

Improving Vaginal Examinations Performed by Midwives

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تحسين مهارة الفحص المهبلي للقابلات

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الملخص: إجراء الفحص المهبلي هو جزء أساسي من رعاية القبالة، وتتم بشكل روتيني عند تقييم التقدم المحرز خلال مراحل الولادة. وتبين الأدلة أن الفحص المهبلي خلال مراحل الولادة مزعج ومرح ومؤلّم في بعض الأحيان؛ ولا يدرك الكثيرون مدى الألم والاضطراب العاطفي الذي يسببه هذا الفحص. وتشير نتائج البحوث والدراسات إلى أن على القبالة الاهتمام لعدم تكرار هذا الفحص إلا عند الضرورة الملحة، وتلافي الألم والإحراج وإدارة طريقة أخذ المعلومات ومراعاة الأولويات لمنح الأم الحامل الشعور بأنها المتحكممة بهذا الفحص. يمكن تحقيق هذه التدخلات من خلال التواصل وأخذ موافقة الأم، وتوفير الرعاية التي تركز على المرأة وعلاج الأم، ودعم العمل المكثف واستخدام أساليب بديلة لمراقبة تقدم مراحل الولادة.

مفتاح الكلمات: القبالة؛ مراحل الولادة؛ التوليد؛ فحص المهبل.

ABSTRACT: A vaginal examination (VE) is an essential part of midwifery care, and is routinely performed when assessing the progress of labour. As evidence shows that during labour women may find VEs unpleasant, embarrassing and sometimes painful, the aim of this article is to review literature on the use of VEs during labour and to synthesise information from the available literature on how to provide an effective VE. The studies considered were retrieved from three databases (the Cumulative Index to Nursing and Allied Health Literature [CINAHL], SCOPUS and MEDLINE) using the following search terms: "VEs in labour", "midwives and use of VEs" and "women experiences of VEs in labour". The literature reviewed suggests that midwives are not careful about VEs. Therefore, a concerted effort is needed to pay attention to the frequency of VEs, the management of pain and distress, information-giving and the preferences of the patient, so that the patient can feel in control during a VE.

Keywords: Midwifery; Labour; Midwifery care; Vagina; Vaginal Examination.

A VAGINAL EXAMINATION (VE) IS AN extremely intimate examination which is performed regularly and accepted as a routine procedure by midwives during labour.^{1,2} A VE can be performed digitally, or by using instruments such as a speculum.³ In midwifery care, a woman in labour is often subjected to at least one VE, and often these are repeated every 4 hours on obstetric orders or according to the practice requirements of the birth unit.⁴ As the average labour lasts between 8 and 12 hours, most women can expect to have at least two or three VEs during their labour.^{4,5} The woman in labour and her labour companions often rely solely on the VE as the indicator of labour progress.⁶ In midwifery care, a VE is used to assess the degree of opening of the cervix so that the labour progress and time of birth can be estimated.⁷ In addition, a thorough VE can

determine the location of the presenting fetal part (the relationship of the presenting fetal part to an imaginary line drawn between the ischial spines of the pelvis, the status of the membranes) and fetal well-being through scalp stimulation.^{6,7} This information gives some guidance as to whether the woman is in true labour, how long the labour will last and whether the plan of care needs to be changed.

During the process of undergoing a VE, some women have reported feelings of powerlessness, physical pain, unsympathetic attitudes on the part of the healthcare provider and difficulty obtaining adequate information about the procedure.⁷⁻⁹ It is also alleged that VEs are used as an unnecessary procedure by which healthcare providers demonstrate that they are in control of both the woman in labour and the process of labour.^{8,9} This is evidenced by the frequency of VEs performed by

healthcare providers; the reasons given by healthcare providers for performing VEs; the usage of verbal and physical strategies to distance oneself from VEs, and the healthcare provider's distrust that a woman will dilate on her own without medication.⁸⁻¹¹ A VE is an interesting procedure which represents a structured interaction in which 'private areas' no longer remain private; this raises problematic issues of the body and of being touched.^{10,12} Midwives therefore need to consider how they discuss VEs with women during pregnancy and labour, so that they can inform them of their purpose and rationale, and provide sensitive woman-centred care so that patients can be involved in decisions about how and when VEs should be performed.^{10,13} The purpose of this literature review is to explore the use of VEs during labour and to discuss important interventions that midwives can adopt in order to provide sensitive and appropriate care during this intimate examination.

Methods

The authors aimed to identify articles reporting primary studies relevant to the subject of VEs during pregnancy and labour. Trial searches were conducted to finalise the search terms and to maximise the number of articles identified. The terms used to conduct the search were "VE in labour", "midwives and use of VE" and "women's experiences of VE in labour". After finalising the search terms, articles concerning VEs during pregnancy/labour were researched on the MEDLINE, SCOPUS and the Cumulative Index to Nursing and Allied Health (CINHAL) databases. Other databases were not searched as it was observed that several of the articles were repeated in the three databases. A total of 6 articles based on primary studies, reporting about VEs during labour, and published between 2002–2012, were used to formulate the foundation for this narrative review. The 6 articles were included regardless of the methods and instruments used in each study.

The search yielded 60 articles in MEDLINE, 43 articles in SCOPUS and 34 articles in CINHAL. After the initial screening, it was established that only 40 articles from the three databases had titles and abstracts focusing on VE during labour, using different combinations of the search terms. These 40 articles were reviewed for relevance

to the subject matter. A total of 34 articles were excluded because they did not meet the inclusion criteria. The reasons for exclusion included either the format of the article, as several of the articles were letters to the editor (n = 5), literature reviews (n = 8) or commentaries (n = 8), or that the article was found to be based on personal opinion (n = 5), or was not a primary research study (n = 8).

Results

The findings of this review [Table 1] show that VEs were conducted too frequently and by many providers, and that the most common reason given by midwives for performing a VE was to assess the progress and commencement of labour. In addition, pain, discomfort and embarrassment were frequently experienced during VEs; there was low satisfaction in the management of associated pain; opportunities to refuse examinations were minimal; there was insufficient information about the VE process, and many women felt embarrassment and discomfort when being examined by a male healthcare professional. Some midwives also used verbal and physical strategies to distance themselves from VEs as an attempt to establish power differentials between themselves and the women—resulting in the women feeling vulnerable. However, some studies reported that healthcare providers had shown improvement, conducting VEs with sensitivity and maintaining the dignity of the patient in a supportive, informative and reassuring environment.

This review of the literature also emphasised some interventions that can make the experience of a VE more comfortable for the patient; for example, using sensitive woman-centred care; judging the necessity of VEs based on individual patients; the management of pain and distress; giving sufficient information on the procedure to the patient; giving the patient a choice in preferred options; increased communication skills, and treating the women with courtesy and respect. This literature review discusses the important interventions that midwives can adapt when performing VEs.

Table 1: Primary studies on vaginal examinations during labour

Author	Sample size (N), gender, location, type, design/ instrument	Study purpose	Main findings and conclusions
Shepherd <i>et al.</i> ¹¹ 2013	144 female patients NHS hospital, UK Cross-sectional survey Self-reported data collection forms	To investigate the number of VEs performed in relation to the length of labour, and the reasons given by midwives for performing VEs.	<ul style="list-style-type: none"> • The number of VEs carried out (mean 2.9, SD 1.5, range 1–7) increased as the labour time increased. • Almost 70% of women had more VEs than expected when the procedure of 4-hourly VEs was applied. • The most common reason given by midwives for performing a VE was to assess labour progress and the commencement of labour. • Women received more VEs than was consistent with the guidelines.
Hassan <i>et al.</i> ⁹ 2012	176 female patients Public hospital, Palestine Cross-sectional survey Semi-structured questionnaires and face-to-face interviews	To explore women's feelings opinions, knowledge and experiences of VEs during normal childbirth.	<ul style="list-style-type: none"> • VEs were conducted too frequently, and by too many different providers. • 82% of the women reported feeling pain or severe pain during VEs. • 68% reported feeling discomfort during VEs. • Some women reported being treated insensitively by their healthcare providers, a lack of privacy and being treated with little respect or dignity.
Dixon ⁷ 2005	6 female and male midwives, New Zealand Small, qualitative, descriptive study In-depth unstructured interviews	To explore midwives' use of VEs during labour.	<ul style="list-style-type: none"> • A knowledge of the patient helps guide the midwife in the use of VEs. • Midwives use their judgment on the necessity for a VE based on each individual woman and each situation. • The midwives used VEs more frequently when they needed to gain a fuller understanding of the labour, particularly when the observed signs were unclear or a problem was developing.
Lewin <i>et al.</i> ¹³ 2005	104 female patients Three midwifery units, Cambridgeshire, UK Prospective, analytic survey Postal survey; 20-item Likert-type scale	To investigate women's perception of and their experiences of VEs during labour.	<ul style="list-style-type: none"> • Women were most satisfied (74%) concerning VEs in areas such as privacy, dignity, sensitivity, support and the frequency of VEs. • The women were least satisfied in areas such as associated pain with VEs, lack of opportunities to refuse examinations and the lack of detailed information-giving. • VEs have become a routine element of care-giving that merits some attention, particularly regarding the management of pain and distress, information-giving and allowing alternative patient-preferred options.
Stewart ¹⁰ 2005	10 midwives and 6 patients South-West England, UK In-depth interviews and non-participant observation Analytical memos, a reflective diary and textual data	To explore the qualitative experiences of midwives and women in relation to VEs in labour, focusing on how VEs are discussed and on the wash-down procedure performed by some midwives.	<ul style="list-style-type: none"> • Midwives used persistent abbreviations or euphemisms as a means of distancing themselves from the reality of the procedure. • Some midwives were observed washing women's genitalia in a ritualised manner prior to VEs as a strategy of establishing power differentials between the midwife and the woman. This resulted in feelings of vulnerability on the part of the woman. • Healthcare professionals and students need to be taught specific communication skills to enable them to discuss VEs more openly with women. • It is important to carry out VEs in a way that is not demeaning and does not reinforce notions that women's bodies are dirty.
Ying Lai <i>et al.</i> ³ 2002	8 female patients Maternity unit of a university-affiliated district general hospital, Hong Kong Qualitative study with a phenomenological approach Tape-recorded open-ended interviews	To explore women's experiences of VEs during labour.	<ul style="list-style-type: none"> • Women accepted the necessity for VEs. • Some women felt embarrassed when examined by a male doctor but the attitude and approach of the examiner was considered more important than the gender. • Pain and embarrassment were frequently experienced during VEs. • Participants expressed the need to be able to trust that the examiner would respect them as individuals, maintain their dignity, perform the VE skillfully and communicate their findings. • Every woman should be treated with courtesy and respect by the examiner, and her modesty should be protected by minimal exposure.

VE = vaginal examination; SD = standard deviation.

Discussion

Many women dislike VEs because they are often painful, and can be performed with little accompanying information in a sometimes ritualistic or intimidating manner.^{9,14} Expressions of pain or discomfort during the examination could be an individual's response to fear and anxiety rather than actual physical trauma, and therefore the pain may be more psychological than physical.³ Pain during a VE could also be related to the inadequate skill of the examiner.⁹ During labour, pain is part of the normal physiological process and may be influenced by psychological, spiritual and cultural factors.¹⁵ Hence the experience of undergoing a VE can cause further pain during what is often already an extremely vulnerable and painful time for the woman.⁸

Furthermore, the frequency of VEs may suggest a distrust or fear in the patient's ability to give birth unaided on the part of the healthcare professional.^{8,9} In addition to the invasiveness of the procedure and the negative perceptions of VEs by the patients,⁷ a high frequency of VEs raises concerns regarding the increased risk of infection, with chorioamnionitis occurring in 8–12 women per 1,000 births.^{8,9} This increased rate of infection in women who have had VEs after a premature rupture of the membranes, can put their babies at risk of ascending infections.⁸

A vaginal examination may cause negative reactions such as embarrassment over genital exposure, which may in turn lead to feelings of helplessness and vulnerability, dehumanisation and a violation of privacy.^{3,10} In addition, the verbal and physical strategies displayed by some midwives to distance themselves from VEs, for example by using abbreviations or euphemisms, or ritualised methods of washing genitalia, can cause feelings of humiliation.^{8,10} In addition, if the healthcare provider is male, the process of a VE may cause significant embarrassment for both the woman and healthcare provider, particularly in more conservative cultures.^{3,9,10}

Several studies revealed that women seem to have more VEs than expected during labour, despite the presence of institutional policy guidelines on performing VEs at certain institutions.^{2,8–11,16} One study found that midwives also frequently perform VEs which are not officially recorded, often referred to in the case notes as 'quickies'.¹⁷ A study conducted

by Bergstorm *et al.* found there was a variation between 2–17 in the number of VEs conducted during labour; for one woman, a VE was performed following every contraction.¹⁶ The main reasons given by midwives for performing VEs during labour were to assess the progress and onset of labour, to assess the patient's contractions of the abdominal muscles and diaphragm during labour, and to teach the woman the correct way of forcefully contracting the muscles and diaphragm during labour.^{2,8,16} This lack of consistency regarding the frequency of VEs may demonstrate that the individual midwives are in control of both the woman in labour and the process of labour itself,^{8,10} without an institutional policy or the presence of guidelines to aid them in their management of the patient.

The experience of a difficult VE could also result in the patient developing post-traumatic stress disorder (PTSD).^{18,19} Certain variables are highly related to the occurrence of PTSD after such procedures; these included feelings of powerlessness, a lack of information concerning the procedure and its necessity, experiencing physical pain, a perceived unsympathetic attitude by the examiner and the lack of patient consent to the procedure.^{18–20} Hence, the propensity to develop PTSD after birth is associated with how women felt they were treated during labour; whether they felt in control; whether they panicked or felt angry during labour; whether they experienced dissociation, and whether they suffered 'mental defeat'.^{20–22} Other risk factors for developing birth-related PTSD include having a history of unresolved sexual and emotional trauma, which would make undergoing a VE a difficult experience.^{13,20,22,23} During the procedure, the patient may experience strong discomfort and flashbacks triggered by the feelings of a loss of control over the situation and their body.²³ Without a previous awareness of the patient's history of emotional or sexual trauma, the patient's reaction may seem incomprehensible to the midwives.²³

INTERVENTIONS MIDWIVES CAN ADOPT DURING VAGINAL EXAMINATIONS

Judging the necessity of vaginal examinations

A VE is an important and essential tool by which midwives assess the establishment and progress of labour, and perform procedures such as the artificial rupture of membranes.^{3,24} A VE can provide vital

information on many aspects, such as the fetal presentation position (the relationship of a reference point on the presenting part of the fetus, such as the occiput, sacrum, chin, or scapula to its location to the front or back or side of the maternal pelvis and descent of the presenting part of the fetus that lies closest to the internal os of the cervix) as well as cervical effacement, consistency and dilatation.^{8,9,25} Knowing this information can help to reassure the patient, her partner and the midwife that labour is progressing well.⁶ In cases of difficult labour, VEs can help midwives to understand when and why labour has deviated from the normal course.⁸ Therefore, midwives can use VEs when they need to gain a fuller understanding of the woman's labour or when a problem is felt to be developing.^{7,9} This entails the midwives using their judgment on the necessity for a VE based on each individual woman and situation.⁸

Using effective communication skills

Communication skills are crucial in establishing trust between the healthcare providers and the patients, and will aid in ensuring that VEs do not cause unnecessary distress.^{9,13} According to Lai *et al.*, healthcare providers should introduce themselves first while the woman is sitting upright and clothed before the examination starts so as to establish a rapport, and the women should be provided with private, warm, comfortable and secure changing facilities.³ The women should not be assisted in the removal of their clothing unless it has been clarified that assistance is required.¹³ Furthermore, midwives should be encouraged to inform the patient adequately about the necessity of the procedure, and what to expect; additionally, healthcare providers should address the patient's fears and anxieties, and give them the opportunity to ask questions.^{3,13} Specific nonverbal communication skills, such as maintaining eye contact and allowing the woman to adopt a semi-sitting position, can also be used during the examination to decrease any feelings of vulnerability.^{3,10,26} Utilising honest and effective communication skills before, during and after the VE will enable midwives to become more comfortable during the procedure. In addition, midwives should be discouraged from using abbreviations or euphemisms to refer to different body parts during the procedure.^{9,10}

Informed consent

The informed consent of the patient is essential before proceeding with a VE.^{12,27} Informed consent is only valid if the patient has the mental capacity to consent, after being given sufficient information about the procedure, and if they subsequently voluntarily consent to undergo the procedure.^{9,28} The essence of good midwifery care lies in valuing women as individuals, providing essential information about the plan of care and offering them choices regarding their options during care.^{9,10,12} The importance of informed consent is further affirmed by the UK Royal College of Nursing, which has issued guidelines on the conduct of intimate examinations, focusing particularly on issues of consent, necessity, explanation, privacy, dignity and indicators of distress.²⁹

Exploring the patient's preferences and choices

Establishing a good relationship between the midwife and the patient is important for the continuity of care, as the patient and midwife can build a trusting relationship.^{7,30} The patient's beliefs and expectations can be discussed during the antenatal period, along with her preferences regarding VEs during labour.^{7,8,31} During labour, the healthcare provider can negotiate with the patient, bearing in mind both the wishes and beliefs of the patient, as well as using his/her medical judgment and knowledge on the necessity of a VE during each individual situation.^{7,30,31} By understanding and respecting the beliefs of the patient, the midwife is able to provide sensitive woman-centred care.^{30,31} The key element of this patient-centred care is continuity of care based on a trusting relationship; the midwives will then be able to utilise both their knowledge of the patient, by demonstrating sensitivity towards the woman's beliefs, expectations and wishes, and also their medical experience and judgment during the assessment of labour.⁷

Providing sensitive woman-centred care

The importance of demonstrating sensitivity towards the patient's feelings during a VE cannot be underrated, and it is possible that the gender of the examiner may have some effect.^{3,9} A study carried out by Elderen *et al.* concluded that female healthcare providers were perceived as showing

significantly more caring behaviour during VEs.^{9,32} In comparison, some women, particularly those from more conservative cultures, felt embarrassed when examined by a male healthcare provider. Nevertheless, the attitude and approach of the examiner was generally found to be more important than gender.^{3,9} Another explanation of the difference in attitude may involve medico-legal concerns, in that men are far more prone to accusations of sexual harassment or misbehaviour during intimate examinations, particularly if the patient perceives a disrespectful attitude on their part.³

Minimising variability during vaginal examinations

The UK Royal College of Midwives suggests that all VEs be conducted by the same midwife during labour to reduce inter-observer variability and inaccuracy.^{2,33} A VE is an imprecise measure of labour progress, especially when undertaken by different examiners.³⁴ The practice of having different healthcare providers conducting VEs could be related to poor organisation, an overloading of staff responsibilities, shift organisation and educational purposes.⁹ Buchmann *et al.* noted that, in a group of 508 women, two clinicians differed in dilatation measurements by two cm or more on 11% of occasions.^{2,8,35} Similarly, in another study done by Tuffnell *et al.*, cervical measurement was both over- and underestimated by obstetricians and midwives.^{7,36} Inconsistent findings between examiners have been noted to cause distress in women and have resulted in the patient losing confidence in their healthcare provider.⁸ Tuffnell *et al.* also suggested that having an inaccuracy rate of over 50% in cervical measurements could lead to increased interventions, as decisions to augment labour or perform a Caesarean section are influenced by cervical assessment.^{7,36}

Paying attention to the frequency of vaginal examinations

The frequency of VEs is often dependent on the individual healthcare provider and the guidelines of the institution.³⁷ However, different studies advocate various frequencies, ranging from every 3 hours, 4 hours, 6 hours or at the midwives' discretion.^{4,8,38,39} These different recommendations reveal a lack of agreement on the ideal times to perform VEs during labour.⁴⁰ There is limited evidence to

determine the average rate of VEs during a normal labour, or indeed what the ideal rate should be.¹⁷ The World Health Organization recommends that VEs be conducted at 4-hour intervals and by the same provider if possible; preferably there should be only one examination to establish active labour.⁴¹ Similarly, Borders *et al.* agree that experienced healthcare providers can sometimes limit the number of VEs to one if the labour is progressing well.⁶ Most authorities agree that VEs should be performed only if the information obtained will alter the management of labour.⁶ In addition, midwives should use VEs when they need to gain a clear understanding of the patient's labour, for instance when the observable labour signs are unclear, or when a problem seems to be developing.⁷ Therefore, the frequency of VEs should be individualised to meet the needs of each patient and each situation, with healthcare providers using their own judgment on the necessity of an examination.⁷

Using alternative ways to measure the progress of labour

There are a number of alternative ways to measure labour progress, including assessing the descent of the fetal head by abdominal palpation; monitoring the frequency, length and strength of contractions, and by observing the appearance, vocalisation and behaviour of the mother; however, these methods are currently often used only as an adjunct to a VE rather than as a replacement.^{8,11,41} Burvill stresses that the stage of labour must be determined by observable events and the patient's experiences, and not be based on cervical dilatation alone because the process of labour is unique to each individual woman and therefore cannot be defined by physiological measurements, time restrictions or other medical criteria alone.⁴² In addition, there has been some recent discussion about whether the emergence of the 'purple line' can be used as a possible measure of labour.^{2,11} This involves the appearance of a line of red/purple discolouration arising from the anal margin and extending between the buttocks, and reaching the intergluteal cleft at the onset of the second stage of labour.^{2,11} However this method has yet to be validated by further research before it can be accepted as a reliable measurement of labour progress.² It has been suggested that over-reliance on VEs may have influenced the confidence midwives have in

alternative methods of assessment.⁴³ In addition, midwives may lack the necessary skills, knowledge or confidence in their diagnostic abilities when facing less invasive alternatives.¹² Nevertheless, if midwives routinely discuss with their patients alternative ways of assessing labour progress, this would enable the patients to feel empowered, and therefore take a stronger position to either decline VEs or at least to reduce the frequency with which they are conducted.¹³

Managing unresolved traumatic experiences

Healthcare providers should elicit their patient's psychosocial and medical history, and if there is evidence of previous unresolved physical, sexual or emotional trauma, they should discuss a plan of care with the patient; this will help maximise the feeling of being supported by their healthcare provider, as well as of being in control. This will also minimise the likelihood of excessive pain or feelings of depersonalisation.^{21,44} Unresolved trauma is a risk factor for developing birth-related PTSD.^{21,22} In attempting to determine the patient's psychological and medical history, healthcare professionals should avoid asking specific questions but rather ask open-ended questions such as, "Do you have any issues, concerns, fears that you'd like to tell me about to help me provide better care for you?"²¹ Even though unresolved previous traumas are unlikely to be healed during pregnancy, most of the other variables associated with PTSD such as feelings of powerlessness, lacking important information, experiencing physical pain, perceived unsympathetic attitudes on the part of the examiner, and a lack of consent by the patient for the procedure, can be prevented through the provision of sensitive care in labour that enhances perceptions of control and support.^{21–23,45} The UK Royal College of Gynaecologists recommends that women who experience difficulties with VEs be given the opportunity to discuss any underlying sexual, marital or trauma-related issues.²⁹

Conclusion

This study has reviewed the available literature on the use of VEs during labour and the interventions that midwives should adopt in order to provide sensitive care. A number of publications supported

the view that women receive more VEs than is necessary during labour; VEs can cause pain, discomfort and embarrassment to the women; VEs are sometimes conducted without consent, respect or dignity, and women are rarely given preferences or choices during VEs. Therefore VEs during labour require attention on the part of the midwife, particularly regarding the management of the patient's discomfort or pain, the provision of information and acceptance of alternative options. When treated with sensitivity and respect, the patients will be able to develop a positive relationship with the midwives, allowing a discussion of the plan of care and their preferred options regarding VEs, so that they can remain comfortable throughout the examination. Considering the centrality of VE to labour and obstetric care, there is a need to enhance best practice for VEs.

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