Midwifery 124 (2023) 103746

Contents lists available at ScienceDirect

Midwifery

journal homepage: www.elsevier.com/locate/midw

Review Article

Exploring women's experiences, views and understanding of vaginal examinations during intrapartum care: A meta-ethnographic synthesis

Holly Jenkins*, Wendy C. Jessiman, Gill Hubbard, Chris O'Malley

Department of Nursing and Midwifery, University of the Highlands and Islands, Inverness, Scotland

ARTICLE INFO

Article history:
Received 23 August 2022
Revised 2 April 2023
Accepted 25 May 2023

Keywords:
Vaginal examination
Intrapartum care
Birth
Midwifery
Meta-ethnography
Qualitative
Systematic Review

ABSTRACT

Objective: To conduct a systematic review exploring women's experiences, views and understanding of any vaginal examinations during intrapartum care, in any care setting and by any healthcare professional. Intrapartum vaginal examination is deemed both an essential assessment tool and routine intervention during labour. It is an intervention that can cause significant distress, embarrassment, and pain for women, as well as reinforce outdated gender roles. In view of its widespread and frequently reported excessive use, it is important to understand women's views on vaginal examination to inform further research and current practice.

Design: A systematic search and meta-ethnography synthesis informed by Noblit and Hare (1988) and the eMERGe guidance (France et al. 2019) was undertaken. Nine electronic databases were searched systematically using predefined search terms in August 2021, and again in March 2023. Studies meeting the following criteria: English language, qualitative and mixed-method studies, published from 2000 onwards, and relevant to the topic, were eligible for quality appraisal and inclusion.

Findings: Six studies met the inclusion criteria. Three from Turkey, one from Palestine, one from Hong Kong and one from New Zealand. One disconfirming study was identified. Following both a reciprocal and refutational synthesis, four 3rd order constructs were formed, titled: Suffering the examination, Challenging the power dynamic, Cervical-centric labour culture embedded in societal expectations, and Context of care. Finally, a line of argument was arrived at, which brought together and summarised the 3rd order constructs.

Key conclusions and implications of practice: The dominant biomedical discourse of vaginal examination and cervical dilatation as central to the birthing process does not align with midwifery philosophy or women's embodied experience. Women experience examinations as painful and distressing but tolerate them as they view them as necessary and unavoidable. Factors such as context of care setting, environment, privacy, midwifery care, particularly in a continuity of carer model, have considerable positive affect on women's experience of examinations. Further research into women's experiences of vaginal examination in different care models as well as research into less invasive intrapartum assessment tools that promote physiological processes is urgently required.

Introduction

Vaginal examinations are a routine aspect of intrapartum care globally for all women, regardless of perceived risk status, and viewed as an authoritative tool to assess labour progress (Souza et al., 2018; Shepherd et al., 2010). Vaginal examinations are offered as an initial assessment to confirm labour has established, then four hourly based on clinical guidelines to assess labour progress. They will also be offered more frequently during the second stage of labour (NICE 2017) or if indicated by a change in labour for example suspected full dilatation, labour dystocia, or suspected malposition. The evidence-base to support offering routine examinations i.e. four hourly examinations, is weak (Moncrieff et al., 2022; Lavender et al., 2018; Downe et al., 2013). Vaginal examinations are effective at diagnosing malpresentation (Dixon and Foureur, 2010), but in terms of cervical dilatation assessment they have minimal significance and accuracy in forecasting labour progress (Oladapo et al., 2018; Souza et al., 2018). Can cause pain and distress (Dixon and Foureur, 2010), and lead to early diagnosis of labour dystocia, and subsequently potentially unnecessary intervention (Oladapo et al., 2017, Downe et al., 2013, Gaskin, 2003). This is important due to the increasing concern re-

* Corresponding author.
E-mail address: midwifeholly@outlook.com (H. Jenkins).

https://doi.org/10.1016/j.midw.2023.103746

garding the medicalisation of childbirth globally (Renfrew et al., 2014), and long-term implications for women and their families.

Vaginal examination does not facilitate birth (Wickham, 2017); a woman can give birth without a vaginal examination. Despite this, examinations are deemed essential and routine in both contemporary obstetric and midwifery care (Dabagh-feki et al., 2020; Scammel and Stewart, 2013), with an assumptive position they will be performed (Stewart, 2005). Women find examinations act as a gatekeeper as to when they can access care or are even 'allowed to push' (Reed, 2013, 2016; Bergstrom et al., 1997). This coercive element reinforces outdated dynamics of women as recipients of care, rather than active participants at the centre of their care. A point which was highlighted during the Covid-19 pandemic (Nelson, 2021) when women were subject to examinations to prove they were in labour simply to have a birth partner present with them in hospital.

Midwifery literature has long reported the ritualistic nature of vaginal examination, and its inference of power to the health care professional and passivity to the woman being examined (Reed, 2013; Stewart, 2005; Devane, 1996; Kitzinger, 1997; Bergstrom et al., 1992). Vaginal examinations are one example of an intervention in medicalised birth, that reinforces outdated knowledge objectifying the female body and viewing it mechanistically (Davison, 2020; Kitzinger, 2012), which aligns with obstetric rather than midwifery philosophy (Villarmea, 2021; Kitzinger, 1997), and the biomedical need to 'do something' (Enkin, 1992) versus midwifery's 'watchful attendance' (de Jonge et al., 2021). There is an assumption that the cervix dilates in a linear fashion at the same rate for all women which can be measured and charted (Souza et al., 2018), which does not reflect physiological processes (Buckley, 2015; Gaskin 2003). Finally, the focus on vaginal examination as a measure of progress distracts from other ways of assessing progress that require more time-consuming holistic care (de Jonge et al., 2021; Shepherd and Cheyne, 2013).

The World Health Organisation (2018) highlights women's experiences as critical for high-quality care and positive outcomes, driving forward the global movement towards humanised maternity care (Bohren et al., 2015). The process of birth is complex and dynamic, with the hormonal orchestration and physiological processes yet to be fully understood (Buckley, 2015; Dixon et al., 2013). However, by utilising women's experience and voice in research, a better understanding of how interventions affect physiological processes (Olza et al., 2020; Dixon et al., 2013), and influence women's perceptions of their experience can be gained. In addition, it is recognised 1 in 5 women have experienced sexual abuse and will likely not disclose it (Montgomery et al., 2015), further influencing women's experiences. Thus, it is essential this is taken into consideration for all vaginal examinations (Gutteridge, 2020, Gutteridge 2019). This is pertinent at a time when there is growing acknowledgement of the impact of birth experience and recollections on future maternal psychological wellbeing (WHO, 2018).

For such a commonplace assessment tool, it is essential to understand how women think and feel about vaginal examinations. There is a significant gap in the research in terms of understanding women's experience of vaginal examinations (Moncrieff et al., 2022; Dahlen et al., 2013; Downe et al., 2013), and to date there has been no review of the evidence that does exist. Qualitative synthesis is recognised within healthcare as being highly effective in identifying the acceptability of an intervention (Downe et al., 2019, France et al., 2015). The Lancet midwifery series (Renfrew et al., 2014) included 13 meta-syntheses within their evidence review, emphasising the significance of the qualitative syntheses' findings to informing a new maternity care framework utilising the views of women. Meta-ethnography permits a high level of analysis, particularly beneficial when reviewing a smaller number of studies, with rich reporting of primary subjects. Therefore, this systematic review and meta-ethnography will collate and synthesise eligible studies including women's perspectives on any vaginal examinations during intrapartum care, and aims to identify ways to improve the experience for women and understand the impact of examinations on the birth process.

Methods

A systematic review and meta-ethnography informed by Noblit and Hare's (1988) meta-ethnography synthesis approach and the eMERGe reporting guidance by France et al. (2019) was undertaken. Noblit and Hare (1988) proposed meta-ethnography as an interpretive synthesis approach to explore multiple primary studies around one phenomenon of interest, correlating key themes for analysis by using the process of translation, to arrive at new interpretations of the research. The interpretivist approach suits this review which aims to seek a fresh interpretation of vaginal examination during intrapartum care through critical exploration of women's experiences. Meta-ethnography is a seven-step process, set out in Fig. 1:

Noblit and Hare's (1988) Seven Phases of Meta-Ethnography	
Phase 1	Getting started and identifying the focus of the synthesis
Phase 2	Deciding what is relevant to the initial interest study selection and searches for studies
Phase 3	Reading the studies and identifying concepts or themes in studies
Phase 4	Determining how the studies are related
Phase 5	Translating the studies into one another by making systematic comparisons and interpreting meaning
Phase 6	Synthesising translations – which France and her team describe as 'second level synthesis' (France *et al.* 2019)
Phase 7	Expressing the synthesis, or in other words tailoring communication of the synthesis to the audience.

Fig. 1. Phases of Meta-ethnography.

Question and search strategy

The review question: 'Exploring women's experiences, understanding and views of vaginal examination during intrapartum care; A meta-ethnography', was developed utilising the SPIDER tool (Cooke et al., 2012), which also informed the search strategy. Pre-defined eligibility criteria and search terms were employed to create a robust review. A boolean search included the terms: "women*" OR "woman" OR "mother" AND "vaginal examination" OR "internal examination" OR "cervical dilatation" OR "pelvic" OR "intrapartum" OR "birth" OR "labo*" OR "labo* progress" AND "interview" OR "focus group" OR "case stud*" OR "case report*" OR "observ*" AND "view" OR "experience" OR "opinion" OR " attitude" OR "perception" OR "preference" OR "feeling*" AND "qualitative". These search terms were then initially run, with the assistance of a skilled information specialist, through 9 databases in August 2021, and an updated run in March 2023: Ovid (Medline, Embase, MIDIRS, and Psychinfo), Ebsco CINAHL, SCOPUS, Web of Science (Complete), Prospero and Cochrane Library [Supplementary File A].

Following the systematic search of the selected databases, an on-line reference tool (Refworks) was employed to store the results and to remove duplicates. A screening tool based on eligibility criteria was devised, comprising five criteria, to initially screen the title and abstracts of the results [Supplementary File B]. Following screening, full text was obtained for full eligibility review. For the final studies selected for the review, the reference lists were manually searched for any further relevant primary studies. Inclusion criteria were pre-determined as follows: English language, qualitative and mixed-method studies (primary research including unpublished works such as dissertations), published from 2000 onwards, and focus of paper (women's experience, intrapartum care, vaginal examination) were eligible for screening, quality appraisal and inclusion. Author one undertook the screening process, all three authors discussed any papers being screened at full text stage that warranted further discussion, Author one also carried out quality appraisal and data extraction supervised by author two.

When considering mixed method studies, it should be feasible to extract the qualitative portion of data reported by the study to contribute to the review. This is also relevant when considering focus of the paper, if the study is not focussed around the topic area, then vaginal examination should either be a key thematic finding or central to a key thematic finding, to ensure sufficient contribution to the review. With regards the time frame, in the 1990's it was commonplace for medical students to perform and practice vaginal examinations on anaesthetised patients without consent (Taghinejadi and Kelly, 2020). This practice was questioned in the UK, and change began to occur around the mid 90's. Demonstrating a significant shift in culture and acknowledgment that consent is a compulsory component of any examination. However, whilst there have been significant improvements to the respectful care and treatment of women, there is still room for improvement (Bohren et al., 2015), both in the UK and around the world. Hence, to keep the review contemporaneous, it will consider studies from 2000 onwards.

Quality appraisal

Whilst quality appraisal in qualitative research is a point of debate, it remains important to establish the quality of evidence in any systematic review to add robustness to findings. Walsh and Downe's (2006) integrated quality appraisal tool was selected for the quality appraisal of this review, in conjunction with the A-D scoring system introduced by Downe et al. (2007):

A: No, or few flaws. The study credibility, transferability, dependability and confirmability are high
B: Some flaws, unlikely to affect the credibility, transferability, dependability and/or confirmability of the study
C: Some flaws that may affect the credibility, transferability, dependability and/or confirmability of the study
D: Significant flaws that are very likely to affect the credibility, transferability, dependability and/or confirmability of the study.
(Downe et al., 2007)

All papers meeting inclusion criteria are subject to quality appraisal, and must be graded C or above for inclusion within the review.

Synthesis

This systematic review utilised Schutz's (1971) first, second and third order constructs identify whose interpretation is being considered: research participants, study authors or reviewer respectively (France et al., 2019). Whilst constructs are not part of Noblit and Hare's (1988) original meta-ethnography process, they have been widely adopted as meta-ethnography has developed (France et al., 2014). Phase 3 of the meta-ethnography and data extraction involved repeated critical reading of the selected studies and immersion in the detail of the accounts (Noblit and Hare, 1988:28). Key characteristics and study context were identified during this process, as well as the themes and concepts of each study.

For phase 4 a list of the themes, and descriptive categories (Sattar et al., 2021), from across the studies was tabulated, for comparison and contrast. Phase 5 and translation of the studies into one another, is the most fundamental step of meta-ethnography. Noblit and Hare (1988:38) described three types of translation: reciprocal, refutational and line of argument. Noblit and Hare (1988) originally described line of argument as synthesis of multiple studies looking at different angles of a topic that when put together in a 'line of argument' to reach a new interpretation that the individual studies on their own could not attain. However, as meta-ethnography has evolved, line of argument has been used to summarise synthesis with both reciprocal and refutational translations (Feeley et al., 2019), or as a summary statement to encompass emerging themes across all the studies (Downe, 2008; Elmir et al., 2010). This review includes both reciprocal and refutational translation and a line of argument synthesis.

Following the example set by Sattar et al. (2021), an 'index paper' was identified at the start of the translation process, with rich content to begin the analytical process (France et al., 2014; Dahl et al., 2013). A translation table (Sattar et al., 2021) was employed to summarise the metaphors and concepts from the index paper. Following analysis of the index paper, each paper was examined in turn, comparing the metaphors and concepts, in an iterative process, resulting in the 2nd order constructs.

Phase 6 presents the newly formed third order constructs, a result of the translation process and synthesis of first and second order constructs. This is a step away from mere aggregation of the data to a higher level of interpretive analysis (France et al., 2019).

Results

The PRISMA flow diagram (Page et al., 2021) available at Fig. 2 presents the full results of the screening process. Screening of title and abstract resulted in nineteen studies, full text was obtained and read for all nineteen studies. Twelve papers were excluded at full text stage as their focus was not on vaginal examination and failed to address it as a key thematic finding in the results. Another study, Stewart (2005) focussed on vaginal examination, however despite including women in the study design, the findings predominantly focussed on the midwife's perspective and there was

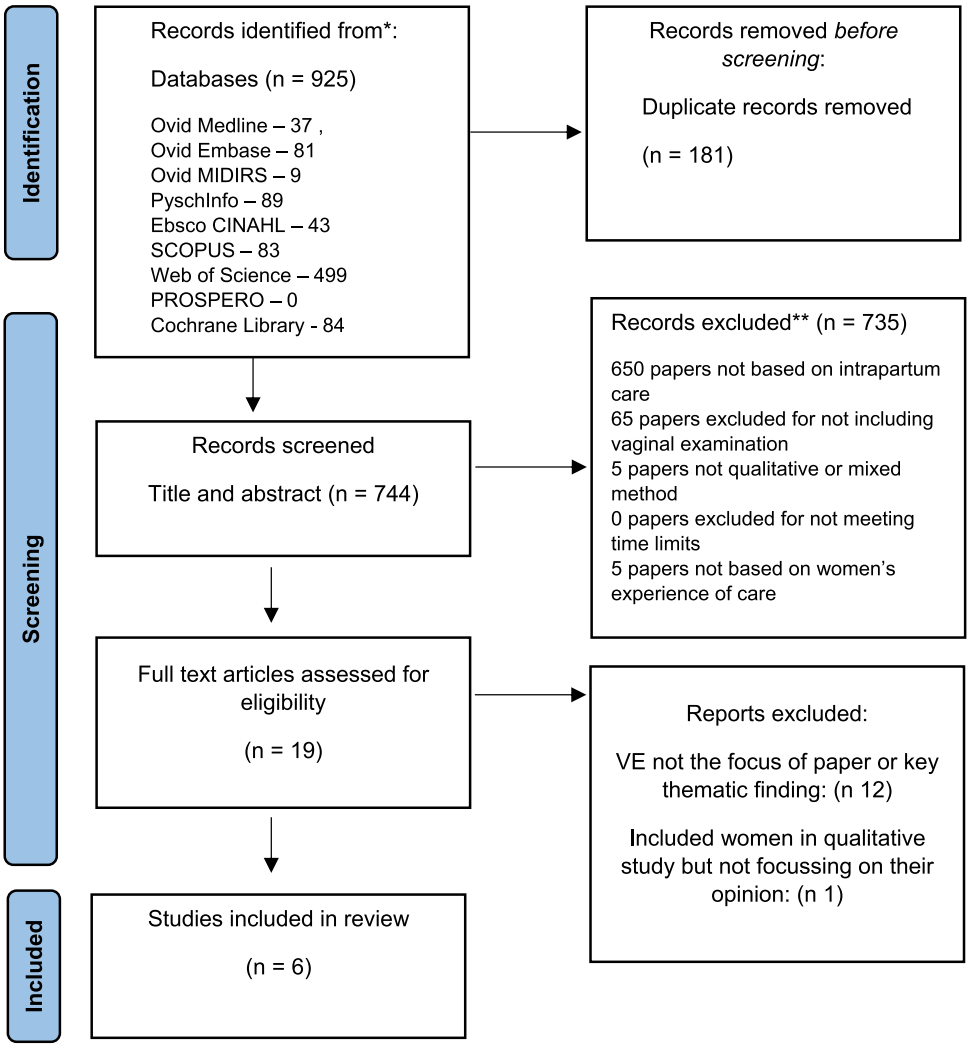

Fig. 2. PRISMA flow diagram.

inadequate content to meet the review's eligibility criteria. A list of the studies excluded at full text stage with explanatory notes is available in Supplementary File C. No further studies were found from manually searching the reference lists of the final six included studies.

Consequently, six studies were eligible for the systematic review. All six studies have a qualitive study design, however Hassan et al. (2012) employed descriptive statistics to analyse their interviews; effectively transitioning it to a mixed method study. As Hassan et al. (2012) used a heavy volume of in text quotes from participants to support the findings from statistical analysis it met the pre-defined eligibility criteria of the review. Four of the studies focussed on vaginal examination and two studies, Aktas and Aydin (2019) and Dixon et al. (2013), had vaginal examination as a key thematic finding of the studies.

Of the six eligible studies, three originated from Turkey (Atkas and Aydin, 2019; Teskereci et al., 2020; Yildrem and Citak Bilgin, 2021), one from Palestine (Hassan et al., 2012), one from New Zealand (Dixon et al., 2013) and lastly one from Hong Kong (Ying Lai and Levy, 2002). The latter was published in 2002, with the rest published within the last decade. Studies were undertaken in lower middle income, upper middle income, and high-income countries. The variety of countries and income settings highlights the ongoing inequality in women's rights around the globe (Walsh et al., 2015), and pertinence of the topic for all women.

Following quality appraisal, all six of the studies were graded 'C' or above. Hassan et al. (2012) and Ying Lai and Levy (2002) achieved the highest scores of 'A/B', making both ideal as the index paper for translation of the studies. Ying Lai and Levy (2002) was ultimately selected due to its purely qualitative study design. A table of characteristics and quality grades is presented at Table 1.

Themes

The first, second and third order constructs are presented at Table 2. The third order constructs are set out below, with quotes from study participants used to reinforce key findings. This meta-ethnography produced not only a reciprocal translation but also a refutational translation, with identification of Dixon et al. (2013) as a disconfirming case. Dixon et al. (2013) findings vary from the other studies in terms of the sense of empowerment women attained from requesting a vaginal examination and the knowledge it then gave them. This contrasts from the other studies where women reported more negative experiences featuring a dominant medical discourse and authoritarian behaviours. This will be discussed in further detail during the synthesis. Finally, the two differ-

Table 1
Study Characteristics.

Paper Author Date	Study Focus & Aim	Country	Healthcare setting	Theoretical perspective	Sample size and method Total (a) Primiparous (b) Multiparous (c)	Interview Type, Timing and Length	Language	Data Analysis	Quality Grade
1 Aktas and Aydin 2019	Negative birth experience "*to analyse the factors associated with a negative childbirth experience from the perspective of the women who gave birth vaginally*"	Turkey	State hospital (Obstetrician) All participants under care of midwife for birth	Qualitative – 'definitive status study'	Purposive sampling (1) 11 (2) 5 (3) 6	Pre-interview questionnaire & Semi-structured in -depth interviews Conducted 20–24 h following delivery Duration 20–30 min	Not stated	Thematic analysis approach	C
2 Dixon, Skinner and Foureur 2021	Stages of labour "*determine whether the discourse of labour as stages and phases resonated with women who had experienced spontaneous labour and birth.*"	New Zealand	One large tertiary hospital and four small primary (midwife led) facilities All participants had a midwife as their lead maternity carer	Critical feminist standpoint methodology	Purposive and snowballing (1) 18 (2) 6 (3) 12	Semi-structured in-depth interviews Within 6 months of vaginal birth Duration 50–90 min	Not stated	Standpoint methodology	B
3 Hassan et al. 2012	VE during intrapartum care "*explore women's feelings, opinions, knowledge and experiences of vaginal examinations (VE) during normal childbirth*"	Palestine	Public hospital	Qualitative - Exploratory study employing descriptive statistics	Random (1) 176 (2) 46 (3) 130	Semi-structured in-depth interviews During postpartum inpatient stay Duration 15–20 min	Arabic	Descriptive statistics	A/B
4 Ying Lai and Levy 2002	VE during intrapartum care "*to explore women's experiences during vaginal examinations in labour*"	Hong Kong	Maternity unit in a district general hospital	Qualitative phenomenological hermeneutic methodology	Purposive 8 women – parity not identified	Unstructured interviews 24 h following delivery Duration 30 min	Chinese	Phenomenological hermeneutic analysis based on Riceour's interpretation theory	A/B
5 Teskereci et al., 2020	VE during intrapartum care "*to examine the experiences of women regarding vaginal examination (VE) performed during labor*"	Turkey	Obstetric clinic of central public hospital	Qualitative – phenomenological hermeneutic methodology	Purposive (1) 14 (2) 8 (3) 6	Semi-structured interview During postpartum inpatient stay Duration 30 min	Turkish	Phenomenological hermeneutic analysis based on Riceour's interpretation theory Three stage textual analysis	C
6 Yildrem and Bilgin 2021	VE during intrapartum care "*determine qualitatively experiences and affecting factors of the women related to vaginal examination during labor*"	Turkey	Two state hospitals	Not stated	Purposive (1) 20 (2) 5 (3) (15)	Semi-structured interview During postpartum inpatient stay Duration 30–45 min	Turkish	Not stated	C

Table 2
Phase 6 ~ 1st/2nd/3rd order constructs.

1st Order Constructs	2nd Order Constructs	3rd Order Constructs	Supporting Review studies
Pain, distress, discomfort	Conflict between pain/discomfort and necessity of VE	Suffering the examination; internal conflict between women experiencing pain and embarrassment, wanting to behave as culturally expected and doing the best for the baby.	Ying Lai & Levy (2002) Hassan et al. 2012 Teskereci et al. (2020) Yildrem and Citak Bilgin 2021 Atkas & Aydin (2019)
Necessary and unavoidable	Cultural expectations: women behaving as culturally expected, minimal fuss, noise and nil complaint	Challenging the power dynamic; Women's experience drastically impacted by contrast between authoritarian care giving with disrespectful disregard for environment/privacy and women having access to autonomous midwives, having information, choice and access to shared decision making.	Ying Lai & Levy (2002) Hassan et al., 2012 Teskereci et al. (2020) Atkas & Aydin (2019)
Embarrassment Lack of privacy Disrespect, Lack of consent/knowledge, poor communication, authoritarian behaviours	Factors negatively affecting the experience: Attitude of the examiner and authoritarian style behaviours including verbal abuse, lack of privacy, no support partner and an increased frequency of examinations.	Distrust in birth process, viewed as mechanistic and requiring constant surveillance.	Yildrem and Citak Bilgin 2021 Dixon et al. (2013)
Affecting factors: gender of examiner, doctor v midwife, environment, continuity of carer, level of skill, and frequency Sense of control Informed Empowered	Factors positively affecting the experience: Continuity of carer, respectful care facilitating shared decision making, knowledge and understanding of VE, a skilful examiner, the gender of the examiner, midwifery care, effective communication.	Cervical-centric labour culture embedded in societal expectations; Women expect examinations and use dilatation to place themselves in their labour. Inherent distrust in women's bodies experienced by women themselves. Lack of information, misconceptions such as VE accelerates labour. Context of Care - Changes the why, when, how... and if?? Context i.e. hospital, home changes the way vaginal examination is used by midwives during intrapartum care.	Ying Lai & Levy (2002) Hassan et al. 2012 Dixon et al. (2013) Dixon et al. (2013)

ent translations culminated in a summary line of argument, which bought together the overall synthesis.

Reciprocal translation

Suffering the examination

Women experience an internal conflict during the examination process. Dominant cultural requirements to conform and respect the authority of doctors, means women often comply with examinations regardless of their own feelings. This was true across the cultures in this review, including Chinese and Arabic.

> *"I can tolerate it…there is no other way round, labour is like this"* (Ying Lai and Levy, 2002 p.299)

> *"I felt so tired when the provider inserted his/her fingers, I felt as if I am going to die! … I do not like to be examined; I felt severe pain and discomfort"* (Hassan et al., p5)

Alongside this is the mixed knowledge and understanding by women of examinations as essential and necessary to the progress in labour, some even believing vaginal examination will accelerate labour (Hassan et al., 2012; Ying Lai and Levy, 2002), which elicits even greater compliance. Women place trust and authority in the biomedical model of maternity care, believing it will provide the best care for their unborn baby and that by undergoing examination, however painful or distressing, the best care is being provided for their baby (Teskereci et al., 2020). Illustrated by the quote below, despite being subject to abusive behaviours, the woman still believed it was necessary:

> *"I asked the staff to change the gloves and they answered that it is not possible. I had severe pain, burning and edema because of the vaginal examination with the latex gloves. My edema down there increased with the second examination and during birth." She added: "although vaginal examination is necessary during labor, but it should not be done too frequent"* (Hassan et al., 2012 p5)

All the papers, bar Dixon et al. (2013) reported findings on pain and distress during examinations, through the primary data, and many of the women expressed that whilst they experienced pain, vaginal examination was necessary during labour. Teskereci et al. (2020) further described women's coping mechanisms for tolerating painful examinations such as thinking about the baby. They also described the fear expressed by women, to point of considering a caesarean section over the thought of vaginal examinations and causing women to reference examinations in terms such as *'it'* or *'that thing'*.

Challenging the power dynamic

The review studies all found that women experienced examinations positively when there was a shift in attitudes by the care provider from authoritarian to supportive and humanistic. Findings reported included examples where women described loss of control and felt fear due to the nature of vaginal examination:

> *"whoever comes and touches it [performs vaginal examination], I don't know, it's hard for me. One by one they come, but I have got nothing there"* (Teskereci et al., 2019 p82)

> *"The health professionals came for another examination in every ten minutes. Hmm, the professionals constantly controlled me using the fingers during the labor. It annoyed me"* (Yildrem and Citak Bilgin, 2021 p. 224)

Simple adjustments to care elements such as ensuring privacy, relaying information to women including the findings of the exam-

ination, kindness and gentleness transformed the experience from a potentially traumatic event to an empowering one.

> *"I wanted them to keep me informed. I wanted them to tell me how and why they perform the VE. Because I was very excited and nervous on the birth table."* (Yildrem and Citak Bilgin, 2021 p. 226)

Dixon et al. (2013) highlighted just how affirming and empowering this transition in power dynamic could be in a care environment where women can choose their care provider, and afforded continuity of carer. Continuity was also reported by both Yildrem and Citak Bilgin (2021) and Aktas and Aydin (2019) as a positive influence on care within the hospital environment, even if just for the duration of labour.

> *"I was very happy that the same midwife took care of me. She was very helpful during the examination*" and "*The midwife at the maternity ward was very good. I mean, I have been so pleased that the same midwife examined me. God bless her."* (Yildrim and Citak Bilgin, 2021 p.223)

Where continuity was not facilitated women described the lack of trust and discomfort this caused.

> *"I did not know who would be my midwife at birth. I went to the birth room and I learned it there. I preferred to have been informed before. The midwife never introduced herself and made an explanation. I did not know whom to trust."* (Aktas and Aydin, 2019 p. 184)

Cervical-centric labour culture embedded in societal expectations

The studies in this review all concurred that women expected and, in some cases, wanted examinations as means to both establish they were in labour, and also understand where they were in their labour, in other words predict how long they may have left. Women viewed the examinations as necessary and unavoidable to the process of labour, as something that must be suffered to achieve birth.

> *"I know every pregnant woman will have the examination…since I am pregnant, I don't care too much. Once you are pregnant, you get less shy."* (Ying Lai and Levy, 2002 p299)

This illustrates how entrenched cervical dilation as a measure of labour progress is to wider society and not only in the medical and midwifery professions. Dixon et al. (2013) and Teskereci et al. (2020) both reported examples of women requesting an examination to find out the dilatation of their cervix.

> *"I am willing to have the examination, because I want to know how much it dilated, and how much is left until birth. I called them myself to conduct the examination"* (Teskereci et al., 2020 p.80)

Whilst Dixon et al. (2013) findings initially seem to refute the other studies in respect of women's overall experiences, they do align with the other studies in terms of the understanding of vaginal examinations as necessary by women. This would therefore support Dixon et al. (2013) findings of vaginal examination and assessment of cervical dilatation as a powerful and authoritative intervention during labour.

Refutational translation

The study conducted by Dixon et al. (2013) was compared to the other review studies last in the translation process, this resulted in rich contrast for the second and third order constructs and a refutational synthesis.

Context of care – changes the why, when, how… and if??

Dixon et al. (2013), reported contrasting findings to the other studies, in terms of the sense of empowerment women attained from requesting a vaginal examination and the knowledge it then gave them.

> *"You kind of want to know where you are just to be in control of it and sort of to know how far you've potentially got. Thinking 'Right, I'm nearly at the end'. Sort of an incentive to keep going."* (Dixon et al., 2014 p. 14)

This differed in comparison to the other studies, where women reported more negative experiences featuring a dominant medical discourse and authoritarian behaviours. These in turn led to the view that examinations were necessary but to be suffered.

Explanation of this difference in findings may be explained by the study cohort and setting of Dixon et al. (2013); the study took place in New Zealand, in a midwife-led model of care, where the women are able to choose their midwife, 11 of the 18 participants had an examination, none had an examination as part of routine assessment. Although it is noted that a high percentage still had examinations, and some had requested it themselves. This is a very different dynamic to the other study settings where the doctor and midwife had the power in the caring relationship and dictated when vaginal examinations were performed, as is prevalent in the hospital and obstetric led setting, where institutional factors influence care.

> *"I just wanted her [the midwife, to do], the first one to see how dilated I was because I wanted to know. Yeah you're doing all that work and I wanted to know how much and I think she wasn't keen because what if I wasn't dilated that much it would have been a real errrr."* (Dixon et al. 2014 p. 14)

The above quote from one of the study participants highlights how the midwife in the New Zealand model was not keen to perform a vaginal examination, demonstrating how context of care and the care setting is integral to the way midwives use vaginal examination as an assessment tool. Yet, women in the New Zealand model were still requesting examinations reinforcing how entrenched they are as a measure of labour progress, even for women themselves.

Line of argument

A tentative summary line of argument has been developed from the reciprocal and refutational analysis:

> The dominant biomedical standpoint of vaginal examination as an essential labour assessment tool has become embedded within wider society on a global scale, with the concept of cervical dilatation resonating with women in their understanding and comprehension of the labour process. Whilst many women experience vaginal examination as painful and embarrassing, examinations are tolerated from the understanding that they are a necessary and unavoidable aspect of labour and birth, and an authoritative form of assessment. Context of care is highly relevant, influencing how, when and if vaginal examinations are performed depending on the care setting. Further, the experience of vaginal examination is positively affected when a midwife led continuity of carer model is facilitated; examinations can even be viewed as empowering for women in these circumstances. Going forward, it is crucial that in view of the weak evidence for routine vaginal examination in low-risk labour care, that the cultural narrative is changed so that women can make informed choices about the necessity of vaginal examination for their individual care. Further other forms of labour mea-

surement should be explored and adopted to promote normal physiological processes, rather than perpetuating the dominant cervical centric biomedical model of intrapartum care, through routine use of vaginal examination.

Discussion

Just six studies were identified for the review, supporting the presupposition that there is a scarcity of research considering women's views. It is notable three of the studies were conducted in the last two years, a sign that the requirement for research into women's experience of intrapartum care is gaining wider recognition. Third order constructs have identified how women's experiences of vaginal examinations during childbirth are substantially influenced by care provider attitudes, midwifery care, cultural influences, model of care, and care environment. Further, findings found women view vaginal examinations as a necessary and an unavoidable part of labour and understand vaginal examination as an essential requirement of labour that aids overall progress and benefits the baby. The findings also support existing evidence that for many women vaginal examinations can be painful and distressing. In addition, the review also found that for some women vaginal examinations can be experienced as empowering, confirming their embodied knowledge, and used as a tool to claim responsibility for their birth.

This review demonstrates that the practice of vaginal examination has become embedded beyond the medical profession, with women viewing it as a necessary part of the labour care, even when conducted in an abusive manner (Hassan et al., 2012). Feminist literature (Shabot, 2020) has discussed women's tolerance of examinations in terms of the dominant medical culture 'normalising' routine vaginal examination and women's lack of knowledge and resources to tackle it. It is therefore important to consider the wider cultural context of current intrapartum care (Villarmea, 2021; Reed et al., 2016) and impact of different care settings and carers to understand women's views. Theories put forward by Davis-Floyd (1994), Machin and Scammel (1997) and Reed (2020), associate birthing with ritualistic processes reflecting the dominant culture, which reassure both women and their care providers, whether evidence based or not. This provides further explanation of women's acceptance of vaginal examination as necessary due to their position as a cultural normality during intrapartum care.

Care provided by midwives was found to be a predominantly supportive factor in the review, especially when there is continuity of carer. This aligns with the wealth of evidence supporting midwife-led continuity of carer models of maternity care (Renfrew et al., 2014). Moreover, women value the relational aspect of care, which in turn facilitates trust and respectful communication (Perriman et al., 2018). It further facilitates the change in dynamics required for each woman's birth experience to be individual and not subject to routine intervention without indication (Reed et al., 2016; Thomson and Downe, 2008). An important finding from the review is the potential for women to be empowered by findings from vaginal examinations, although this is a complex discourse, requiring a shift a in the underlying authority and control from obstetricians and midwives, to the woman herself. It is further convoluted by the fact women have been led to believe for decades that vaginal examination and cervical dilation are the authority in assessing labour progress, that there are no alternatives, and reinforced by wider culture and television that they are a necessary to birth. Highlighting a failure to correctly inform and educate women around vaginal examination in childbirth and when it may or may not be informative.

The review's overall results reinforce the dominance of vaginal examination, inextricably linked to a cervical centric biomedical birth culture (Reed, 2019). Stewart (2008); Reed (2013); Dahlen et al. (2013) and Wickham (2011) all discuss vaginal examination and its indelible tie to the use of the partogram in the assessment and management of obstetric led intrapartum care. Significantly, Dahlen et al. (2013) found through debate with other midwives, that in settings outside of the hospital, where care was led by midwives, vaginal examination was not routinely used to assess labour, and examinations only became useful when labour did not progress as expected and decisions around transfer to hospital were required. These findings were supported by Winter's (2002) study of independent midwives' assessment of labour progress.

Dahlen et al. (2013) reported many midwives used intuition to determine if vaginal examination was required, but reported this instinctual knowledge was not valued by biomedicine. Borders et al. (2012) established via audits, that midwives performance of vaginal examination increases in direct response to workload, as observation is more time consuming. One midwife in Stewart's (2008:159) study described vaginal examination as robotic practice, devaluing observational midwifery skills, and Stewart (2008) went on to state how midwives routinely perform examinations under the surveillance of colleagues and hospital policies, rather than to provide woman-centred care. This emphasizes the strong links between vaginal examinations, hospital settings, and obstetric led care (Dahlen et al., 2013). In other words, the context of intrapartum care i.e. hospital, birth centre or home, changes whether vaginal examinations are performed.

Distinct from obstetrics, research conducted by midwives has focussed on less invasive, woman-centred methods of labour assessment such as behavioural cues and measurement of the purple line, a phenomenon observed as the foetal head descends into the pelvis (Irani et al., 2018; Shepherd et al., 2010). However, the recently published Moncrieff et al. (2022) Cochrane review, comparing vaginal examination with other methods of labour assessment, demonstrates the lack of research in this area. Only 4 relatively small studies were eligible for the review, and the researchers concluded that there was insufficient evidence to support the routine use of vaginal examinations or alternatives and women's experiences were missing from data collection. Further research is urgently required to look at the effectiveness of vaginal examination, alternative methods of assessment and women's experiences of the intervention in all care settings.

Acknowledgement of the cultural context of the studies within the review is important. The New Zealand study was the only study from a high-income country, and which may have influenced the difference in findings, it was also the only midwife led model of care. The other countries in the review are middle income, all hospital settings, and generally highly medicalised which may have influenced the frequency and reasons for examinations, thus affecting the way they are experienced by women, i.e. more negatively. Lewin et al. (2005) reported high levels of satisfaction for vaginal examinations experienced in labour, in their postal questionnaire survey of 73 women from three maternity centres in the UK. Despite high satisfaction, results also showed that there remained gaps in information shared about vaginal examination or any alternative assessment methods, and more than half the respondents reported examinations as painful and distressing. These results support findings from the review that for many women vaginal examination can be a painful and distressing experience and of vaginal examination embedded as authoritative assessment tool amongst women. No information is given regarding the maternity centres used for Lewin et al. (2005) study so no further discussion on model of care can be drawn from this study, but it highlights that further research is needed from both high- and low-income settings on this topic.

Limitations

The small number of studies and different cultural contexts means that whilst the findings are important, they also require interpretation to be cautious due to the limitations inferred for transferability. Generalisability of the review is impacted by study settings and models of maternity care. Only one high income country was included in the review, and no low-income countries, whilst three of the papers originated from one country: Turkey. In addition, five studies all included care within the hospital setting provided by midwives but led by obstetricians. Only one study considered vaginal examinations in a purely midwife led model, across multiple care settings.

The synthesis process derived third order constructs and a tentative line of argument. These new interpretations are a step further away from the women's voices the synthesis represents. To retain the women's voices as far as possible, the data extraction process took an inclusive approach to minimise loss of context, and evidence confirmability. Lastly, four of the study interviews were not conducted in English, and results have therefore been subject to translation during the analytical phase of research, whilst two of the studies gave comprehensive overview of the translation process the other two are limited.

For the purposes of the meta-ethnography, quantitative research was excluded from the synthesis, however during the review screening process a number of relevant papers were excluded due to their quantitative design but that would be relevant to a future meta-syntheses and add to the findings of this meta-ethnography.

Conclusion and implications for practice

The implications of this systematic review and meta-ethnography for practice, in view of the routine and frequent use of vaginal examination in hospital settings, without robust evidence, is an urgent call for research into women's experiences and views on vaginal examination and other intrapartum assessment tools. Further, midwives must continue in their role as advocates for women, to question routine and ritualised birth practices rooted in the biomedical discourse and reclaim women's knowledge of their individual embodied experiences, creating an alternative discourse.

Research into women's experiences with specific focus on vaginal examination and conducted in a variety of settings would build on the findings from Dixon et al. (2013) study, potentially expanding the evidence base for context of midwifery practice as influential to the performance of vaginal examinations. Further, salutogenic research around physiological labour processes and an overhaul of the partogram tool is required to address the cervical centric birth culture that presently dominates intrapartum care. Thus, placing women at the centre of their care rather than their cervix.

Ethical approval

Not applicable.

Funding sources

Not Applicable.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.midw.2023.103746.

References

Aktas, S., Aydin, R., 2019. The analysis of negative birth experiences of mothers: a qualitative study. J. Reprod. Infant Psychol. 37 (2), 176–192. doi:10.1080/02646838.2018.1540863.

Bergstrom, L., Roberts, J., Skillman, L., Seidel, J., 1992. You'll feel me touching you, sweetie": vaginal examinations during the second stage of labor. Birth 19 (1), 10–18. doi:10.1111/j.1523-536X.1992.tb00365.x.

Bergstrom, L., Seidel, J., Skillman-Hull, L., Roberts, J., 1997. I gotta push. please let me push!" social interactions during the change from first to second stage labor. Birth 24 (3), 173–180. doi:10.1111/j.1523-536X.1992.tb00365.x.

Bohren, M., Vogel, J., Hunter, E., Lutsiv, O., Makh, S., Souza, JP., Aguiar, C., Coneglian, S., Dinz, A., Tuncalp, O., Javadi, D., Oladapo, O., Khosla, R., Hindin, M., Gulmezoglu, AM., 2015. The mistreatment of women during childbirth in health facilities globally: a mixed-methods systematic review. PLoS Med. 12 (6), e1001847. doi:10.1371/journal.pmed.1001847.

Borders, N., Lawton, R., Martin, SR., 2012. A clinical audit of the number of vaginal examinations in labor: a NOVEL idea. J. Midwifery Women's Health 57, 139–144. doi:10.1111/j.1542-2011.2011.00128.x.

Buckley, SJ., 2015. Hormonal Physiology of Childbearing: Evidence and Implications for Women, Babies, and Maternity Care. Childbirth Connection Programs, National Partnership for Women & Families, Washington, D.C.

Cooke, A., Smith, D., Booth, A., 2012. Beyond PICO: the SPIDER tool for qualitative evidence synthesis. Qual. Health Res. 22 (10), 1435–1443. doi:10.1177/1049732312452938.

Dabagh-fekri, S., Amiri-Farahani, L., Amini, L., Pezaro, S., 2020. A survey of Iranian Primiparous women's perceptions of vaginal examination during labor. J. Prim. Care Community Health 11, 1–7. doi:10.1177/2150132720940517.

Dahl, B., Fylkesnes, AM., Sørlie, V., Malterud, K., 2013. Lesbian women's experiences with healthcare providers in the birthing context: a meta-ethnography. Midwifery 29 (6), 674–681. doi:10.1016/j.midw.2012.06.008.

Dahlen, H., Downe, S., Duff, M., Gyte, G., 2013. Vaginal examination during normal labor: routine examination or routine intervention? Int. J. Childbirth 3 (3), 1–10. doi:10.1002/14651858.CD010088.pub2.

Davis-Floyd, RE., 1994. The technocratic body: american childbirth as cultural expression. Soc. Sci. Med. 38 (8), 1125–1140. doi:10.1016/0277-9536(94)90228-3.

Davison, C., 2020. Feminism, midwifery, and medicalisation of birth. Br. J. Midwifery 28 (12), 28–31. doi:10.12968/bjom.2020.28.12.810.

de Jonge, A., Dahlen, H., Downe, S., 2021. 'Watchful attendance' during labour and birth. Sex. Reprod. Healthc. 28, 1–2. doi:10.1016/j.srhc.2021.100617.

Devane, D., 1996. Sexuality and midwifery. Br. J. Midwifery 4 (8), 413–420. doi:10.12968/bjom.1996.4.8.413.

Dixon, L., Fouruer, M., 2010. The vaginal examination during labour: is it of benefit or harm? N. Z. Coll. Midwives 42, 21–25.

Dixon, L., Skinner, J., Foureur, M., 2013. Women's perspectives of stages and phases of labour. Midwifery 29, 10–17. doi:10.1016/j.midw.2012.07.001.

Downe, S., 2008. Metasynthesis: a guide to knitting smoke. Evid. Based Midwifery 6 (1), 4–8.

Downe, S., Finlayson, K., Tunçalp, Ö., Gülmezoglu, AM., 2019. Provision and Uptake of Routine Antenatal services: a Qualitative Evidence Synthesis. Cochrane Database of Systematic Reviews Issue Art. No.: CD012392 doi:10.1002/14651858.CD012392.pub2.

Downe, S., Gyte, GML, Dahlen, HG, Singata, M., 2013. Routine vaginal examinations for assessing progress of labour to improve outcomes for women and babies at term. Cochrane Database Syst. Rev. (7) doi:10.1002/14651858.CD010088.pub2, Issue Art. No.: CD010088.

Downe, S., Simpson, L., Trafford, K., 2007. Expert intrapartum maternity care: a meta-synthesis. J. Adv. Nurs. 57 (2), 127–140. doi:10.1111/j.1365-2648.2006.04079.x.

Elmir, R., Schmeid, V., Wilkes, L, Jackson, D., 2010. Women's perceptions and experiences of a traumatic birth: a meta-ethnography. J. Adv. Nurs. 66 (10), 2142–2153. doi:10.1111/j.1365-2648.2010.05391.x.

Enkin, M., 1992. COMMENTARY: 'Do I do that? Do I really do it like that? Like that?'. Birth 19 (1), 19–20. doi:10.1111/j.1523-536X.1992.tb00366.x.

Feeley, CL., Thomson, G., Downe, S., 2019. Caring for women making unconventional birth choices: a meta-ethnography exploring the views, attitudes, and experiences of midwives. Midwifery 72, 50–59. doi:10.1016/j.midw.2019.02.009.

France, E.F., Cunningham, M., Ring, N., Uny, I., Duncan, E., Jepson, R., Maxwell, M., Roberts, R., Turley, R., Booth, A., Britten, N., Flemming, K., Gallagher, I., Garside, R., Hennes, K., Lewin, S., Noblit, G., Pope, C., Thomas, J., Vanstone, M., Hig-

ginbottom, G., Noyes, J., 2019. Improving reporting of meta-ethnography: the eMERGe reporting guidance. BMC Med. Res. Methodol. 19 (25), 1–13. doi:10.1186/s12874-018-0600-0.
France, E.F., Ring, N., Thomas, J., Noyes, J., Maxwell, M., Jepson, R., 2014. A Methodological Systematic Review of What's Wrong with Meta-Ethnography Reporting. BMC Med. Res. Methodol. 14 (1), 1–16. doi:10.1186/1471-2288-14-119.
Gaskin, IM., 2003. Going backwards: the concept of 'pasmo. Pract. Midwife 6 (8), 34–37.
Gutteridge, 2019. Understanding Anxiety, Worry and Fear in Childbearing: A Resource For Midwives and Clinicians. Springer, Switzerland.
Gutteridge., 2020. In respect of vaginal examinations [online] <https://www.rcm.org.uk/news-views/rcm-opinion/2020/in-respect-of-vaginal-examinations/> Accessed 23 November 2021.
Hassan, S., Sundby, J., Huseini, A., Bjertness, E., 2012. The Paradox of vaginal examination practice during normal childbirth: palestinian women's feelings, opinions, knowledge and experiences. Reprod. Health 9 (16), 1–9. doi:10.1186/1742-4755-9-16.
Irani, M., Kordi, M., Esmaily, H., 2018. Relationship between length and width of the purple line and foetal head descent in active phase of labour. J. Obstet. Gynaecol. 38 (1), 10–15. doi:10.1080/01443615.2017.1322044, (Lahore).
Kitzinger S., 1997. Authoritative touch in childbirth: a cross-cultural approach. In Childbirth and Authoritative knowledge: Cross-Cultural Perspectives. (ed.) by Davis-Floyd R., Sargent C.F., Berkeley C.A. University of California Press, 209–232.
Kitzinger, S., 2012. Birth & Sex: The power and the Passion. Pinter&Martin, London.
Lavender, T., Cuthbert, A., Smyth, R.M.D., 2018. Effect of Partograph Use On Outcomes For Women in Spontaneous Labour At Term and Their Babies. Cochrane Database of Systematic Reviews 2018 Art. No.: CD005461. https://doi.10.1002/14651858.CD005461.pub5 .
Lewin, D., Fearon, B., Hemmings, V., Johnson, G., 2005. Women's experiences of vaginal examination in labour. Midwifery 21, 267–277. doi:10.1016/j.midw.2004.10.003.
Machin, D., Scammel, M., 1997. The experience of labour: using ethnography to explore the irresistible nature of the bio-medical metaphor during labour. Midwifery 13, 78–84. doi:10.1016/S0266-6138(97)90060-7.
Moncrieff, G, Gyte, GML, Dahlen, HG, Thomson, G, Singata-Madliki, M, Clegg, A, Downe, S., 2022. Routine Vaginal Examinations Compared to Other Methods for Assessing Progress of Labour to Improve Outcomes For Women and Babies At Term. Cochrane Database of Systematic Reviews 2022 Art. No.: CD010088. https://doi.10.1002/14651858.CD010088.pub3 .
Montgomery, E., Pope, C., Rogers, J., 2015. The re-enactment of childhood sexual abuse in maternity care: a qualitative study. BMC Pregnancy Childbirth 15, 194. doi:10.1186/s12884-015-0626-9.
Nelson, A., 2021. Vaginal Examinations During Childbirth: consent, Coercion and COVID-19. Fem. Leg. Stud. 29, 119–131. doi:10.1007/s10691-021-09453-7.
National Institute for Health and Care Excellence, 2017. Intrapartum care: Care of Healthy Women and Their Babies During Childbirth. [Clinical Guideline 190] [Online] < www.nice.org.uk/guidance/cg190 .
Noblit, G., Hare, D., 1988. Meta-Ethnography: Synthesizing Qualitative Studies, 11. Beverly Hills, CA: Sage.
Oladapo, OT, Diaz, V, Bonet, M, Abalos, E, Thwin, SS, Souza, H, Perdoná, G, Souza, JP, Gülmezoglu, AM., 2018. Cervical dilatation patterns of 'low-risk' women with spontaneous labour and normal perinatal outcomes: a systematic review. BJOG 125 (8), 944–954. doi:10.1111/1471-0528.14930.
Olza, I., Uvnas-Moberg, K., Ekstrom Bergstrom, A., Leahy-Warren, P., Karlsdottir, SI., Nieuwenhuijze, M., Villarmeal, S., Hadjigeorgiou, E., Kazmierczak, M., Spyridou, A., Buckley, S., 2020. Birth as a neuropsycho-social event: an integrative model of maternal experiences and their relation to neurohormonal events during childbirth. PLoS One 15 (7). doi:10.1371/journal.pone.0230992.
Page, MJ., McKenzie, JE., Bossuyt, PM., Boutron, I., Hoffmann, TC., Mulrow, CD., Shamseer, L., Tetzlaff, JM., Akl, E., Brennan, S., Chou, R., Glanville, J., Grimshaw, JM., Hrobjartsson, A., Lalu, MM., Tianjing, L., Loder, EW., Mayo-Wilson, E., Macdonald, S., McGuinness, LA., Stewart, L., Thomas, J., Tricco, A., Welch, V., Whiting, P., Moher, D., 2021. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. Br. Med. J. 372 (71), 1–9. doi:10.1371/journal.pmed.1003583.
Perriman, N., Lee Davis, D., Ferguson, S., 2018. What women value in the midwifery continuity of care model: a systematic review with meta-synthesis. Midwifery 62, 220–229. doi:10.1016/j.midw.2018.04.011.
Reed R., 2013. Midwifery practice during birth: rites of passage and rites of protection [online]. <https://research.usc.edu.au/discovery/fulldisplay/alma99448729602621/61USC_INST:ResearchRepository>Accessed 03 November 2021.
Reed R., 2019. Vaginal examinations: a symptom of a cervical-centric birth culture [online]. <https://midwifethinking.com/2015/05/02/vaginal-examinations-a-symptom-of-a-cervix-centric-birth-culture/>Accessed 11 November 2021.
Reed, R., 2020. Reclaiming Childbirth as a Rite of Passage: Weaving ancient Wisdom With Modern Knowledge. Great Britain:Word Witch.
Reed, R., Rowe, J., Barnes, M., 2016. Midwifery practice during birth: ritual companionship. Women Birth 29, 269–278. doi:10.1016/j.wombi.2015.12.003.
Renfrew, M., McFadden, A., Bastos, MH., Campbell, J., Channon, A., Cheung, NG., Delage Silva, DRA., Downe, S., Kennedy, H., Malata, A., McCormick, F., Wick, L., Declerq, E., 2014. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. Lancet North Am. Ed. 384, 1129–1145. doi:10.1016/S0140-6736(14)60789-3.
Sattar, R., Lawton, R., Panagioti, M., Johnson, J., 2021. Meta-ethnography in healthcare research: a guide to using a meta-ethnographic approach to literature synthesis. BMC Health Serv. Res. 21 (50), 1–13. doi:10.1186/s12913-020-06049-w.
Scammel, M., Stewart, M., 2013. Time, risk and midwife practice: the vaginal examination. Health Risk Soc. 16 (1), 84–100. doi:10.1080/13698575.2013.874549.
Schutz, A., 1971. Collected Papers, 1. Martinus Nijhoff:The Hague (Netherlands).
Shabot, SC., 2020. Why 'normal' feels so bad: violence and vaginal examinations during labour – a (feminist) phenomenology. Fem. Theory 0 (0), 1–12. doi:10.1177/1464700120920764.
Shepherd, A., Cheyne, H., Kennedy, S., McIntosh, C., Styles, M., Niven, C., 2010. The purple line as a measure of labour progress: a longitudinal study. BMC Pregnancy Childbirth 10 (54), 1–7. doi:10.1186/1471-2393-10-54.
Souza, JP., Oladapo, OT., Mugerwa, K., Barbosa-Junior, F., Oliveira- Ciabati, L., Alves, D, 2018. Cervical dilatation over time is a poor predictor of severe adverse birth outcomes: a diagnostic accuracy study. Br. J. Obstet. Gynaecol. 128 (8), 991–1000. doi:10.1111/1471-0528.15205.
Stewart, M., 2005. 'I'm just going to wash you down': sanitizing the vaginal examination. J. Adv. Nurs. 51 (6), 587–594. doi:10.1111/j.1365-2648.2005.03543.x.
Stewart M., 2008. Midwives' discourses on vaginal examination in labour [online]. <https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.486303>Accessed 06 September 2021
Taghinejadi, N., Kelly, B., Pickles, C., Herring, J.H., 2020. Female genital examination and autonomy in medicine. In: Women's Birthing Bodies and the law: Unauthorised Intimate Examinations. power and vulnerability. Publishing., Oxford, pp. 51–62 pp.
Teskereci, G, Yangin, H., Akpinar, A., 2020. Experiences of women regarding vaginal examination during labor: a qualitative study. Health Care Women Int. 41 (1), 75–88. doi:10.17049/ataunihem.856233.
Thomson, G., Downe, S., 2008. Widening the trauma discourse: the link between childbirth and experiences of abuse. J. Psychosom. Obstet. Gynecol. 29 (4), 268–273. doi:10.1080/01674820802545453.
Villarmea, S., 2021. Reasoning from the uterus: casanova, womenś agency, and philosophy of birth. Hypatia J. Fem. Philos. 36, 22–41.
Walsh, D., Christianson, M., Stewart, M., 2015. Why midwives should be feminists. MIDIRS Midwifery Digest 25 (2), 154–160.
Walsh, D., Downe, S., 2006. Appraising the quality of qualitative research. Midwifery 22, 108–119. doi:10.1016/j.midw.2005.05.004.
Wickham S., 2011. Controlling the capricious cervix [online] <https://www.sarawickham.com/articles-2/controlling-the-capricious-cervix/>Accessed 07 November 2021.
Wickham S., 2017. Resources for questioning vaginal examination [online] <https://www.sarawickham.com/questions-and-answers/resources-for-questioning-vaginal-examination-1/>Accessed 03 November 2021.
Winter, C., 2002. Assessing the Progress of Labour—Orderly chaos. How do Independent Midwives Assess the Progress of Labour (Master's Thesis). South Bank University, London.
World Health Organisation, 2018. WHO recommendations: Intrapartum Care For a Positive Childbirth Experience. Geneva: World Health Organization Licence: CC BY-NC-SA 3.0 IGO.
Yildrem, G., Citak Bilgin, N., 2021. Women's experiences of vaginal examination during normal childbirth and affecting factors: a qualitative study. J. Anatolia Nurs. Health Sci. 24 (2), 220–230. doi:10.17049/ataunihem.856233.
Ying Lai, C., Levy, V., 2002. Hong Kong Chinese women's experiences of vaginal examination in labour. Midwifery 18, 296–303. doi:10.1054/midw.2002.0326.