

## WORKPLACE CULTURE OF MIDWIVES REGARDING PAIN MANAGEMENT DURING THE FIRST STAGE OF LABOUR

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### Abstract

**Background:** Severe unbearable pain leads to maternal exhaustion, prolonged labour and foetal distress and needs to be managed. The management of pain during the first stage of labour is affected by workplace culture. It was observed that pain is not relieved during labour, and it was not clear when and how labour pain was assessed, and pain relief implemented. There is value in understanding workplace culture in an organization as change is often necessary.

**Aim:** This paper aims to understand the workplace culture of midwives regarding pain management during the first stage of labour by observing current practices.

**Methods:** A qualitative structured participant observation was used to observe the labour pain management practice of midwives and doctors in 18 structured sessions lasting over 19 hours in a central hospital in Gauteng province, South Africa. Structured participant observation involved midwives working permanently in the labour ward as co-observers using a creative hermeneutic data analysis.

**Results:** Two main themes emerged from the data collected: pain assessment and isolation. Midwives and doctors assessed labour pain poorly or not at all and did not implement pharmacological or non-pharmacological methods of pain relief. Women in labour were left alone for periods exceeding 30 minutes without a partner or other support person.

**Linking Evidence to Action:** This study suggests that the current workplace culture in the labour ward includes not assessing or treating (pharmacological and non-pharmacological) women's pain during the first stage of labour. Pain management strategies should be collaboratively planned with midwives to improve the management of pain during labour and the attitude towards support persons.

**Keywords:** Workplace culture, pain management during labour, midwife

### Background

Pain management during labour is included as a standard of quality of health care recommended by the World Health Organization (WHO) as most women experience pain during labour (McCauley, Danna, Mrema, & van den Broek, 2018:444). Labour is often associated with a painful experience where the pain is linked with intense worry, panic and depression especially when the progression of labour is delayed (Aziato, Acheampong & Umoar, 2017:73). Emotional, motivational and cognitive pain dimensions influence the experience of labour pain. It includes inter-related psychological factors such as self-efficacy, pain-related fears, pain coping strategies, as well as the relationship with midwives and personal characteristics of midwives (Klomp, Witteveen, de Jonge, Hutton, & Lagro-Jannen, 2017:96). Other factors include the medical care received, companionship during birth, cultural background and language barriers of the women in labour as factors that can affect the expression of pain (Navarro-Prado, Sánchez-Ojeda, Marmolejo-Martín, Kapravelou, Fernández-Gómez and Martín-Salvado 2022:836).

Although labour is a physiological process, pain during the first stage of labour sometimes requires non-pharmacological or pharmacological pain relief (Ogboli-Nwasor, & Adaji, 2014:23). Breathing and relaxation techniques, warm showers or water immersion, acupressure or acupuncture, movement/yoga, use of the birthing ball, heat or cold application, touch and massage and music therapy, are recommended as nonpharmacological strategies. Regional or local analgesia (epidural analgesia or pudendal nerve block) and systemic analgesia (inhaled nitrous oxide and intravenous opioids) are recommended as pharmacological strategies (Jin, & Son, 2021:450). Complementary therapies to manage pain during childbirth include body-mind interventions, alternative medical practice, manual healing methods, immersion in water and Swiss ball, aromatherapy, auriculotherapy and transcutaneous electrical nerve stimulation (Palet-Rodrigues & Torrubia-Pérez 2023:481).

The decision of which option to use and implementation of the actual interventions are affected by the workplace culture of pain management. There is value in understanding the workplace culture in an organization as change is often necessary (Adams, Dawson, & Foureur, 2017:120). Workplace culture is associated with the quality of care, nurses' working habits, and organisational results (Hahtela, Paavilainen, McCormack, Helminen, Slater, & Suominen, 2015:470). It is connected to organizational commitment and work satisfaction (Lok, Rhodes, & Westwood, 2011:506). Workplace culture also includes the beliefs of staff, their collective values, customs, social behaviour and assumptions peculiar to a specific workplace (Catling & Rossiter 2019:470). Workplace culture not only affects the experiences of midwives but also the women they care for (Catling & Rossiter, 2019:471). The interpretation of pain is dependent on the social and cultural understanding of the woman in pain as well as the observer (Whitburn et al., 2019:30). In addition, interpretation and response to pain during childbirth contribute to pain management (Davis, 2019:56).

Management of labour pain can have an impact on the quality of life of women and their birth experiences. For women to have a positive childbirth experience, pain during labour needs to be assessed and managed correctly. Pain management is a critical aspect of patient care and depends on the skills of health attendants (Ohaeri, Owolabi & Ingwu, 2019:4). Labour ward midwives sometimes underestimate the pain intensity at the level that most mothers described their labour pain as severe (McCauley et al., 2018:444). In addition, pain estimates of midwives may be biased in relation to empathy, years of experience and number of times they had given birth (Williams et al., 2013:86). Reasons for poor management of pain in Canada included under-recognition of pain, lack of education regarding pain assessment, and grossly inadequate pain management research (Lynch, 2011:78). Pain management options in low resource settings often depend on the health system capacity, knowledge and attitude of healthcare providers (McCauley, Stewart, & Kebede, 2017:444), and is associated with respectful maternity care.

Pain relief was available in the study hospital, but the first researcher observed that pain was not relieved during labour, and it was not clear when and how labour pain was assessed, and pain relief implemented. Observing the current pain management practices of midwives raised awareness of the workplace culture of midwives regarding the management of pain during the first stage of labour.

## **Methods**

### **Design**

A qualitative descriptive design was used to obtain data to create a picture of how the workplace culture was related to midwives' pain management of women during the first stage of labour.

### **Setting and Sample**

The study was conducted in a labour ward of an academic hospital in Gauteng, a province in South Africa. The hospital is an academic referral hospital for tertiary and district hospitals and community midwife obstetric units. The selected hospital has 845 beds, of which 18 are dedicated to the labour ward. The maternity ward includes ten high-care beds for high-risk obstetric patients, six delivery rooms where patients give birth, and two admission rooms where pregnant women are assessed before admission. Nineteen permanently employed midwives work 12-hour shifts in the ward, three midwives per shift. An average of 450 women are admitted to the ward per month. Approximately 250 women give birth vaginally and may require pain management during the first stage of labour. All three researchers were midwives (two were midwife specialists) and were familiar with the ward. The population included all midwives working in the labour ward. Inclusion criteria were midwives who were permanently employed at the hospital and worked a minimum of 40 hours per week. Convenience sampling was used as the observation was dependent on the willingness of the midwives to participate (being observed) and their availability to act as co-observers. In this study, a convenience sampling approach facilitated easy collection of primary data as the midwives were readily available.

### **Ethical considerations**

Ethics approval was obtained from (blinded for review) as well as the hospital before commencing the research. A copy of the proposal as well as an ethics approval letter were made available to all staff. The researchers met with top and middle management followed by information sessions for midwives at ward level to discuss the aim and value of the study. The information sessions were held during day and night shifts to ensure all midwives were aware of the study. Emphasis was placed on the observation process and participatory data analysis. All questions related to the study were addressed. The researchers indicated that the observation process would not influence their routine work and emphasized the importance of continuing with their normal routine without fear that their performance was being

observed. During these sessions, the participation information and informed consent leaflets were distributed and signed by those who volunteered to participate. To ensure respect for the participants, the information obtained from them was kept confidential and the names of the participants were not included throughout the research process. Participants were reminded that they could withdraw from the study at any time.

### **Data collection, trustworthiness and analysis**

Participant observation was chosen as data collection method to collaborate with the midwives to co-observe the existing workplace culture relating to the management of women's pain during the first stage of labour in a natural setting (labour ward) while they performed their everyday duties (including focusing on pain management practices during labour). Participant observation gave access to routine-like situations for the participants that would be otherwise difficult to capture. The midwives were made aware of the current workplace culture through observation and, if willing to make changes, can lead to transformation (Lynch et al., 2018:78).

A structured participant observation tool was used to collect data. The midwives who volunteered to act as co-observers received the observation tool to familiarize themselves with the content beforehand and dates and times to be observed were arranged in advance. All women in labour were informed about the observation at the start of the shift and that the focus of the observation was on the midwives' pain management practices and not on them.

Data was collected over two months. The observers made sure they could see and hear each patient and midwife to collect the correct data. As the observers were not involved during the care of women in labour, they tried to minimize the Hawthorne effect. The Hawthorne effect refers to the constant awareness participants have when studied and the possible impact it can have on their behaviour (Polit, & Beck, 2021:788). To minimize the Hawthorne effect, observers dressed in uniforms to blend into the ward. Prolonged engagement attributed to credibility by gaining an in-depth understanding of the pain management workplace culture and building trust and rapport with the participants, which was essential to collecting rich data. We recognized that observation is time-consuming, and that transferability would not be obtained as the observation was done in a specific context. We acknowledged that the co-observers were inexperienced observers and required additional time to collect rich data and achieve data saturation. We were aware that the co-observers might be biased during observation which could influence the trustworthiness of the data collected, and therefore spent time reflecting on what was observed, making sure our notes were correct throughout the data collection process.

First, a pilot study was conducted. The first and third authors conducted two observation sessions as the first author was not familiar with the data collection method. The findings of the two observation sessions were not used in the study. The researchers then continued with the observations with a co-observer (midwife) during each session. Each observer took their own field notes during an observational session to enhance the effectiveness and reduce bias. At first, observations took longer and the observers found they had to observe practice for 30 to 45 minutes at a time. As time went on, the observers became more proficient, and the observation time was reduced to 15 to 20 minutes.

After each observation session, the researcher clarified any uncertainties with the co-observer to understand the practice observe prevent making false assumptions and gain a deeper understanding of the observed data. A total of 18 observation sessions (19 hours and 15 minutes), ranging from 30 to 180 minutes were done during day and night shifts, including weekdays and weekends. Data saturation was reached after 14 observations (when nothing new was observed) and an additional four observation sessions were done to ensure that data saturation had been achieved.

The creative hermeneutic data analysis process was used. The data analysis process allows the meaning of the data to emerge through subjective interpretation by the participants, rather than through intellectual analysis (Polit & Beck, 2021:783). The data analysis process includes art allowing participants to new ways of seeing and understanding. Collaborating with the midwives during the data analysis process raised awareness of the existing pain management practices and enhanced the possibilities of the midwives implementing change in practice.

All midwives involved in caring for women in labour were formally invited to collaborate in the data analysis. An invitation poster was visibly displayed at the nursing station and entrance to the labour ward. Seven midwives were involved in the data analysis process. The session took place during lunch in the labour ward tearoom, which was convenient and accessible for participants, and did not interfere with patient care.

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. The third author facilitated the process, using the following steps:

- Step 1: Participants were divided into two groups – one group with three and one with four participants. The participants were asked to read through all the observational notes and form their own general impressions, observations, thoughts and feelings about the data.
- Step 2: Participants were asked to create a visual image that captured the core idea of what they had read.
- Step 3: Participants then had to tell a co-participant a story of the image. The co-participant listened attentively and wrote down the main ideas.
- Step 4: Using the creative images as centrepieces as well as the captured stories, the participants in the small groups discussed their interpretation of the data, developed themes and once consensus was reached on the themes, wrote those themes on a piece of paper.
- Step 5: Every participant presented one or more of the identified themes to the entire group for discussion and consensus was reached on the final themes and categories. Each participant then noted down three strategies on separate sticky notes that could be implemented to improve pain management during labour.

At the end of the process, the final themes and strategies were showcased on an A3 sheet of paper. 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.

## Results

A total of 19 hours and 15 minutes of observation were carried out. Table 1 presents a summary of the timeframe of the participant observations.

**Table 1**

Summary of the participant observations

Interview	Time	Timeframe (hours:minutes)
1	07:15 to 08:30	1:15
2	15:00 to 15:30	0:30
3	12:30 to 13:45	1:15
4	15:30 to 16:30	1:00
5	09:00 to 10:00	1:00
6	08:35 to 09:40	1:05
7	09:55 to 10:30	0:35
8	14:45 to 15:15	0:30
9	11:00 to 12:10	1:10
10	09:00 to 10:20	1:20
11	14:35 to 15:40	1:05
12	10:00 to 11:20	1:20
13	22:00 to 00:30	2:30
14	20:00 to 21:05	1:05
15	10:00 to 11:00	1:00
16	11:00 to 11:30	0:30
17	08:30 to 09:30	1:00
18	19:00 to 20:00	1:00
<b>Total</b>		<b>19:15</b>

Two themes emerged from the data analysed. Pain assessment included the midwives and doctors, and isolation included the midwives and partners of the women in labour. Table 2 presents a summary of the themes, categories and subcategories.

**Table 2: Summary of the findings**

Themes	Category	Sub-category
Pain assessment	Midwives	Availability of midwives
		Non-pharmacological pain management
		Backrub
		Breathing
Isolation	Doctors (obstetricians)	Mobilizing
	Midwives ('with women')	Pharmacological pain management
		Disengaged
		Nurses station
Partner	Partner	Procedure orientated
		Absent
		Waiting area
		Uninformed

### 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:

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

Midwives and doctors are responsible to assess pain during labour. The researchers 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 present:

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

The category of midwives had two sub-categories, namely unavailability of midwives and non-pharmacological management. The participants observed that midwives were rarely in the room with the woman in labour and left her alone for periods exceeding 30 minutes:

*Patients were left alone* (midwife not available) (Observation tools 2, 3, 4, 5, 6, 8, 13, 14) and *no support and teaching were provided to the patients regarding the use of non-pharmacological management of pain during labour* (Observation tools 4, 8, 10, 12, 13, 14).

Midwives did not implement back rubbing, breathing exercises, relaxation techniques and mobilizing. As the setting is in an academic hospital, doctors are available 24 hours. The participants also observed that the doctors were not assessing pain during labour and therefore did not prescribe pain medication. Pharmacological, physical and psychological methods of pain relief were available to women in labour in the setting where the study was conducted:

In the absence of a midwife, *the patient was screaming and advocated for herself by requesting the doctor to prescribe pain medication as she could not bear the pain anymore* (Observation tool 9). *The patients were breathing heavily and screaming due to pain, no pain medication was given* (Observation tool 2, 11, 13). *In one patient a pethidine injection was given but the doctor or midwife did not evaluate whether pain was relieved or not and the patient was still in pain* (Observation tool 14).

During data analysis, the participants identified that pain assessment during labour was not done. Midwives were not educating pregnant women in labour on the use of non-pharmacological pain management whilst obstetricians were not assessing pain and not prescribing pharmacological pain relief methods. The participants identified the following strategies to address pain management in labour:

- The patient should be frequently asked about pain 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 a 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 or developed for the woman in labour to assess her pain and apply care based on pain assessment.

### Theme 2: Isolation

The participants noted the midwives seated at the nurse's station were disengaged from their patients and focused on midwifery procedures only. Woman-centered care was not implemented and not all partners were allowed to stay with the women during labour. Midwives advised some partners to wait in the waiting area or go home and return after the birth. Partners present during the birth did not know how to support the woman. Most of the women in labour were not informed about the importance of a partner or doula and therefore did not bring their partners or another support person along:

*The midwives were disengaged, and patients were left with student midwives (Observation tools 7, 8, 10). The patients were alone whilst the midwives were sitting at the nurse's station (Observation tool 8), and when the midwives were working, they were procedure-orientated (Observation tools 7, 8, 9). The women's partners were either absent (Observation tools 5, 6, 8, 19) or sitting in the waiting area (Observation tools 11, 17).*

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

### Discussion

To our knowledge, this is the first study to investigate workplace culture related to pain management during the first stage of labour. Negative effects of severe pain during childbirth may lead to dystocia, maternal exhaustion, foetal distress and posttraumatic stress disorder after the birth (Chaillet et al., 2014; Rooks, 2012:124). According to Almutairi, Aditya, Kodriyah, Yusuf, Solikhah, Al Razeeni and Kotijah (2022:2415), 30-40 per cent of patients do not receive treatment based on scientific evidence. The workplace culture can be created and can be measured per accepted norms, values and policies. Workplace culture is affected by management and the environment and reflects the attitudes and behaviour of health care professionals. Key cultural determinants in quality care delivery include ethical values, professionalism, commitment to quality, and strategic thinking. Organisational factors include resources, incentives, workload, structure, supervision, and leadership. When a company has a strong workplace culture, the work atmosphere is more disciplined. This research stemmed from the author's belief that pain during labour was not assessed and managed. Observation was undertaken during day and night shifts and the midwives collaborated in the data analysis. The two themes that emerged from the analysis were pain assessment and isolation.

Pain assessment included the midwives and doctors, and isolation included the midwives and partners of the women in labour. Severe labour pain requires appropriate assessment and management to ensure a positive childbirth experience (Baker, Ferguson, Roach, & Dawson, 2001:172). Women are becoming more aware of their rights to better quality of care and pain relief during labour (Ogboli-Nwasor & Adaji, 2014:22). Pain assessment is the first step in understanding pain as patients experience it, provides the basis for planning the management of the pain with analgesia, enhances maternal satisfaction, and facilitates appropriate obstetric decision making (Carvalho & Cohen, 2016:8). Labour pain can be assessed by entering a pain score on a pain rating instrument where after pain relief should be provided for the patient with an elevated score (Blinded reference, 2016). In addition, women's perceptions of childbirth can also be measured (Yadollahi, Taghizd, Ebadi, & Khormaei, 2019:130). Midwives and doctors are responsible for assessing and managing labour pain but may be more interested in the progress of labour and the prevention of complications (Rachmawati, 2012:364). The birth records in the study hospital do not contain a standardized labour pain assessment tool. Few midwives and student midwives asked women to rate their pain on a scale of zero to ten correlating with the numerical rating scale. Bishaw, Melesse and Aynalem (2022:2) found that obstetric caregivers in Ethiopia had a negative attitude towards pain management. The majority believed that pain is natural, the mother has to face it, and

pharmacological methods to manage the pain are not necessary. Their attitude was affected by training, the presence of companions, and knowledge about pain relief methods. The midwives in this study collaborated with the data analysis and collectively suggested strategies such as refresher courses, implementation of protocols and pain assessment tools to raise awareness regarding pain management during labour.

Midwifery care during labour includes meeting the needs of women, including pain assessment and management (Halldorsdottir & Karlsdottir, 2011:810). Proper pain assessment requires obtaining verbal and non-verbal pain information. Midwives often use non-verbal communication such as facial expressions and body language to estimate pain, which may result in an underestimation of pain. Both women in labour and midwives may underestimate mild to moderate pain, and midwives may underestimate severe pain, failing to provide adequate pain relief for women during labour (Bergh et al., 2015:17). Midwives should adopt a woman-centred approach during labour which demands pain assessment according to the individual needs of the woman (Adams, 2016:108; Chaillet et al., 2014:122). In the study setting, women were not encouraged to walk and make use of non-pharmacological pain methods such as back rubbing, breathing and relaxation techniques which can shorten labour. As a woman concentrates on breathing, pain is alleviated (Cronje, Cilliers, & du Toit, 2016:89).

The participants believed the midwives did not support the patients by teaching them the importance and use of non-pharmacological methods such as back rubbing, breathing and mobilization. The use of the birthing ball was observed at times. One-to-one care was not provided which may reduce the need for analgesia, improve the birth experience for the mother, and shorten the length of labour.

Under-treatment of pain may result in maternal exhaustion. Reasons for under-treatment of pain include under-recognition of the problem and lack of education regarding labour pain assessment and treatment (Lynch 2011:78). In Sweden, pain relief during labour involves the use of nitrous oxide and minimal motor block epidural analgesia, while in the United States of America, epidural interventions are widely used (Shaw et al., 2016:2286). Obstetricians in the study setting use pharmacological pain relief methods. Intramuscular Pethidine 100mg with promethazine 25mg, inhaled Entonox® and epidural analgesia are recommended methods for pain relief during labour (Guidelines for Maternity Care in South Africa, 2015:42).

The women in this study were left alone and felt isolated. Isolation during birth is defined by Dev et al. (2019:185) as being left alone, ignored, being subject to physical immobility, and experiencing a lack of compassionate touch/care. Women in Haiti also experienced isolation due to physical immobility (Dev et al., 2019:185). The movement of the women in this study was restricted, they were confined to their rooms and denied social contact and support from their families during labour. Taylor, Howard, Jackson, Johnson, Mantovani, Nath, et al. (2021:1) relate isolation and perinatal distress during the perinatal period to perinatal depression. Women in labour need emotional support, encouragement, praise, reassurance, listening and a continuous physical presence (Iliadou, 2012:386). The presence and support provided by midwives contribute to a positive childbirth experience. Maputle (2018:210) also observed that midwives offered limited emotional support during childbirth focusing on assistive actions rather than on activities that would promote participation of women. These limited support activities of midwives indicated a lack of respect which contributed to the inability to exercise choices in decision-making. The midwives who collaboratively analysed the data suggested that the midwives should create a user-friendly environment to allow for adequate support during labour.

Organisational behaviour is a product of a complex system or organisation and can be associated with overburdened health care (Angelini, Wolf, Wijk, Brisby, & Baranto, 2021). Pain assessment in labour is vital and should be treated as routine vital signs such as temperature, pulse, respiration and blood pressure. Patients were not asked about pain, and when they experienced severe pain, the midwives were not present. The midwives were seated at the nurse's station, were disengaged from their patients, and focused on midwifery procedures only. Healthcare organisations are obliged to maintain and safeguard quality care through continuous improvement (Angelini et al., 2021). Ongoing in-service training on pain management during labour should be rendered to midwives to ensure women experience childbirth positively.

### **Limitations**

We conducted the study in the labour ward of one academic hospital. Observation during the night may have yielded different results as there are no doctor's rounds and administrative duties. The findings can therefore not be generalized

to other maternity units or hospitals. Although the first author was present during all the data observation sessions, the co-observers (midwives working in the unit), also referred to as participants, varied during each session.

### Conclusions

We observed the workplace culture of midwives regarding pain management during the first stage of labour. The midwives did not assess pain during labour, the women were not informed regarding pain management options, and partners and other support persons were not allowed. In addition, the midwives left the women alone for long periods, were task-orientated, and did not implement pain relief methods such as back rubbing and breathing exercises. The doctors also did not assess the labour pain and therefore did not prescribe pharmacological pain relief methods. Isolation is a limitation of institutionalized births. Women feel vulnerable and lonely during childbirth, and values relationships with healthcare professionals. The midwives suggested that pregnant women should be taught regarding pain management during the antenatal period. Pain management strategies should be collaboratively planned with midwives to address workplace culture. Recommendations include that midwives should receive ongoing in-service training on pain management during labour. Protocols and pain assessment tools should be implemented to raise awareness regarding pain management during labour. Midwives should create a user-friendly environment to allow for adequate support during labour to ensure women experience childbirth positively.

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