







Outcomes of intrauterine device insertions by nurses in healthcare institutions: an integrative review

Desfechos das inserções de dispositivos intrauterinos por enfermeiros em instituições de saúde: revisão integrativa

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ABSTRACT

Objective: to identify the outcomes of intrauterine device insertions by nurses in healthcare institutions. **Methods:** integrative review carried out in eight databases, with the help of a bibliographic reference manager, using the JBI model for analyzing the evidence level. The data was organized, categorized and discussed using descriptive summaries. **Results:** 10 studies made up the final sample, two with nurses only and the others with nurses and physicians. The main outcomes assessed were perforation and expulsion, with no significant differences between the professionals who performed the procedure. Success rates, continuity and satisfaction were similar between physicians and nurses. **Conclusion:** the outcomes of intrauterine device insertions by nurses in health institutions are similar to those carried out by physicians, with increased access, without increasing the complications related to this contraceptive method, contributing to comprehensive care in the field of reproductive planning. **Contributions to practice:** the findings could help nurses to tackle barriers and serve as a basis for guidelines and health policies that encourage the insertion of the intrauterine device by these professionals, especially in contexts where this practice does not yet take place. **Descriptors:** Intrauterine Devices; Nursing; Advanced Practice Nursing; Follow-Up Studies; Health Evaluation.

RESUMO

Objetivo: identificar quais os desfechos das inserções de dispositivos intrauterinos por enfermeiros em instituições de saúde. **Métodos:** revisão integrativa realizada em oito bases de dados, com auxílio de um gerenciador de referências bibliográficas, utilizando o modelo de JBI para a análise do nível de evidência. Os dados foram organizados, categorizados e discutidos por meio de síntese descritiva. **Resultados:** 10 estudos compuseram a amostra final, sendo dois apenas com enfermeiros e os demais com enfermeiros e médicos. Os principais desfechos avaliados foram perfuração e expulsão, sem diferenças significativas entre os profissionais que realizaram o procedimento. As taxas de sucesso, continuidade e satisfação foram semelhantes entre médicos e enfermeiros. **Conclusão:** os desfechos das inserções de dispositivos intrauterinos por enfermeiros em instituições de saúde são similares aos realizados por médicos, com ampliação do acesso, sem aumentar as complicações relacionadas a esse método contraceptivo, contribuindo para a integralidade da assistência no campo do planejamento reprodutivo. **Contribuições para a prática:** os achados podem contribuir para o enfrentamento de barreiras pelos enfermeiros, servindo como subsídio para diretrizes e políticas de saúde que incentivem a inserção do dispositivo intrauterino por estes profissionais, principalmente, em contextos onde esta prática ainda não ocorre.

Descritores: Dispositivos Intrauterinos; Enfermagem; Prática Avançada de Enfermagem; Seguimentos; Avaliação em Saúde.

Introduction

In Brazil, 62% of women reported at least one unplanned pregnancy, with a higher prevalence among those aged between 15 and 25 (66%) and who used the public health system (65%)⁽¹⁾. Maternal and neonatal mortality due to unplanned or unwanted pregnancies, unsafe abortions and complications during pregnancy or after childbirth may be associated with barriers to accessing reproductive planning services, which are fundamental to health and represent an essential human right⁽²⁾.

Greater availability and quality of reproductive planning services, with the provision of contraceptive methods, is associated with a reduction in the number of pregnancies and infant mortality, and investing in access to these services can generate progress towards achieving the Sustainable Development Goals⁽³⁾.

A global action plan adopted by the United Nations in September 2015 established a set of 17 Sustainable Development Goals and 169 targets to be achieved by the year 2030. The third objective of this action plan aims to ensure healthy living and promote well-being for all, at all ages. Among the targets set are to reduce maternal, neonatal and under-five mortality rates and to guarantee universal access to sexual and reproductive health services, including family planning, information and education and the incorporation of reproductive health into national initiatives and plans⁽⁴⁾.

In order to achieve the goals set, it is essential that all alternative contraceptive methods are widely known and used correctly. Although reducing the rate of unplanned pregnancies requires a multifactorial approach, increasing access to long-acting contraceptive methods can play a significant role in changing this situation. These have a contraceptive effect of three years or more, represented by contraceptive implants and intrauterine devices (IUDs). Compared to short-acting reversible contraceptives, they have higher efficacy rates and are a key strategy for reducing

unwanted pregnancies⁽⁵⁾, especially given the availability of the copper IUD in the Brazilian Unified Health System.

The World Health Organization recommends IUD insertion and removal by nurses as a viable approach to contraception, which can reduce inequalities by extending care to underserved populations. It recognizes task-sharing as a promising strategy to address the critical lack of health workers to provide reproductive, maternal and child care in low and middle-income countries⁽⁶⁾.

Changes in the demographic and epidemiological profile of the population and its health services, due to the need to speed up care, have had repercussions on the nursing profession. Nursing has broadened its scope of practice and started to provide increasingly complex care, with the aim of promoting the integration of actions and interprofessional work, especially in primary health care⁽⁷⁾. This change should not be seen as a threat to other professions, but rather as a potential to contribute to comprehensive user care, through advanced practice that transforms care in the context of health teams⁽⁸⁾.

Although the participation of nurses in the field of reproductive planning is based on the best available evidence and, in practice, aimed at guaranteeing women's sexual and reproductive rights at the different levels of care, the regulation of IUD insertion by nurses is under constant debate. This justifies research that explores this practice by this professional⁽⁹⁾ and is an urgent discussion in order to provide information on the role of nurses in this context⁽²⁾.

Furthermore, IUD use among sexually active women is less than 5% in many Latin American and Caribbean countries, including Brazil. Due to its high effectiveness, cost-effectiveness and ease of use, barriers must be eliminated in order to increase adherence to the use of this method⁽¹⁰⁾.

The purpose of this review was therefore to identify the outcomes of intrauterine device insertions by nurses in healthcare institutions.

Methods

This is an Integrative Review, conducted in five stages: 1) problem identification and construction of the research question; 2) literature search in the defined data sources considering the inclusion and exclusion criteria; 3) evaluation and categorization of the studies included in the integrative review; 4) data analysis; 5) presentation and synthesis of the results⁽¹¹⁾.

The guiding question was based on the acronym PICO (P: Population - Nurses; I: Phenomenon of Interest - Intrauterine device insertions; Co: Context - Health institutions)⁽¹²⁾ and consists of the following question: what are the outcomes of intrauterine device insertions by nurses in health institutions?

The studies were selected on May 16 and 17, 2023, with the help of a second independent researcher. After the selection, the researchers held a consensus meeting to arrive at the result. The Mendeley® bibliographic reference manager was used from the journal portal of the Coordination for the Improvement of Higher Education Personnel (CAPES), via remote access called Federal Academic Community (CAFe), in the following data sources: *Base de Dados de Enfermagem* (BDENF), Latin American and Caribbean Health Sciences Literature (LILACS), Cumulative Index of Nursing and Allied Health Literature (CINAHL), EMBASE (Elsevier), Medical Literature Analysis and Retrieval System onLine (MEDLINE)/National Library of Medicine National Institutes of Health (PubMed), Scientific Electronic Library Online (SciELO), SciVerse Scopus (SCOPUS) and Web of Science. The search strategy was carried out with the support of the librarian at the University Library of the Federal University of Santa Catarina and the terminology used for the search was based on the Medical Subject Headings (MeSH) and the Health Sciences Descriptors (DeCS). Controlled and non-controlled descriptors were used, as well as Boolean operators (AND and OR), in order to cover all publications in the area of interest. The result of the search strategy is shown in Figure 1.

Database	Search strategy
BDENF LILACS SciELO	((“Dispositivos Intrauterinos” OR “Anticoncepcionais Intrauterinos” OR “Anticoncepcional Intrauterino” OR “Dispositivo Intrauterino” OR “Dispositivos Intrauterinos” OR “Anticonceptivos Intrauterinos” OR “Anticonceptivo Intrauterino” OR “Contraceptivos Intrauterinos” OR “Contraceptivo Intrauterino” OR “Intrauterine Devices” OR “Intrauterine Device” OR “Contraceptive IUD” OR “Intrauterine Contraceptive” OR “Intrauterine Contraceptives”) AND (“Enfermagem” OR “Enfermeiras e Enfermeiros” OR enfermeir* OR “Enfermeria” OR “Enfermeras y Enfermeros” OR enfermer* OR “Nursing” OR Nurs* OR “Nurses”))
CINAHL EMBASE SCOPUS <i>Web of Science</i>	((“Intrauterine Devices” OR “Intrauterine Device” OR “Contraceptive IUD” OR “Intrauterine Contraceptive” OR “Intrauterine Contraceptives”) AND (“Nursing” OR Nurs* OR “Nurses”))
MEDLINE	((“Intrauterine Devices”[Mesh] OR “Intrauterine Devices” OR “Intrauterine Device” OR “Contraceptive IUD” OR “Intrauterine Contraceptive” OR “Intrauterine Contraceptives”) AND (“Nursing”[Mesh] OR “Nursing” OR Nurs* OR “Nurses”[Mesh] OR “Nurses”))

Figure 1 – Search strategies for the Integrative Review by Data Source. Florianópolis, SC, Brazil, 2023

Articles were included that evaluated the outcomes of intrauterine device insertions by nurses in healthcare institutions, in English, Portuguese and Spanish, published between 2010 and 2023. This time frame was chosen because since 2010, nurses have been officially recognized as professionals qualified to prescribe and insert IUDs in Brazil⁽¹³⁾. The following were excluded: review articles; experience and reflection reports; opinion articles; theses, dissertations and monographs; clinical practice guides; editorial comments; letters; reviews; abstracts in proceedings of events or journals; expanded abstracts; official documents from national and international programs; studies that did not evaluate the outcomes of IUD insertions by nurses in health institutions; and duplicate publications.

To classify the evidence of the included stud-

ies, the model used was that proposed by the Joanna Briggs Institute Levels of Evidence (JBI)⁽¹⁴⁾. The analysis continued with the reading of the selected studies, organizing and categorizing them in a Microsoft® Word spreadsheet, generating a summary table and discussing the knowledge produced by means of a descriptive synthesis.

Results

The five stages of the review are summarized, according to the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA)⁽¹⁵⁾ selection flow diagram (Figure 2).

Figure 3 shows a summary of the selected studies with the main information.

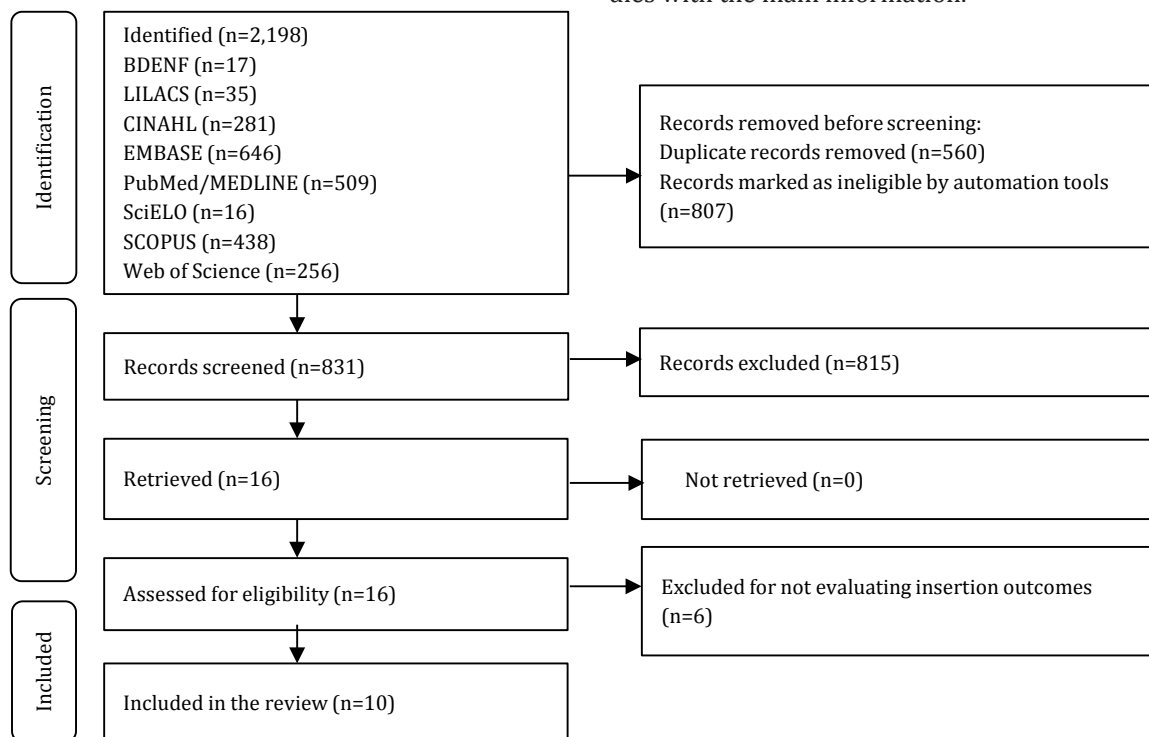


Figure 2 – Flowchart of the process of identification, selection, eligibility and inclusion of studies. Adapted from PRISMA. Florianópolis, SC, Brazil, 2023

Authors/Year/Country/Evidence level	Type of study/Sample	Professionals	Outcomes analyzed	Main results/Conclusions
Laporte et al/2021 ⁽¹⁶⁾ Brazil Level of evidence: 3	Retrospective; 24,865, of which 19,132 TCu380A and 5,733 hormonal.	Physicians, nurses, residents and interns.	Pregnancy; Expulsion; Bleeding; Pain; Infection; Other reasons for withdrawal.	Removals for pregnancy and infection were higher among physicians, while nurses had more cases of removals for bleeding/pain and other reasons. Expulsions and removals for personal reasons were similar in all three categories. The results were similar, regardless of the professional category that carried out the insertion.
Trigueiro et al/2021 ⁽¹⁷⁾ Brazil Level of evidence: 3	Exploratory retrospective cross-sectional cohort; 828 (481 insertions by nurses and 347 by physicians).	Physicians and nurses.	Intercurrences; Main complaints; Expulsion; Perforation.	There was a 3.61 times greater chance of expulsion when the insertion was carried out by physicians, but no significant difference when compared to nurses.

(the Figure 3 continue in the next page...)

Authors/Year/Country/Evidence level	Type of study/Sample	Professionals	Outcomes analyzed	Main results/Conclusions
Trigueiro et al/2020 ⁽⁹⁾ Brazil Level of evidence: 4	Longitudinal-prospective; 83 (32 by physicians and 51 by nurses).	Physicians and nurses.	Adaptation; Main complaints; Continuity; Perforation; Failure; Expulsion.	A total of 58 women (69.9%) had no complications. After six months, 11 women (13.3%) discontinued use. Of those that continued, 27 (32.5%) were inserted by physicians and 44 (53.0%) by nurses. There was no significant difference in intercurrents between the professionals who carried out the insertion.
Mhlanga et al/2019 ⁽¹⁸⁾ Malawi, South Africa, Uganda and Zimbabwe Level of evidence: 2	Secondary analysis of randomized clinical trial data; 535 (215 by nurses, 238 by physicians and 82 by external professionals).	Nurse/midwife, physicians, external professionals.	Irregular bleeding; Pelvic pain; Expulsion; Perforation; Pregnancy.	There was no uterine perforation or pregnancy. The difference between physicians and nurses was significant only for pelvic pain. Nurses with no previous experience can be trained to insert a copper IUD with adverse event rates similar to the local standard of care.
Bhadra et al/2018 ⁽¹⁹⁾ India Level of evidence: 4	Prospective and longitudinal; 5,127 (368 insertions by physicians and 4,759 insertions by nurses).	Nurses and physicians.	Expulsion; Perforation; Removal; Wire loss; Discontinuity.	There were 14 expulsions (0.3%) of IUDs inserted by nurses after vaginal delivery. There was no expulsion after insertion by physicians following a caesarean section. 10 IUDs were removed, all after normal delivery, seven (0.1%) of which were inserted by nurses and three (0.8%) by physicians. There were no perforations. The total number of complications was low and similar between physicians and nurses.
Makins et al/2018 ⁽²⁰⁾ Sri Lanka, Tanzania, Kenya, Nepal, Bangladesh, India Level of evidence: 4	Cross-sectional study; 36,059 (27,395 by physicians, 5,695 by general nurses, 2,969 by obstetric nurses/obstetricians).	Nurses, obstetric nurses/obstetricians and physicians.	Successful insertion; Expulsion; Perforation; Intense bleeding; Severe pain.	There was no difference in expulsion rates between physicians and obstetric nurses/obstetricians. The chance of expulsion was 67% lower in insertions made by nurses compared to those made by physicians. The IUD can be safely inserted by trained health professionals.
Muganyizi et al/2018 ⁽²¹⁾ Tanzania Level of evidence: 3	Prospective cohort study; 596	Obstetric nurses and trained nurses.	Complications; Uterine infection; Expulsion; Removal; Continuity.	43 (7.2%) had some complication by the end of the sixth week, including 16 (2.7%) cases of uterine infection and 14 (2.3%) expulsions. There were 26 (4.4%) removals and 33 (5.5%) discontinuation cases. One case had a severe uterine infection. IUD insertion by trained nurses in Tanzania compares favorably with results elsewhere.
Sinha/2018 ⁽²²⁾ India Level of evidence: 4	Retrospective comparative observational analysis; 355 (176 by nurses and 179 by physicians) and 962 (by physicians after caesarean section).	Nurses, obstetric nurse assistants and doctors.	Satisfaction; Complications; Expulsion; Infection; Irregular vaginal bleeding.	148 (83.15%) were satisfied, with no expulsion, and four had complications such as irregular vaginal bleeding/infection. The strategy of sharing tasks between physicians and nurses can be very effective.
Kemeny et al/2016 ⁽²³⁾ Australia Level of evidence: 4	Retrospective observational analysis; 207.	Nurses.	Successful insertion; Need for medical intervention or assistance; Expulsion; Perforation; IUD removed and reinserted; IUD removed and not reinserted.	In relation to insertions, 91% were successful and did not require medical assistance and 53% of the women returned after six months, with: expulsion (2%) in four to ten weeks of use; removal and reinsertion (1%) due to poor positioning; removal and non-insertion (3%) due to the woman's choice.
Yadav et al/2016 ⁽²⁴⁾ India Level of evidence: 3	Retrospective analysis of secondary data using a case-control study design; 2,215.	Nurses and physicians.	Expulsion; Infection.	The type of professional was not associated with expulsion or infection. Trained nurses and midwives can perform postpartum IUD insertions as safely as physicians.

Figure 3 – Summary of selected studies. Florianópolis, SC, Brazil, 2023

Regarding the evidence level, five studies were classified as evidence level 4^(9,19-20,22-23), four as evidence level 3^(16-17,21,24) and one as evidence level 2⁽¹⁸⁾. Publications occurred in 2021 (n=2)⁽¹⁶⁻¹⁷⁾, 2020 (n=1)⁽⁹⁾, 2019 (n=1)⁽¹⁸⁾, 2018 (n=4)⁽¹⁹⁻²²⁾, and 2016 (n=2)⁽²³⁻²⁴⁾. The countries in which most of the studies were carried out were Brazil (n=3)^(9,16-17) and India (n=3)^(19,22,24). The others were carried out in Tanzania (n=1)⁽²¹⁾ and Australia (n=1)⁽²³⁾. Two were carried out in more than one country, one in Malawi, South Africa, Uganda and Zimbabwe⁽¹⁸⁾ and the other in Sri Lanka, Tanzania, Kenya, Nepal, Bangladesh and India⁽²⁰⁾. The sample ranged from 83 to 36,059 insertions and of the 70,945 insertions evaluated, 23,486 were by nurses, obstetric nurses, auxiliary obstetric nurses, obstetricians and midwives.

Insertions carried out only in the postpartum period (n=5)^(19-22,24) and using only the copper IUD model (n=5)^(9,17-18,21,24) were evaluated. Two of the studies were carried out only with nurses, obstetric nurses, obstetric nurse assistants, obstetricians or midwives^(21,23) and most of them compared the results of the insertions carried out by these professionals with the medical profession^(9,16-20,22-23).

The main outcomes assessed were perforation and expulsion. Of the 10 studies included in the review, perforation was analyzed in six of them, although it did not occur in one study conducted only with the nursing profession⁽²³⁾ and in three that involved physicians or nurses⁽¹⁸⁻²⁰⁾. Two studies mentioned one⁽⁹⁾ and two⁽¹⁷⁾ perforations, but without mentioning the professional category.

In relation to the expulsion variable, assessments made after insertion by nurses, obstetric nurses, assistant obstetric nurses, obstetricians or midwives found rates of 2% after 4 to 10 weeks⁽²³⁾, and 2.3%⁽²¹⁾ and 0.3%⁽¹⁹⁾ after six weeks of use. When comparing the professional categories, expulsion rates of 0.83% were found in insertions carried out by nurses and 3% by physicians⁽¹⁷⁾. There was also mention of one expulsion, but no mention of the professional category⁽⁹⁾, a report that there were no differences in expulsion rates between doctors and obstetrics/obs-

tetric nurses⁽²⁰⁾ and another in which there were no expulsions⁽²²⁾.

Bleeding^(16,18,20,22) and pain^(16,18,20) were also evaluated and were among the main adverse effects found. When comparing professionals, the difference was only significant for pain between nurses (32%) and physicians (15%)⁽¹⁸⁾. Other evaluations do not differ between the categories and cite menstrual irregularity (45%)⁽¹⁸⁾ and 2.4%⁽²⁰⁾, pelvic pain (25%)⁽¹⁸⁾ and 4.4%⁽²⁰⁾ and vaginal discharge (6.9%)⁽²⁰⁾ as the main adverse effects. Removals due to pain and/or bleeding were higher in women whose IUDs were inserted by nurses⁽¹⁶⁾ and heavy bleeding was reported as the main complication at the time of insertion (0.14%)⁽²⁰⁾.

The success of the insertions was also evaluated. In Australia⁽²³⁾, 91% were successfully treated by nurses and without the need for medical assistance. Successful insertion rates of 98% were also found, but without differentiating between medical professionals and nurses⁽²⁰⁾.

When assessing continuity after insertion, rates of 86.7% at six months and 85.5% at 12 months were found in insertions involving doctors and nurses in Brazil⁽⁹⁾ and 94.5% after six weeks in insertions carried out by nurses in Tanzania⁽²¹⁾. In India⁽¹⁹⁾, of the 63.4% of women who returned for follow-up after six weeks, 93.7% reported a desire to continue with the IUD, without differentiating the percentage between physicians and nurses. Also in India⁽²²⁾, the satisfaction rate of users was evaluated with a rate of 83.15%, but also without differentiation related to the professional category that carried out the insertion.

Most of the insertion outcomes showed no significant differences between the professional categories, and the authors' conclusions were that sharing IUD insertion between physicians and nurses is effective^(9,16-24).

Discussion

Brazil was one of the countries that had the most studies carried out, which can be explained by the constant legal discussion about the insertion of

IUDs by nurses in the country. The Federal Nursing Council, which is responsible for regulating and supervising the exercise of the nursing profession, argues that there is no legal impediment to nurses carrying out nursing consultations that include the indication, insertion and removal of IUDs, if they have received adequate training to carry out the technique⁽¹³⁾.

Norms for the work of nurses in reproductive planning were published, emphasizing that the insertion and removal of IUDs can be carried out by these professionals within the scope of the Unified Health System, observing care protocols; norms; routines; and Standard Operating Procedures, aiming to guarantee access and comprehensive care in the field of reproductive planning, establishing criteria for training on insertions⁽²⁵⁾.

The Ministry of Health recommends the insertion of the device by physicians and nurses, as long as they are qualified to perform the procedure, and that its insertion be carried out after registering an Informed Consent Form, emphasizing the importance of the nurse's role as a strategy for expanding access to contraceptive needs⁽²⁶⁾.

Facilitating the provision of IUDs at an organizational level, with changes in health policies, funding, updating protocols and effective professional training, could be a key factor in ensuring that women who use public health services have easier access to contraceptive services; these include device insertion by nurses⁽²⁷⁾.

Public policies are essential to facilitate the implementation of reproductive health services with access to contraceptive methods, especially those that face barriers, such as the IUD. In view of the above, there is a need for continued investment in expanding the provision of this service in primary health care with interprofessional work to guarantee women's access to reproductive health and contraceptive services, with a view to controlling unplanned pregnancies⁽²⁸⁾.

Local studies on IUD insertion by nurses should be conducted and disseminated in order to strengthen and encourage this practice by nurses. Although the

work of nurses in this context is subject to constant legal discussion, the results in Brazil and other countries show successful experiences in this practice^(9,17). Despite the numerous benefits of the IUD, it is important to note that this contraceptive method is not free from complications or failures such as cases of expulsion, the need for removal due to improper positioning and the perforation risk⁽⁹⁾.

The fact that expulsion rates were similar regardless of whether the IUD was inserted by physicians or nurses is a significant finding, since expulsion is an event that is not related to the professional who inserts the device. The results of the studies that evaluated this outcome showed that when nurses received appropriate training for IUD insertion, expulsion rates were no higher than those expected if insertion was carried out by physicians^(9,16-24).

The strategy of sharing activities with nurses makes the IUD a more accessible contraceptive method for women. This is evident from the significant increase in insertion rates when the procedure is carried out by these professionals, especially in places with a shortage of health professionals. It should be noted that acceptance rates have improved without increasing complications or compromising the quality of care provided by this safe and effective practice^(19,24).

IUD insertion by trained nurses facilitated increased access to this contraceptive method in four sub-Saharan African countries, without increasing the risk of adverse events compared to the local standard of care⁽¹⁸⁾. Increased access can also be seen in studies carried out in Brazil^(9,16-17), India^(19,22,24), Tanzania⁽²¹⁾, Australia⁽²³⁾, Sri Lanka, Kenya, Nepal and Bangladesh⁽²²⁾.

Continuity rates were also assessed and may be related to the quality of counseling. Women who have had comprehensive counseling prior to insertion may be less likely to request removal of the IUD⁽²⁰⁾, as this may influence their choice of contraceptive method.

Removals due to effects such as pain and bleeding can be avoided with proper counseling⁽¹⁶⁾, as these are the main reasons reported by women for removal. Early advice on the likelihood of these effects is

essential. Women who do not receive counseling before IUD insertion are more likely to discontinue its use. This can be explained by the fact that, in the absence of counseling, women are susceptible to myths and misconceptions that lead to early removal⁽²⁹⁻³⁰⁾.

This highlights the importance of educational interventions about the insertion of the IUD to promote favorable attitudes and mitigate possible fears, thus contributing to the clarification of doubts and continuity of the method⁽²⁹⁻³¹⁾.

Possible explanations for why removals due to pain and bleeding were higher among nurses suggest that they may have attributed greater significance to these symptoms as side effects following IUD insertion, resulting in the device being removed⁽¹⁶⁾; in these cases, it was observed that physicians may have had more experience in carrying out this procedure⁽¹⁸⁾.

Despite the experience of professionals in inserting the IUD, the diversity among these professionals can also result in different experiences of pain for women. This reinforces the importance of adopting strategies to minimize pain during the procedure, while at the same time reducing anxiety related to the fear of pain⁽³⁰⁾.

Nurses are important professionals in disseminating and expanding the supply of contraceptive methods. Expanding the number and diversity of trained professionals who can provide reproductive planning services is fundamental to the provision of comprehensive and timely reproductive health care⁽³²⁾. As the practice of multiple consultations prior to the effective start of a contraceptive method is one of the main barriers to access, its prescription, even at the first consultation, could result in a decrease in pregnancy rates and a reduction in costs for both women and health services⁽³³⁾.

In countries with a low physician-patient ratio, sharing the provision of contraceptive services with nurses, who are more numerous, can allow physicians to devote more time to other tasks unique to medicine. These findings could also contribute to the introduction of hormonal IUDs in areas with limited resources⁽²⁰⁾.

Considering the importance of the role of nursing in expanding access to health services, especially in relation to sexual and reproductive planning, it is necessary to provide adequate training for these professionals as part of continuing education, with the aim of improving the quality of care and perfecting the techniques used. Thus, the insertion of the IUD by nurses becomes a strategy to expand both the supply of contraceptive methods and the availability of professionals trained to perform this procedure⁽¹⁷⁾.

There is a recommendation to implement IUD insertion in the postpartum period in places where nursing staff attend vaginal births. Insertion of the device immediately after childbirth has been indicated as a safe, effective, low-cost, long-acting and reversible method of contraception. It is important that this training be included in the training programs for nurses working in maternity wards, so that they are prepared to carry out postpartum insertion, facilitating women's access to the method without compromising the quality of care^(17,19).

One concern is the lack of consistently recorded systematic monitoring data. The lack of structured follow-up of patients after IUD insertion makes it difficult to assess their outcomes, such as complications, reasons for removals, user satisfaction and the relationship between pre-existing conditions and insertion outcomes⁽²²⁾.

Studies with larger samples are needed to evaluate the monitoring of women after IUD insertion by nurses in order to assess other variables such as the profile of women using the device, satisfaction levels, adherence to the method, identification of adverse effects, complications, failure rates, reasons for discontinuation and any user dissatisfaction, with the potential to provide improvements and expand the services offered, consolidating this practice by nurses.

Study limitations

The limitations of this study are related to the low evidence level of the selected publications. In

addition to the fact that no clinical trials were found on the subject, comparing the results of the studies is delicate, since they have different methodologies, with different samples, professional categories, IUD types, insertion scenarios and other variables and outcomes.

The lack of a validated and standardized instrument for assessing the characterization of women and the outcomes of insertions can make it difficult to analyze the data and carry out comparative studies with this population.

Contributions to practice

The results can contribute to and support guidelines and health policies related to encouraging nurses to insert IUDs, promoting actions to broaden the scope of these professionals' work in contexts where they are not yet inserting IUDs. It can also contribute to tackling barriers, to interprofessional collaboration and also to training programs and the development of clinical skills, broadening the population's access to the device.

It also contributes to increasing insertion rates without increasing complications in a safe practice, as well as improving the rates of unplanned pregnancies and their repercussions on women's quality of life and maternal and neonatal mortality.

Conclusion

The studies show that the outcomes of intrauterine device insertions by nurses in healthcare institutions are positive and similar to those observed in insertions carried out by physicians.

Sharing insertion between physicians and nurses is effective and can increase women's access to intrauterine devices and reduce the number of unplanned pregnancies and maternal and neonatal mortality rates, especially in regions where access to reproductive planning can be hampered by a lack of medical professionals. Complications can occur at similar rates, regardless of whether the insertion was

carried out by physicians or nurses. Thus, insertion by properly trained nurses can extend access to intrauterine devices without increasing complications or compromising the quality of care in a safe and effective practice.

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Authors' contributions

Conception and design or analysis and interpretation of data and writing of the manuscript or relevant critical review of the intellectual content: Canuto LE, Amante LN.

Final approval of the version to be published and agreement to be responsible for all aspects of the manuscript: Canuto LE, Felisbino J, Siqueira EF, Tholl AD, Salum NC, Amante LN.

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