



ASSESSMENT OF PAIN MANAGEMENT IN LABOUR AND MIDWIVES PERSPECTIVES IN HOSPITAL USED DAMATURU YOBE STATE

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ABSTRACTS: *Introduction:* Pain management during labour is a critical aspect of obstetric care aimed at optimizing maternal comfort and ensuring positive childbirth experience. This dissertation was carried out on the assessment of pain management in labour and midwives perspectives in hospital used in Damaturu Yobe state. The aim: of the study was to assess the perspective of midwives towards pain management in labour **Methods:** Descriptive cross-sectional survey and qualitative design were employed for this study. Four selected health facilities within Damaturu metropolis were used. The population size consist of 100 delivered women and 110midwives {for interview} working in the maternity unit. Self- structured questionnaires, and semi-structured interview guide were used to collect data. Quantitative data was analyzed using descriptive statistics, SPSS version 20 while qualitative data collection achieved saturation when no new information was obtained. The six steps of qualitative data analysis were used. Also qualitative rigor was achieved through credibility, dependability, transferability and comformability of data. **Results:** showed that pain management in labour was not practice with 89% failure. Inadequate staffing was the major obstacle. 94.9% hinders the use of pain management in labour. 100% respondents said they have never underwent any training on pain management in labour. Two themes identified for qualitative research. In conclusion, addressing pain management in labour involves accessibility to pain relief options, midwives training support and holistic approaches to childbirth. Policy should focus on ensuring health care system prioritized pain management option for midwives and support research into new methods or approaches. **Recommendation:** .Future research to explore the effectiveness and long term outcomes of various pain management approaches in maternal and infant health.

KEYWORDS: Labour pain, pain management, midwives, childbirth.



INTRODUCTION

Labour is an inevitable physiological process that most women do not want to think of because of the bad experience they face largely due to the pains that accompany it. Giving birth is a remarkable experience for, usually marked by intense pain. The level of labour pain varies from woman to woman because of a variety of context-specific factors, including fear and anxiety associated with labour in society, first or subsequent labour, environmental factors, and women's specific underlying disease or pathology. All over the world, labour pain is a natural phenomenon that every woman always desires to experience. According to Akadri Odelola (2018), one of the worst types of pain can be experienced during labour, although many women endure it.

Childbirth is a significant like event for women often accompanied by intense pain and discomfort. Pain management during labour is crucial not only for the physical well-being of the mother but also for her psychological and emotional experience. Effective pain management strategies can help alleviate suffering, promote a positive birth experience and facilitate maternal-infant bonding

Labour pain has been known to mankind from the earliest times, though most Nigerian women find it very painful, but very hard to note that they were known to tolerate it. According to Olza et, al. (2020, childbirth is a profound psychological experience that has physical and social impact both in the short and long term period, leaving the woman with lifelong vivid memories. In addition, midwives in some African countries adjust analgesic drugs according to their own experience and physician recommendation,

Pain management during labour is a critical aspect of obstetric care, aimed at alleviating discomfort and promoting a positive childbirth experience for women. Labour pain management is generally categorized into two, pharmacologic and non-pharmacological. Pharmacological options include the use of opioids, nitrous oxide, epidurals etc, while non-pharmacological include emotional support, massage and focused breathing and relaxation techniques, and hydrotherapy. Non-pharmacological methods are generally utilized in labour as part of midwifery practice due to factors such as easy implementation, ease of learning, cost-effectiveness, absence of any medication reduce risk in terms of maternal and fetal health and lack of allergic reactions. Labour pain is an expected and intricate part of childbirth, the extent to which labour pain is experienced affect maternal psychology, labour progress and fetal well-being.

It is imperative for facilities to develop particular protocols and offer instructions of pain evaluation and management during labour, as managing pain during labour, it is a crucial midwifery responsibility according to pain management should be very safe, women-centered and effective, it shouldn't interfere with a woman's ability to move around or the cause of Labour pain management in developed nation analgesia is frequently used to manage labour pain, with an emphasis on ongoing labour support. However, in developing nations, such as Nigeria, pain is disregarded, obstetric services are underdeveloped, and the majority of women still experience painful labour despite the availability of techniques. The treatments or avoidance of pain a woman may suffer during labour and delivery is known as pain management during childbirth. The Pain Relief Model (2010), provide medical perspective on labour pain. It is based on the idea that women shouldn't experience labour



pain, and that instead, it should be managed using pharmacological pain killers. This model emphasized how crucial it is to provide women with pain treatment

Pain management during labour is a critical aspect of obstetric care with significant implication for maternal and neonatal outcomes, as well as the overall birth experience. Over the years, various pharmacological and non-pharmacological interventions have been utilized to alleviate labour pain, each with its own set of benefits and limitations. Epidural analgesia remains the gold standard for pain relief during labour. Numerous studies in 2019 such as the one conducted by Smith, (2019), corroborated its efficacy in providing profound pain relief while allowing women to remain alert and participate in the birthing process. A study by Smith et. al 2019 compared patient-controlled epidural analgesia with continuous epidural infusion and found comparable pain relief and maternal satisfaction between the two methods. However, concerns regarding prolong labour, instrumental delivery rates, and maternal hypotension persist as highlighted by a meta-analysis conducted by(Jones 2019).

EVOLUTION OF PAIN MANAGEMENT

Labour pain has been recognized as an essential part of childbirth, although methods for managing labour pain have changed throughout from one culture to another and from time period. With the development of contemporary medicine, pharmacological therapies became the main focus .By the 19th century, labour discomfort was treated with ether and chloroform. In the early 20th century, “twilight sleep” – a mixture of morphine and scopolamine that produced a semi-conscious state – was introduced. Due to advancement of anesthesia, spinal blocks and epidural become widely used as localized analgesics for labour pain in the later part of the 20th century. Because of how well these techniques work to reduce pain, they become the goal standard in many affluent nations. In the present day, today’s women have a range of options and opinions for for pain management during labour, which include epidural, nitrous oxide, and various non-pharmacological techniques like acupuncture and mindfulness, relaxation, massage.

PHYSIOLOGY OF LABOUR PAIN

The pain experience by women during labour by women is mostly originate from the cervix, uterus and adnexa, visceral pain is the main cause of pain during the early stage of labour. Sympathetic fibers which are found at the T10-L1 spinal levels, carries signals to the ganglia of the posterior nerve root, which are the source of the pain. The pelvic organ’s distention and traction cause discomfort in the late first and early second stage of labour. The posterior nerve root’s ganglia which are found at spinal levels S2 through S4, receive pain signals from pudendal nerve. The straining of the uterus during the second stage of labour cause pain, perineal structures as the fetus descends. Labour pain is primarily caused by cervical dilatation and uterine contraction, which activate pain receptors and send signals to the brain, the degree of pain experienced during labour can varies significantly across women and even within a single labour speeds. On a physiological level, labour pain is influenced by a woman’s emotions, expectation by and previous experience. Tension and resistance can be increased by fear and anxiety, which can intensify pain perception.



PSYCHOLOGICAL AND EMOTIONAL ASPECT OF PAIN MANAGEMENT

Pain management during labour involves a complex interplay of psychological and emotional factors such as: Fear and anxiety which can intensify the perception of pain during labour. A study by Alehagen 2019 Found that women who received continuous support during labour reported lower levels fear and anxiety, leading to better pain management. A woman's expectations and sense of control over the birthing process can impact her experience of pain. In review of this, discussed how a woman's perceived control and level of involvement in decision-making can influence emotional state and pain perception during labour (Alehagen et.al 2017). Social support from partners, family, or healthcare providers can significantly affect a woman's emotional well-being during labour .Conducted a Cochrane review emphasizing the positive effect of continuous support from a [doula] on reducing pain and distress during labour.

CULTURAL AND SOCIETAL PERSPECTIVE OF PAIN MANAGEMENT IN LABOUR

Different cultures have varying attitudes towards pain in labour. For example, in Fulani culture, a woman believes that it is a taboo for her to express pain during labour. There is a strong emphasis on natural childbirth without pain medication, viewing pain as a normal part of the process. Societal norms and expectations can play a significant role in a woman's decision regarding pain management. Pressure to conform to societal ideals of "perfect" childbirth may influence her choices. Socioeconomic factors impact access to pain management options. Inequalities in healthcare systems can result in disparities in pain relief choices. Some cultures and societies prioritize patients' autonomy in healthcare decision-making, allowing women to choose the pain management preference. Societal views on medical interventions in childbirth can affect pain management decisions. Some embrace medicalization, while others prefer a more natural approach. Cultural and societal perspectives on pain management in labour vary significantly across different cultures and societies. In some cultures such as those influenced by traditional practices or beliefs, there may be a preference for it.

BARRIER TO EFFECTIVE PAIN MANAGEMENT IN LABOUR

Effective pain management in labour can be hindered by various barriers both medical and nonmedical. These barriers can affect the physical and emotional well-being of the pregnant woman. Lack of access to pain relief options such as epidurals, opioids, or other pain relief methods due to resource constraints or healthcare provider availability can impede effective pain management. Cultural and societal influences such as cultural beliefs and societal expectations about childbirth can influence a persons' choice or reluctance use pain relief method. High level of fear and anxiety can make it challenging for individual to relax and cope with pain during labour, inaccurate or insufficient pain assessment by health care providers can result in underdoing the effective pain relief. Fear of medication side effect can affect pain medications which may lead to some individual to avoid or delay their use. Insufficient information or education about pain relief options can leave individuals feeling unprepared to make informed decision.



ANTENATAL PREPARATION OF PAIN MANAGEMENT IN LABOUR

Antenatal preparation for managing labour pain is developed for psychologically prepare pregnant women for labour pain, fear and stressors associated with this childbirth, with aim of improving physical and emotional outcomes related to labour pain experience and childbirth process. The international childbirth Education Association observes psychological pain that is brought about by lack of preparation and knowledge of the child process. Birth plan is a strategy that allows expectant mothers to communicate their preferences regarding pain management to health care providers. This plan may include preference for medications-free options and pharmacological options. Other antenatal preparations include childbirth education classes, supportive caregiver, mindfulness and meditation, massage and counter pressure. Psychological preparation for childbirth can reduce the chance of given analgesia and promote satisfaction with pain management. Socio-cultural factors, societal influence, cultural beliefs towards child birth can affect a woman's expectations and coping mechanism. In most cultures labour pain is termed as a natural and empowering part of childbirth, while in other cultures it seems as something to be feared and avoided. However, social and psychological support is very crucial during labour, having a supportive companion can immensely improves patient care.

MIDWIVES PERSPECTIVES OF PAIN MANAGEMENT IN LABOUR

Midwives perspectives on pain management in labour encompass a range of approaches including pharmacological and non-pharmacological methods. A study by Smyth et al. 2019 highlighted midwives' emphasis on individualized care, promoting women's autonomy in decision-making regarding pain relief options. Non-pharmacological interventions such as water immersion, massage, and relaxation techniques are favored by many midwives for their holistic approach to pain management. However, midwives also recognize the importance of pharmacological options such as epidurals for women who desired them. Overall, midwives prioritize empowering women to make informed choices while providing continuous support throughout the labour process. Recent studies and literature continue to support the holistic and women-centered approach to pain management in labour advocated by midwives. Research from the past few years emphasizes the importance of non-pharmacological techniques in managing labour pain (Bohren, 2018).

EVIDENCE BASED PRACTICE OF PAIN MANAGEMENT IN LABOUR

In 2019, evidence-based practice for pain management in labour include a range of techniques. Evidence-base practices for pain management in labour often involve a combination of pharmacological and non-pharmacological interventions such as continuous support during labour. According to Cochrane review published in 2017, continuous support from partner or doula or a trained support person has been shown to reduce the need for pain medication and intervention during labour. (Hodnett et al. 2017) Epidural analgesia remains one of the most effective methods for pain relief. During a systematic review and meta-analysis published in the British journal of Anaesthesia in 2018 found that epidurals analgesia provides effective pain relief with minimal adverse effects on both mother and baby (Anin-Somuah, et.al 2018). Various non-pharmacological techniques such as relaxation, massage, hydrotherapy, and acupuncture have been studied for their effectiveness in labour pain management. A systematic review published in the journal of midwifery and women's health in 2019 conclude that non-pharmacological techniques can reduce pain intensity and improve



satisfaction with pain relief during labour.(Jones, L. et.al.2019). Breathing techniques and hypnosis such as Lamaze breathing and hypnosis have also shown promise in managing labour pain. A systematic review published in the journal of perinatal education in 2019 found that these techniques can decrease pain perception and increase satisfaction with pain management during labour. (Levette, et. al. 2019).

FACTORS THAT INFLUENCE THE CHOICE OF PAIN MANAGEMENT IN LABOUR

The choice of pain management in labour can be influence by various factors such as maternal preference, previous experience, cultural beliefs, and health status of both the mother and the baby. Some women preferences play a significant role in choosing pain management options during labour. Some may prefer non-pharmacological methods, while others may opt for pharmacological interventions such as epidural analgesia. Some cultural beliefs and practices can influence a woman's decision regarding pain management during labour. Different cultures may have varying attitude towards pain relief method. A woman's medical history including any preexisting condition or previous experience with labour can impact her choice of pain management, health care providers considered these factors when discussing pain relief options. The stage of labour can also affect the choice of pain management and non-pharmacological methods may be preferred during early stage of labour, while pharmacological interventions like epidural analgesia may be more suitable during active phase of labour. The health and safety of the baby are paramount. Pain management options chosen should not compromise fetal well-being. (Anin-Somuah et. al. 2019). A study published in the British Journal of Anaesthesia. Effective pain techniques such as epidural analgesia, were associated with reduced maternal stress and anxiety during labour, leading to better maternal well-being postpartum(Grant, et.al. 2019) .Research suggested that adequate pain relief for the mother during labour may contribute to better neonatal outcomes, including higher Apgar scores, reduced rates of neonatal resuscitation, and improved overall neonatal well-being .Certain pain management strategies, such as non-pharmacological methods like relaxation techniques and continuous labour support, were linked to increased breastfeeding success rate, promoting early bonding between mother and baby (Chapman, et.al. 2019).

IMPACT OF DIFFERENT PAIN MANAGEMENT STRATEGIES ON MATERNAL AND NEONATAL OUTCOMES

Pain management during labour can significantly impact both maternal and neonatal outcomes. Effective pain relief methods reduce maternal stress, promote relaxation, and facilitate the progress of labour, potentially lowering the risk of complications such as prolonged labour, exhaustion and maternal distress. Additionally, adequate pain management can contribute to a more positive birth experience for the mother which may have long-term psychological benefits. Another study by Wilson et. al.(2019) found that epidural analgesia was associated with decreased rates of maternal fever during labour compared to systemic opioids. Another study by Sultan, et. al. (2019) suggested that combined spinal epidural analgesia may lead to shorter labour duration compared to traditional epidural analgesia. Additionally, a systematic review by (Anin-Somuah, et al. 2018) concluded that non-pharmacological interventions such as massage and water immersion were associated with reduce use of pharmacological pain relief and shorter labour. However, more research is



needed to fully understand the long-term impacts of these interventions on neonatal outcomes. For neonate, the effects of pain management

MYTHS AND MISCONCEPTIONS IDENTIFIED ON PAIN MANAGEMENT IN LABOUR

Several myths and misconception surround pain management in labour, despite advancement in understanding and techniques. In 2019 study published in the journal of pain research, the following myths and misconceptions associated with pain management in labour were identified (Anin-somuah, 2018)

1. Epidural Anesthesia causes long-term back pain: Research has shown that there's no substantial evidence linking epidural anesthesia during labour to long-term back pain. (Apgar, B., et. al 2011)
2. Natural Birth is always the best: While natural birth can be empowering for some women, it's essential to recognize that pain management options like epidurals can provide relief and improve the birth experience for others. (ACOG, 2020)
3. Non-pharmacological pain relief methods are ineffective: Techniques such as breathing exercises, water immersion, massage, and hypnobirthing can be effective in managing labour pain. These methods can be used alone or in combination with pharmacological options. (Jones, et. al 2015)
4. Labour pain should be endured as a rite of passage. Fact: enduring pain during labour is a personal choice, but it is not necessary for a positive or valid birth experience. Pain relief options are available to help women have a more comfortable and controlled labour experience. (W H O, 2018)

WOMEN PERCEPTIONS OF MIDWIVES TOWARDS PAIN MANAGEMENT IN LABOUR

The perception of pain management during labour varies among women, influence by factors such as cultural background, previous experience, and access to healthcare resources. A study published in the international journal of women's health in 2019 found that women's preferences for pain management during labour ranged from non-pharmacological methods like relaxation techniques and massage to pharmacological options such as epidurals anesthesia (Smith, J et, al. 2019). However, it's essential to note experience can greatly impact perceptions of pain management in labour strategies. The way pain is experienced is a reflection of the individual's emotional, motivational, cognitive, social and cultural circumstances, many women especially primigravida rate labour pain as very severe. The pain of labour varies among women because each woman's labour

ADVERSE CONSEQUENCES OF LABOUR PAIN

Labour pain is the natural part of childbirth which have various adverse consequences both short and long-term which include:

- Increased stress: prolonged labour pain can lead to increased stress levels for the mother, potentially impacting both physical and mental well-being.



- Complications during childbirth: Severe labour pain can contribute to complications during delivery such as prolong labour, increase risk of instrumental delivery (forceps and vacuum extraction), and higher rates of cesarean sections.
- Negative birth experience; Intense pain during labour can result in a negative birth experience for the mother impacting her emotional well-being and future reproductive decisions leading to postpartum depression or post-traumatic stress disorders (PTSD) in some cases.

Impact on maternal-fetal bonding: Experiencing significant pain during labour may affect the bonding process between the mother and her newborn influencing the early stages of maternal-infant

CHALLENGES AND CONTROVERSIES IN PAIN MANAGEMENT

Pain management in labour a multifaceted issues with various challenges and controversies. The challenges and controversies highlight the need for ongoing research, education, and open communication between healthcare providers and pregnant individuals to ensure that pain management in labour is safe, effective, and respectful of an individual preferences and needs. Some of the key ones include:

- Balancing pain relief with safety: The use of medications like opioids or epidurals can provide effective pain relief, but may pose risk to both the mother and the baby, such as respiratory depression or decrease fetal heart rate variability. Finding the right balance between pain relief and safety is very important.
- Impact on labour progression: There is debate over whether certain Pain management techniques like epidurals can slow down labour progression. Some studies suggest a potential association, while others find no significant impact.
- Availability and accessibility: Access to pain management options can vary widely depending on factors such as location, healthcare provider preferences, and financial resources. This raises concerns about equitable access to effective pain relief during labour.

Maternal Autonomy and informed consent: Ensuring that pregnant individuals are fully informed.

PROGRESS IN PATIENTS DEVELOPMENT IN THE CONTEXT OF PAIN MANAGEMENT

Progress in patients' development in the context of pain management in labour from midwives perspectives include:

- Increase patient education and empowerment: There has been a notable increased in efforts to educate and empower patient about pain management options during labour. Midwives play a crucial role in providing comprehensive information to women, enabling them to make informed decisions and actively participate in their care.
- Focus on share decision-making: Progress has been made in promoting shared decision making between patients and health care providers. Women are encouraged to express their preferences, values, and concerns regarding pain management,



fostering in collaborative approach to care that respect individual autonomy and dignity.

- Enhance access to resources and support: Advances in technology and healthcare delivery has expanded access to resources and support for women during labour. Online platforms, mobile applications, and virtual support groups provide information, guidance, and peer support, complementing the care provide by midwives and other health care professionals.

Integration of holistic care models: There is growing recognitions of the importance of holistic care models that address the physical, emotional, and psychosocial needs of patients during labour.

CONCLUSION

The practice of pain management in labour was not encouraging among midwives in Damaturu, Yobe State. The main reason for not practicing it during labour and delivery were non-availability of pain relief options lack of training and inadequate equipment, also lack of knowledge regarding pain management, cost of medication and attitude of some midwives. Addressing pain management in labour from both policy and practice perspectives involves consideration of various factors such as accessibility to pain relief options, midwives training and support, and the holistic approach to childbirth. Policy efforts could focus on ensuring that effective healthcare system prioritize pain management options, provide adequate training for midwives and support research into new methods or approaches. Future research might explore the effectiveness of different pain management techniques, the experience and perspectives of midwives and birthing individuals and the long-term outcomes of various pain management approaches on both maternal and infants health. Additionally, interdisciplinary collaborations between policymakers, healthcare providers, and researchers could help develop comprehensive strategies to improve pain management during labour.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study.

1. The state government under the ministry of health should conduct training at least annually for health workers especially midwives on pain management and the major techniques used in pain management.
2. Non-Governmental Organizations should support the three tiers of government in providing adequate medications and equipment that will help in managing pain during labour.
3. Government should provide medications for pain management to the respective facilities that have no access to the pain management medicines due to the cost of the medicines.
4. Adequate staffing and access to analgesic should be ensured to enhance labour pain management effort for midwives.
5. Similar research is highly needed in high resource settings as the study was conducted in a limited resource setting.



6. Identified barriers should be addressed at both institutional and national levels to improve pain management for expectant mothers.

SUGGESTIONS FOR FURTHER STUDIES

It is further suggested that:

7. The same project should be carried out in other parts of the state so as to ascertain the major barriers midwives are facing in effective management of pain in labour
8. Assessment of the effectiveness of the pain management techniques should be carried out targeting women in labour as the respondents.
9. Assessment of pain management technique should be carried out to ascertain the best form of technique used in managing pain in labour women.
10. Exploring individualized pain management approaches based on factors like maternal age, parity, cultural background and preferences
11. To Examining the long-term effects of various pain management strategies on maternal and neonatal outcomes including breastfeeding success, postpartum depression and child development.
12. Assessing the effectiveness of training programs for health care providers in implementing evidence-based pain management techniques and improving maternal satisfaction with childbirth experiences.

CONTRIBUTIONS TO KNOWLEDGE

- Research has explored the efficacy and safety of various pain relief medications such as epidurals, opioids, and nitrous oxide in labour, studies have examined their effects on pain perception, labour progress and maternal and fetal outcomes.
- There is growing interest in non-drugs pain management techniques like relaxation, massage, acupuncture and hydrotherapy .These methods are often preferred by some women and have been subject to research to understand their effectiveness and application in different labour scenarios.
- Understanding the psychological aspects of pain perception during labour is crucial. Studies have investigated the role of psychological support, including birth plan, continuous support from partners or doulas, and counseling, in managing labour pain and improving the birth experience.
- Research has focused on understanding midwives attitude, beliefs and practices regarding pain management in labour. These include exploring their role in providing emotional support, advocating for women's preferences, and implementing evidence-based pain relief strategies.
- Pain perception and management during labour can be influenced by cultural norms, societal expectations, and health care policies. Research in this area aims to understand how cultural diversity and social factors impact women's experiences of



labour pain and their choices regarding pain management.

- Studies have examined how the labour environment, including factors like lighting, noise, privacy, and support from health care providers, and birth companions, affect the experience of pain during labour.
- There is a growing focus on empowering women to make informed choices about pain management during labour emphasizing shared decision making and personalized care.
- Research has investigated the potential effects of different pain management strategies during labour on maternal and neonatal outcomes, including breastfeeding, maternal satisfaction, post- partum depression, and neonatal health.

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