

Faculty of Health Sciences School of Health Care Sciences Department of Nursing Science

UNDERSTANDING THE WORKPLACE CULTURE OF MIDWIVES RELATING TO PAIN MANAGEMENT DURING THE FIRST STAGE OF LABOUR

by

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Workplace culture: pain management

Declaration

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I Margaret M Kgodane, declare this research title 'Understanding workplace culture of midwives relating to pain management during the first stage of labour' to be my own work. All resources used or quoted have been indicated and acknowledged by means of complete references. I further declare that this work has not been submitted for any other degree at any other institution.

Margaret M Kgodane

Date:31st January 2017

Dedication

This study is dedicated to all the mothers who endured pain during birth and to all midwives who were available to take care.

But the midwives feared God, and did not as the king of Egypt commanded them, but saved the male children alive (Holy Bible).

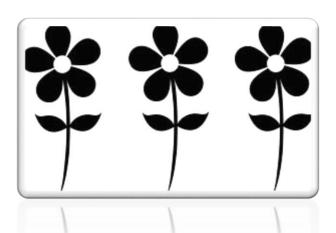
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Abstract

Background

Pain during birth process is acknowledged for good progress of labour but severe, unbearable pain cause reduced effectiveness of contractions and lead to maternal exhaustion and fetal distress. Non pharmacological and pharmacological pain relief methods can be implemented to assist the women to cope with pain during labour. Non-pharmacological and pharmacological pain relief is available in the hospital, but it is not understood when and how labour pain is assessed and pain relief implemented.

Research questions

What is the current workplace culture relating to pain management during the first stage of labour? What alternative strategies can be implemented to address the current workplace culture relating to pain management during the first stage of labour?

Research design and methods

A qualitative design was followed. Convenience sampling was used and 18 observations on pain management during labour were done. Midwives taking care of women during labour took part in the research and their informed consent was obtained beforehand. Data was collected during unstructured observations of pain management during labour. Data was analysed by means of the creative hermeneutic data analysis method.

Main findings

Four themes were derived from the data: pain assessment, isolation, therapeutic environment and documentation. Based on these themes, strategies for improving pain management during labour were identified collaboratively.

Key words

First stage of labour; Midwives; Pain management; Workplace culture

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For the purpose of anonymity and confidentiality, the hospital in which the study was conducted will be referred to as the Hospital, in both text and referencing.

ORIENTATION TO THE STUDY

1.1 INTRODUCTION AND BACKGROUND

Pain management during the first stage of labour remains a debated topic as more women become aware of their rights to better quality of care in labour and seek to fulfil their need for pain relief during labour (Ogboli-Nwasor & Adaji 2014:20). Labour may impose severe pain, yet each woman's experience of labour pain is highly individual in both the nature and intensity of the sensations and her ability to cope (Rooks 2012:318). How individuals experience and manage pain is unique (Escott, Slate & Spiby 2009:618) and the perception of pain is regarded as subjective and difficult for an observer to measure objectively (Baker, Ferguson, Roach & Dawson 2001:171). Unbearable labour pain results in high levels of maternal catecholamines that reduce the effectiveness of contractions and can lead to dystocia, maternal exhaustion and foetal distress (Rooks 2012:318).

In order to achieve evidence-based practice, clinical effectiveness, increasing individual accountability and clinical governance, major workplace cultural change in practice is required (Adams, Dawson & Foureur 2017:108). Midwives working in the labour ward setting underestimate the labour pain intensity at the level that most mothers describe their pain as severe (Baker et al 2001: 174).

In a study in the United Kingdom (UK), Williams, Morris, Stevens, Gessler, Cella and Baxter (2013:87) found midwives' pain estimates to be biased in relation to empathy and years of experience. Williams et al (2013:88) found further that midwives estimated pain according to the number of times they themselves had given birth. Lynch (2011:1) reported similar findings in a Canadian study and the reasons for midwives' poor management of pain included under-recognition of pain, lack of education regarding labour pain assessment and management in graduating healthcare professionals, and grossly inadequate research on pain management.

Managing workplace culture is an increasingly important issue in today's organisations (Ng, Johnson, Nguyen & Groth 2014:3). Wilson, McCormack and Ives (2005:27) point out that understanding midwives' practices in the management of pain during the first stage of labour is an important part of understanding a workplace culture. Uncovering the labour pain management practices opens up opportunities for staff to realise their assumptions about the role they play in the unit and how they deliver patient care (Wilson et al 2005:36).

1.2 PROBLEM STATEMENT

Labour pain is assumed to be an integral part of labour and a common experience (Rachmawati 2012:263). Management of pain during labour is an essential task of midwives caring for women in labour (Roberts, Gulliver, Fisher & Cloyes 2010:107). Pain management in labour is one of the aspects against which satisfaction with midwifery practices is measured. Patient satisfaction is a measure of the quality of care the patient received (Kongnyuy & Van den Broek 2009:9). In an investigation of patients' satisfaction with midwifery services at a regional hospital and its referring clinics in the Limpopo Province of South Africa, mothers indicated that nothing was done to relieve the pain they experience during labour (Lumadi & Buch 2011:14). Accordingly, this study focused on exploring the context and particularly the culture of pain management during the first stage of labour. As an advanced midwife in one of the central hospitals in Gauteng, the researcher observed in daily practice in maternity that pain was not relieved during labour. Non-pharmacological and pharmacological pain relief is available in the hospital, but it is not understood when and how labour pain is assessed and pain relief is implemented.

The researcher used the workplace culture critical analysis tool (WCCAT) as a facilitative process to observe labour pain management practices during the first stage of labour to assist in understanding the workplace culture of pain management during first stage of labour (McCormack, Henderson, Wilson & Wright 2009:29).

1.3 RESEARCH QUESTIONS

Based on the problem, the researcher wished to understand how individual midwives constructed reality relating to pain management within their context. Therefore, the study wished to answer the following research questions:

- What is the current workplace culture relating to pain management during the first stage of labour?
- What alternative strategies can be implemented to address the current workplace culture relating to pain management during the first stage of labour?

AIMS AND OBJECTIVES

To understand the workplace culture of pain management during the first labour, the objectives of the study are:

- To observe current practices relating to pain management during the first stage of labour
- To collaboratively plan strategies to address the current workplace culture.

1.4 PARADIGM AND ASSUMPTIONS

The researcher used the constructivist paradigm since the goal of the study was to understand how individual midwives construct reality relating to pain management within their context (Polit & Beck 2012:723). A constructivist approach allowed the researcher to give meaning to the way pain is managed during labour that otherwise would not be easily exposed or described. Assumptions are principles that are accepted as being true based on logic or reasoning without being scientifically tested (Polit & Beck 2008:748; Burns & Grove 2009:688). Assumptions furthermore guide and influence the researcher's investigation (Brink, Van der Walt & Van Rensburg 2010:22). Constructivism has three main assumptions, namely ontological, epistemological and methodological.

1.4.1 Ontological

Ontology deals with the nature of reality and its existence is multiple, subjective and is constructed by individuals (Polit & Beck 2012:13). In this study, the researcher's day-to-day observation indicated that the midwives' assessment and management of pain during the first stage of labour was not adequate or patient-centred. Patients in labour are the best individuals to describe pain during labour. Midwives need to accurately assess the labour pain before managing it appropriately. Data collected from the study was subjected to individuals' own feelings, views and perceptions.

1.4.2 Epistemological

Epistemology is the theory of knowledge. It accepts and justifies what is believed to exist from the knowledge and truth of reality (Holloway & Wheeler 2010:9). The inquirer interacts with those being researched, and the findings are the creation of the interactive process (Polit & Beck 2012:13). In this study, midwives had knowledge on pain assessment and pain management during labour and were therefore key individuals to participate. Conducting the study in the maternity unit allowed the researcher to be close to participants to get more information pertaining to the workplace culture regarding pain management during first stage of labour. Moreover, in- depth interviews and interaction with the participants enabled the researcher to determine the challenges midwives face. The findings would therefore provide a true reflection of the workplace culture of pain management during labour.

1.4.3 Methodological

Polit and Beck (2012:13) define methodological assumptions as inductive processes and theory generation about the phenomenon under review and how the evidence is obtained. In this study, the researcher assumed that a qualitative approach to explore and identify the workplace culture regarding pain management during the first stage of labour would enable participants to express their feelings, experiences and reality of the phenomenon (Polit & Beck 2012:538).

1.5 CONTEXT

The setting or context refers to where a study takes place. The study was conducted in the maternity ward of an academic hospital in Gauteng. The selected hospital has a capacity of 832 beds, of which the maternity ward has 18 beds (6 delivery rooms, 10 high care beds and 2 admission rooms). Nineteen permanently employed midwives work 12-hour shifts in the ward, with three midwives per shift. There are six registrars, six intern doctors and four consultants in a twelve-hour shift in the maternity ward of the selected hospital.

An average of 350 patients are admitted per month in the maternity of the selected hospital and 150 patients admitted in the high care with high risk conditions like severe hypertension in pregnancy, diabetes, and ante- and post-partum haemorrhage. An average of 150 normal vertex deliveries are conducted by the midwives per month and 200 Caesarean section deliveries are done by obstetricians due to complications from high risk conditions hence the selected hospital is a tertiary hospital receiving 50% of referrals from peripheral hospitals around Gauteng, Limpopo and Mpumalanga provinces.

The midwives care for women during the first stage of labour, which includes the management of pain, and then are responsible for conducting the normal vaginal deliveries.

1.6 DELINEATION

Creswell (2003:148) refers to delineation as narrowing or limiting the scope of a study to include specific participants. This study was delineated to observing the workplace culture of midwives relating to pain management during the first stage of labour in one maternity ward of the selected academic hospital in Gauteng. The study only focused on observing midwives caring for women undergoing normal process of labour - specifically the midwives' workplace culture relating to the way in which pain is managed.

1.7 SIGNIFICANCE OF THE STUDY

Leading effective and meaningful change of labour pain management practices in the midwifery workplace culture depends on knowledge of the current workplace culture nuances, myths and cultures in the workplace that will either enable or block a change from occurring (Jost & Rich 2010:30). Involving the midwives in the observation of current workplace culture should raise the awareness of current midwifery labour pain management practices. Being aware of these cultures, in turn, should provide midwives with an opportunity and enable them to plan strategies to address the challenges identified. Once the midwives understand the workplace culture by learning in practice through observation, improved labour pain management practices can be planned and incorporated in the labour ward. The implementation of the planned strategies would improve women's experience of pain during the first stage of labour, which, in turn, would increase patient satisfaction with care received from midwives.

Education curriculums for nurses and doctors could be aligned to address the challenges identified in an effort to enhance the implementation of appropriate pain management during labour. This would improve long-term positive patient memory of delivery, promote acceptance of a newborn baby and reduce unnecessary litigation caused by uncontrolled pain and negligence (South African Nursing Council [SANC] Regulation R387).

1.8 RESEARCH DESIGN AND METHODOLOGY

Qualitative research is "a systematic, subjective methodological approach used to describe life experiences and give them meaning" (Burns & Grove 2013:551).

A research design is an overall plan or blueprint for conducting a study and addressing research questions (Polit & Beck 2012:741; Burns & Grove 2011:253). Research methodology refers to the "steps, procedures and strategies taken to investigate the problem being studied and to analyse the collected data" (Polit & Beck 2012:758). The research methods include the population; sampling and sample; data collection and analysis; strategies used to enhance trustworthiness, and ethical considerations (see chapter 3 for detailed discussion). Table 1.1 summarises the research methods used.

Table 1.1 Summary of the research methods used

Population	Sampling	Data collection	Data analysis	Trustworthiness
Midwives	Purposive convenience	Unstructured observation	Creative hermeneutic data analysis	Credibility Dependability Confirmability Transferability Authenticity
		See chapter 3	See chapter 3	See chapter 3

1.9 ETHICAL CONSIDERATIONS

Ethics deals with matters of right and wrong. Ethics refers to a set of moral principles accepted by an individual or group and consists of the rules and behavioural expectations about the correct conduct towards participants (De Vos, Strydom, Fouche & Delport 2011:114). These principles provide researchers with standards to evaluate their own conduct. Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations to the study participant (Polit & Beck 2012:727; Pera & van Tonder 2005:4). Accordingly, the researcher obtained permission to conduct the study and upheld the respondents' rights to respect for human dignity, beneficence and justice (Brink et al 2008:31).

1.9.1 Permission

The researcher requested and obtained written ethical approval and permission to conduct the study from the Student Research Ethics Committee of the University of Pretoria (see Annexure A1); the In-house Committee (departmental committee and an internal review process), Postgraduate Proposal Committee (Faculty of Health Care Sciences and an external review process), Research Ethics Committee: Faculty of Health Sciences, University of Pretoria, and the Chief Executive Officer of the tertiary hospital (see Annexure A2).

Beneficence means to minimise harm and maximize benefits, and includes the right to freedom from harm and discomfort, including protection from exploitation (Polit & Beck 2012:152). The researcher protected the participants (midwives) from harm and discomfort by continuously observing for any possible forms of harm that might develop during observation, and none was found or reported by participants. by making sure that no names were used during observation; participants were not identified in the data, and information given by participants was not used against them. The time and dates of participant observation sessions were communicated and negotiated so that the midwives were aware of the reason for and value of observation of pain management and the culture thereof in the labour ward. Moreover, data collection took place with minimal or no disruption of the service. The study was done on the basis of mutual trust and cooperation between the researcher and the participants. As the participants entered into a relationship with the researcher, care was taken not to exploit the participants (Polit & Beck 2012:153).

1.9.2 Respect for human dignity

Respect for human dignity includes the right to self-determination and to full disclosure. The right to self-determination includes freedom from coercion (Polit & Beck 2012:154). The researcher informed the participants of the nature, aims, value and benefits of the study; that participation was voluntary, and that they had the right to refuse participation or to withdraw from the study at any stage without prejudice (Burns & Grove 2009:190). The participants were given an opportunity to ask questions. The midwives were also given information leaflets containing all the information discussed, which they could read through in their own time (see Annexure C1), in order to ensure full disclosure of the study (Burns & Grove 2009:198). All the midwives agreed to participate and signed informed consent (Polit & Beck 2012:157-158). The researcher shared all the data with the midwives and included them throughout the research process.

1.9.3 Justice

Justice includes participants' right to fair treatment and to privacy (Polit & Beck 2012:155). In this study, to maintain the right to fair treatment, the researcher treated the midwives in a non-prejudicial manner and maintained their right to privacy throughout the project. The researcher made sure that the data collected from participants was kept strictly confidential (Polit & Beck 2012:156). The participants were selected on the aim of the study and not on the researcher's or other bias (Polit & Beck 2012:155). All the research procedures were conducted in a fair, nonexploitive and well-considered manner (Hennink, Hutter & Bailey 2011:63; Polit & Beck 2012:156).

According to Vogt, Gardner and Haeffele (2012:295), field notes in observational research protect the participants' privacy better than video or audio recordings. In this study, all measures available to ensure privacy and confidentiality were implemented. No patient information was documented on the observation tool. All the notes in the observation tool about pain management culture in the labour ward were done without indicating the names of the participants' involved. Making notes in the observation tool instead of audio or video recording also ensured privacy. The name of the hospital involved was not mentioned in any documents.

1.10 CONCEPT CLARIFICATION

For the purposes of this study, the following key concepts were used as defined below.

- First stage of labour. The first stage of labour is the period when women experience mild to strong contractions which are associated with cervical changes and dilation from 1cm-10cm (Guidelines on Maternity Care in South Africa 2015: 1 of 6).
- Pain during labour. Pain (during labour) is the perception of intense or damaging stimuli that is caused by the contraction of the uterus (Dippenaar & da Serra 2012:421). In this study, pain during labour was seen as pain pregnant women experience during the first stage of labour.
- Pain management. Pain management refers to methods used to assess and relieve pain during labour. Midwives should understand the amount of pain as it is the first step towards understanding pain as the patient experiences it and

provides the framework for a positive patient-nurse alliance (Yazbek 2010:10). Pain should first be assessed according to how patients describe it and then interpreted to provide pain relief Bryant (2007:7). In this study, pain management referred to non-pharmacological and pharmacological interventions used to relieve pain during labour (Dippenaar & da Serra 2012:417).

Workplace culture. Workplace culture is considered as the unwritten rules that
exist in a workplace, or 'how things are done around here' Schneider (1985:573).
In this study workplace culture refers to the way in which pain is managed during
the first stage of labour.

1.11 LAYOUT OF CHAPTERS

Table 1.2 presents the layout of the chapters in this study.

Table 1.2 Outline of the chapters

Chapter	Heading	Brief summary of content
Chapter 1	Orientation to the study	Presents an orientation to the study, including the problem, research design and methods.
Chapter 2	Theoretical underpinning	Discusses the literature review conducted for the study.
Chapter 3	Research design and methods	Discusses the research design and methodology in detail.
Chapter 4	Data analysis and interpretation and findings	Presents the data analysis and interpretation, and findings.
Chapter 5	Recommendations and conclusion	Summarises the findings, concludes the study and makes recommendations for practice and further research.

1.12SUMMARY

This chapter described the background to the problem of management of pain in the first stage of labour; the paradigm and assumptions underlying the study, research design and methodology, and ethical considerations, and defined key terms used in the study.

2 LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 1 described the research problem, background to and rationale for the study, the purpose, research design and methodology, and significance of the study and ethical considerations. This chapter discusses the literature review undertaken for the study.

A literature review involves researching, reading and understanding literature relevant to the study (Brink, van der Walt & van Rensburg 2013:55). In addition, it assists researchers to comprehend and extend their knowledge of the phenomenon under study (Polit & Beck 2008:105). The literature review covered the midwife's role during labour, pain during labour, coping with labour pain, pain relief interventions during labour, and the workplace culture in the labour unit.

2.2 ROLE OF A MIDWIFE DURING LABOUR

Pain during labour serves a purpose, is regarded as normal and needs to be treated Normal birth is a physiological process characterised by nonintervention, a supportive environment and the midwife is a key figure in this process, supporting and assisting her through childbirth. One-to-one support by a midwife in labour reduces the need for analgesia and improves the mother's birth experience (Nolte 2014:486).

Midwifery work is emotionally challenging. One-to-one support involves being witness to, sharing in moments of joy as a baby is welcomed into the world and being emotionally present for parents as they undergo loss/trauma. In addition, the midwife carries professional responsibility for the physical and psychological safety of the mother and baby (Coldridge & Davies 2017:1).

Maternity services should develop the capacity for every woman to have a designated midwife to provide care in established labour for 100% of the time. Continuous one-to- one support during labour can both reduce intervention rates and improve maternal and neonatal outcomes. The relationship between the woman and the midwife is important and can also impact on how the woman perceives and experiences the pain of labour (Fortier & Godwin 2015:e284; Halldorsdottir & Karlsdottir 2011:809).

In the United States of America (USA), intrapartum midwives are present during 99% of births and these midwives have a unique opportunity to positively affect a labouring woman's comfort and labour progress through the use of labour support strategies (Iliadou 2012:385). In South Africa, however, intrapartum midwives are not present during childbirth.

The midwife has a defined role to fulfil which includes both physical and emotional assessment. The midwife provides emotional support by exercising skills in imparting confidence, expressing caring and dependability as well as being an advocate for the labouring woman, if needed. Clinical assessment includes the progress of labour and the physical status of mother and foetus. The midwife should display a tolerant nonjudgmental attitude, ensuring that the woman is accepted whatever her reactions to labour may be (Nolte 2014:462).

2.3 PAIN DURING LABOUR

The experience of labour is not only complex and subjective, but a unique experience for each woman The pain that women experience during labour varies greatly, with some women experiencing almost no pain whilst others find the pain extremely distressing (Jones, Othman, Dowswell, Alfirevic, Gates, Newburn, Jordan, Lavender & Neilson 2012:101).

Unlike other acute and chronic pain experiences, labour pain is not associated with pathology but with the most basic and fundamental of life's experiences: the bringing forth of new life (Roberts, Gulliver, Fisher & Cloyes 2010:107). Whilst primarily a joyful event, childbirth may expose the mother to one of the severest forms of acute pain (Gau, Chang, Tian & Lin 2011:293; Barker 2001:172), yet each woman's experience of labour pain is highly individual with respect to both the nature and intensity of sensations and her ability to cope (Rooks 2012:318).

Factors contributing to labour pain are uterine contractions, dilatation and effacement of the cervix and the stretching of the vagina and pelvic floor as the baby descends during the second stage of labour (Madden, Turnbull, Cyna, Adelson, & Wilkinson 2012:3). Some of the aspects of pain experienced by women during labour can be protective, such as the pain due to stretching of the soft tissue as the baby's head is crowning, which may prevent women from pushing too hard, which could cause severe perineal laceration, for example (Smith, Levett, Collins & Jones 2012.2).

Tension, fear, anxiety, fear, feelings of self-efficacy, coping skills and social support have also been shown to have a relationship with women's experiences of labour and labour pain (Madden et al 2012:3; Smith et al 2012:2). For example, a woman's experience of the intensity of pain can be made worse by fear, tension and anxiety. Anxiety is commonly associated with increased pain during labour. Although some anxiety is considered normal for women during labour, excessive anxiety produces increased catecholamine secretion that disturbs uterine contractions and leads to increasing medical interventions (Chaillet, Belaid, Crochetiere, Roy, Gagne, Moutquin, Rossignol, Dugas, Wassef & Bonapace 2014:133). It is important to communicate clearly and briefly, repeat and explain points where necessary, and make an effort to provide consistent information and guidance on non-pharmacological and pharmacological measures to relieve pain in labour. Techniques such as hypnosis have been proposed as ways to help deal with these fears and anxieties (Madden et al 2012:3).

Pain causes a rise in catecholamine secretion, specifically increasing levels of the hormone adrenaline. The increased serum levels of adrenaline results in a rise in cardiac output, heart rate and blood pressure causing and hyperventilation that decreases cerebral and uterine blood flow by vasoconstriction, which may affect the contractility of the uterus (Buckley 2004:203-209). Uterine contractions and uncoordinated uterine activity may be lessened by increased levels of adrenaline and cortisol (MacDonald, Magill & Cuerden 2011:523).

Relieving pain during labour is important. According to the Society of Obstetricians and Gynaecologists of Canada (SOGC) (2016:847), labour pain causes maternal anxiety which increases the levels of stress-related hormones (b-endorphin, adrenocorticotropic hormone, cortisol, and epinephrine). In addition, maternal anxiety may inhibit normal cervical dilatation that may result in prolonged labour and increased pain perception. Substantial advances have been made to address pain, including non-pharmacological and pharmacological interventions (see sections 2.5.2 and 2.5.3).

Healthcare professionals and midwives do not provide effective pain management to women in labour (Chaillet et al 2014:123; Landau 2009:1). Lynch (2011:78) found that there were many reasons for ineffective pain management, including a lack of knowledge; how health care professionals made decisions and used evidence regarding pain management, and organisations' workplace culture which may include lack of prioritisation of pain assessment and management at individual and institutional levels, values and beliefs that affect judgements (see section 2.6).

Despite substantial advances in pain research and management, women in the developing world continue to suffer because of inadequate pain control (Ballantyne, Cousins, Giamberardino, Jamison, McGrath, Rajagopal, Smith, Sommer & Wittink 2011:1). In surgical patients and women in labour, aadequate pain management is a process indicator of healthcare quality, with consequences for patient outcomes and satisfaction (Lorentzen, Hermansen & Botti 2012:278; Lumadi & Buch 2011:14).

Perceptions of pain are influenced by social and environmental factors, and by a person's experiences and cultural factors. Not all women need pain relief during labour. In some cultures, women prefer to give birth without pain methods. In a study in the Bohlabelo district in Limpopo Province, South Africa, Ngomane and Mulaudzi (2012:35) found that traditional birth attendants gave traditional analgesics to alleviate excessive labour pain. Individuals' perception of pain is distinct and unique (Roberts et al 2010:107). Midwives' own cultural experiences of pain will affect their interpretation and attention to women in labour and their cultural assumptions may prevent individualized and appropriate care (Macdonald et al 2011:524). All women,

regardless of culture, religion, parity or context, have a need for continued, individualised support.

2.4 COPING WITH PAIN DURING LABOUR

Women feel vulnerable during childbirth and value the relationship with health professionals. According to Van der Gucht and Lewis (2015:349), a woman's ability to cope is influenced by continuous support and acceptance of pain during childbirth. The woman's increased perception of vulnerability and loneliness during childbirth is relieved by the continued presence of the care provider who creates a sense of security and safety, impacting on her ability to cope during labour (Van der Gucht & Lewis 2015:352).

Acceptance of pain during childbirth as normal further suggests that women need psychosocial rather than pharmacological support (Van der Gucht & Lewis 2015:357). Labour pain and methods to relieve it are major concerns for pregnant women, healthcare workers and the general public (Klomp 2012:2) and the purpose of managing labour pain is not to stop or impair the birth process or contractions, but provide relief for the child-bearing woman to work with the contractions and the discomfort caused by the descending presenting part.

Inadequate pain management indicates poor medical practice which may result in adverse events (Brennan 2007:206). Unbearable pain may cause reduction of the effectiveness of contractions and can lead to dystocia, maternal exhaustion, foetal distress and posttraumatic stress disorder after the birth (Rooks 2012:318). An adverse negative pain experience may result in postpartum depression (Werner, Uldbjerg, Zachariae, Rosen & Nohr 2012:346).

2.4.1 Working with pain

To care for and support women during labour, Leap, Dodwell and Newburn (2010:22) developed a 'working with pain' approach. The authors believe that pain plays an important role in the physiology of the birthing process. Pain alerts the woman that she is going to give birth and helps her prepare for the labour. Women are usually able to cope with normal labour when supported by midwives or significant others. The environment also plays a role during birth as it influences the production of endorphins (Leap et al 2010:24).

2.4.2 Role of the environment

The place of birth may have a significant impact on women's experiences of pain in labour and birth because part of a culture is expressed through its environment and organization (MacDonald et al 2011:524). Admission to a hospital labour ward is often an unknown entity and the accompaniment of a supportive companion can help reduce anxiety. The woman may worry about the reception she and her companion will receive. In addition, an unfamiliar environment may provoke feelings of vulnerability and undermine her confidence. Comfortable surroundings, a welcoming manner and a midwife who greets the woman as an equal in partnership will engender a feeling of mutual respect, thus enabling the woman to relax and respond positively to the amazing forces of labour (Nolte 2014:449).

2.5 PAIN RELIEF

According to the Society of Obstetricians and Gynaecologists of Canada (SOGC) (2016:851), some women in labour may reach the limit of their pain tolerance. Women experiencing excessive pain or anxiety have high endogenous catecholamines, which may adversely affect uterine blood flow, inhibit uterine contractility and eventually decrease foetal oxygenation. Pain relief will prevent this vicious cycle caused by severe pain during labour. As women respond differently to labour pain, the pain needs to be assessed before it can be relieved.

2.5.1 Pain assessment

There are a number of pain assessment instruments to document and report labour pain, including various rating scales and verbal descriptors such as the numerical rating scale and the McGill Pain Questionnaire (Yazbek 2016:9). Using a pain assessment instrument to assess pain during labour helps to determine the need for offering interventions and the effectiveness of those interventions.

Pain during labour can be relieved in many different ways, including the language used. How a midwife speaks when addressing a mother's pain during labour is critical. A huge difference can be made if information is given sensitively to the woman. Care must be taken to move away from using medical, masculine and negative terminology and focus on speaking to the woman on an appropriate level, where the language used is adapted to ensure that the woman understands what is said (Nolte 2014:486).

In addition, there are two major types of pain relief interventions, namely non pharmacological and pharmacological methods, which will be discussed next.

2.5.2 Non-pharmacological interventions

Non-pharmacological interventions may be useful for mild labour pain or as an addition to pharmacological methods used with severe labour pain (Alleemudder, Kuponiyi, Kuponiyi, McGlennan, Fountain & Kasivisvanathan 2015:147). Nonpharmacological approaches mainly modulate the intensity of pain and are associated with a better experience of childbirth. When non-pharmacological approaches to relieve pain in labour are used as part of hospital pain relief strategies, they provide significant benefits to women and their infants without causing additional harm (Chaillet et al 2014:130). Although non-pharmacological methods are easy to use, inexpensive, and have low risks, their effectiveness is not always proven (Alleemudder et al 2015:148). The challenge is to help care givers gain expertise in the use of non-pharmacological approaches in clinical practice to help women work with labour pain. Non-pharmacological pain methods used during the first stage of labour including aromatherapy, relaxation techniques, hydrotherapy, water and labour pain, biological feedback, sterile water injection, manual methods, transcutaneous electrical nerve stimulation, acupuncture or acupressure, birth ball exercise, and support.

2.5.2.1 Aromatherapy

Aromatherapy is the use of essential oils drawing on the healing powers of plants and these have positive physical and psychological effects. Studies investigating the psychological and physiological effects of essential oils found no change in physiological parameters, such as blood pressure or heart rate, but indicate psychological improvement in mood and anxiety (Dippenaar & da Serra 2012:721).

Essential oils are thought to increase the secretion of the body's own sedative, stimulant and relaxing neurotransmitters. The oils can be massaged into the skin or inhaled by using a steam infusion or burner. Aromatherapy is increasing in popularity among midwives and nurses. The most common application of aromatherapy during labour is by massage, bath or inhalation. Common oils used during labour include lavender and frankincense. No evidence has been found that demonstrates harm from essential oils to mother or foetus (Smith, Collins & Crawther 2011:3).

2.5.2.2 Relaxation techniques

Relaxation techniques include Yoga, music, meditation and hypnosis. Relaxation techniques are mind-body interventions based on developing conscious awareness of muscular tension, and the practice of releasing tension and maintaining relaxation is often carried out in conjunction with focused breathing, meditation and visualization. These kinds of methods are commonly used in labour. Yoga, meditation and music and hypnosis may all have a calming effect and provide distraction from pain and tension (Jones et al 2012:6). Alleemudder et al (2015:148) also found a reduction in the arousal of stress and an increase in the production of the body's sedative, stimulant and relaxing neurotransmitters.

2.5.2.3 Hydrotherapy

Hydrotherapy is increasingly being used worldwide to provide comfort for women during labour. Warm water immersion during labour and birth is used for relaxation and pain relief and has a long history in lay and clinical care. Pregnant women can be immersed in warm water during any stage of labour (first, second, third) where their abdomen is completely submerged (Macdonald 2011:526; Cluett & Burns 2012:364).

The immersion takes place in a receptacle that may be a pool, tub or bath and is larger than a normal domestic bath. This can facilitate the neuro-hormonal interactions of labour, alleviating pain and potentially optimizing the progress of labour. Water immersion may be associated with improved uterine perfusion, less painful contractions and shorter labour with fewer interventions. Shoulder-deep warm water immersion reduces blood pressure due to vasoconstriction of the peripheral vessels and re-distribution of blood flow (Cluett & Burns 2012:364).

2.5.2.4 Water and labour pain

Water transmits a desired therapeutic temperature into target tissues, changing the state of irritant receptors and reducing perceived pain (Lee et al 2012:20). Giving birth in water has increased in use since being promoted in Russia in the 1970's (Cluett & Burns 2012:364). Immersion baths induce relaxation, relieve pain and lower blood pressure while also giving mothers a greater role in decision making relating to their sense of control over childbirth. Warm showers also encourage mothers to shift positions, facilitating the downward descending of the foetus through the birth canal (Lee, Liu, Lu & Gau 2013:20).

2.5.2.5 Biological feedback

Biological feedback encompasses a therapeutic technique by which individuals receive training to improve their health and wellbeing through signals coming from their own bodies (including temperature, heart rate and muscular tension) (Barragan Loayza, Sola & Juando Prats 2011:12). The underlying principle is that changes in thoughts and emotions may results in changes in body functioning. The aim of biological feedback is to gain control over physiological responses with the aid of electronic instruments under the supervision of experts.

Instruments used to determine physiological responses include electromyography measuring muscle tension, skin temperature gauges showing changes in heat emission by the skin, reflecting change in blood flow, galvanic skin response sensors, which the volume of sweat produced under stress by measuring skin conductivity, electroencephalographs which measure brain wave electrocardiograph which monitor heart rate and rhythm and may be useful in detecting and relieving tachycardia and in turn controlling high blood pressure. Respiration feedback devices concentrate on rate, rhythm and type of breathing to help lessen symptoms of asthma, anxiety and hyperventilation and also promote relaxation.

2.5.2.6 Sterile water injection

The injection with sterile water for the relief of back pain is becoming more popular amongst women and midwives. Lee, Kildea and Stapleton (2016:230) found that women viewed sterile water injections as an effective analgesia with few side effects. Intracutaneous or intradermal injections of sterile water in the skin over the sacrum have been found to relieve pain of labour (Ander 1990:133). This technique could be of particular use to those practising in hospitals that do not have access to epidural analgesia. It could also be helpful for women who want to avoid medications during labour and birth. The technique is thought to work through the release of endogenous opioids (the endorphins and encephalis) and is based on gate control pain theories (Jones, Othman, Dowswell, Alfirevic, Gates, Newburn, Jordan, Lavender & Neilson 2012:6).

2.5.2.7 Hypnosis

Pain can lead to such a negative experience that it may result in postpartum depression, post-traumatic stress syndrome, future unnecessarily Caesarean sections and reluctance to have more children (Werner et al 2012:346). Hypnosis used during labour and birth can improve the experience of pain during labour.

Madden, Middleton, Cyna, Matthewson and Jones (2012:2) describe hypnosis as a state of narrow focused attention, reduced awareness of external stimuli, and an increased response to suggestions. Suggestions are verbal or non-verbal communications that result in apparent spontaneous changes in perceptions, mood or behaviour. These therapeutic communications are directed to the person's subconscious and the responses are independent of any conscious effort or reasoning. Women can learn self-hypnosis which can be used during labour to reduce pain from contractions. Hypnosis uses focused attention and relaxation to develop increased receptivity to verbal and non-verbal communications, which are commonly referred to as 'suggestions' (Jones et al 2012:5). 'Suggestions' are positive statements used to achieve specific therapeutic goals. In labour and childbirth, the goal is to alleviate or reduce fear, tension and pain so that the physiological act of birth can progress in a way that is comfortable for the mother. Women using self-hypnosis for labour and birth are fully in control and aware of what is happening around them (Smith et al 2010:11).

2.5.2.8 Manual methods

Manual healing methods include massage and reflexology. Massage involves manipulation of the body's soft tissues. It is commonly used to help relax tense muscles and to soothe and calm the individual. Women in labour with back pain may find massage over the lumbo-sacral area soothing. Others find light abdominal massage comforting. Different massage techniques may suit different women. Massage can relieve pain by assisting with relaxation, inhibiting sensory transmission in the pain pathways or by improving blood flow and oxygenation of tissues (Smith et al 2012:3).

Reflexology propose that there are reflex points on the feet corresponding to organs and structures of the body and that pain may be reduced by gentle manipulation or pressing certain parts of the foot. Pressure applied to the feet has been shown to result in an anaesthetizing effect on other parts of the body (Madden et al 2012:3).

2.5.2.9 Transcutaneous electrical nerve stimulation

Transcutaneous electrical nerve stimulation (TENS) is the use of a device which emits low voltage electrical impulses varying in frequency and intensity (Jones et al 2012:7). During labour the electrodes of the TENS machine are attached to the lower back and women themselves control the electrical currents, using a hand-held device. TENS can also be applied to acupuncture points or directly on the head by trained staff. The way TENS acts to relieve pain is not understood.

The electrical pulses are thought to stimulate nerve pathways in the spinal cord which block the transmission of pain. Simkin (1986:230) suggests that by reducing anxiety, increasing a sense of control, and providing distraction, TENS increases a woman's sense of wellbeing and thereby reduces pain in labour. TENS may reduce the length of labour by suppressing the release of catecholamine, which can inhibit the contraction of the uterus (MacDonald 2011:526).

2.5.2.10 **Acupuncture or acupressure**

Acupuncture is the insertion of fine needles into different specific parts of the body. Other acupuncture-related techniques include laser acupuncture and acupressure (applying pressure on the acupuncture points). The aim is to soothe pain by stimulating acupuncture points. Acupuncture points used to reduce pain are located on the hands, feet and ears. One theory proposes that stimulation of touch fibres blocks the pain impulses at the pain gate in the spinal cord. Another theory suggests that acupuncture stimulates the body to release endorphins (endogenous opioids) which reduce pain (Levett, Smith, Dahlen & Bensoussan 2014:523-540).

2.5.2.11 Birth ball exercise

Coping strategies can assist in the pain management process, with self-efficacy playing an important role in a woman's ability to cope. Self-efficacy affects childbirth experiences, in terms of bodily functions, thoughts and feelings regarding childbirth. In Taiwan, Gau, Chang, Tian and Lin (2011:e294) found that if women were highly self-confident, they were able to cope with childbirth, enjoying a positive childbirth experience.

In terms of its physical benefits, the birth ball promotes optimal positioning and pain reduction during uterine contractions while eliciting non-habitual movement. For these reasons, birth ball exercise can work effectively in childbirth (Watkins 2001:18). Psychologically exercising with a ball, the ball improves posture, balance, coordination and body awareness due to its dynamic nature, helping the mother maintain control of her own body and build body confidence (Watkins 2001:18; Gau et al 2011:e295).

2.5.2.12 **Support**

The term "labour support" is used to describe the presence of an empathetic person who offers advice, information, comfort measures and other forms of tangible assistance to help a woman cope with the stress of labour and birth. Women in labour have a profound need for companionship, empathy and help. They also need emotional support in the form of encouragement, praise, reassurance, listening and a continuous physical presence. These are all key components of intrapartum care (Iliadou 2012:385).

Labour support includes the continuous presence, emotional support, physical comforting, information and guidance for the woman and her partner, and facilitation of good communication amongst midwives, patients and their partners. Throughout the ages, women have supported and helped each other during the process of birth. The presence of the doula, midwife or friend of the birthing woman has a positive effect on the outcome of labour. Fortier and Godwin (2015:284) found that the presence of a trained doula reduced the need for medical interventions for low-risk women during labour.

The terms "doula", "birth companion" and "labour support" refer to the providers of this kind of support (Nolte 2013:486). Physical support should be provided in response to the women's own wishes. This will vary from culture to culture and from individual to individual. The support person may hold her hand, walk with her, rub her back, or for some women, simply her ongoing supportive presence may be helpful.

2.5.3 Pharmacological interventions

Many women would like to have a choice of pharmacological pain relief during labour. The following pharmacological pain relief methods can be used to relief labour pain: inhaled analgesia, opioids, and epidural anaesthesia.

2.5.3.1 Inhaled analgesia

In this method, a mixture of nitrous oxide and oxygen is inhaled during labour to relieve pain. The woman can self-administer this analgesia under supervision of an experienced midwife intermittently with discontinuation of use as the contraction/pain eases or disappears. The precise mechanism of action of inhaled analgesia remains uncertain, but anaesthetic actions are related to suppression of activity of the reticuloendothelial network in the brain stem (Klomp 2012:4). The effectiveness of the method relies on the woman's prior instruction and ability to follow instructions on how to use it.

2.5.3.2 Opioids

Throughout the world, most obstetric departments use Pethidine intramuscularly to relieve pain during labour or morphine in their obstetric practice. These are nonexpensive scheduled drugs commonly used in practice. In developed countries most maternity wards use intramuscular opioids, along with epidural analgesia (Jones et al 2012:7). Opioids affect three systems in the body, namely the respiratory, cardiovascular and neurological systems and therefore midwives should monitor vital signs (blood pressure, pulse, respiration and temperature) to observe for any abnormal reading which could indicate the side-effects of the drug given to the patient.

The foetus can also be affected, necessitating more frequent intermittent monitoring of the foetal heart rate. Opioids are recommended for the following obstetric conditions during labour (Jones et al 2012:7):

- Severe unrelieved pain
- Very anxious women with emotional and mental instability such as those who previously experienced a prolonged painful labour, difficult and assisted delivery and where the baby was born dead or born with foetal abnormalities
- Pre-eclampsia and eclampsia
- Induced and augmented labour where contractions are brought on by the administration of oxytocin as the contractions can be more painful than the contractions of spontaneous labour.

2.5.4 Epidural anaesthesia

Epidural anaesthesia is a central nerve blockade technique which involves the injection of a local anaesthetic with or without an opioid into the lower region of the spine close to the nerves that transmit painful stimuli from the contracting uterus and birth canal. The most commonly used drug is bupivacaine and lignocaine (Nolte 2014:497).

More women are now requesting a pain free labour and ask for epidural analgesia as soon as labour is established. Women who find alternative methods of pain relief inadequate once experiencing strong contractions might decide to request an epidural once labour is advanced. The woman should maintain the left lateral position and midwives must ensure that foetal heart rate and woman's blood pressure is monitored and recorded throughout the procedure (Nolte 2014:497).

2.6 WORKPLACE CULTURE

The workplace culture of an organisation is important for its performance and sustainability and for the well-being of those who work in it. Leaders in organisations know intuitively that the culture is important but it can be difficult to pin down what the culture is, how it emerged and how to shape it so that it supports rather than undermines organisational effectiveness. In general, workplace culture can be defined as the shared values, beliefs, assumptions and norms that affect the way people and groups in an organisation interact with each other. It is considered the unwritten rules that exist in a workplace – or 'how things are done around here' (Ng, Johnson, Nguyen & Groth 2014:27)

The environmental culture is arguably one of the most important aspects of a workplace. Workplace culture encompasses a shared understanding of beliefs and actions that are obtained through group socialization and learning (Embo, Helsloot, Michels & Valcke 2017:137). Understanding the culture of practice is essential for undertaking effective developments in practice. Attempts at changing workplace culture should start from the clarification of values held among staff in that culture or organization (Ng et al 2014:27).

In the workplace it is not the systems and structures that should be the key focus of attention, but the people and that understanding of people's interpretation of processes and events is more important than attempting to formulate generic social science laws. Understanding organizational culture is important because it influences how we interpret organizational life and the meaning we place on organizational activities. The literature warns of the consequences of not assessing the powerful influence of organisational culture on effects to bring about change. The participation of the people involved in the change are often overlooked (Adams, Dawson & Foureur 2017:108).

Organisational climate influences group behaviour and encompasses the value base, policies and procedures that guide care delivery and workers' expectations (Wilson, McCormack & Ives 2005:28). The importance of workplace relationships and informal channels for raising concerns should be better understood to help prevent the mistreatment of vulnerable groups such as women in labour (Jones 2012:986). Current socio-cultural theories of workplace claim that positive outcomes results from active participation in activities and interactions with complex and dynamic systems and human resource of the clinical work environment (Embo et al. 2017:1). It's the lack of understanding of our culture that often can be the biggest barrier (Daniel, Shankar & Khalema 2017:10).

2.7 SUMMARY

This chapter discussed the literature review conducted for the study. Chapter 3 describes the research design and methodology.

3 RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

Chapter 2 covered the literature review conducted for the study. This chapter discusses the research design and methodology of the study, including the context (setting), population, sampling, data collection and analysis, and trustworthiness.

3.2 CONTEXT

The context or setting refers to where a study took place. This study was conducted at one of the tertiary referral hospitals in Gauteng. The hospital has an 845-bed capacity. The maternity ward includes ten high care beds where high risk obstetric patients are admitted, six delivery rooms where patients give birth, and two admission rooms where pregnant women are assessed prior to admission. Normal vaginal deliveries, assisted deliveries, and Caesarean section deliveries are conducted in the ward (see Table 3.1).

Table 3.1Type of deliveries conducted in July to November, 2016

Туре	July	August	September	October	November	Total
Normal	100	122	126	99	121	568
Caesarean	152	142	161	151	153	759
Assisted	6	4	11	8	5	34
Total	258	268	298	258	279	1361

Table 3.1 indicates that the Caesarean section rate was higher than that of normal births. The reason for this is that the ward is situated in a tertiary hospital, where the majority of cases admitted are high risk patients. All the patients that deliver normal vaginal births are also high-risk patients, increasing the need for one-on-one midwifery care, of which pain relief during labour is a part.

A total of 28 midwives work in the maternity ward, of who 12 are advanced midwives. Agency staff, who are registered midwives, assist in the ward at times when there is a shortage of staff.

3.3 RESEARCH DESIGN

A research design is a blueprint or plan to direct the conduct of a study in order to maximize control over factors that would interfere with the desired outcome. The research design guides the researcher in planning and implementing the study in a way that is most likely to achieve the intended goal (Burns & Grove 2011:253; Malagon-Maldonado 2014:120). It is an overall plan for obtaining answers to research questions (Polit & Beck 2008:66). In this study, the researcher chose a qualitative design. Qualitative studies wish to gain an understanding of people's interpretation of their environment or their work (Creswell 2009:22; Malagon-Maldonado 2014:120; Marshall & Rossman 2011:3; Turner, Balmer & Coverdale 2013:307).

The researcher considered a qualitative design appropriate for the study in order to gain an understanding of the participants' workplace culture relating to pain management during labour.

3.4 RESEARCH METHODOLOGY

Polit and Beck (2012:274) refer to research methodology as the techniques researchers use to structure a study and to gather and analyse information relevant to the research question. The research methodology includes population, sample and sampling, data collection and analysis, and measures to ensure trustworthiness.

3.4.1 Population

A research population is the entire aggregation of cases in which a researcher is interested. It is all the elements (individuals, objects, events, or substances) that meet the sample criteria for inclusion in a study (Polit & Beck 2012:274)

In this study, the population consisted of all the midwives working permanently in the maternity ward of the selected public hospital who were involved in rendering care to women during labour. To be included in the study, the participants had to:

- Work permanently in the maternity ward and render care to women in normal labour.
- Work a minimum of 40 hours per week in the maternity ward.
- Be registered with the South African Nursing Council as a midwife.

Midwives who were not permanently employed in the hospital but were called in during staff shortages or worked sessional duties (e.g., appointed to work 24 hours per week or through nursing agencies) were not included in the study.

3.4.2 Sampling

Polit and Beck (2012:275) refer to sampling as the "process of selecting a portion of the population to represent the entire population so that inferences can be made". Burns and Grove (2011:290) state that sampling involves "selecting a group of people, events, behaviour or other elements with which to conduct a study". The purpose of sampling is to select a set of elements from a population in such a way that descriptions of those elements (statistics) accurately portray the parameters of the total population from which the elements are selected (Babbie, Mouton, Vorster & Prozesky 2010:175).

A sampling method is the process of selecting cases from the population that will be representative of the whole population (Polit & Beck 2012:742). Qualitative research collects rich, in-depth data therefore the researcher used non-probability sampling, combining convenience and purposive sampling methods to select the sample. Polit and Beck (2012:275) define a sample as "a subset of population elements".

Convenience sampling involves selecting the participants who are most convenient to access and will provide the necessary data (Ingham-Broomfield 2014:37; Polit & Beck 2012:279). Convenience sampling enabled the researcher to conduct unstructured participant observation at times that were convenient for both the

researcher and the participants, who were midwives working in the labour ward and acted as co-observers.

According to Polit and Beck (2012:521), the sample size in qualitative studies is not fixed and should be based on the information required. Data should be collected until data saturation is reached and no new information is obtained. In this study the observers (researcher and midwives who acted as co-observers) continued to observe the management of pain in the labour ward until nothing new was observed (Given 2008:4). A total of 14 observations were done before data saturation was reached. An additional four (4) observation sessions were done to ensure that data saturation had been achieved (see table 3.2). The researcher as observer and midwives as co-observers observed practice for a total of 19 hours and 15 minutes (see table 3.2).

Table 3.2 Number of unstructured participant observation sessions (February to April, 2016)

	Date	Time	Timeframe	Observer	Co-observer
			(hours:minutes)	(researcher)	(midwife)
1	3/02	07:15 to 08:30	1:15	✓	✓
2	3/02	15:00 to 15:30	0:30	√	✓
3	9/02	12:30 to 13:45	1:15	✓	✓
4	17/02	15:30 to 16:30	1:00	√	✓
5	19/02	09:00 to 10:00	1:00	√	✓
6	23/02	08:35 to 09:40	1:05	√	✓
7	25/02	09:55 to 10:30	0:35	√	✓
8	03/03	14:45 to 15:15	0:30	√	✓
9	23/03	11:00 to 12:10	1:10	√	✓
10	24/03	09:00 to 10:20	1:20	√	✓
11	28/03	14:35 to 15:40	1:05	√	✓
12	28/03	10:00 to 11:20	1:20	√	✓
13	28/03	22:00 to 00:30	2:30	√	✓
14	29/03	20:00 to 21:05	1:05	✓	✓
15	30/03	10:00 to 11:00	1:00	√	✓
16	30/03	11:00 to 11:30	0:30	√	✓
17	05/04	08:30 to 09:30	1:00	√	✓
18	05/04	19:00 to 20:00	1:00	√	✓
	•	Total time	19 hours and 15		

minutes

Purposive sampling was used. Purposive sampling is widely used in qualitative research for the identification and selection of participants that can provide rich information about the phenomenon of interest (Palinkas, Horwitz, Green, Wisdom, Duan & Hoagwood 2013:1). The researcher wished to select midwives who were knowledgeable about and had experience of the management of pain during labour in the specific labour ward. All the midwives who met the inclusion criteria were invited to attend the data analysis session.

3.4.3 Data collection

Data collection refers to the process of collecting information in order to address the research problem (Polit & Beck 2012:725). Participant observation is one of the data collection methods that can be used in qualitative studies (Ingham-Broomfield 2014:37). The researcher selected participant observation for data collection as it enabled her to collaborate with the participants to observe current workplace culture in the management women's pain during labour in their natural setting (labour ward) while they performed their duties (relating to pain management during labour) (Polit & Beck 2012:544; Marshall & Rossman 2011:139).

Given (2008:3) describes participant observation as a way of acquiring insight into a particular topic through observing individuals who live and experience it. During participant observation data can be collected in a structured or unstructured way (Malagon-Maldonado 2014:128). Structured participant observation was selected to collect data as it provided the researcher and co-observers (midwives) with an opportunity to observe the workplace culture relating to pain management of women in the labour ward in collaboration with the midwives working in the labour ward (Polit & Beck 2012:544). In this study all midwives who met the inclusion criteria of the study qualified to be observers during data collection process.

Using the participants as co-researchers (co-observers and in data analysis) promoted participant involvement because they could state their views and arrive at conclusions together with the researcher and give feedback. At the same time, the researcher used the experience and knowledge to gain a deeper understanding of

the workplace culture Given (2008:3). Through the unstructured participant observation, the midwives as co-observers became aware of the workplace culture relating to pain management, which enabled them to suggest strategies to improve practice (see chapter 4).

For the unstructured participant observation to be successful, the researcher (as observer) focused on collecting detailed information with the co-observers, which necessitated prolonged engagement in the context Given (2008:3). The researcher recorded the data collected in the form of field notes during as well as after observation and reflected on it Given (2008:5).

Data was collected over a period of two months to enhance prolonged engagement in the field to gather detailed information on workplace culture relating to pain management during labour (see table 3.2). During observation the researcher and co-observers used the observation tool, which did not have pre-set questions, procedures or protocols (see Annexure B).

In conducting the unstructured participant observation, the researcher used McCormack, Henderson, Wilson and Wright's (2009:30) four phases to guide the process: pre-observation; observation; consciousness-raising and problematisation, and participatory analysis and strategic planning.

3.4.3.1 Phase 1: Pre-observation

Two steps were done during the pre-observation phase.

⇒ Step 1: Preparing the clinical area for observation

This step focused on preparing the midwives for observation. Preparation was important to reduce the participants' anxiety levels, which included the midwives that were co-observers as well as those being observed, clarify the processes and plan for observation specific times.

The researcher met with top and middle management to discuss the study. Once consensus was reached by top and middle management that the study was valuable and should be done in the labour ward, discussion sessions were held with the

midwives in the labour ward. These sessions were held during day and night shifts to ensure that all midwives working in the labour ward were aware of the study. The researcher gave the midwives a copy of the ethical approval for the study (see Annexure A1); explained the purpose of the study, who would conduct the study and the observation process (how and where the study would be conducted) and the tool that would be used (see Annexure A2 and Annexure B), and answered their questions (McCormack et al 2009:31-33).

The researcher explained that the observation sessions would be conducted by the researcher and a midwife who volunteered to participate in the process. The researcher indicated that the observation process would at no time influence their routine work and emphasised the importance of their continuing with their normal everyday routine without fear that they were being observed. During these sessions the information leaflets were distributed (see Annexure C1) and the midwives signed informed consent forms (view Annexure C2). Once informed consent had been obtained, the participants were informed of when observation would commence. The researcher then proceeded to prepare herself and the participants for observations.

⇒ Step 2: Preparing yourself to observe

As it is vital to remain objective throughout the observation process in order to collect accurate information, the observers required specific observational skills, namely being able to concentrate in a busy environment, to remain detached from the context being observed, and not to make judgements about what was being observed. Practising, having group discussions, self-reflecting and learning from the past are among the ways observers can maintain these skills (McCormack et al 2009:33).

The co-observers (midwives) received the observation tool (see Annexure B) to familiarise themselves with its use beforehand. The dates and times of observations were arranged in advance to ensure that co-observers would be available. The observers made sure that from the location chosen, they were able to hear and see each patient and midwife in order to collect the correct data. As the observers were not involved during the care of women in labour, it was possible to minimise the Hawthorne effect.

The Hawthorne effect refers to the constant awareness that participants have of being studied and the possible impact it can have on their behaviour (Fernald, Coombs, De Alleaume, West & Parnes 2012:84). To further minimise the Hawthorne effect, observers made sure that they were dressed in their uniforms as usual. The researcher and co-observers ensured prolonged engagement by staying in the labour ward until data saturation was reached. In this way the researcher and co-observers gained an in-depth understanding of the workplace culture relating pain management. It also built trust and rapport between the researcher and participants, which was necessary to collect rich data (Brink et al 2012:172).

The researcher recognised that observation would be time consuming and that transferability would not be obtained as the observation was done in a specific context (Creswell 2009:167). In addition, the researcher also took into consideration that she and the co-observers were inexperienced observers and therefore acknowledged that they required additional time to collect rich data and achieve data saturation and were aware that they might be biased during observation, which could influence the trustworthiness of the data collected (Given 2008:7; Malagon-Maldonado 2014:127).

The researcher discussed these specific considerations with her supervisors and consensus was reached that the supervisors would assist in the observation as they had experience. In addition, the co-observers were made aware of the importance of being truthful during the observation. Having more than one observer and having discussions following each observation added to the credibility and consequently the trustworthiness of the data collected. After completing the preparations, each observer was ready for the observations.

3.4.3.2 Phase 2: Observation

First a pilot study was conducted. The researcher and one of the supervisors conducted two observation sessions. The rationale was to guide the researcher as she had not previously done observation in practice. The findings of the two observation sessions were not used in the study.

Following the pilot study, the researcher and a co-observer observed pain management at an agreed date and time in the labour ward. Each observer took their own field notes during the observational session to enhance the effectiveness and reduce bias during the observation (McCormack et al 2009:33).

During the observation both observers wore a uniform to blend in with the environment and made sure that they were strategically placed in order to have the best possible view without being highly visible or interfering with routine duties. At first observations took longer and the observers found that they had to observe practice for 30 to 45 minutes at a time. However, as time went on, the observers became more proficient and the observation time was reduced to 15 to 20 minutes (McCormack et al 2009:34). All the data gathered during observation was recorded in the observation tool (see Annexure B). The researcher and the co-observer each had their own observation tool that assisted and guided them on what to observe during data collection. Each observer recorded their observations about the workplace culture relating to pain management of labour. During observation all the observations were recorded in writing.

These records were referred to as field notes, which were detailed, non-judgemental and concrete descriptions of what had happened as observed by the observer (Marshall & Rossman 2011:139; Marshall & Rossman 2016:143). Babbie et al (2010:294) stress the importance of taking full and accurate notes of exactly what took place in practice.

3.4.3.3 Phase 3: Consciousness-raising and problematisation

After the observation was conducted, the researcher clarified any uncertainties with the co-observer in order to understand the practice observed and prevent making false assumptions (McCormack et al 2009: 35-36). The researcher clarified uncertainties with the co-observer directly after every observation so as to gain a deeper understanding of the observed data when a second observer was present.

In order to clarify the uncertainties with the participants, the researcher asked openended questions. That ensured that sufficient, concise and accurate knowledge had been gained on the current workplace culture relating to pain management during labour. It also ensured that no assumptions had been made by the researcher and the co-observer. All responses to the questions were noted in the observation tool (view Annexure C).

3.4.3.4 Phase 4: Reflection and critique

Both observers must compare their observations and decide what information to give feedback on. During the feedback sessions with the staff, critical dialogue needs to be facilitated and each session observed needs to be discussed. At the end of the discussion a common set of issues must be agreed upon between clinical staff and the observers. These issues will form the basis for conducting further investigations, formulating a personnel development action plan and developing a staff development plan (McCormack, et al 2009:36).

On an agreed date and time the observers and the clinical team must meet in a quiet area with the purpose of collectively making sense of the data collected. Feedback must be given in the form of positive-negative-positive comments. Members of staff need to feel that the information provided will help improve practice (McCormack, et al 2009:37).

In this study, the reflection and critique phase followed after the participatory data analysis phase (view section 3.4.3.5). For the purpose of giving feedback, a session was pre-arranged between the researcher and the participants to make sure that as many participants as possible could attend the session. Participants were given the opportunity to read through all the observation notes, to reflect on them and to discuss their ideas, after which the participants and the researcher formulated set of problems based on the collected data.

Through this session staff became more aware of the challenges of pain management during labour and they started thinking of ways to improve the practice. This was followed up by a strategic planning session, which is discussed in detail below.

3.4.3.5 Phase 5: Participatory data analysis and strategy planning

After collecting data during phases 2 to 4, it is time to analyse and understand the collected information. Data analysis entails categorizing, ordering, manipulating and summarizing the data and describing them in meaningful terms (Brink et al 2008:170).

The data analysis was done in collaboration with the midwives working in the labour ward. Ideally, as many midwives as possible should be part of the data analysis process, which would not only raise awareness of current pain management practices in the labour ward but also enhance ownership of the project and increase the chances of implementing the co-constructed strategies following the project.

During this process the participants were asked to formulate metaphors, feelings and impressions that reflected the collected data to acquire an in-depth impression of the data collected. A list of common themes was drawn up and identified by the participants during the data analysis (McCormack et al, 2009:38).

In this study, all the midwives involved in caring for women in labour were formally invited to collaborate in a workshop to analyse the data. An invitation poster was visibly displayed at the nursing station and entrance to the maternity ward to invite midwives to attend the data analysis workshop. After having sent out invitations, the researcher continuously followed up on who would be attending the workshop in order to get as many of the midwives as possible to participate. Seven (7) experienced midwives were able to attend whist the remaining midwives agreed to continue with patient care.

On the day of data analysis the researcher explained the process to the participants. All the participants also signed an informed consent form. The researcher used creative hermeneutic data analysis and Boomer and McCormack's (2010:644) steps to analyse the data:

 Step 1: The researcher explained the data analysis process to all the participants and gave them an opportunity to ask questions for clarification

- and to ensure there were no misinterpretations. Once the participants understood the aim, process and value of the collaborative way in which data was analysed, they signed informed consent and the process started.
- Step 2: The participants were divided into two groups one group with three
 and one with four participants. The groups were asked to read through all the
 data collected and form their own general impressions, observations, thoughts
 and feelings about the data.
- Step 3: Each participant was then asked to create a visual image that captured the core idea of what they had read.
- Step 4: Each participant was then asked to tell a co-participant the story of his
 or her image. The co-participant listened attentively and wrote down the main
 ideas. This process created an opportunity to raise awareness among the
 participants of their current workplace culture practices relating to pain
 management during labour.
- Step 5: Using the creative images as centrepieces as well as the captured stories, the participants in the groups discussed their interpretation of the data, developed themes and once consensus was reached on the themes, wrote these themes on a piece of paper.
- Step 6: During this step, smaller groups are formed and participants are asked to discuss their themes and create shared themes that everybody agrees on.
- Step 7: Every participant presents one or more of the identified themes to the
 entire group for discussion and consensus is reached on the final themes and
 categories. In this research, the groups shared their themes with the entire
 group who discussed them and reached consensus on the final themes.
- Step 8: After selection of the final themes each participant is asked to do the final check on the themes and categories to ensure that the entire group agrees with the findings. The themes were displayed visibly for all the participants to see so that strategies could be developed.
- Step 9: Once consensus on all the themes had been reached, each participant noted down three strategies on separate sticky notes that could be implemented to improve pain management during labour. The participants

- were each given a chance to display their strategies under the applicable themes. The strategies were aimed at addressing the themes.
- Step 10: At the end of the process, the final themes and strategies were showcased on an A3 sheet of paper and the researcher took a photograph of it for her own use while the original A3 paper was left in the maternity ward for implementation by midwives to improve the current workplace culture relating to pain management during labour(view Annexure F).

3.5 TRUSTWORTHINESS

The trustworthiness of the data collected and interpreted in research is important. Trustworthiness measures the level or degree of confidence that researchers have in their research and the measure of trustworthiness is evident in the evaluation of the quality of the study (Polit & Beck 2012:157,745). In qualitative research it can be difficult to achieve trustworthiness, and researchers will therefore implement multiple strategies to ensure this. Trustworthiness can be measured by credibility, dependability, confirmability and transferability (Cope 2014:89; Houghton, Casey, Shaw & Murphy 2013:13; Marshall & Rossman 2011:40; Polit & Beck 2012:584).

3.5.1 Credibility

Credibility refers to the confidence a researcher has in the truth of the data collected and its interpretation (Polit & Beck 2012:585). Credibility enhances the chances that the phenomenon is described accurately (De Vos, Strydom, Fouche & Delport 2011:419).

The credibility of the study was ensured by (1) collecting the data in a credible and believable manner, and (2) the research report was written in a logical manner, indicating the steps used during data collection and data analysis, which enhanced the credibility of the results (Polit & Beck 2012:585).

In addition, credibility was enhanced by the researcher's engagement in the field during data collection. Data was collected over a period of three months from 3 February to 5 April, 2016 (view table 3.1). It was important that the researcher and midwives spent enough time collecting and interpreting the data to avoid any misunderstandings about the current workplace culture of pain management in the labour ward. Furthermore, prolonged engagement resulted in establishing better relationships between the researcher and the participants, resulting in the participants being more at ease and providing rich data (Cope 2014:89; Houghton et al 2013:13; Polit & Beck 2012:589).

3.5.2 Dependability

Dependability means ensuring reliability of data over a period of time even under changing conditions and ensuring that evidence remains constant and stable (Polit & Beck 2012:175,585). Researchers should ensure that the research process remains the same throughout a study (De Vos et al 2011:420). In order to achieve this, the researcher developed a proposal to guide the study.

The researcher took the Hawthorne effect into consideration when addressing the dependability of the study and took steps to decrease its effect. The Hawthorne effect refers to participants' awareness of being studied and the possible impact it can have on their behaviour once they become aware that they are being watched (Fernald et al 2012:83).

3.5.3 Confirmability

Confirmability refers to a researcher's objectivity. The researcher ensured that the data collected and interpreted was not influenced by personal bias or preconceptions by remaining objective throughout the study (Cope 2014:89). Accordingly, data was collected by means of triangulation, the utilisation of multiple sources of information, to minimise bias (Polit & Beck 2012:107; Noble & Smith 2015:34). Collaborating with the midwives, involving them in the data collection and analysis, as well as discussing how the study was conducted and the research findings with the supervisors prevented bias.

After participant observation the researcher and the co-observers discussed and confirmed that only what was observed was documented in the observation tool. Using multiple observers made triangulation and confirmability of the data collected possible. During data analysis, the participants acknowledged and agreed that what had been observed was a true reflection of how they managed pain in the labour ward.

3.5.4 Transferability

Transferability refers to the extent to which the collected data can be transferred to other contexts and to whether the data is descriptive enough to be used other contexts (Cope 2014:89; Houghton et al 2013:16; Polit & Beck 2012:585).

In qualitative studies, transferability can be problematic as it is difficult to transfer and generalise information to other settings and populations as all populations and their characteristics, especially workplace culture, differ (Marshall & Rossmann 2011:252).

3.6 SUMMARY

This chapter discussed the research design and methodology of the study, including the context or setting, population, data collection and analysis, and trustworthiness.

Chapter 4 presents the data analysis and interpretation and findings, with reference to the literature reviewed.

4 RESEARCH FINDINGS AND DISCUSSION

4.1 INTRODUCTION

Chapter 3 described the research design and methodology of the study. This chapter presents the data analysis and interpretation, and the findings. Four themes emerged from the data, namely pain assessment; isolation; therapeutic environment, and documentation. Each theme was divided into categories and sub-categories. This chapter discusses the data analysis and findings with reference to the literature review.

4.2 OVERVIEW OF RESEARCH FINDINGS

Data was collected by means of participant observation. On 14 April 2016, the researcher and participants used the hermeneutic data analysis method for a session of participatory data analysis. The session took place from 13h00 to 15h00 in the tea room of the maternity ward, which was convenient and accessible for the participants, and did not interfere with patient care. Seven participants, who are midwives working in the setting, participated in the analysis of the 18 observation tools. Table 4.1 presents a summary of the themes, categories and subcategories.

Table 4.1: Summary of the findings

Themes	Category	Sub-category
Pain Assessment	Midwives	Availability of midwives
		Non-pharmacological pain management
		Backrub
		Breathing
		Mobilising
	Doctors (obstetricians)	Pharmacological pain management
Isolation	Midwives ('with women')	Disengaged
		Nurses station
		Procedure orientated
		Absent
	Partner	Waiting area
		Uninformed
Therapeutic	Comfort	Pillow
environment		Bell
		Bed

Documentation	Incomplete	

The themes and related categories, sub-categories and strategies are discussed next.

4.3 THEME 1: PAIN ASSESSMENT

The participants identified pain assessment as the first theme. The participants expressed their concern about the poor pain assessment by midwives when caring for women during labour and indicated that in some cases it was observed that pain was not assessed at all.

According to the observation tools:

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...no assessment of pain was done... (Observation tools 2, 4, 5, 9, 13, and 17)
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...questions about pain not asked... (Observation tools 6, 10, 11, 12, 14, 15)

During data collection, it was observed that midwives did not assess pain during labour. Patients were not asked about pain and when they experienced severe pain, the midwives were not with them. Regarding perceptions of labour pain, in the UK (United Kingdom), 93.5% of women described the pain as severe or unbearable, while in Finland, 80% described it as very severe and intolerable. Severe labour pain requires appropriate assessment and management to ensure that the experience of childbirth remains positive (Baker et al 2001:172). Assessing and measuring a woman's pain during labour is important to determine her need for assistance with pain and evaluating the effect of pain-relieving interventions (Jones et al 2015:708-709). Repeated assessment of pain can guide care giver responses and potentially prevent patients from suffering severe pain, which, if unrelieved, will develop to an increased secretion of adrenaline, resulting in hyperventilation that decreases cerebral and uterine blood flow (Buckley 2004:203-209).

Assessment of labour pain should be done with an assessment tool appropriate to the woman in labour. Winkelman et al (2008:104) found more than 125 tools for the measurement of pain of which six were recommended for the management of acute pain such as labour pain. Many pain measurement tools measured chronic and acute pain, but could not be applied to women in labour. Jones et al (2015:710) found that a verbal rating scale was the preferred mode of pain assessment during labour and some women felt they could complete a visual analogue scale (VAS) either independently or with support. Women were insightful about the potential inaccuracy of pain assessment during labour.

The birth records in the hospital in which the study was conducted did not contain any standardised labour pain assessment tool. Although labour pain was not assessed with a formal labour assessment tool, it was observed during data collection that the midwives at times used verbal and non-verbal cues to assess pain. Midwives and student midwives usually ask women to rate their pain on a scale of zero to ten, which correlates with the numerical rating scale (NRS). Improving the way one quantifies pain during labour and measures the entire labour pain experience is important to optimize the provision of labour analgesia, enhance maternal satisfaction and facilitate appropriate obstetric decision making (Carvalho & Cohen 2016:6).

Lynch (2011:1) found poor assessment and management of labour poor in Canada, and listed under-recognition of pain, a lack of education on pain assessment and treatment in graduating health care professionals, and grossly inadequate funding for research on pain as reasons for not assessing labour pain. In a study on the management of labour pain in Indonesia, Rachmawati (2012:269) found that women reflected limited pain management with no assessment. A survey in South Africa found a lack of sufficient pain assessment during labour (Nolte 2014:516).

Table 4.2 reflects the categories and subcategories of health professionals' pain assessment during labour. Midwives and doctors are responsible for assessing pain during labour.

Table 4.2: Pain assessment

Theme	Category	Sub-category
Pain assessment	Midwives	Availability of midwives
not done		Non-pharmacological pain management

	Backrub
	Breathing
	Mobilising
Doctors (obstetricians)	Pharmacological pain management

4.3.1 Midwives

The first category in pain assessment was midwives. The participants identified that pain is not assessed.

According to the observation tools:

- ...patient lying on the bed with students in the room, midwife did not assess pain... (Observation tools 9, 11)
- ...patient alone in the room lying flat on her back, pain not assessed by midwife... (Observation tools 3, 6)
- ...patient was never asked about pain by nurses... (Observation tools 2, 10)

In this study midwives did not assess pain and did not have a standardised way of assessing pain during labour. Midwives play an important role in assessing the woman's pain during labour. In performing this role, the midwife comes to an understanding of the woman's experience and provides adequate pain relief. According to Dippenaar and da Serra (2012:333), the midwife is the preferred skilled caregiver in obstetrics in South Africa.

Proper assessment of pain requires both verbal and non-verbal information. However, midwives often use non-verbal communication such as facial expression and sounds to estimate pain, which may result in an underestimation of the woman's experience of pain. Both women in labour and midwives underestimate the equivalent of mild to moderate pain, and midwives often underestimate mothers' experience of severe pain. If midwives misjudge the degree of pain, they more often fail to provide adequate pain relief for women during labour (Bergh et al 2015:15).

As a professional midwife, one constantly assesses women in labour and collects information to make nursing judgements. This happens no matter whether the setting is the hospital, clinic or home (Weber & Kelly 2013:1). Assessment and management of pain during childbirth represents an important challenge for both health care professionals and pregnant women. Challenges include mode, timing and appropriateness of pain assessment. Chaillet et al (2014:711) emphasise that midwives should adopt a woman-centred approach during labour. A woman-centred approach demands pain assessment that matches each woman's need for the mode and timing of pain assessment.

The category of midwives had two sub-categories, namely unavailability of midwives and non-pharmacological management.

During observation the participants found that most of the time midwives were not available in the room with the pregnant woman in labour.

According to the observation tools:

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... Patient left alone (midwife not available) ... (Observation tools 2, 3, 4, 5, 6, 8, 13,
14)
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... Patient left with students alone... (Observation 9, 11)

In this study, it was observed that midwives were not available during the active phase of labour. The women were left alone for periods longer than 30 minutes. In the US, intrapartum nurses are present at 99% of births. These nurses have a unique opportunity to positively affect a labouring woman's comfort and labour progress through the use of support or non-pharmacologic strategies (Iliadou 2012:388). South African women have a low expectation of quality of care when they attend state maternity services. In a study on the knowledge of and attitude towards pain relief during labour of women attending the antenatal clinic of Cecilia Makiwane Hospital, South Africa, Mugambe et al (2007:16) found that many women expressed little or no confidence in labour pain relief.

Availability of a midwife during labour is essential according to Regulation 2488 on scope of practice of midwives (SANC 1990). When the second stage of labour is imminent, the midwife shall stay with the patient until after the birth of the child, or as long thereafter as the condition of the patient or the baby may demand. According to the South African Nursing Council (SANC) statistics, there were five maternityrelated professional misconduct cases for midwives in Gauteng Province from June 2013 to December 2013. The midwives involved were suspended. The midwife is a key figure in supporting and assisting women during labour. A midwifery service is based on meeting the needs of women during the child-bearing process (Halldorsdottir & Karlsdottir 2011:807).

One-to-one support by a midwife during labour reduces the need for analgesia, improves the birth experience of the mother and shortens the length of labour. Midwives are therefore required to remain with the patient and manage her pain (Nolte 2014:171). Maternity services should develop the capacity for every woman to have a designated midwife to provide care in established labour for 100% of the time. Continuous one-to-one support during labour can both reduce intervention rates and improve maternal and neonatal outcomes. The relationship between the woman and the midwife is important and can impact on how the woman perceives the pain of labour. Pattinson (2015:261) suggests that staffing norms for maternity units should be such that every woman in labour is treated as a high-care patient in any setting. This means that the midwife looking after the patient should do nothing except monitoring that patient, and perhaps take care of one other patient in labour in the same setting.

Health services should make every effort to ensure skilled professional attendance at birth for all pregnant women. It is recommended that midwives as birth attendants use the process of shared decision making to assist pregnant women in making choices related to the birth environment. This process empowers the pregnant woman and provides a woman-centred and evidence-based approach to choices related to obstetrical care (Adams, 2016:224).

The second sub-category under the category of midwives was non-pharmacological pain management.

According to the observation tools:

- ... No support and teaching on use of non-pharmacological management of pain during labour... (Observation tools 4, 8, 10, 12, 13, 14)
- ... Patient verbalised that she was not taught on non-pharmacological pain management strategies... (Observation tools 15, 17, 18, 19)

The participants were of the opinion that the nurses did not support the patients by teaching them the use of non-pharmacological management to cope with pain during labour, such as backrub, breathing and mobilisation. Labour pain is unique based on various contributing physiological, emotional, social and cultural components. Accordingly, various pain relief options should be available and at her disposal to ensure a safe and satisfying birth experience (Abushaikha & Oweis 2005:33). According to the participants, the women were not taught on the importance of non-pharmacological methods used in labour and how to apply them to cope with pain during labour. In the setting where the study was conducted, women are not encouraged to walk and make use of non-pharmacological pain methods on a daily basis. Use of the birthing ball was observed at times. The following non-pharmacological methods suggested by participants are discussed next:

- Backrub. This technique is important to a woman in labour because as the head of the baby descends in the pelvic region, it causes pressure on the sacral nerve. Pain is alleviated as a nurse or partner uses her palm to rub the sacral area of the woman in labour. The midwife may rub the woman's back during and, if necessary, between contractions using firm circulatory movements. A quick rubbing action is ineffective and irritates the woman's skin. Some women at times do not want to be touched therefore permission should be asked before touching her (Dippenaar & da Serra 2012:351). This method was not practised in the selected hospital.
- Breathing exercises and relaxation. This technique is also vital during labour to
 distract patients from concentrating on pain. The patient is taught to take a deep
 breath in and out when experiencing pain. As she concentrates on her breathing,
 pain is alleviated (Cronje et al 2016:90). This practice is done when the patient is
 in labour. Relaxation techniques, such as music and meditation, relieve pain in
 various ways; e.g., by lessening muscle tension which causes pain and anxiety.

In some women the very effort to relax will distract their attention from the pain and contractions. Relaxation and breathing may contribute more to a woman's ability to cope with labour pains than to actually reduce pain (Smith et al 2011:3). This method was never practised in the selected hospital.

• Mobilising. Patients are encouraged to walk around during labour. This helps the woman to progress quicker due to force of gravity assisting the descending of the baby. Mobilising also distracts the woman from pain. As she concentrates on walking, pain is alleviated (MacDonald 2011:523). In a study on doula interventions, Paterno, Van Zandt, Murphy and Jordan (2011:28) found that women with shorter labour and those who received six or more complementary or non-pharmacological methods from birth companions, were less likely to have an epidural during labour. Mobilisation of patients was observed in this study with some of the patients, but most patients were lying in bed.

4.3.2 Doctors

The second category identified under pain assessment was doctors. The participants indicated that most of the time the doctors were not assessing pain during labour and therefore did not prescribe pain medication (Guidelines for Maternity Care 2015:48).

According to the observation tools:

... in the absence of a midwife, the patient was screaming and advocated for herself by requesting the doctor to prescribe pain medication as she couldn't bear the pain anymore... (Observation tool 9, 11, 13)

The role of doctors was considered. Under the category of doctors, the participants identified the sub-category pharmacological pain management. Doctors are responsible for pain assessment and management through pharmacological pain relief methods. In this study it was observed that the doctors were not assessing and managing pain during labour properly even though they were available 24 hours in the maternity ward. The doctors also did not evaluate whether treatment was effective or not.

The role of a doctor who takes care of a pregnant woman (obstetrician) varies considerably. There are not enough obstetricians in public healthcare in South Africa and many women in the public health sector see a doctor only once in pregnancy and during birth. This means that midwives in the public sector carry the burden of care, including health education and support (Dippenaar & da Serra 2012:127). In the USA, most women give birth in hospitals under the care of obstetricians (Shaw et al 2016:2286). Obstetricians mainly use pharmacological pain relief methods. However, despite substantial advances in pharmacological pain research and management, women in labour continue to suffer because of inadequate pain control (Ballantyne et al 2011:1).

Under-treatment of pain may result in many adverse effects, such as maternal exhaustion, and in the developed world this gap has prompted a series of declarations and actions by national and international bodies advocating better pain control. Clinicians recognise that even with limitless resources, not every patient's pain can be eliminated (Brennan, Carr & Cousins 2007:205-206). Reasons for under-treatment of pain include under-recognition of the problem, lack of education regarding labour pain assessment and treatment in graduating health care professionals, and grossly inadequate funding for research regarding labour pain (Lynch 2011:77).

According to the observation tools:

- ...patient breathing heavily and screaming due to pain, no pain medication... (Observation tool 2)
- ... Pethidine injection given but not evaluated whether pain is relieved or not and patient still in pain... (Observation tool 14)

A wide range of pharmacological, physical and psychological methods of pain relief are now available to women during labour. In the setting where the study was conducted, a Pethidine injection is used for pain relief in labour. No other pharmacological method is given during labour. The Guidelines on Maternity Care in South Africa, Department of Health (2015:48-49) recommends the following methods for pain in labour:

- Pethidine 100mg with promethazine 25mg intramuscularly is acceptable four hourly in both the latent and active labour up to full dilatation of the cervix.
 This method is available in the setting in which this study was conducted.
- Inhaled Entonox® (a mixture of 50% nitrous oxide and 50% oxygen) by mask
 can be used in the late first stage of labour (from 8cm cervical dilatation). This
 method is available in the setting which the study was conducted, but is never
 used.
- Epidural analgesia should be available in tertiary hospitals. This method is not available in the setting in which the study was conducted.

In Sweden, pain relief in labour involves the use of nitrous oxide and minimal motor block epidural analgesia, while in the USA, epidural intervention has escalated in since the 1980s in a manner that appears to be largely independent of patient preferences (Shaw et al 2016:2286).

Most obstetric departments in developed countries offer opioids intramuscularly along with epidural analgesia. Pethidine is used worldwide to relieve pain during labour while some undeveloped countries use morphine in their obstetric practices. These are non-expensive scheduled drugs commonly used in practice (Jones et al 2012:7). Pethidine is the most frequently used systemic narcotic analgesic in South Africa which is administered intramuscularly in doses of 50-100mg every four to six hours as prescribed by an obstetrician. It takes about 20 minutes to have an effect. Pethidine can also be administered intravenously for a faster effect.

4.3.3 Strategies for pain assessment

During data analysis, the participants identified that pain assessment during labour was not done. In addition, midwives were not educating pregnant women in labour on the use of non-pharmacological pain management during labour whilst obstetricians were not assessing pain and not prescribing the pharmacological pain

relief methods. When pain assessment is not done, the patient's pain will not be effectively managed and this affects the woman's experience of labour negatively.

The participants identified the following strategies to address pain assessment in labour:

- Patient should be asked about pain frequently during labour.
- In-service training, refresher courses and protocols should be implemented to address pain management during labour.
- The unit should have a chart with facial expressions to rate pain out of 10 score.
- Family should be involved during antenatal visits and taught strategies to cope with pain during labour.
- Awareness campaigns should be initiated in the ward on pain management during labour.
- Pain should be treated as one of the vital signs in midwifery practice.
- An existing labour pain assessment instrument can be adopted. A form could be developed to be completed by the patient to assess individual pain and apply care based on pain assessment.

4.4 THEME 2: ISOLATION

The participants identified isolation as the second theme, with two categories: midwives and partner. Under midwives, four sub categories were identified, namely disengaged; nurses station; procedure orientated, and absent. Under partner, one sub category was identified, namely: uninformed. Table 4.3 reflects the categories and sub-categories.

Table 4.3: Isolation

Theme	Category	Sub-category
Isolation	Midwives ('With women')	Disengaged
		Nurses station
		Procedure orientated
		Absent
	Partner	Waiting area
		Uninformed

4.4.1 Midwives and partners

The participants indicated that the midwives were seated at the nursing station, were disengaged from their patients and focused on nursing procedures. Furthermore, woman-centred care was not implemented as some of patients' partners were not allowed to stay with the women during labour, but were kept in the waiting area. Some partners were advised by midwives to go home and come to see their partners after delivery.

According to the data analysis, in some instances partners were available but did not know their role to support the women during labour. In addition, most of the women in labour were not informed about the importance of partner support/doula during labour and therefore did not bring their partners or another support person with them.

Regarding the behaviour of midwives and partners that contributed to the isolation the women experienced during labour, the observation tools indicated:

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...nurses were disengaged and patient left with student midwives... (Observation tools 7, 8, 10)
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...patients left alone but nurses were sitting in the nursing station... (Observation tool 8)

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...nurses were procedure orientated... (Observation tools 7, 8, 9)
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- ...partners were absent... (Observation tools 5, 6, 8, 19)
- ...partners were sitting in the waiting area... (Observation tools11, 17)

Isolation is an objective and quantifiable reflection of reduced social network size and social contact. Loneliness is often regarded as the psychological embodiment of social isolation, reflecting the individual's experienced dissatisfaction with the frequency and closeness of their social contacts (Steptoe et al 2012:5797). In this study the women were not only left alone in the labour rooms, but were also denied social contact and support from their families during labour as some partners are sent home while they were in labour.

Labour support refers to the presence of an empathetic person who offers advice, information, comfort measures and other forms of tangible assistance to help a

woman cope with the stress of labour and birth. Women in labour have a need for emotional support in the form of encouragement, praise, reassurance, listening and continuous physical presence that are all recognised as key components of intrapartum care (Iliadou 2012:386). The main sources of support for mothers are the midwife and the woman's partner. Continuous support by a midwife during childbirth has positive effects on the duration of active labour and the use of pain relief (MacDonald et al 2011:525).

The midwife is a trained and skilled practitioner who is closest to the woman when the baby is born and has the capacity to guide, support and teach (Dippenaar & da Serra 2012:128). Midwives are expected to be polite, respectful, sympathetic, responsive and timely in carrying out nursing duties since disrespectful and unsympathetic behaviour will aggravate the woman's pain (Magowe 2016:111). A Doula is a professional lay person who is trained to provide continuous, one-on-one emotional and informational support during the perinatal period. Doula care is associated with lower epidural use and Caesarean delivery rates, shorter labour, higher rates of spontaneous vaginal birth and higher levels of satisfaction (Kozhimannil et al 2016:309).

If midwives respond to the individual woman's need for support, she is likely to have a positive birth experience, even if the birth is protracted or there are medical complications. To support women experiencing pain during labour is an important task of the midwife (Bergh, Johansson, Bratt, Ekstrom & Marten 2015:14). The 'With woman' principle states that the professional midwife cares for the childbearing woman and her family. This caring within the professional domain is seen as the core of midwifery. A good midwife is like a personal guide who leads the woman and her family through the journey of the child-bearing process and whose guidance is adapted to the needs of each woman and family (Halldorsdottir & Karlsdottir 2011:806-811).

The midwife-woman relationship is seen as the cornerstone of woman-centred care where the midwife provides more than a professional relationship in terms of importance, intimacy, and intensity. The care should be consistent, respectful, and informative. Women desire to work in partnership with care providers. The midwifewoman relationship allows the woman to feel safe and supported both physically and psychologically. 'With woman' care provides women the opportunity to participate in decision making as well as in pain management (Leap, Dodwell & Newburn 2009:12). Regarding their perceptions of labour pain, Baker, Ferguson, Roach & Dawson (2001:171-179) found that neither primiparous nor multiparous women were able to make decisions regarding their method of pain relief prior to their labour as they lacked knowledge on how to use non-pharmacological methods of pain management and knew little how painful labour would be.

Maputle (2010:6) found that midwives have a powerful effect on mothers who are giving birth. They should be aware that their power to influence impacts both positively and negatively on the mothers' childbirth experience. Mothers tend to remember the specific words and actions of midwives and their satisfaction is linked to the type of care received. The presence and care of midwives often leads to a reduction of clinical interventions in labour and in the intrapartum use of analgesia.

Midwives are often very busy with procedures. The Doula as support person is not known or implemented in the hospital where the study was conducted. Despite the many benefits of doula care, hiring a doula can be costly for many women. Some may be fortunate to give birth at institutions where professional doula services are available as a standard of care. One other method for increasing access to doula care is training student nurses to serve in this role. Although an important role of the doula is to assist the client in achieving a fulfilling birth experience, the ability to do so may be restricted by policies specific to the hospital or institution (Paterno et al 2011:28). In the setting where the study was conducted, no policy restricted midwives from practising doula care.

Isolation of the woman is one of the limitations of institutionalised deliveries (de Kock & van der Walt 2004:13). According to Dippenaar and Serra (2012:336), to maintain privacy, entering of too many people in the labour room is avoided as this may increase stress to the woman. In their study to promote childbirth companions in South Africa in the public sector, Brown Hofmeyer, Nikodem, Smith and Garner (2007:7) expressed concern that women are often left alone for long periods during labour. Most women are not allowed companions or even their partner during labour

and are not encouraged to move around during the first and second stage of labour. In the Netherlands, Baas, Erwich, Wiegers, de Cock and Hutton (2015:375) found that women indicated that they did not appreciate discontinuity of care. During the entire period of pregnancy, childbirth and postpartum period, there was a strong demand for continuity of care provider. A known midwife should be present during labour and birth was the most frequently mentioned aspect (Baas et al 2015:375).

In a study on perspectives on promoting hospital primary vaginal birth, Kennedy, Doig, Tillman, Strauss, Williams, Pettker and Illuzzi (2016:336) found that doulas and childbirth educators identified childbirth education as critical to help women choose a provider and to be prepared for the realities of birth. If doula care can be practised, isolation can be overcome.

Supporting a woman during labour is an important task of a midwife and a woman's partner/doula support person to alleviate isolation during labour. It is therefore essential for a midwife to be present during monitoring of a woman in labour for continuity of care and support to the woman, and to educate the partner on how to support the woman during labour. In this study it was observed that patients in active labour were often left alone and were unattended to. It was further observed that partners of women were not encouraged to remain with the woman during labour. The partners who were present during labour were not coached or taught on how to support the woman during labour.

4.4.2 Strategies to improve isolation

The participants identified the following strategies to improve the isolation of a woman in labour:

- Nurses should create an environment that is user friendly to patients and family.
- Patients should be taught the importance of a support person during labour.
- Bedside nursing should be encouraged during labour.
- Nurses should be more engaged with the patient to prevent isolation.

- Nurses should not be procedure orientated but patient orientated to prevent isolation.
- Patient or doula support person must be with her throughout labour and orientated on how to support the woman.
- Antenatal nurses should give health education about importance of doula support person.
- Nurses should be taught never to leave patient alone during the active phase of labour.

4.5 THEME 3: THERAPEUTIC ENVIRONMENT

During data analysis, the participants identified therapeutic environment as the third theme, with one category: comfort (see table 4.4).

Table 4.4 Therapeutic environment

Theme	Category	Sub-category
Therapeutic environment	Comfort	Pillow
		Bell

4.5.1 Therapeutic environment and comfort

Under the theme therapeutic environment, comfort was identified as the only category. Patient comfort required a pillow and bed bell. The participants indicated that patient comfort was compromised as the women were nursed without pillows. It was indicated that orientation on the usage of the bed bell was not done as patients did not know that using the bed bell call the midwife in case of an emergency. In addition, it was evident that patients were nursed in a dirty room used by previous patients. Blood stains from previous patients were seen under the bed during data collection.

Regarding a therapeutic environment, the observation tools indicated:

...environment had blood stains and ruptured membranes from previous patient... (Observation tool 7)

...women in labour were nursed without a pillow... (Observation tools 4, 8, 10, 12, 13, 14, 15)

...patient left alone in the room and does not know how to use a bed bell... (Observation tools 7, 11, 16)

The place of birth may have a significant impact on women's experiences of pain in labour and birth because not all cultures are comfortable with the birthing environment and organisation in hospitals. The clinical appearance of hospital birthing rooms, coupled with associated clinical regimes and loss of privacy can alienate women and lead to feelings of loss of control (Marshall, Raynor & Nolte 2011:294; MacDonald et al 2011:524). In Ethiopia, Amdemichael, Tafa and Fekadu (2014:257) found that women were dissatisfied with the cleanliness of the hospital. However, another study in Ethiopia found that women preferred to go to the hospital in the study as the beds were without blood and the walls had been newly painted (Shifraw et al 2016:307).

When entering the room, the woman interprets the image of the bed as a powerful message that may result in increased anxiety and fear, which is not conducive. A bed without a pillow may portray a message of discomfort. In addition, the room should have an atmosphere of cleanliness and order. The physical environment should be clean, warm, safe and supportive (Dippenaar & da Serra 2012:336).

Regarding comfort nursing of patients with acute myocardial infarction, Liu (2015:3) maintains that nursing staff should maintain a good environment to improve comfort and be conducive to alleviating pain. Liu (2015:3) emphasises comfort on three levels, namely

- Physiological, which refers to the sensitivity of physical activity and physical comfort, including temperature, humidity, and noise.
- Psychological, such as the communication between health care providers and patients so that patients feel comforted and satisfied.
- Social, which refers to the social relations between patient, family and friends.

Morse, Gervais, Pooler, Merryweather, Doig and Bloswick (2016:2) emphasise the safety of hospital beds and the use of bed alarms to reduce the risk of patients falling and enhance safety. The use of a bell for patients at risk can reduce serious accidents, while unattended patients in severe pain can make use of the bed bell to get the attention of midwives and nurses. A therapeutic, clean and safe environment is essential during labour not only to prevent cross-infection and maintain patient's dignity, but to enhance the experience of labour. It is essential for the delivery room to be thoroughly cleaned after each delivery in preparation for the next patient. The midwife must always ensure that the environment is conducive for delivery and be aware that an unconducive environment may cause serious adverse events, such as infections.

4.5.2 Strategies to improve therapeutic environment and comfort

The participants identified the following strategies to make the environment more therapeutic for the woman in labour:

- Orientate patient on admission about layout of the ward, how to use bed bell,
 where showers and bathrooms are, where birth balls are.
- Provide in-service training and promote awareness on therapeutic environment for all staff in maternity ward.
- Clean beds and floor thoroughly after each delivery.
- Put patients on comfortable beds and with pillows.

4.6 THEME 4: DOCUMENTATION

During data analysis, the participants identified documentation as the fourth theme with one category: incomplete records. The participants indicated that there was no accurate and complete documentation regarding pain assessment and management.

Table 4.5: Documentation

Theme	Category	Sub-category
Documentation	Incomplete records	

4.6.1 Documentation discussion

Records are used to relay information on the health status and antenatal period to the next level of care during referral, birth and postnatal period. Complete records should be maintained at all times (Dippenaar & da Serra 2012:178). In this study, midwives did not keep accurate and complete records relating to pain assessment and management during labour.

With regard to documentation, the observation tools revealed:

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...no documentation on pain assessment done... (Observation tools 2, 3, 5)
... Documentation regarding pain management incomplete... (Observation tools 7, 8, 9)
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Accurate records during labour provide the basis for judging clinical improvement, progress or deterioration of the mother or foetus. For this reason, the notes should be kept in chronological order (Bevis 2016:429). According to the Guidelines of Maternity care in South Africa, DoH (2015:47), the rising demands on healthcare systems to deliver quality patient care as well as the increasing medico-legal cases in maternity require quality record-keeping. Audits of clinical records are an important component of quality assurance and therefore all observations, intake and output, and medication must be entered on the partogram.

In a South African maternity ward, Kruger and Schoombee (2010:85, 97) found health care severely compromised with pain relief being withheld when technically indicated. The World Health Organization (WHO 2015) reported a 1 in 300 chance of a patient being harmed during health care. Nursing records remain one of the most important communication tools that provide an accurate and comprehensive report of the care delivered to the patient (Geyer 2015:14). Documentation of the care during childbirth is primarily a guarantee that the patient received the care. Documentation of labour in the labour and delivery setting is one of the essential tasks of all health care providers who care for women in labour. Legally, if the pain assessment data is not documented on the patient's chart, the assessment never happened (Roberts, Gulliver, Fisher & Cloyes 2010:107). Midwives are obliged to keep records of the labour progress, including assessment of pain, as well as the use and effects of non-pharmacological and pharmacological pain relief (Bergh et al 2015:15).

The participants found that inaccurate and incomplete records were kept in the maternity of selected hospital. Professional midwifery misconduct is increasingly being reported for poor care at SANC and it is the midwife's role and responsibility to keep accurate and complete records in order to avoid legal action being taken in the event of malpractice. In this study, the participants observed that pain was sometimes assessed and managed by midwives and doctors, but not recorded anywhere in the obstetric book.

4.6.2 Strategies to improve documentation

With regard to documentation, the participants identified that the following strategies to improve recording of pain during labour:

- Whatever is done to the patient must be documented in the maternity records; e.g. pain assessment, what is given and evaluation of pain after every method given.
- In-service training should be done on how to record in the maternity case book: pain management implemented during labour, including the nursing care plan.
- Record pain assessment and method implemented to relieve pain like any other vital sign.

4.7 SUMMARY

This chapter discussed the data analysis and findings of the study and presented strategies to improve the midwifery care. The themes and categories identified during data analysis were discussed as well as the participants' strategies for each theme. Chapter 5 presents a final conclusion and makes recommendations for practice and future research.

5 CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

5.1 INTRODUCTION

Chapter 4 discussed and validated the research findings with reference to the literature reviewed in order to contextualize the findings. The participants and the researcher collaboratively analysed the data from the observations of workplace culture relating to pain management during the first stage of labour in the maternity ward.

This chapter concludes the study, presents the conclusions with regard to the objectives, briefly describes the limitations of the study, and makes recommendations for future study. The chapter concludes with a reflection by the researcher.

5.2 AIM AND OBJECTIVES

The researcher wished to understand how individual midwives constructed reality relating to pain management within their context. Therefore, the study aimed to explore the current workplace culture relating to pain management during the first stage of labour in a tertiary hospital in Gauteng and collaboratively plan strategies to improve pain management practices in the maternity ward.

Unstructured observation was used to collect the data. The researcher worked from an interpretive paradigm to allow and acknowledge the importance of the context. In this study the workplace culture regarding pain management during the first stage of labour was determined. Observational data collection was used to observe how the midwives assessed and managed pain in their natural setting during the first stage of labour.

5.3 CONCLUSIONS

The conclusions of this study are summarised according the four themes derived from the data, namely assessment; isolation; therapeutic environment, and documentation.

Each theme was discussed in terms of current practice (objective 1) and the strategies collaboratively planned to improve workplace culture relating to pain management during labour (objective 2) were then developed.

5.3.1 Pain assessment

Pain assessment was the first theme identified during data analysis. Strategies were collaboratively identified with the midwives who participated in the study to address assessment of pain during labour.

5.3.1.1 Current practice

During data collection, it was observed that midwives did not assess pain during labour and did not listen to patients when they indicated they were in pain. This was shown by the midwives non-verbal and verbal response to the patients. In most of the observations, the midwives were not patient friendly; the women were not supported to make decisions about how to manage their pain, and the midwives did not explain what options were available to help women to cope with pain during labour.

Assessment of pain during labour is an important aspect of the management of labour and childbirth and if not assessed and managed correctly, the woman is at psychological risk of anxiety and fear in both the short and the long term. It is therefore important that pain is assessed during labour in order to plan and implement pain management strategies which will create a positive birth experience for the woman. In addition, a positive birth experience can have immediate and long-term effects on a woman's health and her relationship with her newborn baby.

5.3.1.2 Strategies to improve pain assessment

Pain assessment during labour by health providers (midwives and doctors) may assist effective support for the woman to cope with the pain. The participants identified strategies to improve assessment of pain during labour in the unit, including asking patients frequently about pain; having a chart in the unit to rate pain out of a score of 10, and treating pain as one of the vital signs in midwifery practice (see chapter 4, section 4.3.3).

5.3.2 Isolation

Isolation was the second theme identified and the participants recommended strategies to address the isolation of patients during labour.

5.3.2.1 Current practice

The role of a midwife during labour is to support and monitor the progress of labour. This practice has a huge impact on allaying women's fears and anxiety during labour. However, in most instances it was observed that the women in active phase of labour were left alone and unattended to while the midwives were at the nursing station. When a woman in active labour is left alone, she becomes more anxious and is psychologically negatively affected by the absence of a midwife allocated for her care. Furthermore, in most instances, the midwives were disengaged from the patient. They focused on nursing procedures and did not interact with the patients during nursing procedures. Midwives are expected to render woman-centred care. It was observed that some midwives advised patients' partners or family members to go home and did not encourage them to stay with the patient for support. Doula support should be encouraged, but it is not implemented in the unit where the study was conducted. In addition, in cases where the patients' partners were available, they were sitting far from patients and did not know how to support them during labour. Most of the women whose partners were not with them during labour verbalised that they were not aware that they were allowed to have a companion during labour. Participation of a companion during labour minimises the sense of loneliness and the pain. A known companion can provide women the comfort and calmness they need to make them feel more confident and safe.

5.3.2.2 Strategies to address isolation

The participants identified strategies to address isolation of women during labour, including creating a user-friendly environment for patients and family; midwives being more engaged with the patients; nurse being patient orientated rather than procedure oriented; encouraging the practice of doula support, and nurses being taught never to leave patients alone during the active phase of labour (see chapter 4, section 4.4.2).

5.3.3 Therapeutic environment

A therapeutic environment was identified as the third theme and the participants recommended strategies to address therapeutic environment during labour.

5.3.3.1 Current practice

A therapeutic environment is necessary for a woman in labour to feel safe and cope with pain. During data collection, the rooms were found to be congested with equipment not utilised. For example, birth balls and yoga mats were seen in each delivery room but were not utilised. A therapeutic and conducive environment includes no noise; adequate light; good ventilation; cleanliness; absence of hazards; availability of patient's bed bell, and continuity of care. Most of the time, the environment was free from noise and bed odours although in some instances the environment looked dirty with amniotic liquid and blood stains from the previous delivery on the floor.

The environment was also not therapeutic due to the unavailability of the midwives during labour. A non-caring attitude was also observed because the staff left patients alone in active labour and preferred to sit around the nurse's station. Most of the patients who were left alone knew nothing about the use of bed bell. Moreover, almost all the patients were nursed without pillows and this compromised their comfort during labour.

5.3.3.2 Strategies to promote a therapeutic environment

The participants identified strategies to address the non-therapeutic environment, including orientating patients on admission to the layout of the ward and the use of the bed bell; cleaning the beds and floor thoroughly after each delivery, and putting patients on comfortable beds with pillows (see chapter 4, section 4.5.2).

5.3.4 Documentation

Documentation was the fourth theme that emerged from the data and strategies were collaboratively identified and recommendations made.

5.3.4.1 Current practice

During data collection, it was evident that documentation regarding pain assessment and management were not accurately kept. The effect of the pain medication the women received during labour was not reflected on the partogram, as the legal document to record all actions taken during labour. In one instance where a birth ball was utilised as a non-pharmacological method to help a woman cope with pain, no documentation was done in any of the nursing records pertaining to that method. Documentation is an important aspect in the nursing profession. Only through effective documentation one can render quality care to patients without adverse events, such as giving an overdose of pain medication to a patient or omission of pain relief during labour.

During the observations it was found that pain assessment was not documented and the non-pharmacological methods used to relieve pain were not documented in the patients' records. In some instances, the doctor prescribed pain medication, but administration of the medication was only documented on the prescription and not in the maternity records. If not personally informed by the doctor, the midwives were not always aware that they had to administer pain relief.

5.3.4.2 Strategies to improve documentation

The participants suggested strategies to address documentation, including in-service training on how to record pain management implemented during labour, as well as the nursing care plan, in the maternity case book, and recording pain assessment and method implemented to relieve pain like any other vital sign (see chapter 4, section 4.6.2).

5.4 RECOMMENDATIONS

Based on the finding that pain is not managed correctly during labour and that severe pain during labour can hinder normal physiological birth, the following recommendations are made with regard to the workplace culture relating to pain management during the first stage of labour.

5.4.1 Practice

Assessment of pain during labour is vital and therefore should be treated as any other vital sign such as temperature, pulse and respiration. Ongoing in-service training should be done in maternity wards emphasising the importance of pain assessment during labour.

Isolation of woman experiencing pain during labour is an unacceptable midwifery practice as the women can end up having negative experience of labour which will affect their future pregnancies. Ongoing in-service training in the form of workshops should be provided on the importance of a companion during labour. The importance of bringing a dedicated companion with the pregnant woman during admission and in labour should be emphasised. The companion person should be coached by the midwife on how to support the woman during labour. Midwives should be at the patient's bedside whether the woman has a companion or not.

With regard to providing a therapeutic environment, a "no noise" sign should be displayed at the entrance to the ward and in every labour room. The environment should have light, be properly cleaned after every delivery, and be without hazards. There must be bed bells and education should be given to patients on how to use them.

Recording does not have to be done at the nurses' station, but can be done at the bedside of the woman in labour. If care is not documented, it is regarded as not having been done. Most litigation cases are midwifery related. The labour ward manager should do daily in-service training on the importance of record-keeping.

5.4.2 Management

The importance of pain assessment should be included in the ward policy with great emphasis on how and when to assess pain, including implementation of strategies to cope with pain during labour. Pain assessment should also be included in the SANC Regulations on the conditions under which registered midwives and enrolled midwives may practise their profession.

To prevent isolation of the woman in labour, hospital policy should address the use of the nurses' station. In order to allow them more time next to the patient's bedside, midwives should not be allowed to sit at the nurses' station. Ward policies and protocols should emphasise basic care aspects, such as touch, communication and interacting with patients during nursing procedures.

To maintain a therapeutic environment, the cleanliness of each labour room should be inspected after every delivery by the designated person responsible for cleaning staff. Cleaners should be available 24 hours in maternity units to make sure that the delivery rooms and equipment are cleaned after each delivery.

Policies and guidelines should put more emphases on documentation of pain assessment and management and the recording of the pain relief the woman had during labour. Management should allow and send midwives to attend SANC disciplinary hearings to make them aware of the importance of record-keeping.

5.4.3 Education

In addition to pain management, pain assessment should be included in the curriculum as a skill to be learned by student midwives and doctors. To prevent isolation during labour, the curriculums of tertiary institutions should put more emphasis on the importance of a support companion. Curriculums of student midwives and doctors should be entrenched with the importance of a therapeutic environment.

Midwifery symposiums and seminars recording should be presented on a frequent basis. Documentation cannot be emphasised often enough during the training of midwives and doctors.

5.4.4 Future research

The researcher recommends that further research be done on the following topics:

- Workplace culture relating to pain management during labour in other settings,
 such as other provinces and private hospitals
- An exploration of the implementation of a user-friendly labour pain assessment tool that can be standardised for all women in labour (If midwives know how

- much pain a woman has, non-pharmacological pain relief methods can be implemented during the first stage of labour.)
- Barriers preventing midwives from implementing non-pharmacological pain relief methods in labour
- Midwives' perceptions of collaboration between midwives and doulas for optimal support of women during labour
- An investigation of the support needs of women during labour
- Factors contributing to the therapeutic environment and cleanliness of maternity units
- The challenges faced by midwives in completing and accurately recording midwifery care during labour

5.5 STRENGTHS AND LIMITATION OF THE STUDY

The strengths of this study were that the midwives were actively involved during data collection and analysis and collaboratively planned strategies to improve pain management practices in the maternity ward. The participants took part in a workshop to analyse the data. A limitation is that the study was conducted in only one setting and the findings therefore cannot be generalized to other maternity units.

5.6 PERSONAL REFLECTION

When I started with the study, I only identified a problem in midwifery practice and did not know how to tackle it until it was answered. Through my supervisors' and the participants' guidance, I was able to see the light in the end of the tunnel. The whole process was not easy; I had no knowledge about the topic, and consequently felt like quitting on several occasions. Without my supervisors' support, I would not have completed the study. Through reading the articles and other literature reviewed, it became clear that the problem identified as the reason for the study was not only happening at the selected hospital but in other institutions as well.

I also found that not much research had been done on pain assessment and management during labour. Through searching and reading all the studies and articles, I can now say without any doubt that I enjoy reading. The part I enjoyed most in the study was data collection. Through using observation as the data-collection method I learned how to become an expert in observation. Using all one's senses to observe something is important during observation and this helped me to apply the same perspective in my daily work. Moreover, the findings of each observation with each of the co-observers indicated that there was a real need to do something to improve midwifery practice.

During data analysis, I came to realize how different people interpret workplace culture relating to pain management during labour. Some of the themes, categories and subcategories identified were things I had never thought about. Including midwives as participants in the process made all of us learn from one another. It also raised awareness amongst the participants of the current workplace culture relating to pain management during labour and what strategies could be implemented to improve it. By involving participants in planning the strategies together with me increased the likelihood of the participants implementing them. According to adult learning principles, adults do not like to be told what to do but would rather participate and in conjunction decide what to do, and this is exactly what was done when we collaboratively planned the strategies.

I learned a great deal about the current workplace culture relating to pain management during labour. I have also become aware of my role in the current workplace culture. Implementing the strategies should improve current pain management practices and patient care and reduce litigation in midwifery practice.

5.7 FINAL CONCLUSION

Midwives are responsible for assessing pain during the first stage of labour. Their role includes non-pharmacological and pharmacological management of pain during labour, which involves reassessing the pain to evaluate the effectiveness of interventions given. Pain during labour, especially when severe and prolonged, can have harmful effects on the patient as well as the foetus. However, labour pain was infrequently assessed and managed in the selected hospital. The study therefore

wished to understand the workplace culture relating to pain management during the first stage of labour. A qualitative research design was used to explore the workplace culture of midwives regarding pain management during labour. Data was collected by observation and analysed using the creative hermeneutic method. The study findings concluded the following about selected hospital:

- Pain was not assessed and properly managed during the first stage of labour.
- Patients were left alone for long periods during labour, while most of the partners were advised to go home and return after delivery. Those present during labour had no knowledge of how to support the women.
- The environment was found non-therapeutic.
- Pain assessment and management was not documented during labour. Pain interventions provided to patients were not re-evaluated by midwives for their effectiveness or not.

Trustworthiness was adhered to with truth value, applicability and authenticity. Ethical principles were adhered to and the researcher will disseminate the findings of the study by giving feedback to the management and midwives of the selected academic hospital and publication of the findings.

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ANNEXURE A1 ETHICS APPROVAL

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- GCP guidelines and has US Federal wide Assurance.

 FWA 00002567, Approved dd 22 May 2002 and Expires 20 Oct 2016.
- Expires 20 Oct 2016.

 IRB 0000 2235 IORG0001762 Approved dd 22/04/2014 and Expires 22/04/2017.



Faculty of Health Sciences Research Ethics Committee

15/01/2016

Approval Certificate New Application

Ethics Reference No.: 449/2015

TITIE: WORKPLACE CULTURE OF MIDWIVES RELATING TO PAIN MANAGEMENT DURING THE FIRST STAGE OF LABOUR IN A TERTIARY HOSPITAL

Dear Molatelo Kgodane

The **New Application** as supported by documents specified in your cover letter dated 13/01/2016 for your research received on the 13/01/2016, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 15/01/2015.

Please note the following about your ethics approval:

- Ethics Approval is valid for 1 year
- Please remember to use your protocol number (449/2015) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Research Ethics Committee regarding your research.
 Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, or monitor the conduct of your research.

Ethics approval is subject to the following:

- The ethics approval is conditional on the receipt of 6 monthly written Progress Reports, and
- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

Dr R Sommers; MBChB; MMed (Int); MPharMed.

Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

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Permission to do Research

From: M M Kgodane Steve Biko Academic Hospital 012 354 2847/0822688753

To: Chief Executive Officer

I am a researcher working at High risk Antenatal ward, Steve Biko Academic Hospital. I am requesting permission to conduct a study in the maternity ward of Steve Biko Academic Hospital that involves accessing midwives working in maternity ward.

The title of the study is: Understanding the workplace culture relating to pain management during the first stage of labour. I intend to publish the findings of the study in a professional journal and/or at professional meeting like symposia, congresses, or other meetings of such a nature.

I furthermore request in terms of the requirements of the Promotion of Access to Information Act. No. 2 of 2000 that I be granted access to clinical records, files and databases. I undertake not to proceed with the study until we have received approval from the Faculty of Health Sciences Research Ethics Committee, University of Pretoria.

Yours sincerely

MM Kgodane

Signature of the Principle Investigator

9/11/2015

Permission to do the research study at this hospital and to access the information as requested is hereby approved.

Chief Executive Officer:

Dr E Kenoshi

Signature of CEO Date & 9・1 え、& 40 45・

GAUTENG PROVINCIAL GOVERNMENT
DEPARTMENT OF HEALTH
STEVE BAC ACADEMIC HOSPITAL
HOSPIES GATE BALL 189 PRETCRA COST
GAUTENG PROVINCIAL GOVERNMENT TO DEPARTMENT OF HEALTH



ANNEXURE B

Observation tool: Workplace culture relating to pain man	nagement during the first stage of labour
	-10/130.
Observer 1	Observer 2
Name in print: M.M. Kgoolone	Name in print: D. HANS
Signature: Woolane	Signature:

Content observed	Observation notes	Questions arising
What impression did you get regarding nurses assessment for pain? (you should consider when, how often and what nurses ask patients relating to pain)	-Nurse asked tow are you?	Questions arising
What did you hear, see and feel regarding patients pain experienced during the first stage of labour?	- Pt in bouh, having strong Contractions.	•
respond; are nurses patient friendly)	PG non verbal cues indicale that she is in pain, lout hurses are no responding to her. Nurses concentrate or basic routine care and not	



Content observed	Observation notes	
How do patients express that they	Pt verbalised to Olosevers	Questions arising
have pain (consider verbal and non-	The verboursed to Vioseners	<i>a</i> 1
verbal cues)	that she is in pain, nurses not	N'esert
-	Non Verbal: Facial expression	}_
	Crimace and Breathing heavily	2
Is pain experienced and managed	Nothing considering vicinity	
recorded in nursing documentation? (how often; ways of reporting)	-Nothing recorded in the st	
(Herrich, Ways of reporting)	tile. Pho in the ward laut no	
	admission, records for this	
Mank to 12	hospital only from referring hosp	
What type(s) of coping strategies do patients implement to manage or	Dr told pt to do breating	
	Over Color of Color princeton	- Why was the pt
nobilising, partner rubbing their	exercises during contractions	
back)	- Observer 1 intervened and	outine and no man
	rulohed the ptis back.	present to support
Are women supported to make	· · · · · · · · · · · · · · · · · · ·	the pt.3
recisions about how to manage their t	- No Midwife present.	
oain (do the nurses explain what	-Dr explain to the textient	
options are available; are patients	or expect to the fedicin	
process; patients engaged in	that she can have an	
lecision-making; active role in their	injection for town.	
lecision-making relating to pain nanagement)		
are partners actively involved with		
ain management strategies during	No support person present.	- Are patients informed
ne first stage of labour (rubbing	Her Mother and friend come	host they are allowed
ack; comforting; supporting)	with here but total them of	o have and authorities
	o (go home because she was not	pregent durne 10 h
	Days one four have a support	- o Catour



Content observed	Observation notes	Questions arising
Is the environment conducive to cope with pain experienced (noise level; smells; availability of nurses; staff attitudes)	Noise Wel quist but IVAC alanung whole time ignored by Enough staff on clusty but in with batient sitting at hurses s	nules
women during the first stage of labour (Pethidine; Aterax; Entonox; Spinal and for Epidwal appethesia)	Altitudes Not rude, but not supp -Nonectronided at this stage! Drawd she will prescribe? Pothidne if the Fite pattern is soutisfactory/normal	
	-CTG was having a suspicious enough staff on duty but he only one con	no one authoriting the
- Midwife left the - Staff disangages procedures and n - Chowing no under	patient; or was mostly of from the patient of caring or being out standing for the fatien	with the portient. cussing more an factive. its fain,



ANNEXURE C1 PARTICIPANT LEAFLET

INFORMATION LEAFLET FOR PARTICIPATION AND CONSENT

STUDY TITLE:

UNDERSTANDING THE WORKPLACE CULTURE RELATING TO PAIN MANAGEMENT DURING THE FIRST STAGE OF LABOUR

INTRODUCTION

You are invited to volunteer for a research study on workplace culture of pain management during the first stage of labour. This information document is to help you decide if you would like to participate. Before you agree to take part in this study, you should fully understand what is involved. If you have any questions, which are not fully explained in this document, do not hesitate to ask the investigator. You should not agree to take part unless you are completely happy about all the procedures involved.

- 2) THE NATURE AND PURPOSE OF THIS STUDY
 The purpose of the study is to uncover the workplace culture of pain management during the first stage of labour and to interview and explore midwives beliefs relating to pain management in labour which will help to address challenges relating to poor management of pain during labour. Your participation and inputs in this regard is of utmost importance.
- 3) EXPLANATION OF PROCEDURES TO BE FOLLOWED The study will involve the following:
- Preparing the midwives for observation
- Observation tool to be pilot tested
- Reflection and critique
- Data analysed in a systematic way
- RISK AND DISCOMFORT INVOLVED

No risks and discomfort involved. The information you provide will be confidential and your name will not appear in any article or research report forthcoming from the research.

POSSIBLE BENEFITS OF THIS STUDY

The study will raise awareness of current midwifery labour pain management practices and workplace culture and will assist with planning of strategies to address the current workplace culture relating to pain management during the first stage of labour. The findings of the study will help the researcher to make recommendations to address: challenges faced during pain assessment and barriers to pain relief in labour. If those challenges are addressed, it might assist in preventing long term negative memory regarding labour and reduce litigations by patients whose labour pains were untreated.

- 6) ETHICAL APPROVAL REGARDING THE RESEARCH STUDY
 This Protocol was submitted to the Faculty of Health Sciences Research Ethics
 Committee, University of Pretoria, telephone numbers 012 3541677 / 012 3541330 and
 written approval has been granted by that committee. The study has been structured in
 accordance with the Declaration of Helsinki, which deals with the recommendations
 guiding doctors in biomedical research involving humans/subjects. A copy of the
 Declaration of Helsinki may be obtained from the investigators should you wish to review
 it.
- I MAY AT ANY TIME WITHDRAW FROM THIS STUDY.



8) I UNDERSTAND THAT IF I DO NOT WANT TO PARTICIPATE IN THIS STUDY, I WILL STILL RECEIVE STANDARD TREATMENT FOR MY ILLNESS.

9) INFORMATION

The contact person of this study is Margaret Kgodane. If you have any questions or concerns about the study, you are free to contact me at work (012)3542847 or 0822688753. You are also welcome to use my email address at margaretkgodane@yahoo.com. You may contact my supervisor, Dr Mariatha Yazbek at work (012) 3542563.

10) CONFIDENTIALITY

All records obtained whilst in this study will be regarded as confidential. Results will be published or presented in such a fashion that participants remain unidentifiable. After the researcher has analysed the data obtained, a report will be written and findings will also be given to participants and management of the respective institutions. The research reports will not include any detail by which participants can be identified.

CONSENT TO PARTICIPATE IN THE STUDY

I hereby acknowledge that the researcher has fully informed me about the nature, process, risks, discomfort and benefits of the study. I have received, read and understood the information leaflet and informed consent pertaining to the study. I am aware that the results of the study including personal details will be anonymously processed into research reports.

My participation in this research study is completely voluntary. I had time to ask questions and concerns. I have no objection to participate in this study. I understand that there is no penalty should I wish to discontinue with the study and my withdrawal will not affect me in anyway. I have received a signed copy of this informed consent agreement.

Participant's name	(Print)
Participant's signature	DateWall.Walle
Researcher's name	(Print)
Researcher's signature	Date. 14/4/2016
Witness's name	
Witness's signature	Date 1404/16



ANNEXURE D1 DATA ANALYSIS WORKSHOP





ANNEXURE D2 AGENDA DURING WORKSHOP



Wednesday 14 April 2016 13h00 to 15h00 Maternity Unit

Agenda

Action planned	Time frame	Responsible person
1. Welcome	5 min	Magaret
2. Opening move	10 min	Tanya
3. Ground rules and discussion	5 min	Tanya
4. Data analysis	60 min	Ilze
5. Planning strategies	20 min	Ilze
6. Video	5 min	
7. Closing move	10 min	Tanya
8. Thank you	5 min	Magaret

Be the change that you wish to see in the world

Mahatma Gandhi



ANNEXURE E LETTER FROM EDITOR

Cell/Mobile: 073-782-3923 53 Glover Avenue

Doringkloof

0157 Centurion

30 January 2017

TO WHOM IT MAY CONCERN

I hereby certify that I have edited Margaret Kgodane's master's dissertation, *Understanding the* workplace culture relating to pain management during the first stage of labour, for language and content.

IM Cooper

lauma M Cooper 192-290-4



ANNEXURE F PHOTO OF A3 PARTICIPANTS STRATEGIES TO IMPROVE PRACTICE

