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Original Article

Implementing practices based on scientific evidence in the care of intrapartum perineal repair

Implementação de práticas baseada em evidências científicas no cuidado do reparo perineal intraparto

Implementación de prácticas basadas en evidencia en el cuidado de la reparación perineal intraparto

Marlise de Oliveira Pimentel Lima[I], Maristela Belletti Mutt Urasaki[I], Victor Hugo Alves Mascarenhas[I], Adriana Caroci-Becker[I]

[I] Universidade de São Paulo, São Paulo, São Paulo, Brazil

Abstract

Objective: to implement practices based on scientific evidence in the management of intrapartum perineal trauma in parturients assisted by nurse midwives. **Method:** a quasi-experimental study whose population consisted of 24 nurse midwives. This research followed the JBI's seven-phase method for implementing evidence-based practices. **Results:** when evaluating the use of fast-absorbing synthetic thread, there was an improvement when comparing the baseline and follow-up audits (zero to 71%). The use of the continuous suture technique ranged from 27% to 88%, and both criteria showed moderate compliance. **Conclusion:** The implementation of evidence-based practices following the proposed method contributes to improving updating and education in midwifery services and to ensuring the sustainability of changes in practice.

Descriptors: Evidence-Based Practice; Nurse Midwives; Perineum; Rupture, Spontaneous; Episiotomy

Resumo

Objetivo: implementar práticas baseadas em evidências científicas no manejo do trauma perineal intraparto em parturientes assistidas por enfermeiras obstétricas. **Método:** estudo quase experimental cuja população consistia em 24 enfermeiras obstétricas. Esta pesquisa seguiu o método de sete fases do JBI para implementação de práticas baseadas em evidências. **Resultados:** ao avaliar o uso de fio sintético de rápida absorção, houve uma melhoria na comparação entre a auditoria de base com a auditoria de seguimento (zero a 71%). O uso da técnica de sutura contínua variou de 27% a 88% e ambos os critérios mostraram conformidade moderada. **Conclusão:** a implementação de práticas baseadas em evidência seguindo o método proposto, contribui para a melhoria da atualização, educação em serviços de obstetrícia e para garantir a sustentabilidade das mudanças na prática.

Descritores: Prática Clínica Baseada em Evidências; Enfermeiros Obstétricos; Períneo; Ruptura Espontânea; Episiotomia

Resumen

Objetivo: Implementar prácticas basadas en evidencia científica en el manejo del trauma perineal intraparto en parturientas asistidas por enfermeras obstétricas. **Método:** Estudio cuasi experimental con la participación de 24 enfermeras obstétricas, llevado a cabo según las siete etapas del modelo JBI para la implementación de prácticas basadas en evidencia. **Resultados:** Se observó un aumento significativo en el uso de hilo sintético de rápida absorción (de 0% a 71%) y en la aplicación de la técnica de sutura continua (de 27% a 88%), ambos con un nivel de cumplimiento moderado. **Conclusión:** La implementación estructurada de prácticas basadas en evidencia, siguiendo el modelo del JBI, tuvo un impacto positivo en la actualización profesional y en la calidad de la atención obstétrica, además de contribuir a la sostenibilidad de los cambios en la práctica clínica.
Descriptores: Práctica Clínica Basada en la Evidencia; Enfermeras Obstetrices; Perineo; Rotura Espontánea; Episiotomía

Introduction

The third sustainable development goal, created in partnership by the United Nations (UN) with its member countries, refers to health and well-being, and seeks to guarantee access to quality health and promote well-being for all ages. For this to happen, the UN reinforces the need for continuing education for health professionals in developing countries, especially in maternal care.[1]

With this in mind, the Ministry of Health has published national guidelines for normal childbirth in order to improve care for women during labor and birth, in accordance with the best evidence, including good practices for repairing perineal trauma.[2]

Perineal trauma is defined as any type of damage to the female genitalia as a result of vaginal delivery, which can occur spontaneously or as a result of an intervention, such as episiotomy. Anterior perineal trauma is considered to be that which affects the anterior vaginal wall, urethra, clitoris, inner and outer labia, while posterior perineal trauma occurs to the posterior vaginal wall, perineal muscles, perineal body, external and internal anal sphincter.[2-4] Perineal lacerations occur spontaneously after childbirth and affect 85% of normal births, mostly in primiparous women (90.8%) when compared to multiparous women (68.8%).[3,5]

The Royal College of Obstetricians and Gynaecologists (RCOG) and the American College of Obstetricians and Gynaecologists (ACOG) have adopted the criterion of classifying perineal lacerations based on the tissues affected by the injuries, assuming that they can affect different planes of the female perineum. In this sense, a first degree laceration is

considered when only the perineal skin and/or vestibular and/or vaginal mucosa is affected; second degree when it affects the perineal muscles, but does not involve the anal sphincter; third degree when the perineal injury involves the anal sphincter complex and fourth degree when the perineal injury extends to the anorectal mucosa.[6-7]

As a result of perineal trauma, most women experience some discomfort or pain after the injury has been repaired. When perineal lacerations are poorly assessed and inadequately repaired, they can lead to various complications which, in the long term, have a direct impact on a woman's physiological regeneration in the postpartum period and on her sex life, such as urinary and intestinal disorders, such as fecal and urinary incontinence, which affects approximately 60 to 80% of cases, as well as chronic perineal pain and sexual dysfunction.[8-9] From a subjective point of view, the complications of perineal trauma can affect the bond between the puerperal woman and her newborn, as well as her relationship with her partner and family.[10]

Current evidence suggests that the best intrapartum perineal care involves a correct assessment of the affected perineal tissues and repair with the appropriate technique, using continuous sutures with absorbable thread, as they contribute to greater comfort in the short term and a lower risk of repercussions for the woman in the long term.[2,11]

However, despite the high frequency of perineal trauma and the repercussions for women's health, there has been no uniform use of this evidence on a daily basis in the practice of health professionals who assist women during childbirth.[8-9]

A prospective cohort[12] sought to assess the clinical knowledge of professionals concerning the classification and repair of perineal lacerations. The results showed divergences and gaps in their understanding of perineal anatomy, misclassifications of lacerations and perineal repair techniques used differently from those recommended in the literature. Concerning the reasons given by the professionals for these problems, they claimed a lack of adequate training in perineal care in their training and clinical practice, as well as the need for continuing education, which would contribute to constant updating and better professional performance.[8]

In Brazil, both federal legislation (Law No. 7.498/86)[13] and the resolution of the Federal Nursing Council (FNC) No. 0516/2016,[14] establish that nurses midwives and midwives have the autonomy and are trained to provide birth assistance without dystocia, as well as perform

episiotomies and episiorraphies and to repair first and second degree lacerations. As such, these professionals are primarily responsible for performing perineal repair, especially in the context of many of the country's public institutions.

Although evidence on perineal repair has been available in the literature since 2012,[11] research into the implementation of care practices for the prevention and repair of perineal trauma during childbirth is still scarce in Brazil. In this context, we highlight a study carried out in Amapá, Brazil, which concluded that there was an improvement in perineal care and outcomes after an educational intervention with obstetric nurses and doctors. Nevertheless, the persistence of gaps and inadequacies in the management of perineal care was also reported, which demonstrates the need for continued implementation research.[15]

The negative repercussions of perineal trauma cause a high financial burden for health systems and affect women's quality of life.[8-9] Well-trained professionals promote safe care based on best practices. Because of this, this article aimed to implement practices based on scientific evidence in managing intrapartum perineal trauma in parturients assisted by nurse midwives.

Method

This research is a quasi-experimental, before-and-after intervention, which followed the method of implementing evidence-based practices at JBI (the current name of the Joanna Briggs Institute), using the Practical Application of Clinical Evidence System (PACES) software and the Getting Research into Practice (GRiP) tool. This method comprises three action strategies: context analysis, facilitation and evaluation, all of which are structured into seven phases: 1) identification of the problem to be solved and the area of health practice with the research team and stakeholders in the service; 2) engagement of change agents, defining the project team; 3) assessment of the context and readiness for change of the service and health team; 4) review of practice in relation to evidence-based audit criteria (baseline audit) with the support of PACES; 5) implementation of the changes in practice using GRiP based on reflection of the results of the baseline audit; 6) reassessment of practice through the follow-up audit to evaluate the results of the

interventions; and 7) consideration of the sustainability of the change project, identifying future practice issues to be addressed in subsequent audits.[16]

This study was conducted in a municipal public hospital that cares for women in the pregnancy-puerperal cycle of all levels of complexity and is located in the southern zone of São Paulo. The institution attends approximately 3,500 births a year and is part of the *"Parto Seguro à Mãe Paulistana* Program" promoted in partnership by the São Paulo Municipal Health Department and a social health organisation, both of which aim to develop safe and humanised care strategies in the birth process for mothers, newborns and their families. One of the program's guidelines was constantly updating childbirth care, aiming for the best available evidence-based practices (EBP).

Nurse midwives working in the obstetric centre of the selected maternity hospital were invited to take part in the research individually and privately, and the health professionals were instructed on the methodological details. The population comprised 24 nurse midwives divided into four teams working night and day shifts. The sample was a non-probabilistic convenience sample. The inclusion criteria were: being a nurse midwife working at the institution and providing direct childbirth care to women during labor and birth. The exclusion criterion was being away from professional activities during the data collection period for various reasons, such as vacation or sick leave.

Phases one to four of the project's implementation took place as described: the project was desinged by the researcher, who was responsible for the in-service education of nurse midwives, collecting and managing the data from the baseline audit and coordinating the implementation of best practices in the hospital, based on the identification of the problem with the nursing midwives supervisors of the service. The support team consisted of two nursing supervisors from the obstetric centre. In addition, the clinical director of the hospital's obstetrics and gynaecology department was involved as a consultant. The implementation team was made up of the researcher, who is a nurse midwife with a doctoral degree, a professor at a

public university who supervises the clinical teaching of undergraduate midwives at the service, and two students from the Midwifery course, all of whom were directly involved in carrying out the project.

Audit criteria

The six audit criteria in Table 1 were used in this project to implement practices for perineal repair in intrapartum care, determined by the JBI Evidence Summary[16] provided by PACES and based on the best available scientific evidence.

Baseline audit

The baseline audit occurred before implementing the best practices on perineal repair, over 25 days between September and October 2018. A structured form was used to collect the data. To assess criteria 1, 2, 3, 5 and 6, a direct observation of two perineal management procedures during the care of women in childbirth was carried out by the nurse midwife researcher, followed by an individual interview, in a private room provided by the service, where information was collected on the nurse midwive's training and care practice, in the months of September and October 2018, by the proposing researcher. For the audit of criterion 4, the evaluation took place only through the interview. The study sample consisted of 24 nurse midwives, assessed during two procedures each, totalling 48 observations in the baseline audit.

Chart 1 shows the baseline and follow-up audit criteria, together with a description of the sample, the number of observations and the approach to measuring compliance with best practice for each audited criterion, as well as the form of assessment to determine compliance with the criteria.

Chart 1 - Baseline (audit 1) and follow-up (audit 2) audit criteria, sample, number of observations and method for measuring the percentage (%) of compliance

Audit criteria	**Sample and number of observations**	**Method used to measure % compliance with best practices**
1. Use of a fast-absorbing suture for perineal suturing.	24 nurse midwives **Total observations:** 48 for audit 1 and 48 for audit 2 (96 observations)	Interview using a structured form on perineal techniques. Observation of nurse midwives performing the perineal technique. **Adequate:** Used fast-absorbing thread when suturing. **Inadequate:** Did not use a fast-absorbing thread.
2. Continuous suture technique for repairing perineal trauma.	24 nurse midwives **Total observations:** 48 for audit 1 and 48 for audit 2 (96 observations)	Interview using a structured form on perineal techniques. Observation of nurse midwives performing the perineal technique. **Adequado:** Utilizada a técnica de sutura contínua em todos os planos. **Inadequado:** Utilizada a técnica de pontos simples ou fechamento de planos separadamente.
3. Perform episiotomy only when clinically indicated.	24 nurse midwives **Total observations:** 48 for audit 1 and 48 for audit 2 (96 observations)	Interview using a structured form on perineal techniques. Observation of nurse midwives performing the perineal technique. **Adequate:** Being aware of or performing episiotomy only in situations of acute fetal distress. **Inadequate:** Performing episiotomy routinely, without clinical indication or with indications other than acute fetal distress.
4. Identification and assessment of perineal trauma by a trained nurse midwife.	24 nurse midwives **Total observations:** 24 for audit 1 and 24 for audit 2 (48 observations)	Interview using a structured form on perineal techniques. **Adequate:** Identify and classify perineal lacerations properly and correct them appropriately. **Inadequate:** Difficulty identifying

		and classifying perineal lacerations.
5. Suturing of all second-degree lacerations, unless the woman has specifically requested that it not be done.	24 nurse midwives **Total observations:** 48 for audit 1 and 48 for audit 2 (96 observations)	Interview using a structured form on perineal techniques. Observation of nurse midwives performing the perineal technique. **Adequate:** All second-degree lacerations were sutured, except in cases of maternal refusal. **Inadequate:** Absence of suturing in second-degree lacerations, without any evidence of maternal refusal. **Not Applicable:** When there are no second-degree lacerations.
6. Performing the episiotomy technique properly.	24 nurse midwives	Interview with a structured form on perineal techniques. Observation of nurse midwife performing the perineal technique. **Adequate:** Performed episiotomy with proper local anesthesia technique and right mediolateral incision. **Inadequate:** Episiotomy performed without local anesthesia or with an incision other than right mediolateral. **Not applicable:** Episiotomy was not performed.

In phase five, the members of the implementation team, together with the support team, discussed the results of the baseline audit to determine the gaps in practice. They considered the following to be the main gaps: lack of adequate suture thread and lack of in-service education on intrapartum perineal repair care for the continuous suturing technique. The JBI GRiP tool helped identify facilitators and possible barriers to implementing best practices.

Once the gaps had been identified, strategies were designed to overcome the barriers and ensure that the evidence was implemented. This phase included meetings with the team to establish the interventions and action plan to be implemented to improve compliance with the audit criteria.

Thus, the interventions developed were: 1. Preparation of a theoretical-practical in-service education, in person, carried out with each nurse midwife on the criteria that had low or no compliance, dealing with evaluation of the perineum after labor and birth, classification of degrees of perineal laceration, types of surgical threads, episiotomy techniques and continuous perineal suturing; 2. Preparation of an educational video on best practices in perineal suturing, made available on the sector's computers. Creation of an information leaflet on best practice in perineal suturing, to be attached to the nurse midwife chartboard in the department; 3. Preparation of an educational video on the technique of perineal suturing, to be made available on the computers in the department for free consultation by the nursing midwifery team; 4. Provision to the hospital of the fast-absorbing synthetic thread, in agreement with the Quality Management Service (QMS) and the Hospital Infection Control Service (HICS). After implementation, the respective services undertook a financial feasibility study to ensure that the thread would continue to be available.

The follow-up audit was carried out by the implementation team between November and December 2018, following the same criteria and collection methods as the baseline audit. The data was entered into JBI PACES, and a comparative analysis was made between the results of the baseline audit and the follow-up audit to check for changes in the percentage of compliance.

The data from the baseline and follow-up audits were analysed using descriptive statistics, in absolute and relative numbers, and the frequencies of compliance were calculated by simple percentage, comparing the values found with those obtained in the baseline audit to check that the expected audit and compliance criteria had been met. In this study, compliance was considered high when it reached a percentage between 90% and 100%, moderate between 50% and 89% and low between zero and 49%. The implementation of best practices in perineal repair was considered adequate when compliance remained between high and moderate, as in another study.[17]

The research was conducted in accordance with the required ethical standards, and was submitted to the Research Ethics Committee of the School of Arts, Sciences and Humanities of the University of São Paulo (approved on July 18, 2018, under protocol number 93474218.2.0000.5390) and the Dr. Fernando Mauro Pires da Rocha Municipal

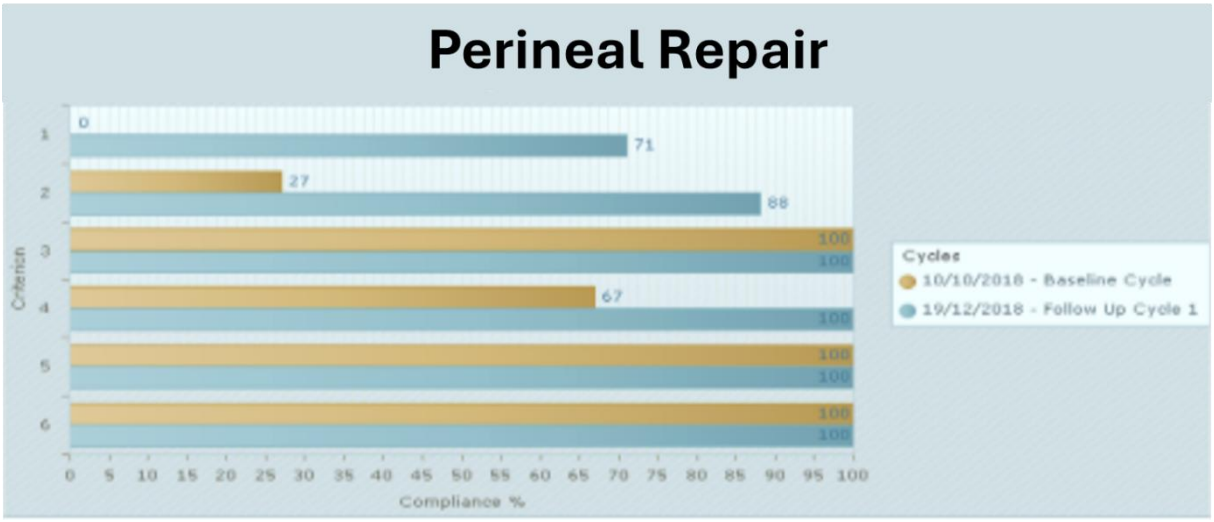
Hospital (approved on September 4, 2018, under protocol number 93474218.2.3001.5452), and the study was only started after receiving a favorable opinion for it to be carried out, based on National Resolution 510/16. As recommended by the National Health Council, the confidentiality, integrity and dignity of the participants were guaranteed, enabling the ethical-legal scientific nature of the research. All participants signed an informed consent form.

Results

Twenty-four nurse midwives who performed intrapartum perineal repair and participated in phases four, five and six of the research were interviewed. The results are presented in Figure 1, in relation to the baseline audit; in Chart 2, in relation to the implementation of evidence-based best practices and the strategies for putting the research into practice (GRiP).

Baseline audit

The percentages of compliance for each criterion of the baseline audit are shown in Figure 1. Criteria 3, 5, and 6 achieved 100% compliance. Episiotomy rates have been monitored in the service for some years, which has contributed to the decrease in the performance of this procedure. In addition, the consensus that, when performed, the episiotomy should always be on the right mediolateral side has been incorporated into practice. The nursing midwifery team service has established the need to suture second-degree lacerations to prevent postpartum infections and improve the healing process. There was moderate compliance in criterion 4, training for perineal assessment and suturing, with 67% (16 nurse midwives) reporting having received training in the last three years. The other criteria were below 50%, indicating low compliance with current evidence, with criterion 1, regarding the use of absorbable suture, having 0% compliance.



1. Use of fast-absorbing suture thread for perineal suture (48 samples); 2. Performing the continuous suture technique to repair perineal trauma (48 samples); 3. Performing episiotomy only when clinically indicated (48 samples); 4. Identifying and evaluating perineal trauma by appropriately trained obstetric nurses (24 samples); 5. Performing suture of all second-degree lacerations, unless the woman has specifically requested that it not be performed (48 samples); 6. Performing the episiotomy technique appropriately (48 samples)

Figure 1 - Compliance with best practice audit criteria in the baseline audit, by percentage (%)

Implementation of evidence-based best practices and strategies for putting research into practice, through the software GRiP.

The implementation team identified three barriers to compliance with best practices. It then developed and implemented strategies to overcome them. Chart 2 summarises the barriers, strategies, resources and results found.

The first barrier identified was in-service education for nurse midwives. Despite the claim that they had recently completed education on perineal assessment and repair, the results of observing the procedure showed that the classification of the degree of laceration assigned was inadequate, and the suturing technique did not correspond to what is recommended by the evidence.

The main strategy used was developing an individual theoretical-practical educational session on perineal assessment and repair lasting an average of one hour during working hours, resulting in a total of 24 sessions. For the individual educational session, a questionnaire was developed, pre- and post-education, consisting of ten questions with three options each on perineal assessment and repair based on the audit criteria and current evidence. The questionnaire was used as a tool to assess the

professionals' doubts beforehand, to verify the areas in which specific knowledge was lacking and which needed to be filled in during the professionals' in-service education.

Educational material included illustrative cards and a video. The illustrative cards contained an image of the intact perineum, a classification of perineal conditions, the perineal muscles involved in second and third degree lacerations and the divisions in the degrees of laceration and photos of the suturing technique for episiorraphy. The video was produced by the researcher in the university's realistic simulation laboratory with the support of the institution's laboratory technicians, who presented the continuous suturing technique and were prepared prior to the implementation project.

These materials were also used in the educational session and made available to nurse midwives for consultation and, at the end, the continuous suturing technique was practiced with the fast-absorbing thread, on an adapted sponge, with surgical instruments (needle holder and anatomical forceps) divided into two stages: first the researcher and project leader demonstrated it and then the professional performed the suture. In addition, an information leaflet on the audit criteria was produced and attached to the sector's nursing staff.

The second barrier encountered was the lack of rapidly absorbable synthetic thread in the service. The strategies used were for the researchers to make this material available and for approval by the hospital quality department, guaranteeing the use of the input during the implementation project. To demonstrate the use and traceability of the thread, each time it was used, the professional had to attach the suture thread packaging to the patient's medical record.

The coordination of the hospital quality service also asked the implementation team to fill out a purchase order form for this material, describing the properties and improvements that the use of the thread would bring to users, so that the health institution could purchase it and thus promote the continuity of the implementation of best practices related to perineal repair in the service.

The third barrier was the weekly rotation of nurse midwives in different wards of the hospital, such as cardiotocography, screening, observation, puerperium and pathology, as well as labor and childbirth, which would be the collection place, which had a negative impact on collection time and the education of nurse midwives. As it took

a week to change the distribution of health professionals in the different sectors, if the collection had been completed with the health professional who was in the labor and childbirth ward at the beginning of the week, they would have to wait for the next rotation to collect with a new professional. The strategy was an agreement reached at a meeting with the nursing midwifery supervisor in the sector to rotate more quickly to guarantee the collection in the time stipulated in the implementation and in-service education project for the 24 nurse midwives in the service.

Chart 2 - Matrix containing the strategies for implementing evidence-based practices, using the tool called Getting Research into Practice - GRiP

Barrier	**Strategy**	**Resources**	**Outcomes**
1. Nurse midwives reported recent in-service education on perineal assessment and repair, but when they carried out perineal assessment and repair, the classification of the degree of laceration was inadequate and the suturing technique did not correspond to what is recommended by the evidence.	Individual educational sessions were held for nurse midwives on perineal assessment and repair, including degrees of laceration, type of thread and suturing technique based on the evidence.	- Pre and post-education questionnaire. - Illustrated perineal assessment card. - Photos of the episiorrhaphy suturing technique. - Video of the continuous suturing technique. - Practice of the continuous suturing technique with rapid absorption thread in two stages: first demonstrated by the educator and then performed by the professional. - Information leaflet on the audit criteria	100% of nurse midwives are trained. Correct perineal assessment and suturing using the continuous technique with fast-absorbing thread, assessed after the educational activity.
2. Lack of suitable input (fast-absorbing synthetic thread) in the service.	Provision of the appropriate thread. Approval of the use of the material by the service's quality	- Adequate thread available in the sector for use by the nurse midwives	Use of fast-absorbing thread in sutures after in-service education.

	department.		
3. Weekly rotation of the work schedule of health professionals in different sectors of the hospital, such as cardiotocography, screening, observation, puerperium and pathology, as well as labor and birth wards (collection place), impacting on collection time and educational activity.	Agreement with nursing midwifery supervision so that the duty roster would also take into account the nurse midwives' collection and in-service education needs.	- Communication with direct supervisors.	Data collection was carried out on the sample size determined in the project. Continuing education for all professionals was completed.

Follow-up audit

In the follow-up audit, there was an improvement in compliance with all the criteria compared to the baseline audit in percentages, as illustrated in Figure 1.

Criteria 3, 4, 5 and 6 showed high compliance (100%), and in criterion 4, the healthcare team that carried out the perineal assessment and repair showed an improvement from 67% to 100% compliance because they had been appropriately trained. In criterion 1, regarding the use of fast-absorbing synthetic thread, there was an improvement when comparing the baseline audit with the follow-up audit (from zero to 71%), as well as in criterion 2, regarding the use of the continuous suture technique, varying from 27% to 88%, both criteria showing moderate compliance.

Discussion

Some of the practices audited were already well-established in the service under study, examples being the selective and justified episiotomy, as well as the right mid-lateral incision technique. Another practice refers to the suturing of all second-degree lacerations, unless the woman explains her wish not to be sutured, and this is recorded in her medical records. For these findings, there was 100% compliance in both the baseline and follow-up audits.

Regarding the use of the appropriate thread and the continuous suturing technique, the data showed an increase in use from zero to 71% and from 27% to 88%, respectively, with moderate compliance.

The only implementation study carried out in Brazil on perineal prevention and repair showed that there was a decrease in episiotomies after in-service education of health professionals, but the use of polyglactin thread varied from 16.7 to 18.7% in the mucosa, from 14.3% to 21.9% in the muscle and from 28.5% to 18.8% in the skin. The continuous suture technique varied from 31.0% to 40.6% in the mucosa, from 16.6% to 21.9% in the muscle and from 23.8% to 40.6% in the skin, with both procedures remaining at similar levels to the pre-intervention phase.[15]

The gold standard technique for perineal suturing involves using polyglactin with rapid absorption thread.[18] Catgut thread sutures were routinely used to repair perineal lacerations at the institution under study. Catgut is a surgical thread made from natural fibres extracted from the intestines of animals such as sheep and goats. Its advantages include good wound healing, little inflammatory reaction and longevity, so it is chosen in different areas of medicine, such as general surgery, plastic surgery and otorhinolaryngology.[19]

Initially used in 1970 to perform gynaecological and obstetric procedures, perineal repair with catgut sutures has been shown to be outdated when compared to polyglactin sutures. A systematic review of randomised clinical trials compared perineal repair with catgut and standard synthetic suture (polyglactin). The results showed positive outcomes for using polyglactin, such as a reduction in pain up to three days after delivery and a reduction in the use of analgesics in the first ten days postpartum. The need for resuturing was present with catgut repair, while with polyglactin, there were reports of women returning for suture removal.[20-21]

Given the limitations of catgut and other surgical threads, the fast-absorbing polyglactin thread showed superiority in perineal care. The evidence shows that fast-absorbing polyglactin has similar short- and long-term pain outcomes when compared to conventional polyglactin, with the advantage of being well absorbed by the body, so there is less need to return to the hospital to remove the suture.[18-20]

With regard to the perineal suturing technique, there are three well-known methods of closing the layers: interrupted suturing, anchored continuous suturing and non-anchored continuous suturing.[22] Interrupted suturing is the most common technique and consists of making separate stitches to close the layers in isolation. The continuous technique involves repairing deep tissues and the mucosa using simple stitches at the ends of the incision, in which it is recommended that the closure be inserted below the skin, in the subcutaneous region. The anchored shimmy is an additional technique in the procedure, in which each pass through the "U" stitch should be made inside the loop of the thread to promote greater tension in each stitch of the suture.[22-23]

A synthesis of the evidence and a systematic review of randomized clinical trials published in Cochrane® demonstrated the superiority of continuous suturing over interrupted suturing. Continuous sutures are more effective in reducing perineal pain, and the use of analgesics is mainly between 2 and 10 days, as well as less need to return for suture removal.[20,24] Studies corroborate these findings, showing that the continuous suture technique also has advantages focused on the procedure, such as reduced pain during repair, shorter duration of the technique and use of fewer inputs than the interrupted suture method.[21-22]

In this sense, promoting in-service education in relation to the development of the perineal repair technique in a unified way throughout the healthcare team aims to contribute to improving indicators directly related to the experience that women can have of their childbirth. The use of the right material and technique for perineal repair is closely linked to postpartum outcomes, such as urinary and sexual function, which will accompany them for the rest of their lives.[21]

As far as repair techniques for first and second-degree lacerations are concerned, there are no apparent benefits when it comes to suturing superficial tissues without bleeding and where there is good approximation between the edges of the wound. On the other hand, second-degree lacerations and episiotomies affect deeper layers of the perineum, and there is less chance of coaptation of the edges, which is why suturing is recommended in these cases. Repair of second-degree tears

should follow three stages: the vaginal mucosa, the muscles of the perineal body and the rectovaginal fascia, from deepest to most superficial.[25-26]

The emergence of episiotomy in modern obstetrics dates back to the publication of studies by DeLee in 1920, who widely recommended its routine use, claiming that it was beneficial for facilitating the detachment of the cephalic pole of the conceptus, as well as avoiding deeper and more complex lacerations.[27] A meta-analysis published by Cochrane® showed that selective episiotomy is preferable to routine episiotomy, since routine episiotomy is associated with a higher incidence of tears in the posterior wall of the perineum and more severe tears (3rd and 4th degree), without promoting significant benefits for neonatal indicators.[28]

The World Health Organization recommends the restricted use of episiotomy.[29] The choice to perform this intervention is still controversial; there is no consensus on absolute indications for its use, and the final decision will always depend on assessing the health professional providing care. Acute fetal distress and obstetric dystocia are mostly cited when considering the indication to perform the procedure.[2,29]

The presence of a restrictive policy on the use of episiotomy at the study site demonstrates the institution's alignment with humanization values. However, it is always necessary to reinforce with healthcare professionals all the available evidence that contributes to guaranteeing achievements and advances in care.

Regarding the proper episiotomy technique, right mediolateral episiotomy is recommended. There are three forms of episiotomy incision: mediolateral, lateral and median. The median incision is associated with a greater number of 3rd and 4th degree lacerations, due to the greater possibility of the episiotomy being prolonged.[25] The mediolateral incision has shown better results in terms of rates of perineal pain in the immediate postpartum period up to the first three months, as well as, cases of dyspareunia up to six months postpartum; for this reason, it is recommended when the perineum is bulging with prior presentation of the fetal part, sectioning it with a 4 to 6 cm long cut. With regard to the angle of the incision, maintaining a cut between 45° and 60° from the furcula was associated with a reduced risk of more serious lacerations.[30]

The results of this study showed that the perineal assessment related to the classification of the degree of laceration and the repair of the perineum were

carried out without complying with the best scientific evidence. A discrepancy could be noted between the perineal integrity and/or degree of laceration reported by the professional and that observed by the implementation team during data collection of the baseline audit.

The factors that interfered with the implementation of this project, even after evaluation by the hospital clinical and research team, were the nursing midwifery team's work overload, which means less time for in-service education. The team members know that the time spent in the educational session is a gain, but they still have to complete all the bureaucratic work linked to the shift, which keeps them tense about the duration of the in-service education. However, when asked how many would like this educational activity to occur before or after the shift, the majority preferred it to be done during in-service time. The administrative workload, combined with the high number of women to be cared for, also affects the quality of the care provided. Therefore, adherence to some audit criteria may have been lower than desired, resulting in lower than expected compliance.

The number of women to be cared for and the lack of availability or time of healthcare professionals were also mentioned as barriers in another implementation study.[15]

This implementation project promoted theoretical and practical professional education for the service's nursing midwifery team regarding perineal assessment and repair, because there was an improvement in compliance with this criterion between the baseline and follow-up audit, with an increase of 33% (67% to 100%). In addition, this result shows how committed the nursing midwifery team was to continuing education, which was offered during working hours, and there was coverage among the team itself to ensure that all members received the educational session.

The study's limitations include the convenience sample, which aimed to capture the largest significant number of healthcare professionals working at the institution. The short time to implement the project can be listed as a limitation, since the JBI method envisages the entire process being carried out in six months, as well as the non-inferential statistical analysis.

It is considered that the results of this implementation research contribute to the clinical practice of nursing midwifery by showing that in-service auditing is necessary for knowledge of the procedures that are carried out daily in intrapartum care and allows us to verify whether these practices are in line with the best evidence of perineal care. In addition, in-service education, based on scientific evidence, can help provide qualified and safe care for women.

Conclusion

Baseline and follow-up audits were used to evaluate practice regarding adherence to the best evidence. To implement the scientific evidence in perineal repair care, several strategies were used, including educational sessions for the nursing midwifery team, making polyglactin suture thread available and creating information leaflets on the audit criteria. The results of this research showed an increase in the compliance of the nurse midwives' team's practices in relation to the type of suture and suturing technique used in perineal repair, the use of episiotomy selectively and the adequate assessment/repair of perineal trauma, after the implementation of the evidence.

It is suggested that the audits continue to improve perineal outcomes and the quality of care, and guarantee the sustainability of the implementation project.

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Authorship contribution

1 – Marlise de Oliveira Pimentel Lima
Corresponding author
Nurse, Doctor – moplima@usp.br
Research conception and/or development and/or manuscript writing; Review and approval of the final version

2 – Maristela Belletti Mutt Urasaki
Nurse, Doctor – mari.urasaki@usp.br
Research conception and/or development and/or manuscript writing; Review and approval of the final version

3 – Victor Hugo Alves Mascarenhas
Nurse, Master – victormascarenhas@usp.br
Research conception and/or development and/or manuscript writing; Review and approval of the final version

4 – Adriana Caroci-Becker
Nurse, Doctor – acaroci@usp.br
Research conception and/or development and/or manuscript writing; Review and approval of the final version

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Scientific-Editor: Eliane Tatsch Neves

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