

Systematic Review On the Development of a Capacity Building On Labour Pain Management Among Midwives in Ekiti State

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ABSTRACT: *Labour pain management is crucial for a comfortable childbirth experience. A range of options, including epidural anesthesia, breathing techniques, massage and positional changes, are available for managing labour pain. Factors such as maternal preference, stage of labour and medical conditions are considered when choosing the right approach. Effective labour pain management benefits both the mother and baby. This systematic review is aimed to identify best practices and gaps in managing labour pain and to provide recommendations for a comprehensive and effective capacity building program. The review analyzed relevant literature and data sources to assess the current state of midwifery education and practice in labour pain management. The results of the review indicate a need for a comprehensive and multi-faceted capacity building program that includes hands-on training, mentorship, and ongoing professional development opportunities for midwives. The study concludes that a well-designed and well-implemented capacity building program on labour pain management can improve the quality of care for mothers and newborns and enhance the competencies of midwives in Ekiti State.*

KEYWORDS: capacity building, labour pain management, midwives, maternal care, neonatal care, competencies

INTRODUCTION

Labour pain in women is influenced by a combination of physiological factors, leading to varying levels of intensity. Pain relief is necessary for most women during labour. Pain management can involve methods, including both non-pharmacological (e.g. hypnosis, biofeedback, water therapy, aromatherapy, relaxation techniques, acupuncture) and pharmacological interventions (e.g. inhaled analgesia, opioids, local anaesthetics, epidurals) (Beigi *et al.*, 2019). The non-pharmacological methods primarily aim to help women cope with pain, while pharmacological methods aim to relieve the pain. Some methods are used prior to labour (e.g. hypnosis, biofeedback, aromatherapy, relaxation techniques, acupuncture) and

others only during labour (e.g. water therapy, inhaled analgesia, opioids, local anaesthetics, epidurals) (Harkins *et al.*, 2010).

Labour pain is a common and often severe experience for all women. The pain of labour is subjective, unique to each individual and influenced by multiple factors, including physical, emotional, psychological, and environmental elements. These interrelated factors shape a woman's overall pain experience during labour and birth.

Many women desire pain relief during labor, regardless of their race or creed, and this greatly contributes to their satisfaction with the childbirth experience (Hodnett, 2010). Studies indicate that when women are provided with analgesia during labor, they tend to report higher levels of satisfaction with their overall birth experience (Whitburn *et al.*, 2017).

According to the Nigerian Demographic and Health Survey findings in 2018, about 60% of pregnant Nigerian women attended antenatal cares but only 35% of deliveries are in health care facilities (Bolarinwa *et al.*, 2021). In this context, pain relief during labor could be a critical incentive for increasing facility deliveries. However, only a few published studies have addressed the prevalence, determinants, and severity of labor pains and the role of pain relief agents (Hodnett, 2010). The majorities of deliveries occurs at home and are largely attended by unskilled providers. With the strong belief grounded in culture and religion that pain is acceptable during labor, women who deliver at home rarely benefit from any modern pain relief.

Despite the fact that labor pains affect a large proportion of Nigerian women, making childbirth an unpleasant experience, analgesia for labor is rarely provided (Imarengiaye, 2015). This could be due to a variety of factors, including availability, health care delivery systems, knowledge, and caregiver and client preferences. The attitude, knowledge, and skills of the provider to provide labor analgesia are crucial, especially in low-income countries.

According to Ogboli-Nwasor *et al* (2015), an overwhelming majority of the respondents in that study (94.8%) agreed that pain relief is needed during labor. The respondents' positive attitude to pain relief in labor was irrespective of gender, qualifications, position, and place of work, showing the universality of health workers' acceptance of the use of techniques to provide pain relief in labor. Such a positive attitude could be sustained by continuing education about the effect of labor pain on the parturient and the benefits of provision of pain relief in labor (Ogboli-Nwasor *et al.*, 2015).

It has been documented that there are unmet needs for labor pain relief in Nigeria (Olayemi *et al.*, 2015). In a study in Ibadan, Western Nigeria, Olayemi *et al* tried to identify categories of patients who would benefit from obstetric analgesia. These included nulliparous patients, young patients, patients who had had induced labor, those with preterm deliveries, and those with assisted vaginal delivery, especially if they were well educated (Olayemi *et al.*, 2016). Onah *et al* in their study of 250 parturient in Enugu, Eastern Nigeria, showed that although women perceived labor as a very painful process, only a minority of them received any form of labour pain relief (Onah *et al.*, 2017).

Although severe pain is not life-threatening in a healthy mother giving birth, it can have psychological consequences (Soet *et al.*, 2013). The pain of labor can be associated by increased catecholamine release which could, in turn, be accompanied by increased cardiac output, peripheral vascular resistance, and increased oxygen consumption. This could be dangerous for women with pre-existing cardiopulmonary problems (Hawkins, 2010). Postnatal depression may be more common when analgesia is not used, and pain during labor has been correlated with the development of post-traumatic stress disorder (Hiltunen *et al.*, 2013). Men are also affected by severe labor pain. A survey of first-time fathers showed that men whose partners received an epidural felt three times as helpful and involved during labor and delivery and had less anxiety and stress, as compared with men whose partners did not receive an epidural (Capogna *et al.*, 2017).

In order to meet the needs and expectations of expectant Nigerian mothers with regard to labor relief, midwives need to improve on their knowledge and skills. Pre-service and in-service training is recommended. Such training should target midwives who provide care during childbirth and should be competency-based. In addition, efforts should be made to secure the support of managers of health institutions for introducing pain management services in Nigerian hospitals because this could be cumbersome and capital-intensive. Furthermore, regular audit of pain relief services is recommended to ensure quality and improve acceptability. A service as important as pain relief in labor could challenge existing traditional beliefs about the origins and significance of labor pains, especially in conservative societies. Therefore, it is recommended that any plan to introduce pain management services should include extensive community mobilization and client education. This will provide the public with the knowledge of the benefits of labor pain management.

This study aims to review the development of a capacity building on labour pain management among midwives in Ekiti state. The specific objectives therefore are;

1. To critically evaluate the current state of knowledge on labour pain management among midwives.
2. To identify the existing gaps in knowledge and training in labour pain management among midwives.
3. To identify effective capacity building programs that enhances midwives' knowledge and skills in labour pain management.
4. To provide recommendations for the development of evidence-based capacity building programs that address the gaps in knowledge and skills among midwives in managing labour pain.

METHODOLOGY

This systematic review was conceptualized and carried out from year 2010 to 2022 in accordance with the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) Protocol (Page, 2021). The review consists of five (5) major outlines which are the introduction, aim and objectives, the methodology such as the instrument and design used the results or study flow and the discussion. Data extracted from each study include authors name,

publication year and source, country, the objectives/aim, the methodology such as the study design, settings, samples, instruments, and the outcome and key findings. The findings were summarized in narrative synthesis and presented in table below.

PubMed/Medline, Mendeley, and Google scholar, databases were searched for relevant articles from January 2010 through December 2022. The strategy and keywords used for the systematic search were “capacity building, labour pain management, midwives, maternal care, labour pain management methods, competencies”. High-sensitivity and high-specificity customized filter was applied, a sensitivity of 96.0% and a specificity of 99.96%, for efficiently retrieving specified articles. Table 1 below presents the search terms for the study.

Table 1: Search terms

SEARCH TERMS	SEARCH LIMITS
1. Labour pain management	Publication type
2. Midwives	Publication year
3. Maternal care	Language
4. competencies	Age of the respondents
5. Labour pain management methods	Design

Inclusion Criteria

In this report, all major articles that were written on Labour pain management among midwives were reviewed for this publication. The articles selected were predominantly written either on; Labour pain management among midwives or all. Journals/ Articles that did not fit into selection criteria were not used. The articles selected were between 2010 and 2022, and those written in English language

Exclusion Criteria

Articles with the following criteria were excluded; Systematic or narrative review, Poor or no data, Qualitative design, and Samples that are less than 18 years.

Data Screening

Title and abstract screening of all papers identified by the search strategy were carried out with reference to the published inclusion and exclusion criteria. Key findings were compiled for each study and were grouped based on common traits.

Data Extraction

On the basis of the research topic and the abstract, 3250 articles were chosen for review during the initial contact. Using the scoping review technique, these were further reviewed in 30 journals based on their goals, methodologies, population selection criteria, and results in agreement with the research topic.

During the course of the systematic review, the researcher thoroughly reviewed numerous

journals to identify relevant articles on the topic of labour pain management among midwives. While many of the journals reviewed were of high quality and covered a wide range of topics, the researcher carefully selected only 15 journals that met their specific inclusion criteria. These criteria focused primarily on the relevance of the articles to the study's objectives and the rigor of the research methods used. Any journals or articles that did not meet these criteria were excluded from the study.

Data synthesis

The findings from studies included were summarized in a narrative statement and presented in the table 2 and the discussion of findings.

Framework used for this review

Following the selection of eligible studies, the articles that met the selection criteria were also screened using PRISMA-2022 guidelines (Page, 2022). Furthermore, PICO framework for systematic review was used for inclusion criteria based on the following concepts; Population (P), Intervention (I), Comparison (C), and Outcome (O) provides final inclusion criteria for the review as shown in the Figure 1

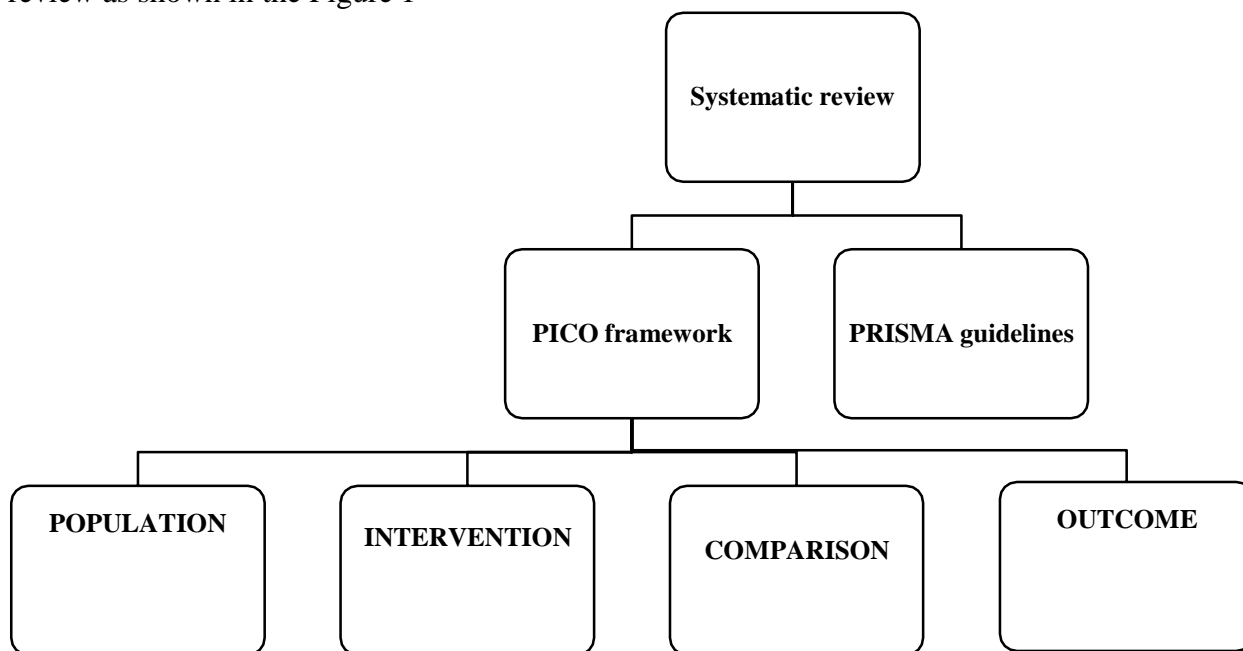


Figure 1 showing the framework for this review

Article Selection Criteria

During first contact, a selected number of articles 3250 were reviewed based on the research topic, and the abstract. These were further reviewed to 174 journals based on their general abstracts, objectives, methodology (design type or instrument used), population and results in correspondence with the researchers' topic after PRISMA quality assessment and appraisal. Finally, 15 articles met the eligibility criteria and 15 were finally used for the review

RESULTS

Based on the objectives, the articles are agreeable to some or all the review description. Different research designs, instruments and methods were used among the journal authors the quantitative research method was most widely used. Questionnaires, Interviews, Cohort studies, Retrospective and Prospective studies were also used to demonstrate their research objectives.

Labour pain management among midwives

In study reported by Ohaeri et al, most of the respondents (94.8%) had a good knowledge level, which is in line with the report by Ojerinde et al (2016) in which more than two-thirds (66.7%) of the respondents were knowledgeable about management of pain in labour. However, this is unconnected with the quality of training of respondents in the study population (Ojerinde *et al.*, 2016). Respondent's knowledge about assessment, and the use and availability of pain assessment tools, seems to be at variance with the respondents' profession, especially compared with the responses from data on the observational checklist in the study settings. Furthermore, Abiodun et al (2022) stated some barriers affected the management of labour pain by skilled health attendants in the study settings. Notable among the barriers is the unavailability of assessment tools in the study settings (Abiodun *et al.*, 2022).

Also, Abiodun et al (2022) found that Labour pain management is a methods adopted to ease labour pain and help the woman in labour relax and majority 118(68.6%) of respondents had a positive attitude towards pain management. This relates with the study led Shiferaw et al., (2022) 94.8% of respondents agreed to the use of labour analgesia, thus signifying a positive attitude towards pain management in labour. Nevertheless, 65.1% of the respondents agreed that pain management is necessary in labour. This corroborates with a study conducted by Ohaeri et al., (2019) who established a safe and optimal labour pain experience utilizes pharmacological and non-pharmacological interventions in achieving painless labour and it is explicitly anchored by nurse-midwives.

Ogboli-Nwasor et al (2011) suggested a significant relationship between educational qualification of midwives and management of labour pain. This findings was against the study conducted by Bitew et al., (2016) at Amhara regional state referral hospitals reported that Obstetric care givers who had diploma (low level qualification) were 2.69 times more likely to use obstetric analgesia methods than professionals who had second degree (high level qualification). More so, study conducted by Sahile et al., (2017) is in line with this study as reported that skilled attendants who were MSc intern (higher level qualification) were 2.87 times more likely to use labour pain management methods than professionals who had diploma (low level qualification).

Table 2 below describes results of the 15 publications used in this systematic review.

Table 2: Distribution according to the objectives, methodology and results

S/N	ARTICLES	OBJECTIVES	METHODOLOGY	RESULTS
1	Skilled health attendants' knowledge and practice of pain management during labour in health care facilities in Ibadan, Nigeria	To assess the skilled health attendants' knowledge and practice of pain management during labour in Ibadan, Nigeria.	A cross-sectional design was used to collect data from 227 skilled health attendants, in the maternity units of the three purposively selected hospitals for 12 weeks. A structured questionnaire and observational check lists were used for data collection. Data were analyzed using descriptive statistics and significant level was set with $p < 0.05$.	Results on respondents' level of knowledge revealed that 6% had low knowledge, 40.5% moderate, and 56.8% had a high level. The majority, 79.7%, were registered nurse-midwives (RN/RM) and 90.1% employed reassurance for pain relief. No significant associations were found between respondents' level of education and reassurance, exercise, allay of fear, use of drugs, and TENS ($p > 0.05$). However, there were significant associations between respondents' educational level and rubbing of back/massage, position change, cold/warm bath, relaxation, and social support ($p < 0.05$).
2	Utilization of labor pain management methods and associated factors among obstetric care givers at public health institutions of East Gojjam Zone, Amhara region, Ethiopia, 2020: a facility based cross – sectional study	The aim of this study was to assess utilization of labor pain management methods and associated factors among obstetric care givers in the study setting.	Facility-based cross sectional study design was carried out in public health institutions of East Gojjam Zone from April 15 to May 15, 2020. Semi Structured questionnaires were used and 305 obstetric care givers were participated. Stratified sampling technique was used.	Utilization of labor pain management methods in this study was 48.9%. In Multivariate logistic regression; Professional knowledge [AOR = 2.006, 95% CI = ((1.032–3.898)], availability of drug and equipment [AOR = 2.937, 95% CI= (1.311–6.578)] and allow companionship [AOR = 2.587, 95% CI= (1.322–5.063)] were significantly associated with utilization of labor pain management methods.
3	Knowledge, Attitude, and Practice towards Labor Pain Management and Associated Factors among Skilled Birth Attendants Working at Hospitals Found in Central, West, and North Gondar Zones, Northwest Ethiopia, 2019: A Multicenter	To assess knowledge, attitude, and practice, and associated factors towards labor pain management among skilled birth attendants working at hospitals found in central, west, and north Gondar zones, northwest Ethiopia,	A multicenter institution-based cross-sectional study was conducted from June 1 to 30, 2019. A census sampling technique was used to include a total of 336 skill birth attendants. A pretested standardized self-administered questionnaire was used to collect the data.	The proportion of skill birth attendants having good knowledge, a favorable attitude, and a good practice on labor pain relief methods was 47%, 41.96%, and 57.14%, respectively. Age of ≤ 30 years (AOR = 5.43; 95% CI: 1.25, 23.53), educational status of 2 nd degree and above (AOR = 3.56; 95% CI: 1.32, 9.60), working at a private primary hospital (AOR: = 6.55; 95% CI: 2.15, 19.93), and working at a referral hospital (AOR = 2.24 : 95% CI: 1.01,

	Cross-Sectional Study			4.93) are factors significantly associated with good knowledge while having good knowledge on labor pain relief methods (AOR = 2.26; 95% CI: 1.42, 3.60) and working at private primary hospitals (AOR = 7.01; 95% CI: 1.92, 25.65) had statistically significant association with favorable attitude and good practice on labor pain relief methods, respectively.
4	Pain relief in labor: A survey of awareness, attitude, and practice of health care providers in Zaria, Nigeria	To assess the attitudes of maternal health care providers to pain relief during labor in Zaria, Nigeria.	This was a multicenter, collaborative, cross-sectional pilot study of provider perspectives concerning pain relief during labor. A structured, self-administered, questionnaire was completed by 95 consenting maternal health care providers at three high-volume facilities in Zaria, an ancient northern Nigerian city. Descriptive statistics was performed on the data.	Most respondents (94.8%) agreed that pain relief is needed during labor. Only 2.1% of respondents were undecided about the provision of pain relief during labor and 3.2% were of the opinion that pain relief was not necessary during labor. Most respondents (93.7%) had attended a woman in labor in the 4 weeks preceding the survey. Of these, 56.8% had counseled a parturient in labor. Most of the counseling (42.1%) took place during labor. Less than half of the respondents (48.4%) had administered pain relief in labor in the preceding 4 weeks and systemic opioids was the most commonly form of pain relief. Among the respondents who did not offer pain relief agents in labor, the majority (54.5%) had no reason for not offering it. Unavailability of methods, inability to afford the cost of pain relief, lack of knowledge and skills, as well as lack of essential equipment to provide the procedure were also given by respondents as reasons for not offering pain relief.
5	Assessment Of Factors Influencing Midwives Management Of Labour Pain At Tertiary Hospitals In Ekiti State, Nigeria	To assess the level of knowledge of midwives on labour pain management (LPM). To assess the attitude of midwives towards labour pain management. To determine the availability of drugs in management of labour pain by midwives. To determine the availability of equipment for labour pain management by midwives.	A quantitative descriptive cross-sectional design was employed through self-structured questionnaire distributed among One hundred and seventy-eight midwives, all working at the obstetric units of the tertiary hospital in Ekiti State.	It showed that majority 96(55.9%) of the midwives had an average knowledge, and 118(68.6%) of midwives had a positive attitude towards pain management in labour. More so, findings revealed a positive significant relationship between educational qualifications of midwives and labour pain management while no significant relationship was found between the labour pain management and hospitals policy

		To assess the influence of shortage of staff on management of labour pain by midwives To identify significant relationship between educational qualification, hospital policies and management of labour pain		
6	Perceptions of labour pain management of Dutch primary care midwives: a focus group study	To explore midwives' perceptions of supporting women in dealing with pain during labour.	a qualitative focus group study with four focus groups was conducted, including a total of 23 midwives from 23 midwifery practices across the country. Purposive sampling was used to select the practices. The constant comparison method of Glaser and Straus (1967, ren. 1995) was used to gain an understanding of midwives' perceptions regarding labour pain management.	Two main themes were found. The first theme concerned the midwives' experienced professional role conflict, which was reflected in their approach of labour pain management along a spectrum from "working with pain" to a "pain relief" approach. The second theme identified situational factors, including time constraints; discontinuity of care; role of the partner; and various cultural influences, that altered the context in which care was provided and how midwives saw their professional role.
7	Experiences of midwives on pharmacological and non-pharmacological labour pain management in Ghana.	To gain a detailed insight into the experiences of midwives on pharmacological and non-pharmacological labour pain management strategies in a resource limited clinical context.	A descriptive exploratory qualitative design was adopted for this study which allowed in-depth follow-up of the midwives' comments resulting in a full understanding of emerging findings. Face-to-face individual interviews were conducted, transcribed and data were analyzed using content analysis procedures. Verbatim quotes were used to support the findings.	Midwives employed different pain control measures including pharmacological and non-pharmacological methods such as psychological care, sacral massage and deep breathing exercises. Although the midwives exhibited knowledge on drugs used for labour pain management, they did not regularly administer analgesics and non-pharmacological care provided were inadequate due to increased workload. Some of the midwives showed empathy towards women and supported the women. Most of the midwives perceived labour pain as normal and encouraged women to bear pain.
8	Pharmacological and Non-Pharmacological Methods of Labour Pain Relief—Establishment of Effectiveness and Comparison	To evaluate the effectiveness of pharmacological and non-pharmacological pain relief methods and to compare them	258 women were included in the study and interviewed using a questionnaire and the visual analogue scale for pain. They were divided into six groups depending on chosen method of labour pain relief: epidural anaesthesia (EA; n = 42), water immersion and	The average age of the women was 29.4 ± 3.74 years and 60.47% of them were nulliparous (n = 156). Mean values of labour pain intensity were 6.81 ± 2.26 during the first stage of labour; 7.86 ± 2.06 during the second stage, and 3.22 ± 2.46 during the third stage. There was no significant difference in pain level between epidural analgesia and gas

			water birth (WB; n = 40), nitrous oxide gas for pain control (G; n = 40), transcutaneous electrical nerve stimulation (TENS) (n = 50), multiple management (MM; n = 42), none (N; n = 44).	groups in the first stage of labour (p = 0.74). Nevertheless, epidural analgesia reduced pain level during the second and third stage (both p < 0.01). The highest satisfaction level pertains to water immersion (n = 38; 95%).
9	Knowing and Applying Non-Pharmacological Methods Used in Labor Pain Control of Health Workers in Delivery Rooms.	To determine the knowledge and practice of non-pharmacological methods (NFM) used in labor pain (LP) control of Health Care Workers (HCWs) working in labor wards.	The data in this descriptive and cross-sectional study were obtained from HCWs working in the labor units of all hospitals in a province in western Turkey. The analysis was carried out using Chi-square and regression analysis with a p-value of less than 0.05 statistically significant.	It was determined that 66.1% of the HCWs knew about NFM, 33.9% had insufficient/no knowledge about NFM, 41.3% applied NFM, and 59.7% rarely/never applied. The most well-known NFM were breathing techniques (91.7%) and movement-position (91.7%). Most applied NFM were breathing techniques (87.2%) and movement-position (84.4%). The HCWs working in private hospitals were 13.09 times more likely to apply NFM and 4.06 times more likely to know, compared to those working in the university hospital. Those who knew/stated that they knew NFM were 5.64 times more likely to apply NFM than those who did not. According to the type of institution, the difference between the knowledge and application of NFM by the HCWs was statistically significant (p<0.001).
10	Pain relief for childbirth: the preferences of pregnant women, midwives and obstetricians.	To compare the personal preferences of pregnant women, midwives and obstetricians regarding a range of physical, psychosocial and pharmacological methods of pain relief for childbirth.	Self-completed questionnaires were posted to a consecutive sample of 400 pregnant women booked-in to a large tertiary referral centre for maternity care in South Australia. A similar questionnaire was distributed to a national sample of 500 obstetricians as well as 425 midwives at: (1) the same hospital as the pregnant women, (2) an outer-metropolitan teaching hospital and (3) a district hospital. Eligible response rates were: pregnant women 31% (n = 123), obstetricians 50% (n = 242) and midwives 49% (n = 210).	Overall, midwives had a greater personal preference for most of the physical pain relief methods and obstetricians a greater personal preference for pharmacological methods than the other groups. Pregnant women's preferences were generally located between the two care provider groups, though somewhat closer to the midwives. All groups had the greatest preference for having a support person for labour with more than 90% of all participants wanting such support. The least preferred method for pregnant women was pethidine/morphine (14%).

11	What do midwives need to know about approaches of women towards labour pain management? A qualitative interview study into expectations of management of labour pain for pregnant women receiving midwife-led care in the Netherlands.	To investigate factors important to women receiving midwife-led care with regard to their expectations for management of labour pain.	Semi-structured ante partum interviews and analyses using constant comparison method.	Three major themes was found to be important in women's expectations for management of labour pain: preparation, support and control and decision-making. In regards to all these themes, three distinct approaches towards women's planning for pain management in labour were identified: the 'pragmatic natural', the 'deliberately uninformed' and the 'planned pain relief' approach.
12	A Study on the Knowledge, Attitude and Demand of Labour Pain Relief Techniques among Antenatal Women in a Selected Hospital at Mangaluru	To assess the knowledge, attitude and demand of labour pain relief techniques among antenatal women, determine the association of knowledge and attitude with baseline variables and prepare a concept map regarding labour pain relief techniques.	A quantitative descriptive approach is used to assess the knowledge, attitude and demand of labour pain relief techniques in 100 antenatal women by purposive sampling. The validated tools were used for data collection. Data was analyzed by using descriptive and inferential statistics.	The findings of the study showed that majority (68%) of subjects had an average knowledge, 26% had poor knowledge and 6% had good knowledge regarding labour pain relief techniques. Majority (97%) had a favourable attitude towards labour pain relief techniques. Less than half of the subjects (34%) demanded labour pain relief techniques. There is a significant association of knowledge and previous experience of labour ($p=0.030$) and knowledge and previous mode of delivery ($p= 0.020$).
13	Perceptions of labour pain by mothers and their attending midwives	To examine the perception of pain by labouring women and their attendant midwife, from the onset of labour to delivery.	The short form McGill Pain Questionnaire (SF-MPQ), routinely used to assess pain in obstetric environments, was used to determine pain perception. Thirteen labouring women and nine midwives completed the minutes beginning at the time of admittance to the SF-MPQ every 15 minutes were delivery suite. Peak pain ratings for the preceding 15 obtained without reference to prior ratings or each other's scores. Further, midwives in the maternity unit of The Queen Elizabeth Hospital (TQEH), Adelaide, South Australia completed a survey investigating the cues they use to assess pain during labour.	On each measure of pain on the SF-MPQ, the midwives scores correlated with the mothers' scores across the entire pain range. Further analysis showed that mothers' and midwives' pain scores were similar at mild-moderate pain levels, but midwives significantly underestimated pain intensity at levels that mothers described as severe. The survey responses indicated that midwives rely on both verbal and nonverbal cues to assess pain levels.
14	Effect of education on midwives' knowledge, attitude and practice about non-	To evaluate the role of education on midwives' knowledge, attitude, and practice towards pain	This was a quasi-experimental study carried out at labor wards within the hospitals affiliated to Gilan University of Medical Sciences, Iran. Data were	Results showed that the midwives' knowledge, attitude and practice about pain relieving methods changed significantly following workshop ($p<0/005$). No significant difference

	pharmacologic labor pain relieving methods	reducing labor approaches during labor.	collected using a questionnaire confirmed by a panel of experts and test-retest method for its validity and reliability, respectively. A total of 59 midwives were chosen by quota sampling and participated in a one-day workshop. Pretest and post-test questionnaire were completed before and four months after education. Data were analyzed by descriptive and inference statistical methods using SPSS.	between the mean knowledge, attitude and practice scores and demographic characteristics was found.
15	Perception about pain relief during normal labour among health care providers conducting delivery	To explore the perception and practice of the primary level health care providers who conducts normal vaginal delivery regarding pain relief during labour.	A cross sectional questionnaire survey was done at institute of child and mother health during May and June 2009 among a group of senior staff nurses and family welfare visitors.	Among 97 respondents 75.3% were senior staff nurses and 24.7% were Family welfare visitors. Only 6.2% thought a women with labour pain should receive an analgesic, 7.4% gives an analgesic and 10.5% reported to receive such drug during their own childbirth. About 58.6% reported to use injection hyoscine butyl bromide and 6.9% uses injection Pethidine analgesia during labour. Forty percent reported to carry out some activity to comfort women in labour. Those were giving assurance (88.7%), explaining the mother about the process of labour (84.5%) and 77.3 % would allow companion in the labour room. About two thirds respondents thought that pain relief may delay progress of labour, 69.5% apprehend fetal distress while 60% are of the opinion that women should endure the natural pain.

DISCUSSION

Comfort in labour is not merely an emotional or physical relieving of malaise and pain, as labour pain is a major concern for most women even before the day of delivery as they become anxious about the pain that may be encountered during delivery and wants it relieved. This study also found that Labour pain management is a methods adopted to ease labour pain and help the woman in labour relax and majority 118(68.6%) of respondents had a positive attitude towards pain management. This relates with the study led Sahile et al., (2017) 94.8% of respondents agreed to the use of labour analgesia, thus signifying a positive attitude towards

pain management in labour. Nevertheless, 65.1% of the respondents agreed that pain management is necessary in labour. This corroborates with a study conducted by Ohaeri et al., (2019) who established a safe and optimal labour pain experience utilizes pharmacological and non-pharmacological interventions in achieving painless labour and it is explicitly anchored by nurse- midwives.

It had been ascertained that skilled health attendants' level of knowledge could be a contributory factor for the popularity in the use of a non-pharmacological approach to pain management for women in labour (Ogboli-Nwasor *et al*, 2011). Furthermore, the significant relationship observed between educational qualifications and management of pain using non-pharmacological methods is supported by various authors (Aziato *et al.*, 2017). Specifically, Sahile et al (2017) stated that professional qualifications were significantly associated with the practice of non-pharmacological labour-pain management methods, and skilled attendants with higher qualifications were 2.87 times more likely to use labour-pain management methods than those who had low level qualifications. Knowledge was seen as an important factor affecting the quality of care and ultimately pain relief and fulfillment in care (Klomp et al., 2017). Although the skilled health attendants claimed they were knowledgeable about labour pain management, further findings revealed that respondents had inadequate knowledge of and misconceptions about pain relief interventions. Possible reasons include inadequate continuing education on pain management and being unaware of having insufficient knowledge about pain management (Lui *et al.*, 2018). It has been stated that the education of skilled attendants can improve the management of labour pain and use of labour pain relief methods.

CONCLUSION

Provision of assessment tools is pivotal to enhancing holistic labour pain management, hence stake holders should be informed on the need to ensure an adequate supply of assessment tools and anaesthetic agents. It is essential for skilled health attendants to be trained on how to use pain management in labour, which should be considered as an important topic of discourse in the Mandatory Continuing Professional Development Programme for nurses and midwives. Labour pain management should be considered as one of the prerequisites for the renewal of a license for midwives. Skilled health attendants' managers, as advocates, should ensure that awareness is created in the community about bad practices that compel women to endure pain in labour, whereas painless labour experience is the norm globally, especially in developed countries. Drugs like analgesics for relief of pain should be available, accessible and affordable at the three levels of care: primary, secondary and tertiary. Future research should compare labour-pain management at different levels of healthcare delivery systems, including federal and private hospitals.

Gaps Identified

- Insufficient consideration of the psychological and emotional aspects of labor pain, including the impact on maternal mental health and satisfaction with the birth experience.
- Limited understanding of the challenges faced by midwives in providing effective pain management during labor, including workload, staffing, and resource constraints.

- Limited knowledge of the experiences and perspectives of women and families regarding labor pain management provided by midwives, which may have implications for the design and delivery of care.
- Limited research on the impact of midwives' training and education on their knowledge and skills in labor pain management.

Implications of the Study to Nursing

Nursing Education

- The need for standardized content in capacity-building programs on labor pain management for midwives. Nursing education programs can use this information to develop a comprehensive curriculum that addresses the key competencies required for effective labor pain management.
- The importance of interprofessional collaboration in the provision of effective labor pain management. Nursing education programs can integrate interprofessional education and collaborative practice into their curriculum to prepare nursing students to work effectively with other healthcare professionals.
- The importance of continuing education and professional development for midwives to maintain and enhance their knowledge and skills in labor pain management. Nursing education programs can incorporate continuing education opportunities into their curriculum to ensure that nursing graduates remain up-to-date with the latest evidence-based practices in labor pain management.
- Nursing education programs can use this information to teach nursing students how to critically appraise and apply research evidence to inform their practice in labor pain management.

Overall, the systematic review has important implications for nursing education, highlighting the need for nursing programs to incorporate comprehensive and evidence-based education on labor pain management for midwives.

Nursing Practice

- Highlights the importance of placing women's preferences, needs, and values at the center of labor pain management. Nursing practice should ensure that women are involved in decision-making related to their pain management, and that their care is individualized and responsive to their unique needs.
- Emphasizes the importance of using evidence-based practices in labor pain management. Nursing practice should ensure that the care provided is based on the best available evidence, and that practices are regularly updated based on new evidence.
- Collaboratively work with other healthcare professionals to ensure that women receive comprehensive, coordinated care that addresses all aspects of labor pain management.

Nursing Research

- Nursing research can use this information to design and conduct studies that explore the effectiveness of different capacity-building programs and interventions on improving midwives' knowledge and skills in labor pain management.
- Guidelines for the management of labour pain in women during childbirth are essential to prevent maternal mortality.

Recommendations

1. Patient-centered care is essential in labor pain management, with an emphasis on individualized care that is responsive to women's unique needs and preferences.
2. Ongoing education and training for midwives, as well as culturally sensitive care, are crucial to improving the quality of care provided to women during labor and childbirth.
3. Further research is also needed to explore the effectiveness of different capacity-building programs and interventions on improving midwives' knowledge and skills in labor pain management.

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