (PA-1).

4.4.2.4 Lack of resources

Midwives verbalised lack of resources as contributing to poor recording on the partogram. Some of the aspects that were verbalised to be lacking were case books, photocopying machines, CTG machines and Uristix.

4.4.2.4.1 Subcategory: Lack of case books, photocopying machines and CTG machines

Participants described how frustrating it was to work in the labour ward without the necessary equipment. Some of the participants verbalised the following statements in relation to provision of case books, which included a partogram:

"… we are running short of case books with partograms, and we cannot monitor the patient properly without it …" (PA-4).

One of the participants indicated that there is a shortage of cardiotocographic machines (CTG), and midwives are expected to plot some of the information that is obtained on the patient by making use of the CTG.

"There are some portions of the partogram which are supposed to be done using the machines, but we are running short of the equipment [cardiotocographic machine]" (PC-4).

In contrast to the above statement, one of the participants said the following:

"It is fortunate enough that we are having CTG machines which we use for continuous monitoring of the contractions and foetal heart rate" (PA-3).

4.4.2.5 Category: Lack of knowledge and skill

Midwives verbalised that there was a lack of understanding of the partograms by students and midwives at the hospitals and clinics.

4.4.2.5.1 Subcategory: Lack of understanding of the partogram by students

The findings of this research study revealed that students that are allocated in the labour ward are not educated well on the use of the partogram, which resulted in wrong plotting on the partogram. Some midwives said the following statements related to students' lack of knowledge and understanding:

"… we have got a problem of these two programmes that we are teaching. The other programme which is R425 in which midwifery is taught for one year and you may find that the partograms are not enforced when they are practicing, you find that it [partogram] is not encouraged … some students say that partogram is too difficult because during their exposure it was not properly explained" (PC-3).

4.4.2.5.2 Subcategory: Lack of understanding of the partogram by the midwives at the hospital

Participants indicated that midwives lack understanding and skill on the use of the partogram as a result of not using the partogram all the time and the changes that were introduced on the partogram. The following statements were said by participants in relation to lack of understanding and skill on the use of the partogram:

"… the problem that we experience is that some midwives don't understand the partogram and now it has been changed; the one that we are using in the maternity is no longer the one we were using with those maternity books, I mean the books that we are using to admit patients here at Limpopo ... and you find that the partogram is not well done, it means that the patient is not going to be progressed well and you end up mismanaging the patient … another thing is that you will find that the information is recorded incorrectly, that's why it is very difficult for me to correct it. Let me give you an example 'when the woman is not in labour and the cervical dilatation is recorded as two centimetres … it is a very serious problem" (PA-5).

In contrast to the above statements, one of the participants indicated that midwives use the pictures that are depicted on the walls in the labour rooms to guide them on how to plot, as follows:

"We have some pictures in the ward where we can see how to plot the dilatation" (PC-4).

4.4.2.5.3 Subcategory: Lack of understanding of the partogram by clinic nurses

Midwives at the hospital were not satisfied about the manner in which the clinic midwives were plotting the partogram. Some of the statements that were said were the following:

"… if the woman is from the clinic, you can find that they already started the partogram, meaning that when the patient arrive here at the hospital, you find that the woman is not in a real labour, but the partogram is already plotted; we are forced

to use another partogram when the woman is already in established labour … and they [clinic nurses] don't want to attend the perinatal mortality meetings at the hospital …" (PB-6).

4.4.2.6 Category: Misinterpretation of the partogram

The use of abbreviations, the small blocks wherein midwives should plot in the findings, and changes on the partogram were indicated as challenges that hinder proper documentation on the partogram.

4.4.2.6.1 Subcategory: The use of abbreviations

Participants were not satisfied with the design of the partogram, especially related to the use of the abbreviations. One of the participants said the following statements related to the use of abbreviations:

"… there are abbreviations that not everyone is acquainted to, we [midwives] may misinterpret them … instead of getting the correct picture, we may get the wrong picture because of misinterpretation of abbreviations and also due to the language that is used on the partogram …"(PA-3).

4.4.2.6.2 Subcategory: The use of small blocks on the partograms

Participants indicated problems with the design of the partogram, which make them not to use the partogram effectively. Two of the participants said the following statements:

"I don't know whether is impossible to improve on the chat itself, it is too small"
"Yes ... maybe if it's made bigger so that the pages can be more visible, where you can see everything. I think it can improve the use of the partogram because some nurses cannot see easily, which also affect its use. I cannot stress myself by those little things [words and figures on the partogram] and I don't want to develop the attitude and say it is difficult even if is not difficult" (PA-3).

4.4.2.6.3 Subcategory: The absence of the nursing care plan on the new partogram

The participants were using the new partogram for almost three months and were not satisfied with the fact that the space where they used to write the care plan was not included on the new partogram. One of the participants said the following statements in relation to the nursing care plan:

"With the design of the bed letter, I don't find any problem except that the previous bed letter had the nursing care plan at the bottom of the partogram. There was a care plan where you … say after assessing a patient, you write the problem that you have identified and the diagnosis …" (PA-4).

4.4.2.6.4 Subcategory: The introduction of the new maternity case record

Participants were not satisfied with the new changes that were made on the partogram, especially those that they were used to for a long time, and they indicated that there are misunderstandings on how the partogram should be plotted. Some of the statements indicated by participants in relation to the new changes on the partogram are the following:

"To the new one [partogram], the space where we write the time is like is not correlating to the lines that we have drawn so that we can chat … the old one was bit easier than this one" (PA-4).

"… like now … the partogram has changed and the one that we are using in the maternity is no longer the one we used to use with those maternity case books, I mean the books that we are using to admit patients here in Limpopo … and you find that the partogram is not well done, it means that the patient is not going to be progressed well and you end up mismanaging the patient … another thing is that you will find that the information is recorded incorrectly, that's why it is very difficult for me to change" (PA-4).

Another midwife said the following statements, indicating a positive attitude to changes on the partogram:

"I don't have a problem with changing the partogram as long as they explain how to do it in a modern way" (PB-5).

4.4.2.6.5 Subcategory: Misunderstanding related to when the partogram should be started

According to participants, there is lack of consensus on when clinicians need to start to plot observations on the partogram in different hospitals. One midwife said the following statements related to lack of consensus:

"The problem is knowledge related to when partogram should be started by the midwife … that is the problem that we meet in many places. For instance, the other hospitals start to plot the partogram when the woman is 4 centimetre … some start to plot the partogram when the woman is 3 [centimetres] or 2 [centimetres] …" (PA-4).

Some participants said the following statements related to the duration of latent phase and the experience of the midwife:

"… with experience [of the midwife], for some of the women, the latent phase is a little bit longer than the others, but you see that this woman deliver without any problems" (PA-4).

"… when you ask the other person to plot the patient on the partogram during the latent phase of labour when the cervix is 2cm, they will say that the partogram should not be used [started at that time]" (PA-4).

4.4.2.6.6 Subcategory: Different interpretations of alert and action lines

According to Orhue, Aziken and Osemwenkha (2012:5), the alert and action lines on the partogram are more appropriate tools for manpower deployment so that each staff member will take responsibility for management of the case and that the patient is not kept until complications arise.

Participants in this study were not satisfied with the manner in which the action and alert lines were interpreted. One participant said the following:

"… the other problem is in the interpretation. Some people will interpret the action and alert lines differently and those with the different approach to management will not be in favour of the way the condition of the patient was interpreted" (PA-4).

The same participant added the following statements related to research and standardisation:

"… I can say that sometimes there's a lot of misunderstanding which make me to be confused because you might find the information is there in the prescribed book, but there are no research findings, we should change from here to there, sometimes you might find out that there's misunderstanding and things are no longer standardised because people do things differently" (PA-4).

4.4.2.6.7 Subcategory: Lack of communication when introducing the new partogram

One participant said the following statements on changes that must be made on the guidelines:

"… I [midwife] can say new changes which are supposed to be implemented should be evidence based. Sometimes, we are given the report that the head [of the foetus] is no longer supposed to be plotted like these and it is so difficult for somebody to accept. It should be evidence based and it should be communicated to midwives because it doesn't help to have some other portion of information being known by other group and the hospital doesn't know about that. So is the challenge ..." (PA-3).

Furthermore, another participant verbalised the following statements related to orientation of midwives on the new guideline:

"… I [midwife] don't know how it was introduced because now you find that the manager, our manager is the one who introduced it to us, and she finds a group of people who are present at that time when she arrives and orientate them … and this information is not spreading to everybody, that's why you find others still writing the

nil when we are no longer supposed to write the nil, so it's a matter of maybe introducing it well and basically the way its introduced to us maybe they could have been sessions of teaching midwives on the new partogram" (PB-1).

4.4.3 Theme 3: Attitudes of staff on implementing the partogram

Attitude is regarded as the manner, disposition, or inclination on how a person approaches or reacts to situations (Porter-O'Grady & Malloch 2013:561). The findings of this research study reveal different attitudes of doctors, midwives, students and managers on the use of the partogram as indicated in Table 4.6.

Table 4.6: Attitudes of staff on implementing the partogram

Theme 3	Category	Subcategory
4.4.3 Attitudes of staff implementing the partogram	***4.4.3.1 Attitudes of doctors towards the implementation of the partogram***	*4.4.3.1.1 Lack of interest in the partogram.* *4.4.3.1.2 Reluctance of doctors to act on midwives' findings.* *4.4.3.1.3 Poor relationship of doctors with midwives.*
	44.3.2 Attitudes of midwives towards the implementation of the partogram	*4.4.3.2.1 Positive attitudes of midwives towards the implementation of the partogram.* *4.4.3.2.2 Negative attitudes of midwives towards the implementation of the partogram.*
	4.4.3.3 Attitudes of student midwives towards the implementation of the partogram	*4.4.3.3.1 Negative attitudes of students towards the implementation of the partogram.*
	4.4.3.4 Attitudes of managers towards the implementation of the partogram	*4.4.3.4.1 Positive attitudes of managers towards the implementation of the partogram.* *3.4.3.4.2 Negative attitudes of managers towards the implementation of the partogram.*

4.4.3.1 Category: Attitudes of doctors towards the implementation of the partogram

Doctors were said to be having negative attitudes such as lack of interest in the partogram, reluctance to act on midwives' findings, and failing to relate well with midwives.

4.4.3.1.1 Subcategory: Lack of interest on the partogram

Participants indicated that doctors act as obstacles to partogram implementation. They felt that doctors do not regard the partogram as having value, they do not plot, and are reluctant to act on midwives' findings.

One of the participants said the following statements with regard to doctors' attitudes:

"… they [doctors] should plot on the partogram, everybody that touch the patient should plot, not only nurses. What I've experienced in tertiary institution is you will find that after the doctor has examined the woman in labour he plots on the partogram. But here they don't plot because I never saw one plotting ..." (PC-3).

Midwives perceive that doctors do not like the partogram because they do not plot but just want the midwives' findings on the partogram.

"They [doctors] don't plot on the partogram, they always check what is done by the nurses, 'Why are you calling me?' that's what they say when you show them examination results … I can say they are not interested in plotting [on the partogram], they want the results of the examination that has been done by the midwives only" (PB-6).

4.4.3.1.2 Subcategory: Doctors' reluctance to act on midwives' findings

Midwives were not satisfied with the manner in which doctors use their findings in managing women in labour and said the following statements:

"They [doctors] don't like to rely on it [partogram] that much like I [midwife] do. Because you might found that you called a doctor after you discovered that the patient has crossed the action line and it's nothing according to him ..." (PA-5).

"... when problems are picked up early, doctors don't like that, they want us to progress well and deliver patients normally, you see … that's the only thing I [manager] can say about the doctors, but I haven't seen any doctor plotting the partogram because if they come, they just check and write on the notes and then confirm the centimetres on the partogram, but they like the partogram" (PA-5).

4.4.3.1.3 Subcategory: Poor relationship of doctors with midwives

The research findings reveal problems associated with the manner in which doctors relate to them and indicated the following statements:

"They [doctors] undermine us when we report the problem to them … because … It's long since we [midwives] are here … we have experience, but we meet problems sometimes …" (PA-3).

4.4.3.2 Category: Attitudes of midwives towards the implementation of the partogram

Participants indicated that the attitudes of midwives towards the use of the partogram are different; others prefer to use the partogram, while others do not prefer to use it because they think it wastes time.

4.4.3.2.1 Subcategory: Positive attitudes of midwives towards the use of the partogram

One midwife said the following statement, indicating her attitude towards using the partogram:

"… with reference to me personally … I [midwife] like to use the partogram" (PB-6).

4.4.3.2.2 Subcategory: Negative attitudes of midwives towards the use of the partogram

The following statements were said by participants about the negative attitudes of midwives:

"The attitude towards the partogram is different. Others [midwives] favour it, and there are others who think maybe using a partogram is a waste of time" (PC-6).

4.4.3.3 Category: Attitudes of students towards the implementation of the partograms

Midwives verbalised that students do not like the partogram because of lack of understanding, negative attitudes and laziness.

4.4.3.3.1 Subcategory: Negative attitudes of students towards the use of the partogram

The following statements were said related to the negative attitudes of students:

"Some students are not interested; they just do it because it has to be done, and they are not happy to use the partogram" (PA-4).

"Some students do not understand, but they do not ask and just write wrong things. Some just have negative attitude, maybe it's due to laziness. They think they know everything. So the very same students that we taught in class after completion in 6 months they will sit down and say partogram is time-consuming and we are short staffed, so is just a negative attitude and laziness" (PA-4)

4.4.3.4 Category: Attitudes of managers towards the implementation of the partogram

Positive and negative attitudes of managers towards the use of the partogram are presented in this subsection.

4.4.3.4.1 Subcategory: Positive attitudes of managers towards the use of the partogram

In contrast to the above statement, some of the midwives were satisfied with the manner in which the managers were supporting them in the use of the partogram.

One participant verbalised the following statements related to the positive attitude of managers:

"Sometimes we receive support from our managers, because they do encourage us to utilise it [the partogram] and if we are having the problem with stationary, they do their best so that we get something … because of shortage of staff, they can do nothing … when there is shortage of nurses, they also talk to others [midwives] who are off to come and help us" (PC-3).

4.4.3.4.2 Subcategory: Negative attitudes of managers towards the implementation of the partograms

One midwife indicated that managers are interested in auditing only, and they ask a lot of questions.

"Some managers when they come and identify the problem on the partogram ask 'who did this, why, what, what?'…" (PA-4).

Some of the participants were not happy with the manner in which the managers behave towards them and verbalised the following statement:

"It is not beyond their [managers] scope, but … we don't have support because they usually discourage us … saying that we are not working and whatever … I think they are not supporting us" (PA-2).

Furthermore, participants felt that managers are not supporting them and that managers concentrate on administrative work. The following statement was verbalised by one of the participants:

"….managers act like administrators. Managers are clerks, I must just say because this morning we had a fight that managers are clerks and nurses are the ones that go to the patient …" (PA-4).

One of the midwives felt that managers should be considerate of the real experiences and problems in the ward and not concentrate on the mistakes only; the midwife verbalised the following statements:

"Yes, but you'll hear only the mistakes that midwives have done and not the real picture of what is happening in labour ward, otherwise maybe if they visit this institution they will have another way of thinking about the midwives because we are always referred to as bad people. We don't talk too much and tell, but if the mother is jumping out of the bed with the head crowning, do you think I have to laugh there, we have to help that mother to deliver the baby not in a good way now because we will be trying to calm the woman. So I think we need lot of support from the managers, they have to come ..." (PA-4).

4.4.4 Theme 4: Evaluation and providing feedback on the implementation of the partogram

Participants indicated that they were using a new tool which they were not used to, but which improved the recording of the partogram.

"… currently we are using this other tool that we are not used to. But with it, I can see that the partogram is really improved" (PB - 2).

Table 4.7 indicates the staff responsible for auditing and the feedback that midwives receive after auditing the partogram.

Table 4.7: Evaluation and providing feedback on the implementation of the partogram

Theme	Category	Subcategory
4.4.4 Evaluation of midwives on the implementation of the partogram and providing feedback	***4.4.4.1 Evaluation of midwives on the implementation of partograms***	*4.4.4.1.1 Evaluation of midwives on the implementation of partograms by labour ward supervisors.* *4.4.4.1.2 Midwives' self-evaluation on the implementation of the partogram.* *4.4.4.1.3 Evaluation of midwives on the implementation of the partograms by district managers.* *4.4.4.1.4 Evaluators' lack of knowledge on the implementation of the partogram.*
	4.4.4.2 Feedback that is provided to midwives on the implementation of the partogram	*4.4.4.2.1 Positive feedback on the implementation of the partogram.* *4.4.4.2.2 Negative feedback on the implementation of the partogram.*

4.4.4.1 Evaluation of midwives on the implementation of partograms

The results revealed that district managers, supervisors and midwives evaluate whether the partogram is used as indicated on the Guidelines for Maternity Care in South Africa (South Africa 2007a:37).

4.4.4.1.1 Evaluation of midwives on the implementation of partograms by labour ward supervisors

Supervisors in the maternity wards are also expected to assess patients' records, including the partogram. Two managers in the labour ward indicated that they evaluated whether midwives record according to standard. They expressed themselves as follows:

"…when I come on duty and there are women in labour, after taking ward report, I [manager] advise and check if partograms are used and are being plotted correctly every morning. It's just that maybe during the day I don't check it, but every morning for those who are in labour I quickly go through the partograms and see if there are plotted correctly" (PA-5).

"… if I [manager] check it in the morning and I find the mistake, I call the person who is progressing that patient to correct it here and there unless if that person has gone and is on night shift, which means the one who is going to continue will have to see that the recording is done properly on the partogram, but even if they are gone, I make sure; like yesterday night, I came here at 8 pm to address those who are working during the night about the issues of the partograms and the fresh stillbirth that they are getting ... so I address them I make a means of coming during the night to see them and address issues which seem to be a problem" (PC-6).

One participant indicated that the supervisor also checks the bed letters of the patient and how the partogram has been plotted. The participant said:

"So, we are supposed to audit the partogram ourselves; the person who's the overall supervisor also goes from patient to patient checking if the partogram is plotted correctly, but even after the patient has delivered, our operational manager follows the bed letters and audit them and allocate the marks, so if somebody has not done it correctly, she will call you and discuss with you" (PA-1).

4.4.4.1.2 Midwives' self-evaluation on the implementation of the partogram

Participants indicated that they conducted self-evaluations on how they were plotting on the partograms. Midwives further indicated that sometimes it becomes impossible to conduct such evaluations routinely due to shortage of staff. One of participants said the following:

"… previously it was an audit team from maternity ward that conduct the audit and we used to audit the partograms ourselves, three midwives come together and check the partograms but sometimes we experience shortage of staff and we fail to auditing once or even twice a month …" (PA-1).

"… they [managers] encourage us to do auditing ourselves … I think this auditing is improving, because you know what, we have the strategy of evaluating the partogram, you check how it was plotted, maybe two people, we write on our book, and we give ourselves the percentage according to what we have found and then we

show the person who is responsible that here you did wrong and here you did good but these book started these month" (PA-1).

"… I [midwife] ask myself after completing everything, I check it before transferring the patient to postnatal like give it to someone to check it for me" (PA-1).

"… here [hospital] we are trying because every month we [midwives] are doing auditing of the partograms even after delivery of the patient, we have to check, let's say the person delivered yesterday, we go to the postnatal ward and take that card and check" (PA-4).

4.4.4.1.3 Evaluation of midwives on the implementation of the partograms by district managers

Participants indicated that valuation on how partograms are used is also conducted by district managers in order to ensure that recording of the partogram is done according to the stipulated standard.

"If the district manager comes to assess us, they just give us feedback, whether we are doing good or not, because the people from the district do come. Before, they use to come after two weeks yes, but now I just haven't seen them, I don't know what's wrong" (PA-2).

4.4.4.1.4 Evaluators' lack of knowledge on the implementation of the partogram

Participants verbalised that some of the members of staff in the evaluation teams do not have a thorough knowledge of the partogram and do not have experience in using it.

"There are people who check the partograms but they are not used … to the partogram" (PA-2).

"They are not working with the partogram so they are not having experience" (PA-2).

"Some of them they don't even enforce the use of the partogram because they have a problem, when they enforced its use, they will have to explain and they also do not understand …" (PA-4).

4.4.4.2 Category: Feedback that is provided to midwives on implementation of the partogram

Feedback is the report that is given to a midwife individually or in groups, which include analysis of the data that is presented; suggestions for improvement in practice; and training needs of health workers. Participants commented on the positive as well as the negative feedback that they received from supervisors.

4.4.4.2.1 Subcategory: Providing positive feedback on the implementation of the partogram

According to Cronje and Grobler (2003:703), feedback to health professionals is an essential part of improving a service. Pattison (2006:2) further indicates that audit and feedback is a way of monitoring and improving patient care in hospitals, and all health care professionals are required to perform an audit and provide feedback. Two participants indicated the importance of positive feedback and education:

"Because percentages are allocated when they audit, so you get lowest percentages and they'll show you where you went wrong" (PA-2).

"… I [manager] can say every Wednesday, we have an in-service training on partogram; you can take maybe 10 bed letters of patients who are discharged and sit down and scrutinise jointly with the midwives from the clinic to assist each other because at the end of each drill, we give them the feedback and recommendations where we are lacking" (PA-6).

4.4.4.2.2 Subcategory: Negative feedback on the use of the partogram

Some of the midwives indicated that they received negative feedback from supervisors who emphasised mistakes instead of good achievements.

"We don't get positive feedback; all we hear is that we have negative attitude because we complain of having a lot of work." (PA-4).

"... we also need positive feedback because is not only the mistakes that we do, if you can deliver ten women and their babies are all alive, and you receive no pack on your back ..., but if one child die or you have FSB [Fresh Still Born] that is demoralising" (PA-3).

4.5 CONCLUSION

This chapter presented the findings of the research results from document analysis and face-to-face interviews that have been conducted with midwives. Four themes that emerged from the data indicated various benefits and challenges experienced by midwives on the implementation of the partograms as a guideline in monitoring women during labour. In Chapter 4, discussions of findings and the alignment of the results to the Theory of Planned Behaviour is presented.

CHAPTER 5

DISCUSSION OF FINDINGS

5.1 INTRODUCTION

The previous chapter was an analysis and presentation of data. In this chapter, a discussion of findings is presented.

The discussion of findings will be presented in three phases. These will include a discussion on the review of partograms, discussion of findings from face-to-face interviews, and the alignment of results to the guiding Theory of Planned Behaviour.

5.2 DISCUSSIONS ON THE REVIEW OF PARTOGRAMS

The aspects that were checked on reviewing and analysing the documents on the partograms are the general information on admission, maternal and foetal condition during labour, and the progress of labour.

5.2.1 General information of the woman on admission

Midwives are expected to record the general information of the woman for the purpose of identification and proper management. Aspects such as the age and parity of the woman, time of admission, duration of labour, and risk factors are of significance in the management of the woman in labour using a partogram.

A partogram is a legal document in which midwives and doctors are expected to record information on the progress of labour, hence the need for midwives to write their names in full, their designations and signatures (Nolte 2008:1; SANC 1990 Annexure A:4).

5.2.1.1 Parity of the woman

It is important to record the parity of the woman, as the frequency of deliveries may affect the health of the woman. It is commendable that in all 24 partograms that were analysed, the parity of the woman was indicated.

A hospital-based study of birth outcomes at Liverpool Women's Hospital that was conducted found that pregnancy in older women is associated with adverse birth outcomes, particularly in primigravida (Delpisheh, Brabin, Attia & Brabin 2008:965).

5.2.1.2 Age

The age and parity were recorded in almost more than half of all partograms that were reviewed. This is commendable as it has been found in a research study that women of advanced maternal age are at higher risk than younger women during pregnancy (Bayrampour, Heaman, Duncan & Tough 2012:451).

5.2.1.3 Date and time of admission

According to the SANC (1990: Annexure A), a registered midwife is expected to record the date and time of the commencement of labour. The rationale behind recording the date and time is to ensure that the midwife can calculate the hours of labour to avoid prolonged labour with its complications such as infection and death.

Midwives manage to record the date and time of admission in almost over three quarters of the partograms that were analysed, and in less than a quarter, date and time of admission were not recorded.

5.2.1.4 Duration of labour on admission

The duration of labour on admission assists midwives to determine whether the woman had prolonged labour while still at home. On half of the partograms that were analysed, the duration of labour on admission was recorded, whereas, on half of the partograms, the duration of labour was not recorded.

5.2.1.5 Time indicating the duration of labour

The time that indicates the duration of labour that needs to be recorded hourly was not recorded according to standard in almost three quarters of the partograms that were reviewed. It stands to reason that if the duration of labour is not recorded correctly, the hours of labour will not be correct, leading to mismanagement and prolonged labour.

Prolonged labour was the cause of most of the deaths of women due to puerperal sepsis, obstetric haemorrhage, anaesthetic complications and embolism (South Africa 2012:15).

5.2.1.6 Risk factors

Risk factors need to be assessed and recorded in order to alert practitioners of the possibility of recurrence. According to SANC (1990:2), an enrolled midwife is expected to ascertain whether any abnormality which could have an adverse effect on the present confinement has occurred during a previous pregnancy, labour and puerperium.

In addition to such risks that may have been identified, a midwife is expected to also indicate the risk factors that were identified on admission during the first examination so that necessary attention can be given to the woman.

It is alarming to note that just above half of the partograms risk factors were recorded, and on the rest of the partograms no risk factors were indicated. Failure to record risk factors that need to be noted on the partogram may lead to lack of awareness of the possibility of recurrence of complications by midwives and doctors.

5.2.2 The condition of the mother during labour

In order to prevent maternal deaths, mothers should be monitored meticulously during all stages of labour. Aspects such as blood pressure, pulse, urine results, pain relief and other medications that are given to the woman during labour are discussed in this section.

5.2.2.1 Blood pressure

In almost three quarters of the partograms that were reviewed, blood pressure was recorded according to standard. However, in a quarter of the partograms that were studied, blood pressure was not recorded according to standard.

Elevated blood pressure during pregnancy is one of the symptoms of pre-eclampsia and eclampsia, which are regarded as major causes of death in South Africa, hence the importance of monitoring the blood pressure as stipulated on the Guideline for Maternity Care in South Africa (South Africa 2007a:37).

5.2.2.2 Pulse rate

If the heart rate increases to more than 100 beats per minute, it can be an indication that the woman is anxious, feeling pain, having infection, ketosis or haemorrhage (Fraser et al 2006:438; Nolte 2008:23).

The pulse rate of the mother was recorded according to standard in just above half of the partograms that were reviewed, and in almost half, the pulse was not recorded according to standard.

5.2.2.3 Urine testing results

Urinalysis during labour assists midwives and doctors in detecting ketones, glucose and protein (Fraser et al 2006:439).

Just above a quarter of the partograms that were reviewed, urine testing results were recorded according to standard, and on almost half of the partograms, urine testing was not recorded. Midwives confirmed during the face-to-face interviews that there was lack of Uristix to test urine in one of the hospitals, which attributed to the gaps that were found during document analysis.

5.2.2.4 Medications given

Leanza et al (2011:325) indicate that a partogram is helpful for correcting the deviation from normal by providing the opportunity to use drugs such as oxytocin during labour.

It is impressive to note that medications that were given to the women during labour were recorded according to standard on more than three quarters of the partograms that were reviewed and not recorded on less than a quarter of the partograms.

5.2.2.5 Measures of pain relief during labour

Excessive pain may have a negative effect on the progress of labour as the woman may push the baby before the cervix is fully dilated, leading to swelling of the cervix and prolonged labour. According to Fraser et al (2006:455), midwives are expected to provide woman-centred care, as not all women are satisfied with a pain-free birth.

In almost three quarters of the partograms that were reviewed, recording of pain relief measures was done according to standard, and in just above a quarter, recording was not done.

Monitoring the pregnant woman's condition should be done frequently to detect abnormalities earlier and refer to the next level of care when necessary. The findings of this research study reveal that monitoring a woman during labour needs to be improved, especially pulse and condition of the bladder.

5.2.3 Foetal condition during labour

Observation of the foetal condition during labour is crucial in order to detect and manage complications promptly. Midwives are expected to monitor the foetal heart rate, the caput, moulding of the head of the foetus and the condition of membranes.

5.2.3.1 Foetal heart rate

Foetal heart rate is checked every two hours during the latent phase and half-hourly during the active phase of labour in order to detect abnormalities (South Africa 2007a:36). The foetal heart rate can be assessed continuously during labour by making use of the CTG machine, which provides a graphic record of the response of the foetal heart to uterine activity as well as the heart rate variability (Nolte 2008:19).

According to De Kock and Van der Walt (2004:13-9), evidence-based trials of monitoring the foetus' well-being have shown that constant observation of the

woman in labour can avert complications such as short- and long-term morbidity or even deaths of the foetus.

In this research study, the foetal heart rate was recorded according to standard on just above a quarter of the partograms that were reviewed, and in more than half, recording of foetal heart rate was not done according to standard. Failure to observe and record the foetal heart rate may lead to failure to detect deviations on time and hence the delay in intervention, which may lead to perinatal death.

Furthermore, the document on intrapartum care of the MRC (2005:14) indicates that inadequate foetal monitoring has been identified in many studies as being the most common avoidable factor relating to perinatal deaths and intrapartum hypoxia in South Africa.

5.2.3.2 Caput

In more than three quarters of the partograms that were reviewed, caput was recorded according to standard, and in almost a quarter, the caput was not recorded according to standard.

5.2.3.3 Moulding of the foetal head

According to De Kock and Van der Walt (2004:25), moulding is defined as the ability of the bones of the skull of the foetus to overlap in order to pass through the birth canal.

In three quarters of the partograms that were reviewed, moulding was recorded according to standard, and in almost a quarter, moulding was not recorded according to standard.

5.2.3.4 The condition of membranes

Amniotic fluid can assist in assessing foetal condition. Early rupture of membranes days before the onset of labour may lead to infection and decelerations (Fraser et al 2006:422).

On more than half of the partograms that were studied, the conditions of membranes were recorded according to standard, and in more than a quarter of the partograms, the condition of membranes was not recorded according to standard.

5.2.3.5 The duration of ruptured membranes

Early rupture of membranes may pose a risk of infection on the foetus, and the presence of meconium on the amniotic fluid may lead to low Apgar score.

Midwives managed to record the duration of ruptured membranes according to standard on almost three quarters of the partograms, and in less than a quarter, the duration of membranes were not recorded.

5.2.4 The progress of labour

The progress of labour is determined by the frequency and strength of the contractions, the cervical dilatation and the effacement of the cervix. The progress of labour was divided into monitoring of contractions, monitoring of cervical dilatation and detection of problems with labour.

5.2.4.1 Monitoring of contractions

On over half of all partograms that were reviewed, contractions were not recorded according to standard, and on just above a quarter, contractions were recorded according to standard.

The results concur with the findings in Lavender, Tsekiri and Baker (2008:362), which revealed that some of the basic details of the partogram, such as cervical dilatation and changes in strength, and duration and frequency of uterine contractions were not recorded by midwives during labour. The findings of this study are further consistent with those in Fatusi, Makinde, Adeyemi, Orji and Onwudiegwu (2007:43), in which a study was conducted on the evaluation of health workers' training in the use of the partogram in Nigeria and found that in some of the records, midwives were not plotting the foetal heart rate and contractions strictly every 30 minutes.

5.2.4.2 Cervical dilatation

The cervical dilatation, adequacy of the pelvis and contractions determine the progress of labour. The correct plotting of the progress of the cervical dilatation permits early recognition of problems in labour and the woman can be referred to the next level of care on time (Fahdhy & Chongsurvivatwong 2005:308).

In almost three quarters of the partograms that were reviewed, the cervical dilatation was recorded according to standard. However, in just above a quarter, recording was not done according to standard. The findings of this study on recording of cervical dilatation are in line with the results of a study on assessment of partogram during labour in Uganda, which revealed that there was a high frequency of recording of cervical dilatation (Ogwang et al 2009:27).

Moreover, the findings of this study are consistent with those of the research study that was done in South Africa, where evaluation of cervical dilatation and plotting was of an acceptable standard (MRC 2005:15).

5.2.4.3 The adequacy of the pelvis

According to ICM (2010:9), a midwife is expected to determine the size of the pelvis in relation to the size of the presenting part. This examination is done to avoid prolonged labour and birth complications. Maharaj (2010: 388) indicates that slow progress of labour can result from the mismatch between the size of the pelvis and the foetal head.

The adequacy of the pelvis was recorded according to standard on more than three quarters of the partograms that were reviewed.

5.2.4.4 Name, signature and designation

A partogram is a legal document in which midwives and doctors are expected to record information on the progress of labour, hence the need to write their names in full, their designations and their signatures (Nolte 2008:1; SANC 1990 Annexure A: 4).

On almost three quarters of the partograms that were reviewed, the name, signature and designation of the midwife was documented according to standard. However, on just above a quarter, the name, signature and designation of a midwife were not documented according to standard.

5.2.4.5 Conclusion on document analysis

The findings revealed that the partogram is used in a very small proportion of patients in order to monitor the progress of labour, and even when it is being used, it is often incomplete. According to a study done at one of the hospitals in Gauteng, a partogram was found to be a poorly used monitoring tool, and there was inadequate recording, which contributed to maternal and morbidity at the hospital (Basu, Hoosain, Leballo, Masango, Mercer, Mohapi, Petkar & Tshiovhe 2009:578).

The findings by Basu et al (2009) concur with the findings of this study on inadequate recording in that some of the aspects were not observed or recorded. The research study that was conducted by Basu et al revealed that the partogram was not properly used. Nevertheless, the study did not explore specific factors or reasons that kept midwives from using the partogram when monitoring women during labour.

It is evident from the findings of this research study on document analysis that most midwives were unable to monitor or plot observations that were supposed to be done frequently, such as time of labour, foetal heart rate, maternal pulse and contractions. As a result, the need arose for the researcher to conduct face-to-face interviews with midwives in order to explore their experiences on the use of the partogram. The main purpose of conducting interviews was to determine the challenges faced by midwives when using the partogram as a guideline in monitoring a woman during labour.

5.3 DISCUSSION OF RESEARCH RESULTS ON FACE-TO-FACE INTERVIEWS

Face-to-face semi-structured interviews were conducted with midwives at the three hospitals in Vhembe District. During these interviews, four themes emerged, which are the benefits of using the partogram; the challenges experienced by midwives;

attitudes of clinicians; and auditing and feedback that is given to midwives by supervisors.

5.3.1 Demographic factors

Demographic factors such as the participant's age, midwifery training programme, years of experience and the position that a midwife holds in the labour ward is discussed in this subsection.

5.3.1.1 Participants' ages

All midwives that were interviewed were females, and almost half of them were between 50 and 59 years old, which indicate that midwifery is mostly liked by females at Vhembe. Nonetheless, it is worrying to note that the maternity wards have older midwives than the younger generation.

5.3.1.2 Midwifery training programme

The age of midwives corresponds with the training programme, as the highest percentage (41.2%; n = 7) were trained for the two-year Midwifery Programme, which is no longer offered in South Africa. This was followed by the four-year Diploma in Nursing (23.5%; n = 4). Few midwives had a degree in nursing and few were trained for advanced midwifery.

According to the findings of a study in Fawole, Hunyimbo and Adekanle (2008:25), participants who had a higher level of formal qualifications were more knowledgeable about the partogram than those who had a lower level of training. However, MRC (2005:15) finds out that training in the use of the partogram has some effect on the performance of clinicians but does not lead to the use of the partogram in greater than 60% of patients in some institutions in South Africa.

The findings of this study are consistent with those of MRC in that there were gaps in the partograms even though midwives were trained on its use.

5.3.1.3 Years of experience as a midwife

It was good to note that almost all except one of the participants had five or more years of experience in working in the labour ward, and almost half of the participants have 11 to 15 years of experience working in the labour ward. According to Fawole et al (2008:25), the more the years of experience in working in the labour ward, the higher the level of understanding of the partograms.

A cross-sectional study on knowledge and utilisation of the partogram among midwives in Nigeria found that there was a significant relationship between the years of experience of midwives and their use of the partogram (Opiah, Ofi, Essien & Monjok 2012:128).

In this research study, though most of the participants had more than five years of experience in working in the labour ward, some gaps in recording of the pulse of the mother, calculation of the duration of labour on admission, and recording of hours of labour were observed.

5.3.1.4 The position of a midwife in the labour ward

Almost three quarters of the participants were not in a managerial position, whereas only three were midwife managers. The midwife managers provided substantial information related to how midwives were supported in the labour wards. The findings further revealed that the more the midwife become a manager, the less the interest on the practical aspects related to the partogram.

One participant said the following statements related to midwife managers:

"… managers acts as administrators. Managers are clerks, I must just say because this morning we had a fight that managers are clerks and nurses are the ones that go to the patient …" (PA-4).

5.3.2 Theme 1: The benefits of using the partogram

Most of the participants perceived the partogram as having several benefits such as saving time, a woman delivering a healthy baby; acting as a guide in caring for a woman in labour; and assisting in continuity of care. Other benefits included report giving; acting as evidence in case of a lawsuit; and the fact that it acts as a norm, a policy, a national requirement and a standard of monitoring a woman in labour.

Some of the pertinent aspects that were cited by midwives were monitoring of the patient's condition, tracking the progress of labour and problem identification. Lavender, Hart and Smyth (2009:8) concur with the findings of this study in that clinicians reported benefits of using the partogram, such as ease in recording, provision of a pictorial overview of progress, training of clinicians, and transferring of cases.

5.3.2.1 General usefulness of the partogram

Participants described the general usefulness of the partogram as saving time, acting as a guide, assisting in report giving, and further management in order to have a healthy mother and baby, a legal document, a national requirement or standard.

5.3.2.1.1 The partogram acts as a guide for midwives

Midwives indicated that a partogram is useful in that information is depicted on one page, which saves time, reminds them of what to observe and the progress of the patient, which consequently motivates them to use the guideline.

5.3.2.1.2 The partogram saves time

The results of this research study revealed that a partogram is a tool that saves time. The findings of this study on the partogram as a tool that saves time concur with findings in Nolte (2008:3), where it is indicated that the partogram is an easy tool to use which consequently enables nurses to see the progress of labour at a glance and avoids lengthy descriptions of observations.

The study findings further revealed that nurses prefer to spend more time with patients rather than using most of their time on attending to documents. The results

of this study on saving time concur with what was discovered in Lee and Chang (2004:37) regarding the experiences of nurses on standardised care plans, where nurses expressed their intention to spend more time with the patients rather than on documenting and reading notes.

5.3.2.1.3 The partogram is important for report giving and further management

The partogram is also viewed as a tool that assists midwives in report giving and which facilitates further management. Lavender (2005:579) concurs with the findings of this study on further management as one of the benefits of a partogram by indicating that the partogram assists in continuity of care during labour, which includes the education of staff members.

According to Broughton and Rathbone (2001:1), guidelines should provide clinical and well-balanced information on benefits and limitations of various diagnostic and therapeutic interventions so that physicians can carefully judge individual cases.

5.3.2.1.4 The partogram assists midwives to have a healthy mother and baby

Midwives viewed the partogram as a tool that assists in the management of a woman in labour, which consequently results in a healthy mother and baby. Furthermore, a study conducted in a developing country on the impact of training on the use of the partogram on maternal and perinatal outcome found that maternal and perinatal mortality and morbidity are reduced when a partogram is introduced (Fatusi et al 2007:44).

Be that as it may, Lavender, Hart and Smyth (2009:8) indicate that it cannot be advocated that a partogram be used as routine but acknowledged that it is used in most of the high- and low-income countries.

5.3.2.1.5 A partogram acts as evidence in case of a lawsuit

A partogram is viewed as a legal document, a norm, a national requirement and to some, a policy or a guideline. The findings of this study on the importance of a partogram in case of a lawsuit are also supported in Leanza, Leanza and Monte

(2011:331), in which it is indicated that a partogram is regarded as a practical graph for medico-legal evaluation in case of contentiousness.

5.3.2.1.6 The partogram is a national requirement, a policy and a standard

Midwives may have been motivated to use the partogram because they regard it as a national requirement, a policy and to some, a standard guideline. In a study conducted in Finland on nurses' experiences of guideline implementation, it was found that the fact that the guideline was a national recommendation motivated nurses to comply with it, which is almost consistent to these findings on partogram as a national requirement (Alanen, Valimaki & Kaila 2009:2617).

5.3.2.2 Monitoring of patient's condition

Most midwives have knowledge of how maternal and foetal condition needs to be monitored. However, research results on document review found that midwives were unable to monitor and document maternal pulse and foetal heart rate including contractions on a half-hourly basis during the active phase of labour according to the set standard.

Midwives show understanding on the partogram by indicating its importance in the identification of complications during labour, which include aspects such as foetal distress, maternal distress and their management. Ogwang et al (2009:27) further indicate that partogram is a valuable, appropriate technology that is being utilised to improve the monitoring of labour progress, maternal and foetus well-being, with the aim of preventing obstructed labour.

5.3.2.3 Tracking progress of labour

Midwives indicated that they were motivated to use the partogram because it assists them in tracking the progress of labour, gives direction on how to manage a woman, and is a learning tool. The results indicate that most midwives have knowledge of how the contractions should be monitored, which is in contrast to what was found in in a study done in Nigeria about the knowledge and utilisation of the partograph among obstetric caregivers (Fawole et al 2008:28). In this study, knowledge about the frequencies and duration of uterine contractions was poor in the majority of the

participants from primary and secondary levels of care. Kortteisto, Kaila, Komulainen, Mantyranta and Rissanen (2010:1) affirm these statements by indicating that clinical guidelines assist health care professionals and patients in making treatment decisions.

In contrast to the findings of this research study on detection of normal and abnormal labour, Osbourne and Lavender (2005:618) critiques a partogram and indicates that the biggest constraint that the tool brings is its failure to differentiate when a woman is not average or is not abnormal. Osbourne and Lavender further indicates that the partogram is too strict, time framed guide and indicates action only when labour is slower than expected.

5.3.3 Challenges experienced by midwives when using the partogram

The research study found several challenges that were experienced by midwives, such as staff shortage associated with allocation of midwives in the maternity ward, and categorisation of patients according to stages of labour. Other challenges include lack of time to observe and plot on the partogram; lack of resources; and lack of knowledge and skill on the partogram, which leads to misinterpretation of the partogram.

5.3.3.1 Shortage of midwives

The shortage of staff was raised by most of the participants as a major problem in the labour ward that affects the correct use of the partogram. The problem of shortage was also emphasised by managers that were included as participants during the interview. The findings of this research study on shortage is in line with the South African Nursing Council nurse patient ratio for 2006, which was 3:2:1:4 for Enrolled Nursing Assistance: Enrolled Nurses: Registered Nurses/Midwives: Senior Registered Nurses/Midwives (Uys & Klopper 2013:1).

According to a report written by Joubert (2009:3) on nurse shortage in South Africa, the minimum standard set by WHO is 288 health worker for every 100 000 people (488 per health worker). Africa falls below the standard with 185 health worker for

every 100 000 people. It was further indicated in the report that in South Africa, there were 451 people for one registered nurse in 2008.

5.3.3.1.1 Admitting many patients in labour at the same time

The results of this research study found that there is overcrowding of patients due to many patients that are admitted in labour at the same time. This results in incomplete documentation on the labour graph as discovered in document review.

Clinics that are transferring women in labour were cited as one of the adding factors that make the problem worse. In two of the three hospitals, four nurses were expected to work in the admission ward, antenatal ward, and latent room and labour room.

The findings of this study on shortage of staff concur with those in Pattison et al (2005:7) on survival rates of new-born infants in South Africa that a critical staff shortage was the second most common recorded modifiable factor directly involved in the death of a new-born infant in the metropolitan areas.

The continuing challenge of shortage of skilled midwives and doctors including specialist staff in Limpopo province was also highlighted in the 2008-2010 Saving Mothers Report (South Africa 2012:265). The findings of this study on shortage of staff may be the reason for midwives' inability to document frequent observations such as foetal heart rate, contractions and maternal pulse according to standard on partograms during document review. Furthermore, the findings concur with Opiah et al (2012:129) in that some midwives regarded the use of a partogram as time-consuming because of staff shortage.

A study conducted on midwives' views about safety in England found that midwives believe that more midwives need to be employed so that one-to-one care in labour can be practised in order to reduce complications (Smith, Brown & Miller 2007:218). Smith et al further reported that midwives believed that support personnel in the maternity ward can assist midwives to spend more time on monitoring the women rather than doing paperwork.

According to Ploeg, Davies, Edwards, Gifford and Miller (2007:214), provision of necessary staffing by administrators is regarded as critical for guideline implantation. According to Pattison et al (2005:7), a critical staff shortage was the second most common recorded modifiable factor directly involved in the death of new-born infants in the metropolitan areas. Adequate numbers of well-trained nurses in both maternal and new-born infant care is of paramount importance.

5.3.3.2 Challenges with allocation of midwives

Allocation of midwives to patients and patients to midwives was indicated as a problem in Limpopo province.

5.3.3.2.1 Allocating many midwives to one woman at the same time

Allocation of many midwives to one patient was raised as leading to different findings and interpretations during observations, especially the cervical dilatation. Different findings were indicated as one of the aspects that interfere with proper management of a woman during labour.

Soni (2009:2) in a commentary on WHO Reproductive Health Library indicates that resource constraints in under-resourced countries make it impossible to monitor each woman continuously throughout the duration of labour, which concurs with the findings of this study on shortage of midwives.

5.3.3.2.2 Allocating two or more women to one midwife at the same time

According to SANC (1990: Chapter 2 (subsection 7)), a midwife is expected not to leave the woman throughout the process of labour until delivery. However, the findings of this study revealed that many women were allocated to one midwife at the same time, which made it impossible to do all observations according to standard.

The results of this study on challenges of allocating two or more midwives to one woman concur with those in Smith, Cantab, Dixon, Cantab & Page (2009:29), where it was found that midwives favour to work with one woman until delivery. Furthermore, the findings of this study are in line with those in Mathews, Dougall, Konfortion and Johnson (2011:585) on enhancing safety in the labour ward in

England, which indicates that labour ward coordinators are required to have an overview of the care of the woman in order to meet the expectation of one-to-one care in a constantly changing environment.

5.3.3.2.3 Problems with categorisation of patients according to stages of labour

The findings of this study reveal that a shortage of midwives leads to categorisation of patients not being done according to stages of labour, which according to midwives add to poor monitoring and incomplete documentation on the partogram. In one of the community hospitals, patients who were in active and latent phase were placed in the same area, which makes it difficult for midwives to prioritise activities. Midwives in the two community hospitals indicated that they were expected to admit patients, monitor those who are in labour, and attend to call-outs and to patients who were admitted in the antenatal ward with complications.

According to a document on intrapartum care, the design and functioning of labour wards in the South African public health sector contributes to their inefficiency (MRC 2005:13). This inefficiency is because many labour wards are not dedicated management areas, such as admission and first stage, and patients are housed where they are infrequently monitored or totally neglected until the second stage, when they are in labour.

5.3.3.3 Lack of time

Lack of time was also identified as a significant challenge when monitoring a woman during labour. This was attributed to patients who arrived being at an advanced stage of labour, frequency of observations and recording simultaneously on partogram and other observation charts.

5.3.3.3.1 Lack of time to observe and plot on the partogram due to patients who arrive in the labour ward at an advanced stage of labour

Midwives indicated that when patients arrive at an advanced stage of labour, it makes them fail to monitor and record the findings on the partogram according to standard.

5.3.3.3.2 Lack of time due to frequency of observations

Subsequently, frequency of observations was cited as one of the problems that exacerbate lack of time. These findings are supported by the research results from the document review on the partogram, where most of the observations such as heart rate, pulse rate, contractions and hours of labour were mostly not recorded according to standard. The findings of this study that participants lack the time to plot on the partogram agrees with a study in Fatusi et al (2007:340) in which despite the availability of the partograms, plotting was not done by nurses and midwives on some of the cases due to lack of time.

Furthermore, Salama, Allah and Heeba (2012:172) discovered that there were incomplete and poor recording of parameters on the partogram against the recommended standards of WHO partograph. These recordings reflect poor skills of birth attendants on the use of the partogram, resulting in poor decision-making regarding the condition of the mother and the foetus and the progress of labour.

The results of this study related to charting are in line with what Salama et al (2012 :172) found that midwives lack the time to chart on the partogram unless there were students available in the ward to assist them.

5.3.3.3.3 Lack of time associated with recording of observation on the partogram and other observation charts

The results of this study found that midwives were expected to write the findings on the partogram and also on the other charts, which they regard as time-consuming and repetitive. They indicated that sometimes they ended up documenting the findings on other chats rather than on the partogram, which gives the wrong impression that the observations were not done, as the partogram is mostly viewed than other charts. A retrospective document review of all partograms was done for one week in Johannesburg Hospital, in South Africa, and found that the partogram is poorly used and that health workers documented the findings on vaginal examination and foetal condition in other documents instead of on the partogram (Basu et al 2009:578).

5.3.3.4 Lack of resources

Participants in this study were not satisfied with the provision of equipment such as maternity case records, photocopying machines, CTG machine and Uristix in the labour ward. This led to incomplete documentation on the partograms.

5.3.3.4.1 Lack of case books, photocopying machines and CTG machines

There is consistency in the findings of this study related to urine testing in face-to-face interviews and on document review, as there were gaps on the partogram on the space where urine results were supposed to be indicated. Subsequently, lack of a CTG machine might have led to incomplete documentation on foetal heart rate results. The findings of this study on shortage of equipment concur with the findings of a study in Ploeg et al (2007:214), which indicates that the provision of equipment and supplies was one of the facilitators for the implementation of guidelines.

5.3.3.5 Lack of knowledge and skill

The results indicated a lack of knowledge and understanding of the partogram by some of the student midwives in the hospital and some clinic nurses, which lead to mismanagement of patients in the labour ward. However, some midwives show a higher level of understanding of the partogram, which was evident when they explained the general aspects of the partogram, the benefits and some disadvantages.

5.3.3.5.1 Lack of understanding of the partogram by students

Findings of this study reveal that students lack understanding and skill on the use of the partogram. In a research study on knowledge and utilisation of the partograph among obstetric caregivers in South West Nigeria, it was found that midwives complained of students who were not educated well on the use of the partogram, which resulted in wrong plotting of the partogram, which is consistent with the results of this study regarding students' lack of knowledge (Fawole et al 2008:22).

According to Smith et al (2009:27), more practical hands-on training is needed for midwifery students and doctors on training. Lavender and Chapple (2004:329)

further indicate that the theoretical training does not always reflect practice, hence the need for practical training on the use of the partogram.

5.3.3.5.2 Lack of understanding of the partogram by midwives at the hospital and at the clinic

The research was conducted at the hospitals, and midwives at the hospitals indicated that those at the clinic lack knowledge and skill on the use of the partogram. Some midwives who were interviewed also mentioned lack of knowledge of colleagues in the hospital.

The findings in Leanza et al (2011:325) that physicians and midwives have to be trained on the correct use of the partogram in order for them to plot correctly concur with the findings of this study on making sure that midwives know how to plot on the partogram. Additionally, Hennessy, Hicks and Koesno (2006:2) conducted research on training needs of midwives in Indonesia and found that midwives need regular updating in order to enhance their skill.

In addition, a study conducted in Nigeria on training of midwives recommend that midwives should be effectively trained to use the partogram and be monitored regularly (Fatusi et al 2007:44). According to Fahdhy and Chongsurvivatwong (2004:307), education, training and supervision of a small number of midwives resulted in a high rate of the use of the partogram.

In a study on implementing guidelines in psychiatry, it was found that lack of skills and motivation were described as major barriers to implementation, which concur with the findings of this study related to lack of understanding of the partogram which may lead to mismanagement of a woman in labour (Forsner, Hansson, Brommels, Wistedt & Forsell 2010:6).

The findings of this study concur with those in MRC (2005:17) that midwives in South Africa lack knowledge on the proper use of the partogram, lack clinical skills to evaluate a woman in labour, and have low morale caused by staff shortages, poor remuneration systems and social pressures that are experienced by midwives at a personal level.

The results of this study on lack of knowledge and skill concur with the findings on document review, where gaps were found on the partogram. It stands to reason that the time factor may not be the only contributor to incomplete documentation but also lack of knowledge on the part of clinicians.

In Smith et al (2009:28), in a study on midwives' views about safety in England, it was found that midwives believe that more midwives need to be employed so that one-to-one care in labour can be practised to reduce complications. Smith et al further reported that midwives believed that support personnel in the maternity ward can assist midwives to spend more time on monitoring the women rather than doing paperwork.

Provision of necessary staffing by administrators is regarded as critical for guideline implementation. According to Pattison et al (2005:7), a critical staff shortage was the second most common recorded modifiable factor directly involved in the death of new-born infants in metropolitan areas. Adequate numbers of well-trained nurses in both maternal and new-born infant care is vital in ensuring that the guideline is implemented.

5.3.3.6 Misinterpretation of the information due to the design of the partogram

The findings reveal that there was a misinterpretation of results on the partogram, which was attributed to several factors. These are discussed in this section.

5.3.3.6.1 The use of abbreviations on the partogram

The findings of this study reveal that the partogram is designed with abbreviations that not all midwives are acquainted with and which may lead to wrong interpretation of results. Gagliardi, Brouwers, Palda, Lemieux-Charles and Grimshaw (2011:2) found out that extra information should be included within the guidelines in order to assist users to have more understanding. This may stimulate confidence in the capacity to practise the recommended behaviour, which is in line with the findings of this research study.

5.3.3.6.2 Small blocks that are used on the partogram

The results of this study indicate that there were problems with the design of the partogram, especially the small blocks that are drawn for midwives to record in. The small blocks make it difficult to see the recordings, and in case of mistakes, the partogram becomes ruined, which leads to misinterpretation of findings and mismanagement of the patient.

Lavender, Tsekiri and Baker (2008:359) recommend the use of clear guidelines to guide midwives and obstetricians. The major barrier for lack of adherence to guidelines was the beliefs that guidelines were not comprehensive enough to cover daily practice. Gagliardi et al (2011:2) further indicates that the format and content of the guidelines is essential to influence its use by staff.

5.3.3.6.3 The absence of the nursing care plan on the new partogram

The results of this study indicate that midwives have a problem with the exclusion of the nursing care plan which was part of the previous partogram. They are unable to document the summary after assessment and the nursing diagnosis.

5.3.3.6.4 The new maternity case record

The changes that were made on the partogram were perceived as not correlating with the information on the maternity case record. Another problem that was cited by midwives was the lines that are drawn on the partogram, which do not correlate with the headings and the time. Lack of understanding of the new changes led to incorrect recording on the partogram and mismanagement of patients. There were different perceptions related to the changes as some midwives felt they are unable to adapt to change, whereas others felt they just need orientation on the new changes.

The findings of this study are consistent with results found in Jones, Suurdt, Quelette-Kuntz and Heyland (2010:453) on implementation of the Canadian Clinical Practice Guidelines for Nutrition Support. The findings of the study were that resistance to change was the greatest barrier in implementation of the guideline.

5.3.3.6.5 Misunderstanding related to when the partogram should be started

The findings reveal that different institutions in South Africa start the partogram at different times. It was indicated by participants that some institutions start when the cervix is three centimetres dilated and some when the cervix is four centimetres dilated.

The findings of this study on the need for research on the partogram concur with the findings on a study in Smith et al (2009:29), where participants suggested that there should be involvement of professionals who work directly with the development of guidelines and they should be evidence based.

5.3.3.6.6 Different interpretations of action and alert lines

In addition to the misunderstanding of when to start the partogram in labour, the results indicate that there are different interpretations of alert and action line among clinicians, which lead to variations in decision-making related to how a woman should be managed during labour.

According to McDonald and Infirmary (2010:635), there is a clear lack of consensus on how long a latent phase of labour should last. McDonald and Infirmary further indicate that midwives need to be alert to other cues given by women rather than relying on the dilatation of the cervix, which may be measured differently.

The findings of this study on misunderstanding of alert and action lines are further supported in Fawole et al (2008:25), where a study was conducted in Nigeria on the knowledge and utilisation of the partograph among obstetric caregivers and found that knowledge of action and alert lines were generally poor among caregivers.

5.3.3.6.7 Lack of communication when introducing the new partogram

The results of this research study revealed lack of communication and orientation of midwives on the new partogram. The findings of this study are supported in Lee and Chang (2004:38), where a study was conducted on experiences of nurses on using

standardised care plans and found that nurses were not involved in the design phase and were not satisfied with the content.

Furthermore, Ogwang et al (2009:32) find that the poor use of partograms during labour is affected by factors such as lack of guidelines, training of health workers on its use, availability of tools, and availability of health workers who have a positive attitude on the use of the partogram.

5.3.4 Attitudes of staff on the use of the partogram

Attitudes of staff were indicated as one of the factors that were found to be affecting the use of the partogram in this research study. According to Kozeva, Sola, Carrasco, Deaz del Campo, Gracia, Calderon, Gaminde, Estrada, Martinez, Orrego, Rotaeche, Salcedo, Valzquez and Alonso Coello (2010:4), clinicians' perceptions and attitudes towards clinical practice guidelines are vital aspects towards the implementation of the tools and subsequent change in practice. In this theme, attitudes of doctors, midwives, students and managers in the use of the partogram will be discussed.

5.3.4.1 Attitudes of doctors on the use of the partogram

The results revealed some lack of interest on the use of partogram by some of the doctors, who were reluctant to act on midwives' findings.

5.3.4.1.1 Lack of interest on the partogram

The findings revealed that some doctors lack interest on the use of the partogram and do not plot on it except when checking on nurses' findings without confirming the results clinically, whereas some show little interest. The results of this study are supported by Dye, Alderdice, Roberge and Jamison (2000:106) who indicate that doctors are least receptive to published guidelines enforced by regulatory bodies. Furthermore, Ogwang et al (2009:27) indicate that skilled management of labour by an adequate number of skilled health workers with a positive attitude towards using a partograph is a key to appropriate prevention and treatment of prolonged labour and its complications.

In contrast to the findings of this study, a study was conducted on Ontario doctors' attitudes towards the use of clinical practice guidelines in oncology and found that doctors were quite positive about practice guidelines in general (Graham, Brouwer, Davies & Tetroe 2006:607).

5.3.4.1.2 Doctors' reluctance to act on midwives' findings

Besides lack of interest, doctors were reportedly reluctant to act on midwives' findings despite their many years of experience in managing a woman in labour. Cronje and Grobler (2003:683) indicate that the main consequences of an adversarial doctor-midwife relationship is duplication of tasks because of refusal to accept the other's (usually midwife's) findings. A doctor may even decide to start a new partogram because of lack of trust of the midwife.

5.3.4.1.3 Poor relationship of doctors with midwives

The findings of this research study reveal that there was a poor relationship between doctors and midwives in some instances. A good doctor-midwife relationship is essential in the provision of an equitable and cost-effective service.

The findings of this study on the behaviour of doctors towards midwives concur with a study in Smith et al (2009:28) on professionals' views about safety in maternity services in England, where it was found that mutual respect between doctor and midwives is crucial. Cronje and Grobler (2003:683) indicate the main consequences of an adversarial doctor-midwife relationship as the following:

- Duplication of tasks because of refusal to accept the other's (usually midwife's) findings. A doctor may even decide to start a new partogram because of lack of trust of the midwife.
- Loss of morale among primary care midwives, which leads to a drop in the quality of care and the community being no longer interested in using the service.

The findings of this study concur with those in Lee and Chang (2004:38), where it was found that some nurses perceive standardised care plans as hassle nuisance within their busy workload schedule and thus devalue them.

5.3.4.2 Attitudes of midwives towards the use of the partogram

The results of the research study revealed that midwives have positive and negative attitudes towards the use of the partogram.

5.3.4.2.1 Positive attitudes of midwives towards the use of the partogram

Some of the participants in this research study indicated the benefits of using the partogram as indicated in Table 4.4 in Chapter 4. The results of this study concur with the findings of a research study in Lavender et al (2009:8), where it was found that clinicians regard partogram as a useful guideline in making the recording of patients' findings easier.

5.3.4.2.2 Negative attitudes of midwives towards the use of the partogram

Some of the participants in this research study were not in favour of using the partogram, and they regarded it as a waste of time in attending to the patients. The findings of this study concur with those in Lee and Chang (2004:38), where it was found that some nurses perceive standardised care plans as an irritating inconvenience within their busy workload schedule and thus devalue them.

5.3.4.3 Attitudes of student midwives on the use of the partogram

Students were viewed by midwives as not positive towards the partogram, and their attitudes were related to lack of knowledge and laziness. According to Modares, Mirmolaee, Mirmohammadalie, Valizadeh and Hashemi (2009:152), education is effective in enhancing the quality of care offered by midwives, and attention should be given to education on partograms at all levels as part of the educational programme for midwifery students. The emphasis on training will further have an impact on the attitude of students.

5.3.4.4 Attitudes of managers towards the use of the partogram

Some midwives were satisfied with their managers' attitudes towards the use of the partograms, whereas some were not.

5.3.4.4.1 Positive attitudes of managers

Managers were said to be supportive by some of the participants. Some of the activities that were cited as being performed by managers were provision of equipment for midwives to work effectively, auditing partograms and giving positive feedback, and conducting in-service training, though not consistent.

5.3.4.4.2 Negative attitudes of managers

In this research study, midwife managers were said to be concentrating on administrative work and not interested in the partogram. The findings concur with the study in Smith et al (2009:27) on health care professionals' views about safety in maternity in England, which found that professionals felt that managers lack clinical experience, are remote and too business focused. Health professionals further indicated that managers were poor communicators and failed to keep in touch with staff.

5.3.5 Evaluation and providing feedback on the use of the partogram

According to De Kock and Van der Walt (2004:5), maternal health services should be evaluated at regular intervals from both service provider and client's perspective to ensure high quality care, high standards of record keeping and decision-making. The findings reveal that supervisors, district managers and midwives do conduct an evaluation on how the partogram as a guideline in monitoring and managing a woman in labour is implemented.

5.3.5.1 Evaluation of midwives on the use of partograms

5.3.5.1.1 Evaluation of midwives' use of the partogram by ward supervisors

Two managers from the community hospital indicated that they audited the partogram after report taking in the morning in order to assess the documentation.

One of the managers further indicated that she also made a follow-up of those working during the night in order to give them feedback. Midwives also indicated that their immediate supervisors do check the documentation on the partogram. The findings of this study are in line with a commentary on audit and feedback made in Pattison (2006:3), where it was indicated that clinical audit is an essential aspect of the job of any clinical manager.

5.3.5.1.2 Midwives' self-evaluation on the use of the partogram

According to Bernard and Goodyear (2009:35), there is a possibility of supervisees or midwives to either overestimate or underestimate their abilities. In this research study, midwives reported that they conduct self-evaluation on how they are using the partogram, but not often due to shortage. Failure to often evaluate the use of the partogram in this research study is in line with the WHO commentary on audit and feedback made in Pattison (2006:2), where it was indicated that morbidity and mortality review meetings are a starting point for audit and feedback, but unfortunately such review meetings are not held routinely in hospitals at under-resourced settings.

5.3.5.1.3 Evaluation of partograms by district managers

District managers were evaluating and giving midwives feedback previously, but reportedly have not recently conducted such evaluations and with reasons that are unknown to midwives.

5.3.5.1.4 Evaluators' lack knowledge of the partogram

The findings reveal that some auditors lack knowledge and experience on the partogram because they are not working with the partogram. It was further indicated that they fail to motivate midwives to use the partogram.

Qualitative research which was conducted on health care professional's views about safety in maternity services found that managers who lack management skills, communication skills and failed to keep in contact with staff contributed to poor quality of maternity care (Smith et al 2009:27). Mutual respect between midwives,

doctors and managers was found to be mostly crucial in improving the quality of care.

5.3.5.2 Providing feedback on the use of the partogram

Midwives need feedback on how they are working, including the plotting on the partogram in order to gain motivation and to correct mistakes where applicable. This statement is supported in Pattison (2006:2), where it is indicated that once the problem has been identified and made known to health professionals, a self-correction in behaviour occurs and quality of care improves.

5.3.5.2.1 Providing positive feedback on the use of the partogram

It was evident from the results of this research study that midwives need to be given positive feedback. Some of the midwives indicated that they obtained positive feedback from managers. The findings of this study concur with a commentary made on audit and feedback in Pattison (2006:2), where it is indicated that provision of feedback by senior personnel, continued feedback sessions over a long period, face-to-face feedback to individuals and feedback that is combined with educational meetings are effective in achieving a greater impact in improving care.

5.3.5.2.2 Negative feedback on the use of the partogram

Some midwives indicated that they obtained negative feedback only without positive feedback, which discouraged them to improve in using the partogram when monitoring a woman during labour.

5.4 ALIGNMENT OF RESULTS TO THE GUIDING THEORY OF PLANNED BEHAVIOUR

The Theory of Planned Behaviour (TPB) has been chosen because of a comprehensive list of behavioural influences known to affect clinical practice guideline utility and midwives' behaviour (Ceccato et al 2007:202). The TPB is used to predict whether a person intends to do something by assessing the person's favour of doing it (**attitude**). It also assesses how much the person feels pressure to do it (**subjective norm**) and whether the person feels in control of the action in

question (**perceived behavioural control**) (Francis, Eccles, Johnston, Walker, Foy, Kaner, Smith & Bonetti 2004:7). Furthermore, Ceccato et al (2007:202) indicate that midwives' intentions to implement the partogram are crucial because they represent the motivation and the ability to use the partogram.

The researcher explored midwives' experiences on the use of the partogram and identified the factors that are associated with the use of the partogram in caring for a woman in labour. According to Michie and Lester (2005:367), there has been limited success in encouraging health care professionals in implementing clinical guidelines.

In TPB, attitudes of midwives, social norms and their perceptions of the ability to use the partogram around the available circumstances are influenced by the beliefs highlighted in Figure 5.1.

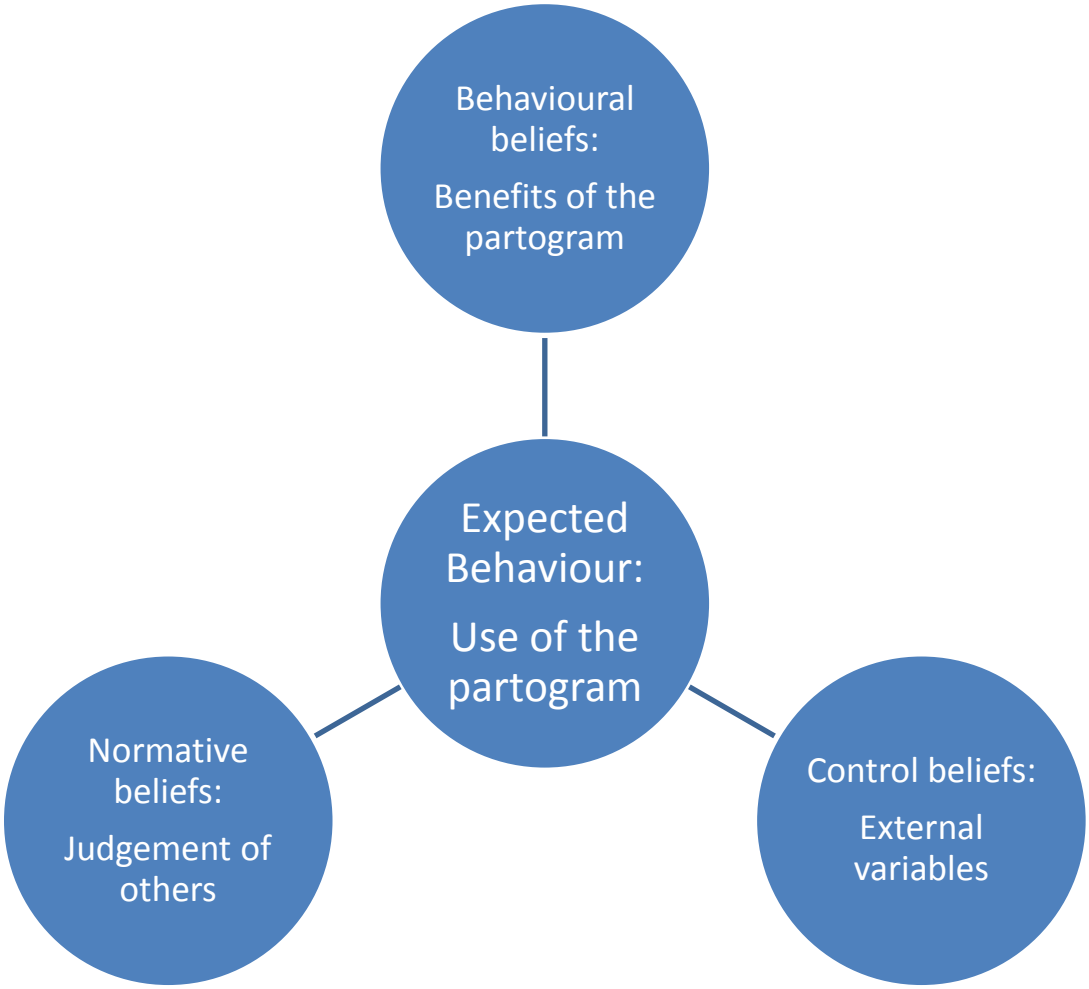

Figure 5.1: Theory of Planned Behaviour

(Adapted from: Ceccato et al 2007:203)

This qualitative research study revealed that attitudes, social norms and perceived behavioural control might affect intentions of midwives to use the partogram as a guideline in monitoring a woman during labour.

5.4.1 Behavioural beliefs

Behavioural belief is an individual's belief about consequences of particular behaviour, which relates to the outcome of performing such an act. In this research study, behavioural belief refers to a midwife's 'belief that using a partogram has benefits such as early identification of complications and referral on time'. Behavioural beliefs also include the positive or negative value or attitudes that midwives attach to the use of the partogram (Ceccato et al 2007:203). The findings of this research study revealed that there were positive and negative influences on midwives' use of the partogram as a guideline in using the partogram as indicated in Table 5.1.

Table 5.1: Behavioural beliefs that influenced the use the partogram

Aspects that influence midwives to use the partogram	**Relevant factors from the research findings**
1. Benefits of using the partogram	• The partogram acts as a guide for midwives. • The partogram assists midwives in tracking the progress of labour. • The partogram saves time. • The partogram is indispensable for report giving and for further management of a patient in labour.
2. Attitudes of staff in using the partogram	**Positive attitudes of staff** • Midwives' interest in the use of the partogram. • Managers' interest in supporting and teaching midwives on the use of the partogram.
	Negative attitudes of staff on the use of the partogram • Negative attitudes of students due to lack of knowledge. • Lack of interest of doctors and managers on using the partogram. • Reluctance of doctors to act on midwives' findings • Poor relationship of doctors and midwives.

5.4.2 Normative beliefs

Normative beliefs refer to an individual midwife's perception about using the partogram, which is influenced by the judgement of significant others including supervisors, doctors and colleagues (Ceccato et al 2007:203). Smith et al (2009:27) further states that motivation of the midwife to comply with the guidelines is also influenced by colleagues' opinions, doctors, and managers on the use of the partogram. In this research study, midwives' motivation to comply was mostly from the fact that the partogram is a national requirement, is regarded as a policy and a standard. Furthermore, a partogram is used as evidence in case of a lawsuit, hence the need to comply with stipulations in a legal document.

Auditing and giving feedback was cited as one of the key factors that influence midwives on using the guideline. Auditing was conducted by midwives themselves, midwives supervisors and district managers. The findings of this research study revealed that the manner in which feedback was given is critical in encouraging or discouraging midwives on the use of the guideline. Lack of knowledge on the part of those who audit was indicated as one of the leading causes of negative feedback as indicated in Table 5.2.

Table 5.2: Normative beliefs that influenced the use of the partogram

Aspects that influence midwives to use the partogram	Relevant factors from the research findings
1. A partogram as a legal document	• A partogram acts as evidence in case of a lawsuit. • A partogram is a national requirement, a policy and a standard.
2. Auditing and feedback on the use of the partogram	• Auditing is viewed as important by midwives, especially when done by supervisors. • Positive feedback from supervisors and colleagues motivates midwives to use the partogram. • Negative feedback due to lack of knowledge of auditors discourages midwives in the use of the partogram. • Lack of support by supervisors affected the use of the partogram negatively.

5.4.3 Control beliefs

Control beliefs are midwives' beliefs about the presence of factors that may facilitate or impede the correct use of the partogram. Control beliefs form the backbone of the use of the partogram by midwives in monitoring a woman during labour (Ceccato et al 2007:203).

External factors that may affect midwives' intention to use the partogram are opportunities, resources, social and organisational barriers. On the other hand, internal factors that may affect midwives' intentions to use the partogram are availability of policy or guidelines on the use of the partogram, skills of a midwife in monitoring and documenting on the partogram, emotional aspects such as positive and negative feelings, including the mood of the midwife (Rhoades, Kridli & Penprase 2011:563). The design of the partogram has been indicated as one of the factors that affect the correct use of the partogram in monitoring a woman in labour.

The limitation of TPB is the fact that it overlooks emotional variables such as threat, fear, mood and negative or positive feelings, which are assessed in a limited fashion. In this research study, several internal and external factors, including the design of the partogram, were discovered as influencing midwives' intention to use the partogram as indicated in Table 5.3.

Table 5.3: Control beliefs that affect midwives' use of the partogram

Aspects that influence midwives' to use the partogram	Relevant factors from the research findings
1. Internal factors	• Availability of policy to guide midwives on the use of the partogram had a positive effect. • Lack of knowledge and understanding of the partogram by students and midwives at the hospital and clinics • Different interpretations of the partogram. • Lack of communication related to new changes.
2. External factors	• Shortage of midwives in the labour ward. • Lack of resources such as photocopying machines, case books, Uristix and CTG machines. • Lack of time to observe patients and document on the partogram.

	• Allocation of many midwives to one patient, leading to variation in findings and recording. • Allocation of two or more women to one midwife, leading to failure to observe the patients according to standard. • Failure to categorise patients according to stages of labour due to ward organisational factors.
3. The design of the partogram	• The use of abbreviations without explanation notes negatively affects the understanding of the partogram. • The use of small blocks made it impossible for midwives to record meticulously. • The absence of the care plan on the new partogram results in variation in recording the nursing care plan.

5.5 Correlation of findings from document analysis and face-to-face interviews

The findings of this research study revealed most of the gaps in recording the maternal pulse, foetal heart rate, contractions, hours of labour, and the duration of ruptured membranes, including the duration of labour on admission. Gaps in documenting urine results were confirmed by midwives who indicated a lack of Uristix in the ward.

The findings on document analysis concur with the findings on face-to-face interviews in that midwives indicated a shortage of staff, which resulted in failure to document as indicated on the guideline. The gaps on documentation of aspects that needed frequent observation such as the foetal heart rate and contractions may be attributed to shortage of staff and lack of time to observe and record the findings.

Some of the factors discovered in face-to-face interviews such as lack of knowledge, misinterpretation of findings, attitudes of other staff members towards the partogram, lack of communication when introducing changes on the partogram, lack and negative feedback and lack of support might have contributed to most of the gaps that were revealed during document analysis.

5.6 CONCLUSIONS

In this chapter, discussions of the results, which included the results on document analysis, results on face-to-face interviews, alignment of the results to the theory of planned behaviour and correlation of results from both face-to-face interviews and document analysis was done.

In Chapter 6, strategies to address the challenges that were identified are discussed.

CHAPTER 6

IMPLEMENTATION STRATEGIES TO SUPPORT MIDWIVES ON THE USE OF THE PARTOGRAM

6.1 INTRODUCTION

In Chapter 5, the findings of the study were discussed. This chapter discusses the strategies that the researcher developed to enhance the implementation of a partogram as a tool that is used by midwives in monitoring a woman during labour.

Implementation is described as an innovation in daily routine, which demands effective communication strategies and the removal of hindrances to change by using techniques that are effective in practice (Grol, Wensing & Eccles 2005:11).

There are two approaches in implementation described in Grol et al (2005:12), namely, the rational model and the participation model. In the rational model, there is a clear point of departure and steering takes place externally, usually from above. On the other hand, the participation model uses the needs and experiences from the practice as its point of departure. The communication and feedback between the players in daily practice often determine whether there will be change or not in practice in the participation model.

The participation model is criticised for not always introducing the best care possible and not paying enough attention to the structural factors that influence its introduction (Grol et al 2005:12). The current research findings concur with Grol et al in that they revealed gaps in recording on the partogram and various challenges experienced by midwives in the use of the partogram. The gaps and challenges that were identified prompted the researcher to develop implementation strategies to enhance partogram use by midwives as a guideline in monitoring and managing a woman during labour.

6.2 STRATEGIES TO ENHANCE IMPLEMENTATION OF PARTOGRAM BY MIDWIVES

This research study revealed that attitudes of midwives and other staff members, social norms and behavioural control might affect midwives' intention to use the partogram. Although some midwives were knowledgeable about the value and usefulness of the partogram, several challenges were also highlighted, which affected the implementation of the partogram as a guideline in monitoring a woman in labour. The strategies to address the challenges were developed based on the findings of the research study guided by the TPB. Koh, Manias, Hutchinson, Donath and Johnston (2008:1) indicate that an analysis of barriers to change is helpful when trying to influence professional practice. Figure 5.1 depicts the summary of strategies linked to the TPB.

Additionally, a study on factors influencing best practice guidelines recommended that the best practice guideline implementation strategies should address barriers related to an individual practitioner, social context, organisational and environmental context (Ploeg et al 2007:210). The strategies in Table 5.1 are developed to address challenges related to behavioural beliefs of midwives.

6.2.1 Strategies to address challenges related to behavioural beliefs

Behavioural beliefs are beliefs about the outcome or other attributes of the behaviour (Rhoades et al 2011:563). The findings of this research study revealed that health care staff had positive as well as negative attitudes towards the use of the partogram. The negative attitudes towards the use of the partogram might have contributed to several gaps that were found during document analysis in this research study.

The most important aspects that are related to negative attitudes were lack of interest by doctors who were reluctant to consider midwives' findings, poor relationship of doctors with midwives, use of a partogram being regarded as a waste of time, and students who lack knowledge of how the partogram is used. Table 6.1

displays the strategies that are developed to address challenges related to the behavioural beliefs of midwives on the use of the partogram.

Table 6.1: Strategies to address challenges related to behavioural beliefs

Research findings	Suggested strategies to address the challenges
Attitudes of midwives, doctors and student nurses towards the partogram (Theme 3)	**Emphasising the value and importance of the partogram to all staff members** • Ensure that all staff members know the rationale for using the guideline through meetings and in-service training sessions. • Reinforce the use of the partogram by making use of sanctions towards those who do not comply and when necessary. • Give incentives such as a trophy, certificates, and midwife of the months) to midwives who performed well in using the partogram. • Reinforce the use of the partogram by students in the ward to encourage positive attitudes by providing a preceptor to teach and mentor students in the labour ward.
Problems with the design of the partogram (Theme 2)	**Make the partogram attractive** • Need analysis to be conducted in order to address midwives' concerns. • Involvement of opinion leaders such as nurse educators, midwives, researchers, and policymakers in guideline development to encourage a positive attitude. • Redesign partogram to make it simple for midwives and to encourage a positive attitude in staff. • Avoidance of duplication of charts with same information in order to spare midwives' time. • Design of the blocks and font on the partogram to be made big enough for midwives to record the findings clearly. • Provision of policy guideline for implementation to ensure correct monitoring of a patient and documentation on the partogram. • Provision of extra explanatory information, where abbreviations are written on the partogram. • Provision of some space to write the care plan for midwives to document the plan and the care that has been provided. • Provision of extra copies of the partogram to encourage continuity in case of mistakes in documentation. • Provision of reminders such as charts on the walls on how to record on the partogram to assist midwives and students to record.
Poor relationship of doctors and midwives (Theme 2)	**Improve doctor-midwife relationship** • Encourage doctors to document on the partogram after examining patients in the labour ward.

	• Encourage doctors to consider midwives' findings and to act promptly. • Encourage dialogue between doctors and midwives to improve understanding and support. • Include doctors in in-service training programmes of midwives so that they participate in teaching. • Encourage doctors to attend perinatal mortality meetings where discussion on the partogram takes place to encourage a common understanding.

In Table 6.1 strategies that are developed to build positive attitudes of staff members are highlighted. The marketing approach of making the partogram attractive, using the influence of significant others and improving the relationship of doctors with midwives were used to address the challenges that are related to behavioural beliefs.

6.2.1.1 Emphasising the value of the partogram in monitoring a woman in labour

Emphasising the value of the partogram to staff members is essential in encouraging them to use the partogram. Midwives indicated the value of using the partogram as having several benefits such as being a guide to practise, tracking the progress of labour, saving time, and importance for further management. These aspects might have positively contributed to the use of the partogram by midwives. It is crucial to make guideline implementation an organisational priority by issuing a command memorandum or making guideline implementation a regular agenda item at various relevant management meetings.

Reinforcement can be an invaluable tool to build a positive attitude and encourage midwives to use the partogram. Strategies such as sanctions, rewards and support are suggested. Supervisors should observe and encourage those who are doing their best in using the guideline in monitoring women during labour. Incentives such as certificates, a midwife of the month, and trophies are suggested. Midwives who do not comply with the guidelines should be trained to improve understanding of the guideline.

Visits by managers and supervisors tend to encourage staff to perform better. It is suggested that managers and supervisors conduct regular visits in the labour wards in the form of support in order to encourage midwives to use the guideline.

6.2.1.2 Making the partogram attractive to doctors, midwives and students

Strategies to build a positive attitude towards the use of the partogram include aspects such as ensuring that the design of the partogram is simple, stakeholders are involved, and only necessary information is included according to the context. The findings in face-to-face interviews with midwives reveal that midwives were not satisfied with the font and small blocks in which to record some of the findings. Making use of bigger font and blocks is suggested to ensure that recording is simple and clear and that midwives are not discouraged to use the partogram because of the design of the partogram that is not user-friendly.

The research findings reveal that some midwives could not interpret the meaning of some of the abbreviations on the partogram and some did not know where the guideline document on how to use the partogram is kept. A guideline with information on the meaning of abbreviations and how to document on the partogram is to be provided and be within reach of all midwives in the labour ward.

According to Gagliardi et al (2011:2), guideline format and content may be required to support different types of decision-making and help users to have a less threatening practice. Charts with information to guide midwives on the use of the partogram can be pasted on the walls of the labour rooms as a reminder to midwives on how to record.

Midwives indicated that in case of mistakes, it becomes impossible to continue with the same partogram, whereas no extra copies or photocopying machine is available. A positive attitude of midwives can be built by ensuring that the extra copies of partograms are available in the ward.

The research findings revealed that the previous partogram had some space to write the nursing care plan, whereas, in the new partogram, the space for the nursing care plan is not included. Consultation with midwives on their views regarding the

inclusion of the care plan is essential in order to improve the quality of care and documentation. Spiby and Munroe (2007:167) indicate that incorporation of expert opinion in guideline development is an established feature to ensure that critical aspects are not missed out.

Recording on the partogram and on the progress chart was found to be a challenge to midwives due to lack of time. It is important that unnecessary duplication of information on charts is avoided. A design that is user-friendly, with provision of extra guideline information and ensuring that extra copies are available may build a positive attitude towards the use of the partogram and its use in monitoring a woman in labour.

The research study further revealed that students lack knowledge and reportedly are negative towards the use of the partogram. Students' understanding of the partogram can be enhanced by strategies such as provision of a preceptor and orientation on the use of the partogram. Supervisors should support students in the labour ward to build a positive attitude towards monitoring and documentation on the partogram. Students can be encouraged to attend in-service trainings if these are conducted during the time when they are allocated in the maternity wards.

6.2.1.3 Improve doctor-midwife relationship

The most effective interventions that are indicated on the partogram guide midwives on clinical decisions when managing a pregnant woman in labour. The findings of this research study revealed that some doctors do not document on the partogram and do not consider midwives' findings in managing patient care. It was also indicated in this research study that some doctors do not act promptly on midwives' findings. This led to midwives feeling ignored and undermined which further undermine the autonomy and negatively affects the advocacy role of midwives for birthing woman. However, clinical guidelines have been viewed as having disadvantages such as oversimplifying decisions, failing to identify variations in individual needs of patients and reducing practitioners' autonomy (Graham et al 2006:607).

Doctors need to be encouraged to participate in using the guideline by also recording if they have examined a patient. Verification of midwives' findings and prompt action are needed on the part of doctors in order to avoid complications that may lead to maternal and perinatal death. Perinatal mortality meetings are an excellent tool to ensure that there is a common understanding between doctors and midwives and to build good relationships. Doctors should be included in midwives' in-service training in order to enhance collaboration and common understanding of the partogram.

In this subsection, strategies to improve staff attitudes and to build good relationships have been discussed. Besides building positive attitudes, legal aspects are imperative in encouraging midwives to use the guideline. In the next subsection, normative beliefs are discussed.

6.2.2 Strategies to address challenges related to normative beliefs

Normative belief is a subjective norm which relates to social pressure that is associated with behaviour (Kortteisto et al 2010:2). According to Van der Wees and Mead (2004:13), nationally approved clinical guidelines become a recognised source of evidence of best practice and can be used in court by an expert witness as the benchmark of good practice. The fact that a partogram is regarded as a legal document, a national standard and a policy by midwives in this research study might have motivated them to use it despite the challenges of shortage and lack of equipment. Auditing on how the partogram is used and giving feedback, including support for midwives, is discussed as strategies that are related to the normative beliefs in Table 6.2.

Table 6.2: Strategies to address challenges related to normative beliefs

Research findings	Suggested strategies to address the challenges
Partogram is a legal document (Theme 1)	**Orientation of midwives on the partogram as a legal document** • Provision of relevant SANC Regulations related to labour for reference by midwives. • Orientation of midwives on regulations to enhance knowledge on legal aspects. • Reinforce knowledge of the partogram as a national requirement and a standard of practice. • Provision of budget for resources such as human resource, time, and equipment to make it easier for midwives to use the partogram according to the set standard. • Employ disciplinary measures in case of non-compliance. • Attend to midwives' complaints to enable them to comply with the standards and be protected from lawsuit.
Lack of support for midwives on the use of the partogram (Theme 2)	**Provision of support for midwives in the labour wards** • Encourage good communication between supervisors and midwives. • Ensure that necessary equipment is available for midwives to use. • Provide encouragement, and compliment when necessary.
Problems with evaluation and providing feedback on the use of the partogram (Theme 4)	**Ensure that proper evaluation and provision of feedback is done** • Ensure availability of a simple easy-to-use audit tool in the labour ward. • Peer review of the partogram and providing feedback may enhance the correct implementation of the partogram. • Scheduled audits by midwife supervisors and providing feedback may encourage midwives to improve the quality of care and documentation on the partogram. • Evaluators need to attend in-service training on the partogram in order to have a thorough knowledge of how it is implemented. • Evaluators need to be trained on how to give feedback, especially negative feedback. • Evaluators need to have a good relationship with midwives to enhance acceptance of the feedback.

6.2.2.1 Orientate midwives on the partogram as a legal document

According to Leach and Oakland (2010:199), practitioners are expected to know the legal standards in the countries in which they work. The findings of this research study reveal that midwives view a partogram as a legal document which can be used in case of a lawsuit. The partogram is also viewed as a norm, a national requirement and some indicated it as a standard or a policy document.

The potential for guidelines to be used as evidence in court may depend on the process used to develop them, the extent to which they are evidence based, the degree of consensus about them and whether they are up to date. The fact that a partogram is a legal document may assist in motivating midwives to use it. Managers need to ensure that documents such as regulations relating to midwifery are available in the ward for reference. Orientation of midwives and in-service training on the use of such documents is essential to ensure that midwives practise safely, and legal consequences are avoided.

The results of this research study further indicate that supervisors concentrate on administrative tasks more than supervising midwives in practice. Supervisors need to be examples. A study on factors influencing nurses' compliance to standards found that when colleagues with more knowledge or in higher positions follow guidelines, the subordinates are also influenced to follow as well (Efstathiou et al 2011:8).

6.2.2.2 Provide support for midwives

The results of the research study revealed that midwives value support from managers and colleagues. Provision of enough staff, equipment, and emotional support is important to ensure safe practice in the labour ward. The results of this study concur with the findings of a study in Mathews, Scott, Gallagher and Corbally (2006:189), where it was found that midwives need effective communication with and back up from their managers rather than being blamed. The results further indicated that when midwives are supported, they are also able to support the women in labour, which includes monitoring and documenting on the partogram.

6.2.2.3 Ensure that proper evaluation and feedback on the use of the partogram is done

Evaluation of midwives' performance and provision of feedback is crucial to ensure that the practice is done according to stipulated standards. Spiby and Munroe (2007:167) indicate that guidelines have the potential to impact significantly on the work of midwives and childbearing women; hence, they require a regular review to maintain their currency and to incorporate new evidence. Providing feedback is essential to improve practice and encourage quality care. The findings of this research study revealed that there is inconsistency in auditing and that midwives were not happy with the manner in which feedback is given.

An evaluation tool that is simple to use and available in the ward can assist midwives to conduct self-evaluation and to improve on the use and documentation of the partogram. Managers were reportedly lacking knowledge of the partogram. It is vital that managers who conduct evaluations attend in-service training on the new developments and changes on the partogram.

Over and above that, managers and midwife supervisors need to be trained on how to give feedback to their subordinates. Acceptance of feedback is usually affected by the relationship of the midwife and the manager, hence the importance of building a good relationship between midwives and their managers. The following aspects related to providing feedback suggested in Bernard and Goodyear (2009:35) can be helpful to supervisors in providing feedback to midwives:

- Feedback should be offered regularly and should be directed to the individual midwife's work.
- Feedback should be balanced between support and criticism.
- Corrective feedback should be timely, specific, non-judgemental, behaviourally based and offer direction on how to improve practice.
- Feedback should be offered as a professional perception and not as fact or truth.
- Supervisors need to provide honest feedback.
- Feedback must be direct and clear, not biased, hurtful, threatening or humiliating.

Evaluation and providing feedback on the use of the partogram are essential in improving its use.

6.2.3 Behavioural control

Behavioural control relates to having control over the practice and having access to adequate resources to enable midwives to use the guideline (Mathews et al 2006:189). Lack of knowledge, shortage of midwives and equipment were highlighted as barriers to monitoring and documenting on the partogram by midwives as indicated in Table 6.3.

Table 6.3: Strategies to address challenges related to behavioural control

Research findings	Suggested strategies to address the challenges
Lack of knowledge and skill (Theme 2)	**Improve knowledge and skill of midwives on the use of the partogram** • Availability of local consensus amongst all role players – doctors, midwives and managers, related to aspects such as when to start a partogram when a woman is in labour through regular meetings. • Ensure common understanding of how the partogram should be interpreted through in-service education and how to interpret the alert and action line on the partogram. • Interactive learning in groups including students, nurse educators, managers, doctors and supervisors in order to share ideas. • Continuous education and training of a small number of midwives to enhance quality. • Theoretical and practical training on the use and documentation of the partogram at all levels of care including clinics, hospitals and educational institutions. • Problem-based learning such as perinatal mortality meetings, and use of audits to enhance learning and interaction among different groups. • Partogram as part of the curriculum of nursing students in all educational institutions to be enforced by the SANC. • All midwives to supervise students in the labour ward and be part of their training on the use of the partogram. • Regular updating in order to enhance skill, especially on changes on the partogram. • Regular monitoring and evaluation of the use of the partogram in the labour ward. • In-service education organised by partogram committee formed by midwifery experts from the district can be conducted to enhance knowledge and skill on the use of the partogram. • Expert in midwifery to be allocated in the labour ward to ensure that midwives are supported and mentored.
Shortage of midwives (Theme 2)	**Provision of more midwives in the labour wards** • Provision of statistics related to patient – midwife ratio in the labour ward by midwife supervisors to management may assist in highlighting the magnitude of the problem of shortage. • Managers' commitment in providing support to midwives, especially in attending to the problem of shortage may improve the quality of care and the use of the partogram by midwives. • Retention strategy such as salary increase can be employed to retain midwives who are available in the labour ward.

	• Moonlighting for those midwives who are off duty can reduce shortage in the labour ward. • Patients' relatives can be allowed to accompany the patient in order to assist midwives with support of the patient and to provide the basic care.
Shortage of equipment (Theme 2)	**Provision of necessary equipment** • Managers to budget for equipment and to consider the volume of patients being admitted in the ward.

6.2.3.1 Improve knowledge and skill of midwives on the use of the partogram

Midwives are expected to have knowledge and understanding of the partogram during training before applying it in practice as stipulated in their scope of practice. In this research study, midwives indicated various benefits and values of a partogram. However, some managers were reportedly not updating themselves in practice and, whereas students lack practical follow-up and support in the labour ward. Midwives working at the clinic were reportedly lacking knowledge as they were referring patients to the hospitals with wrongly documented partograms. Promoting skilled practice that enables independent practice is of paramount importance (Matthews et al 2006:189).

Lack of knowledge of the partogram as a guideline may have contributed to misunderstanding and variations in the interpretation of the findings. The findings further revealed that midwives felt that sometimes partograms are not always in line with the manner in which patient's condition progress, especially the latent phase. Several factors that might have contributed to the lack of motivation in studying or revising the partogram may be the manner in which it has been designed and other organisational factors such as lack of time and shortage of staff.

The findings of this study on lack of knowledge concur with the findings of a study in Van Bodegom-Vos, Verhoef, Dickmann, Kleinjn, Van Vliet, Hurkmans, Van der Wees and Vlieland (2012:1297) on implementation of guidelines by general practitioners and physical therapists. The study found that these practitioners lack motivation in

reading the guidelines because there was too much information and they were not involved in the guideline development.

Several strategies to address lack of knowledge are highlighted in Table 5.1 and include education and training of the partogram at all levels of care, including all staff members involved in caring for a woman in labour. Interactive learning in small groups, including practical training, is suggested. Continuous in-service training of doctors, managers, midwives and students can improve the use and documentation of the partogram. Auditing and providing feedback to midwives may assist in behaviour change when key aspects are highlighted in a positive manner. Some vital aspects indicated under the design of the partogram, such as provision of a guide, can assist in midwives having sufficient knowledge and feeling confident to use the partogram in monitoring women during labour (Ceccato et al 2007:205).

6.2.3.2 Provision of more midwives in the labour wards

The working environment of a midwife is crucial to ensure safe practice. Challenges related to lack of resources such as shortage of staff need to be addressed effectively. The findings of this research study revealed that there is gross shortage in the maternity wards, which leads to poor quality care and gaps in the documentation of the partogram.

The problem of shortage is aggravated by overcrowding of patients, making it difficult for one midwife to care for one woman at the same time. Shortage of midwives made categorisation of patients according to stages of labour difficult as they are supposed to be monitored by the same midwives. Midwives indicated that they lack the time to monitor patients and document findings on the partogram due to overcrowding and shortage of staff.

Managers and midwife supervisors need to have a mutual understanding of the problem in order to have cooperation. Unit managers need to continuously communicate the need for more staff to their supervisors in order to enhance understanding of the magnitude of the problem. Salary increase and the use of scarce skills can be used as a retention strategy to encourage midwives to remain in the labour ward.

Midwives can be encouraged to moonlight when they are off duty in order to cover up for shortage of staff. Besides moonlighting, patients' relatives can be encouraged to accompany the patients during labour to give support and provide basic care such as back massage to relief the pain of labour.

6.2.3.3 Provision of necessary equipment

The research findings revealed that there is lack of equipment in the labour wards, such as Uristix, casebooks and CTG machines. Lack of resources for midwives to use in monitoring the partogram might have contributed to gaps in recording and negative attitudes to use the partogram by some midwives. It is imperative for managers to budget for the necessary equipment to enable midwives to practise safely in the labour ward. Ploeg et al (2007:210) indicate that the health care administrators need to recognise the real costs and complexity associated with successful implementation of guidelines.

6.3 CONCLUSION

In this chapter, strategies to improve the use of the partogram were developed based on the research findings. The strategies were also aligned to the TPB which includes the behavioural beliefs, the normative beliefs and the control beliefs. Supportive literature on some of the fundamental aspects was included in the discussion. In Chapter 7, the conclusion, recommendations and limitations of the research study are discussed.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

In the previous chapter, strategies to improve the use of the partogram were discussed. This chapter concludes the study, briefly describes limitations and recommendations for practice and for further research.

The purpose of the study was to explore and describe midwives' experiences on the implementation of the partogram as a guideline in monitoring and managing a woman during labour with the aim of developing strategies to improve its implementation.

7.2 RESEARCH DESIGN AND METHOD

The researcher conducted a qualitative descriptive and contextual study. Face-to-face semi-structured interviews with midwives were conducted to gather data on their experiences in using the partogram. The researcher started by conducting document analysis of the partograms of patients that were available in the maternity wards before interviews with midwives were conducted. The research findings assisted the researcher in developing strategies to improve the use of the partogram.

7.3 SUMMARY AND INTERPRETATION OF THE RESEARCH FINDINGS

The summary on document analysis, themes from face-to-face interviews and strategies that were developed are presented in this subsection.

7.3.1 Overview of research findings on document analysis

The overview of the research findings is discussed under aspects that were mostly recorded, aspects that were least recorded, and aspects that were not recorded according to standard.

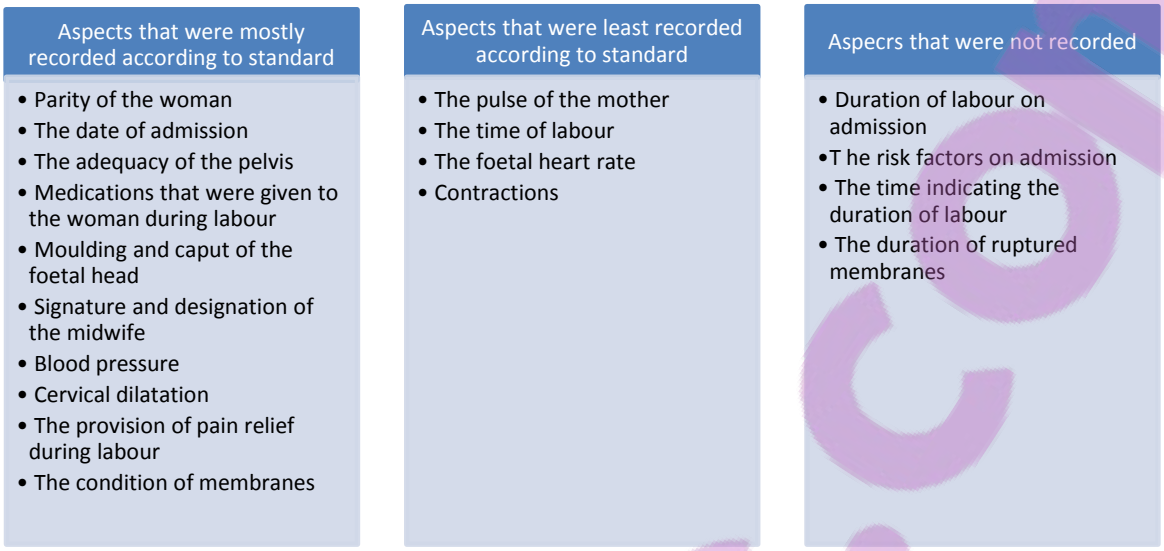

Figure 7.1: Summary of findings on document analysis

The findings from document analysis of the partograms revealed that midwives managed to record aspects that needed to be observed less frequently according to standard more than those that needed to be observed more frequently. The aspects that were mostly recorded according to standard included the parity of the woman, the date of admission, the adequacy of the pelvis, medication that were given to the woman during labour, moulding of the foetal head, signature and designation of the midwife attending to the woman, blood pressure, cervical dilatation, provision of pain relief during labour, and the condition of membranes.

The four aspects that were least recorded according to standard were pulse of the mother, the time of labour, the foetal heart rate and contractions. During face-to-face interviews, midwives indicated several challenges, which may have attributed to gaps in recording, such as lack of time, shortage of staff and overcrowding of patients, and lack of equipment such as CTG machines.

Aspects that were mostly not observed or recorded by midwives were those that needed to be calculated and those that needed knowledge of risk factors. These

aspects included the duration of labour on admission, the risk factors, the time indicating the duration of labour, and the duration of ruptured membranes. The research results on face-to-face interviews related to knowledge concur with the findings of this study on document analysis, as midwives at the clinic and students on midwifery training were said to be lacking knowledge and understanding on the use of the partogram. In some instances, urine results were also not documented. Midwives confirmed that there was a lack of Uristix in some of the labour wards.

7.3.2 Overview of research findings on face-to-face interviews with midwives

The summary of the research findings on face-to-face interviews are discussed based on the demographic factors and themes that were developed during the analysis of the data.

7.3.2.1 Demographic factors

The research results revealed that more midwives are older and are between 50 and 59 years old. It is important that the younger generation be recruited to ensure that there will be no shortage when the older generation goes on pension.

Most of the midwives who participated in the study were trained for the two-year Midwifery Programme, followed by those who were trained for the four-year Diploma in Nursing and a few who were trained for Advanced Midwifery and a degree in nursing. In all the training programmes that midwives were trained for, partogram was said to have been included in the curriculum. Most of the midwives have more than five years of experience working on the labour ward. Gaps on recording of the partogram were found despite their experience and training on its use.

7.3.2.2 Summary of themes from the data

Data analysis revealed four themes – 14 categories and 38 subcategories. Figure 7.2 depicts the four themes that emerged from the data, which are the benefits of using the partogram, the challenges on the use of the partogram, the attitudes of staff on the use of the partogram, and auditing of the partogram and giving feedback, which affect the midwives' intention to use the partogram.

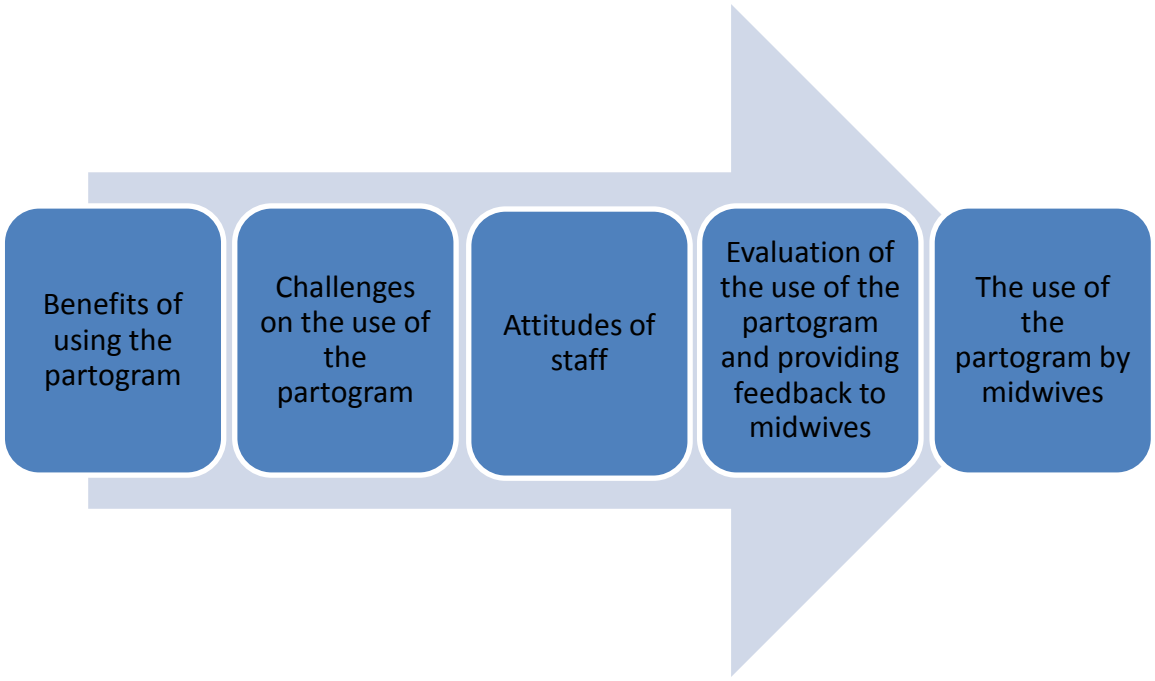

Figure 7.2: Themes on midwives' experiences on the use of the partogram

7.3.2.2.1 Benefits of using the partogram

The findings revealed that midwives have knowledge of and value the partogram. Several benefits were indicated, such as saving time, and a woman delivering a healthy baby. Other benefits include the partogram acting as a guide in caring for the woman in labour; the partogram assisting midwives in continuity of care; the partogram assisting midwives in report giving; acting as evidence in case of a lawsuit; and the fact that it is regarded as a norm, a policy and a national document.

Furthermore, the partogram is regarded as a guideline that assists midwives in monitoring women's condition, tracking the progress of labour, and problem identification. The fact that midwives value the partogram and have knowledge of its benefits may assist in building a positive attitude towards its use.

7.3.2.2.2 Challenges experienced by midwives on the use of the partogram

The research study revealed several challenges that were experienced by midwives on the use of the partogram. Students, midwives and clinic nurses' lack of knowledge, understanding and skill in assessment might have led to the misinterpretation of the partogram. Most of the reasons for lack of understanding and misinterpretation might be due to the fact that the partogram is not emphasised to students at teaching institutions; the new changes that have been made on the partogram; and clinic nurses who are not attending refresher courses or in-service workshops related to how the partogram should be used.

Some of the aspects that were indicated by participants as the reasons for misinterpretation of the findings on the partogram were related to its design. These include abbreviations that are not standardised; the small blocks, which make the information that has been written not clear; absence of the care plan on the new partogram; and lack of orientation when the partogram was introduced. Furthermore, some of the participants indicated that midwives understand the partogram differently, especially on when the plotting should be started and on the action that needs to be taken when the dilatation of the cervix has reached the action or the alert line.

Lack of understanding of the partogram by students, midwives and managers was confirmed by the findings on document analysis of the partograms. The aspects that were mostly not observed or not recorded according to standard were those that needed to be calculated, such as duration of labour on admission, the knowledge of risk factors, the time indicating the duration of labour, and the duration of ruptured membranes on admission.

Participants cited lack of resources as one of the greatest problems that hinder the effective use of the partogram, which include aspects such as shortage of midwives, case books, photocopying machines, CTG machines, and Uristix for testing urine. This results correlate with findings of auditing of partogram on urine results, where almost a quarter of the partograms were not recorded.

7.3.2.2.3 Attitudes of staff on the use of the partogram

The findings of this research study revealed that there were different attitudes among midwives, managers, doctors and students. Some of the midwives perceive using the partogram as a waste of time and some midwives perceived some students as not interested in the partogram, lacking understanding, having a negative attitude and laziness.

Doctors were reportedly lacking interest in using the partogram because they failed to plot their findings after they had examined a patient, but only checked what the midwives have plotted on the partogram. There was a poor relationship between doctors and midwives and reluctance of doctors to act on midwives' findings even though problems had been picked up earlier. Encouraging dialogue between midwives and doctors on the partogram and how it is being used is crucial to enhance common understanding.

Attitudes of managers were perceived to be different by midwives; some were viewed to be interested and supportive to the use of the partogram, whereas some were viewed as interested only in auditing in order to find mistakes and to ask several questions. Over and above that, some midwives regard managers as people who do administrative work only and who do not like to touch a patient. Nevertheless, some midwives cited managers as providing motivation, encouragement, making follow-up, providing equipment and helping in solving problems that midwives encounter in the wards. One of the managers from a community hospital indicated that she appreciated midwives for the outstanding work they have done in order to boost their morale and bought Valentine sweets for them on a Valentine's Day to make them happy.

Participants were also satisfied with the manner in which the provincial government was supporting them by giving them monetary incentives. Self and collegial support was also cited as common in the labour ward.

7.3.2.2.4 Evaluation of the implementation of the partogram and providing feedback

The findings revealed that auditing of the partograms was done by managers or immediate supervisors on a daily basis, though some managers were perceived as lacking interest, knowledge and experience on the use of the partogram. Some of the participants indicated that they received positive and negative feedback from their managers, though, at some stage, only negative feedback was given. Lack of encouragement or praise from managers was also raised as a problem, especially when midwives have documented correctly or according to the standard on the partogram. Evaluation of the implementation of the partogram as a guideline was also done by midwives themselves using an audit tool that is available in the ward.

7.4 STRATEGIES THAT WERE DEVELOPED TO IMPROVE THE USE OF THE PARTOGRAM

The researcher developed several strategies on the use of the partogram based on the findings and were presented using the TPB. Figure 7.2 summarises the strategies that have been developed to address behavioural beliefs, normative beliefs and control beliefs.

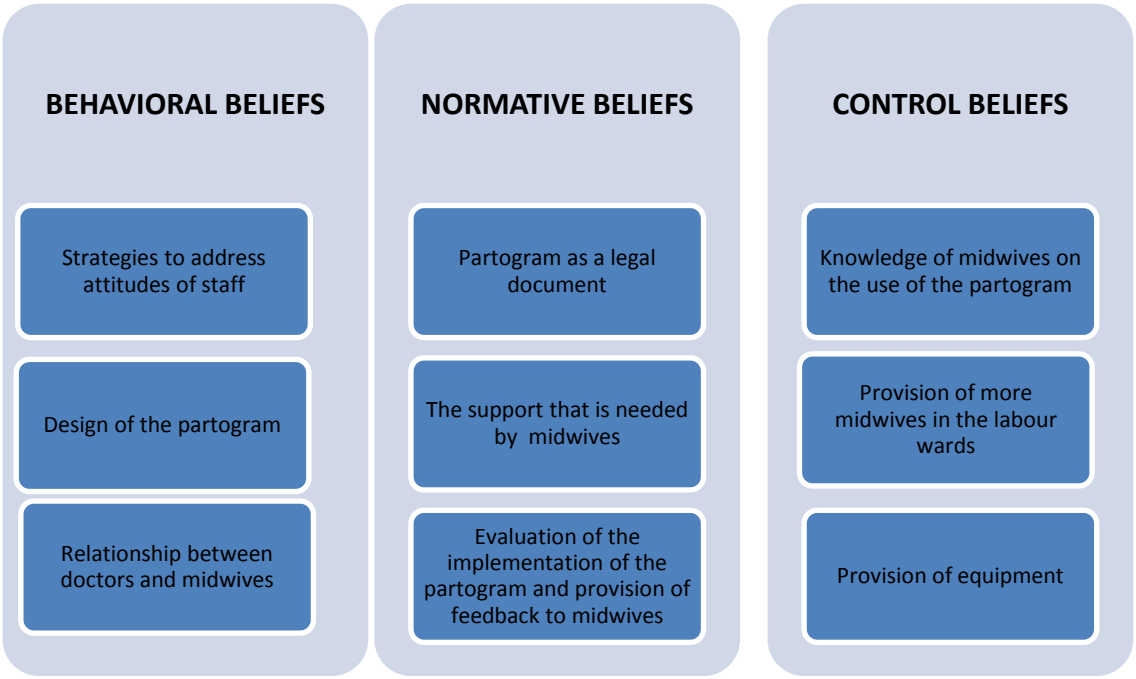

Figure 7.3: Summary of strategies that have been developed to improve the use of the partogram

Strategies to address attitudes of staff include emphasising the value and importance of the partogram to staff members, making the partogram attractive and improving doctor-midwife relationship.

Strategies that were developed to address challenges related to normative beliefs included aspects such as orientation of midwives on the partogram as a legal document, provision of support to midwives in the labour ward, and ensuring that proper auditing and feedback is conducted.

7.5 EVALUATION OF THE STRATEGIES

Strategies were sent to one tertiary hospital with large maternity ward for validation. All midwives who were available on the two days that strategies were distributed gave comments which were included in the discussion of strategies in Chapter 5. According to their feedback, the proposed strategies were said to be clear, consistent and appropriate for the purpose of providing support to midwives. Monetary incentives were include by the researcher as a form of motivation.

However, midwives indicated that it is not feasible include monetary incentives and the monetary aspect was excluded from the strategies.

7.6 CONCLUSIONS

The objectives of the study were to study the documentation on the partogram; explore and describe the experiences of midwives on the use of the partogram; explore the challenges experienced by midwives; and develop strategies to address the challenges in order to improve the use of the partogram as a guideline in monitoring a woman during labour.

The research study revealed that the partogram is an invaluable guideline that is used to monitor a woman in labour. Several gaps in the documentation of the partogram by midwives were revealed. Though knowledge and experience play a pivotal role in influencing midwives in using the partogram, several factors also influence their intention to use the partogram, which include their attitudes towards the use of the partogram; the behaviour of significant others such colleagues, doctors and managers; and the provision of human and material resources. The findings of this research study revealed that midwives need to be trained, supported, and encouraged on the use of the partogram in monitoring a woman during labour.

Strategies were developed based on the Theory of Planned Behaviour in order to improve the use of the partogram in monitoring a woman during labour. In addition to the strategies that had been developed, there are several aspects that are recommended to improve practice and for further research.

7.7 RECOMMENDATIONS

Based on the research findings, the following recommendations to practice and for further research were made.

7.7.1 Recommendations to practice

- In-service training and guidance on the use of the partogram can assist in improving the use and documentation on the partogram.

- Orientation of midwives, especially on new changes that are introduced on the partogram, can assist in ensuring that there is uniformity in the care and documentation on the partogram.
- Audit committees need to be formed in order to audit the use and documentation on the partogram on a regular basis.
- Supervisors, midwives and students need to attend workshops, conferences and symposiums to improve knowledge and understanding of the partogram.
- Perinatal mortality meetings need to be strengthened in order to learn from mistakes; this will build the same understanding on the use of the partogram and the relationship between doctors and midwives in the labour ward environment.
- Management to be committed in providing support to midwives, especially provision of staff and equipment to ensure that there is quality and safe practice in the labour ward.
- Midwives to be actively involved in research in order to enhance a positive attitude and acceptability of the guideline.

7.7.2 Recommendations for training institutions

The researcher recommends the following:

- All midwifery training institutions can include partogram in their training curriculums.
- Students can be orientated supervised and supported in the clinical area.
- Partogram can form part of summative assessment skills for midwifery students.
- Partogram can be included in midwifery workbooks in order to encourage practice and competence in the use of the partogram.
- Nursing institutions can develop simple guidelines on the use of partogram to enhance students' understanding and practice.
- Maternity care guidelines that have been developed by the South African National Department of Health to form part of the curriculum content of midwifery that is taught at universities and colleges in South Africa.

7.7.3 Recommendations for further research

- A quantitative impact study on the use of the partogram in monitoring a woman during labour needs to be conducted, taking into consideration the circumstances under which midwives conduct their practice.
- An evaluation study needs to be conducted to evaluate whether midwives are able to implement the partogram as a guideline in monitoring a woman during labour.
- A feasibility study needs to be conducted on the use of the partogram so that improvements can be made on the design of the partogram.
- A quantitative study on the attitudes, knowledge and perceptions of midwives on the use of the partogram needs to be conducted in order to assess and address the challenges or barriers that hinder the use of the partogram.
- Evaluate the effectiveness of training on the use of the partogram.

7.8 CONTRIBUTIONS OF THE STUDY

- Experiences of midwives on the use of the partogram were not widely researched at Limpopo; hence, the study filled gaps in midwifery research by shedding light on some of the experiences of midwives on the use of the partogram.
- The research study highlighted factors that may influence midwives on the use of the partogram, which will assist managers in providing support to midwives and improve the quality of care to the women in labour.
- The strategies that have been developed may assist in improving the implementation of the partogram.

7.9 LIMITATION OF THE STUDY

The labour ward is an unpredictable environment, which makes it not so easy to conduct interview sessions with midwives on agreed times. In one of the three hospitals, interviews were conducted in a private room that was next to a building which was being renovated; this created noise disturbance during the interview process.

One midwife did not like to be tape recorded during the interview process, and her request was respected; as a result, the researcher had to write notes during the interview process to capture the information from the participant.

The research data were collected from three in Vhembe District of Limpopo Province. The results can thus not be generalised to the entire province or country.

The results on document analysis may not be reliable as some of the partograms were not completed in full according to the standards stipulated in the Guide for Maternity Care in South Africa.

The research study revealed that there were misunderstandings amongst midwives with regard to the new and the old partogram. The researcher discovered that a new partogram with a slight difference as compared to the previous partogram had been introduced in the wards two months before data were collected, and midwives were still adjusting to the new guideline.

Lack of resources was one of the limitations in this research study. The researcher discovered that in two of the institutions, there were a few partograms because the photocopying machine was not working. Document analysis was done only to those partograms that were available on the days that interviews were conducted, and the results cannot be a whole true reflection of how midwives document on the partograms on a daily basis. Moreover, in one of the hospitals there was a lack of Uristix, which lead to gaps on recording on the partogram.

The researcher was known by most of the participants as she worked with them during accompaniment and evaluation of students previously. The relationship might have influenced the midwives' responses to suit what they thought might have been acceptable to the researcher.

7.10 CONCLUDING REMARKS

The research study focused on the partogram as a guideline that is used in monitoring a woman in labour. The partogram is vital in reducing maternal and neonatal mortality and hence the study's importance in relation to Millennium Development Goal 4 and Millennium Development Goal 5. The research findings

reveal that it is not only knowledge and experience on the use of the partogram that will ensure its correct use, but also a positive attitude; the manner in which the partogram is designed; the provision of emotional support, encouragement, and resources; and the relationship of midwives with other members of the health care team.

‘Joyful is the person who finds wisdom, the one who gains understanding’

(Proverbs 3:13)

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Annexure A: Approval letter from the University of South Africa

UNISA university of south africa

UNIVERSITY OF SOUTH AFRICA
Health Studies Research & Ethics Committee
(HSREC)
Faculty of Human Sciences
CLEARANCE CERTIFICATE

Date of meeting: 9 November 2010 Project No: 729-365-8

Project Title: Midwives experiences of partogram use during labour at Limpopo province: a phenomenological approach

Researcher: Thanyani Gladys Lumadi

Supervisor/Promoter: Dr MM Moleki

Joint Supervisor/Joint Promoter: Dr LM Modiba

Department: Health Studies

Degree: DLITT ET PHIL (Health Studies)

DECISION OF COMMITTEE

Approved [√] **Conditionally Approved** [ ]

Prof TR Mavundla
RESEARCH COORDINATOR

Prof MC Bezuidenhout
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

Annexure B: Letter seeking consent from Limpopo Department of Health

P.O Box 4407

The Reeds

0158

Date: 07/12/2010

Head of Department

Health and Social Development

P/Bag X9302

POLOKWANE

0700

Request to conduct a research study at Vhembe District Hospitals: Tshilidzini, Donald Fraser and Siloam.

I hereby request permission to conduct research on midwives' experiences in using the partogram. I am a doctoral student registered with the University of South Africa for a Doctor of Literature and Philosophy (D Litt et Phil) degree in the Department of Health Studies.

The title of the research study is: **Midwives' experiences on the use of partogram in Limpopo Province, South Africa: a phenomenological perspective**. The research is done to fulfil the requirement of the degree.

Data will be collected from registered midwives working in the maternity wards of the three hospitals, namely; Tshilidzini, Donald Fraser and Siloam.

The purpose of the study is to explore and describe the experiences of midwives with partogram use. The findings of the study will be used to develop guidelines to support midwives in using the partogram. Audio-taped interviews will be conducted with midwives working in the labour wards. Appointments will be made with midwives and managers in the maternity wards to ensure that there will be no interference with patient care.

Your favourable consideration of this request will be appreciated.

Yours faithfully,

Mrs Lumadi T.G

Lecturer

UNISA

Annexure C: Letter of consent from Limpopo Department of Health and Social Development

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH & SOCIAL DEVELOPMENT

Enquiries: Selamolela Donald
Ref: 4/2/2

04 May 2011
Lumadi T.G
University of South Africa
Pretoria
0001

Dear Madam

Re: Permission to conduct the study titled: Midwives' experience on the use of partogram in Limpopo Province, South Africa: a phenomenological perspective

1. The above matter refers.
2. The permission to conduct the above mentioned study is hereby granted.
3. Kindly be informed that:-
   - Further arrangement should be made with the targeted institutions.
   - In the course of your study there should not be any action that will disrupt the services
   - After completion of the study, a copy should be submitted to the Department to serves as a resource
   - The researcher should be prepared to assist in the interpretation and implementation of study recommendation where possible

Your cooperation will be highly appreciated

Acting Head of Department
Department of Health
Limpopo Province

Annexure D: Letter seeking approval from Tshilidzini Hospital

P.O Box 4407

The Reeds

0158

12/12/2011

The Chief Executive Officer

Tshilidzini Hospital

P.O Shayandima

0950

Dear Sir/Madam

Request to conduct interviews and review partograms at Tshilidzini Hospital

I hereby request permission to conduct research interviews with midwives in the maternity ward on their experiences of using the partogram. I also request to review partograms of mothers who have delivered during the period of the interview.

I am presently a lecturer at the University of South Africa and pursuing a doctoral degree in Health Studies. The research is done to fulfil the requirements of the degree.

Attached please find the permission letter from the Limpopo Department of Health and Social Development.

I hope my request will receive your favourable attention.

Yours faithfully,

Mrs Lumadi T.G

Lecturer: UNISA, Department of Health Studies

Tel: 012 429 6513 Fax 012 429 6688 Cell 082 927 6424

Email: lumadtg@unisa.ac.za

Annexure E: Memorandum of understanding from Tshilidzini Hospital

TSHILIDZINI HOSPITAL ETHICS COMMITTEE

MEMORANDUM OF UNDERSTANDINGS

Tshilidzini Hospital Ethics Committee with Lumadi T.G ..... at their meeting resolved to sign a Memorandum of understanding after the two parties' have agreed on the following information:

1. Reasons for making a research at Tshilidzini hospital.

I worked at this hospital and decided that it will be of benefit to if the research is done where I worked previously.

2. What will be the benefit of the entire hospital /community out of the findings?

Recommendations will be given out of the findings and it will improve the management of a woman in labour.

3. Who to meet in conducting your research.

Midwives
Records (partograms) will be audited

4. What do you do with your findings

The report will be given to the hospital. It will also be used to produce a thesis for PHD qualification.

5. We will require the hard copy of your research.

The hard copy will be sent to the hospital immediately when it is available.

6. We do not anticipate any information to be divulged to all types of media without the knowledge of the Ethic Committee and Hospital Board.
7. Memorandum of understanding should be signed by both parties.

Signed by: .....
Dr Mathonga

Lumadi 01/03/2012
Researcher

Annexure F: Letter seeking consent from Donald Fraser Hospital

P.O Box 4407

The Reeds

0158

8/08/2011

The Chief Executive Officer

Donald Fraser Hospital

P/Bag x1172

Vhufuli

Limpopo Province

0971

Dear Madam

Request to conduct interviews and review partograms at Donald Fraser Hospital

I hereby request permission to conduct interviews with midwives in the maternity ward on their experiences of using the partogram. I also request to review partograms of mothers who have delivered during the period of the interview.

I am presently a lecturer at the University of South Africa and pursuing a doctoral degree in Health Studies. The research is done to fulfil the requirements of the degree.

Attached please find the permission letter from the Limpopo Department of Health and Social Development.

I hope my request will receive your favourable attention.

Yours faithfully,

Mrs Lumadi T.G

Lecturer: UNISA, Department of Health Studies

Tel: 012 429 6513 Fax 012 429 6688 Cell 0829276424

Email address : lumadtg@unisa.ac.za

Annexure G: Letter of consent from Donald Fraser Hospital

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH AND SOCIAL DEVELOPMENT

DONALD FRASER HOSPITAL

REF: S5/3/1/2
ENQ: Nemauluma T.F
DATE: 07 September 2011

To: Lumadi T.G
P.O Box 4407
THE REEDS
0158

REQUEST TO CONDUCT INTERVIEWS AND REVIEW PARTOGRAMS.

1. The above matter refers.
2. Kindly be informed that your request to conduct interview and partograms in our institution has been accepted, therefore you are expected to start on the 12th of September 2011.
3. Hoping that you will find this in order

.....
Chief Executive officer

Annexure H: Letter seeking consent from Siloam Hospital

P.O Box 4407

The Reeds

0158

12/12/2011

The Chief Executive Officer

Siloam Hospital

P/Bag X2432

MAKHADO

0920

Dear Sir

Request to conduct interviews and review partograms at Siloam Hospital

I hereby request permission to conduct research interviews with midwives in the maternity ward on their experiences of using the partogram. I also request to review partograms of mothers who have delivered during the period of the interview.

I am presently a lecturer at the University of South Africa and pursuing a doctoral degree in Health Studies. The research is done to fulfil the requirements of the degree.

Attached please find the permission letter from the Limpopo Department of Health and Social Development.

I hope my request will receive your favourable attention.

Yours faithfully,

Mrs Lumadi T.G

Lecturer: UNISA, Department of Health Studies

Tel: 012 429 6513 Fax 012 429 6688 Cell 0829276424

Email: lumadtg@unisa.ac.za

Annexure I: Letter of consent from Siloam Hospital

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH & SOCIAL DEVELOPMENT
SPECIAL PROJECTS

REF: SS/3/2
ENQ: Netshikweta N.0(Human Resource Development)
EXT: 2133
DATE: 02 February 2012

DEPARTMENT OF
AND SOCIAL DEVE HEALTH
HUMAN RESOUR PMENT
02 MAR 2012
P/BAG X 2432, MAKHADO 0920
SILOAM HOSPITAL

TO: Mrs Lumadi T.G

RE: PERMISSION TO CONDUCT THE STUDY TITLED: MIDWIVES EXPERIENCE ON THE USE OF PARTOGRAM IN LIMPOPO PROVINCE, SOUTH AFRICA: PHENOMENOLOGICAL PERSPECTIVE.

1. The above matter has reference:
2. Kindly note that permission to conduct the above mentioned study is hereby granted.
3. Thank you for your application and best wishes on your prospective studies.
4. Kindly communicate with this office at 076 884 9092 for the necessary arrangements.

ACTING CHIEF EXECUTIVE OFFICER

2012-02-28
DATE

Private Bag X2432, MaRhado,0920
Tel(015) 973 0004/5/6,015 9731447/8, 015 9731977, 015 9731892/4/9 Fax (015) 973 0607.

The heartland of Southern Africa – development is about people

Annexure J: Consent form for midwives

CONSENT FORM FOR MIDWIVES

I understand that this research will attempt to explore and describe midwives, experiences on implementing the partogram during labour at three hospitals in Vhembe district of Limpopo Province.

I also understand that the information gathered from this research study will be used to develop strategies to improve the implementation of a partogram as a guideline in monitoring and managing a woman during labour.

The researcher will use the information to complete a doctoral study which will result in a research document. The information will also be used in presentations at conferences and preparation of articles to be submitted at accredited journals.

I agree to be interviewed on this issue, and I understand that the interview session will take approximately 25-35 minutes of my time and will be tape recorded and transcribed. The tapes and notes will be kept in a secure place, and the researcher will make sure that no personal information about the participants will be revealed or linked directly to the information.

I understand that if I decide to participate in this study, my participation is free and voluntary, and I have the right to withdraw my consent or stop the interview session at any time without penalty or negative consequences.

If I have any questions about my rights as a study participant, or I am dissatisfied at any aspect of the study, I can contact Mrs Lumadi T.G at

Tel: 012 429 6513/0839502152 Fax: 012 429 6688.

I agree to participate in this study and also agree that the interview be recorded.

Name: ----------

Hospital: ----------

Signature: ----------

Date: _____

Annexure K: Interview guide

K1 Demographic information/general

- Name of the hospital
- Gender of the midwife
- Level/rank
- How old are you?
- Which midwifery programme were you trained on? The duration?
- How long have you been working in the labour ward?

K2 Midwives experiences on using the partogram

The general question:

What is your experience in the implementation of the partogram?

Some of the probing questions that were asked were the following:

- What is your personal opinion on the use of the partogram?
- What motivates you to implement the partogram as a guideline in monitoring a woman in labour?
- What challenges have you experienced when implementing the partogram?
- What is your attitude and that of your colleagues towards the implementation of the partogram during labour?
- What can be done to improve the implementation of the partogram?

Annexure L: Checklist for Document review

Checklist for Document review

Criteria		Recorded according to standard	Not recorded according to standard	Not recorded	Remarks
General aspects	Age				
	Parity				
	Date of admission				
	Risk factors on admission				
	Name and signature of the midwife				
Hours of labour	Duration of labour on admission				
	Duration of ruptured membranes on admission				
	Hours of labour until delivery				
Maternal condition	Blood pressure				
	Pulse				
	Respiration				
	Urinalysis				
	Pain relief and medication				
Foetal condition	Foetal heart rate				
	Moulding				
	Caput				
	Condition of membranes/liquor				
Progress of labour	Cervical dilatation				
	Contractions				

Annexure M: Certificate for editing and formatting of the thesis

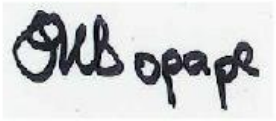
DECLARATION BY LANGUAGE EDITOR

24 January 2014

TO WHOM IT MAY CONCERN

DECLARATION: EDITING of Thesis

I hereby declare that I have edited the Doctor of Literature and Philosophy (in Health Studies) thesis of GLADYS THANYANI LUMADI titled, "***INTRAPARTUM CLINICAL GUIDELINES FOR MONITORING AND MANAGING OF WOMEN IN LABOUR***" and found the written work to be free of ambiguity and obvious errors. It is the final responsibility of the student to make sure of the correctness of the thesis



Khomotso Bopape

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