Experience of medical students in demystifying the use of copper intrauterine devices

Experiência de discentes de medicina na desmistificação do uso do dispositivo intrauterino de cobre

Experiencia de estudiantes de medicina en desmitificar el uso de dispositivos intrauterinos de cobre

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RESUMO

Objetivo: Relatar a experiência de dois alunos do curso de Medicina sobre a desmistificação do uso do dispositivo intrauterino de cobre no momento pré-inserção e monitoramento pós-inserção. **Método:** Trata-se de um estudo descritivo realizado no período de abril de 2023 a março de 2024, na Policlínica Municipal, Juazeiro - BA. **Resultados**: A intervenção educativa permitiu desmistificar o uso do DIU de cobre e oferecer um acompanhamento contínuo às usuárias. A experiência evidenciou que as mulheres apresentavam inicialmente receio em discutir questões de saúde reprodutiva, mas a abordagem empática e informativa contribuiu para a redução da ansiedade e do medo em relação ao método. O monitoramento pós-inserção possibilitou o esclarecimento de dúvidas e a identificação de efeitos adversos, contribuindo para a adaptação e satisfação das usuárias. **Conclusão:** A participação dos discentes nesse projeto foi fundamental para o desenvolvimento de habilidades práticas e humanísticas, destacando a importância da educação em saúde na promoção da adesão ao dispositivo de cobre e no enfrentamento de mitos e tabus sobre o método. A experiência reforçou a relevância de ações educativas e do acompanhamento da paciente para garantir um cuidado integral e humanizado à saúde da mulher.

Descritores: Planejamento Familiar; Métodos Contraceptivos; Dispositivos Intrauterinos de Cobre.

ABSTRACT

Objective: To report the experience of two medical students on demystifying the use of copper intrauterine devices during pre-insertion and post-insertion monitoring. **Method:** This is a descriptive study carried out from April 2023 to March 2024, at the Municipal Polyclinic, Juazeiro - BA. **Results:** The educational intervention made it possible to demystify the use of copper intrauterine devices and offer continuous monitoring to users. The experience showed that the women presented initially were reluctant to discuss reproductive health issues, but an empathetic and informative approach contributed to reducing anxiety and fear regarding the method. Post-insertion monitoring made it possible to clarify doubts and identify adverse effects, contributing to user adaptation and satisfaction. **Conclusion**: The students' participation in this project was fundamental for the development of practical and humanistic skills, highlighting the importance of health education in promoting adherence to the copper device and in confronting myths and taboos about the method. The experience reinforced the relevance of educational actions and patient monitoring to guarantee comprehensive and humanized care for women's health.

Descriptors: Family Development Planning; Contraception; Intrauterine Devices Copper..

RESUMEN

Objetivo: Informar la experiencia de dos estudiantes de medicina sobre la desmitificación del uso de dispositivos intrauterinos de cobre durante el seguimiento pre y post inserción. **Método:** Se trata de un estudio descriptivo realizado entre abril de 2023 y marzo de 2024, en el Policlínico Municipal de Juazeiro - BA. **Resultados:** La intervención educativa permitió desmitificar el uso del dispositivo intrauterino de cobre y ofrecer seguimiento continuo a los usuarios. La experiencia demostró que las mujeres presentadas inicialmente eran reacias a discutir temas de salud reproductiva, pero un enfoque empático e informativo contribuyó a reducir la ansiedad y el miedo respecto al método. El seguimiento post-inserción permitió aclarar dudas e identificar efectos adversos, contribuyendo a la adaptación y satisfacción del usuario. **Conclusión:** La participación de los estudiantes en este proyecto fue fundamental para el desarrollo de habilidades prácticas y humanísticas, destacando la importancia de la educación en salud para promover la adherencia al dispositivo intrauterino de cobre y enfrentar mitos y tabúes sobre el método. La experiencia reforzó la relevancia de las acciones educativas y de seguimiento de las pacientes para garantizar una atención integral y humanizada a la salud de las mujeres.

Descriptores: Planificación Familiar; Anticoncepción; Dispositivos Intrauterinos de Cobre.

Introduction

Unplanned or untimely pregnancies are one of the main health problems worldwide because they are associated with increased maternal and infant morbidity and mortality, social burden and social costs and a strategy to avoid or at least reduce this type of pregnancy, is to provide long-acting reversible contraceptive methods (LARC)[1].

LARC are those that require less than one monthly administration and that offer protection against pregnancy for at least three years, with a single intervention. In this category are the copper intrauterine device (IUD), the hormonal IUD (or Intrauterine System – IUS) and subdermal implants[2].

About the IUD, used by about 150 million women in several countries, is the most frequent reversible contraceptive method in the world, which has extremely low failure rates of less than 1 per 100 women in the first year of use with the advantage of being able to be used for a long time[3].

The copper IUD is a small T-shaped instrument made of flexible plastic, with a copper wire on the vertical rod and copper tubes on each horizontal arm. The device causes a chemical change by modifying the endometrium and cervical mucus, in addition to damaging the egg and sperm motility so that it does not fertilize the oocyte[4]. Copper associates it with an increased inflammatory response with the addition of cytotoxic cytokines, responsible for increasing the production of prostaglandins and inhibition of endometrial enzymes, and ovulation is not affected, and fertility is prevented[5].

Currently, it is considered that for developed countries, 70% of married women or women in a stable union use or have used some contraceptive method and 62% in underdeveloped countries, however, the numbers related to the use of more modern contraceptive techniques were in the range of 56% of the sexually active female population. As for other techniques, such as sterilization and the use of intrauterine devices, the percentage is lower, but significant, at 22% and 15%, respectively[6].

The IUD, due to its efficacy and good acceptance as a contraceptive method, evidenced by satisfaction and continuity, is currently the second alternative for family planning after surgical sterilization, and there are controversies about which device is considered the best. For some studies, the IUD containing copper seems to be more effective than the others7; however, according to others, the IUD containing levonorgestrel has better results compared to those containing copper, in terms of lower risk of complications, discontinuation of use, and ineffectiveness[8].

Early interruption of the contraceptive method, although prevalent, is lower among women who receive specific guidance on the method[9]. Considering that early interruption may occur because women may face difficulties in using the method, among the adverse effects of the use of the copper IUD, some report changes in menstrual patterns, especially in the first 3 to 6 months, and there may be prolonged and heavy bleeding, irregular bleeding, cramps, and more intense pain during the menstrual period[4].

Based on the myths and false information about the copper IUD and the adverse effects that users of this contraceptive method may have a few months after its insertion, it is important to carry out research and extension projects to assess the satisfaction of users of the copper intrauterine device at the reproductive planning outpatient clinic, in addition to educational actions[10]. In

addition, it becomes a valuable moment for students who are working in the research and extension project, with a view to approaching the reality focused on reproductive health with an emphasis on contraceptive methods, a field of action beyond the classroom, which makes the course more interesting, especially during the basic cycle, in which we do not have so much exposure to medical specialties.

In this way, a rich performance of information sharing and learning is generated for all those involved in the research: 1. the project team, providing opportunities to learn new ways of producing care; 2. the users of copper IUDs with an intense exchange of knowledge in order to promote more successfully women's health and reproductive planning, and as a result, better care and self-care, considering that these women will receive correct information about this contraceptive method in the pre-insertion of the IUD, resolving anguish, fears and taboo due to the wrong information that still surrounds the population, including adverse events.

The objective of this study was to report the experience of two medical students on the demystification of the use of copper intrauterine devices in the pre-insertion period and post-insertion monitoring.

Method

This is a descriptive study, in the format of an experience report. This is a type of knowledge production that deals with the experience of two students of the Medicine course.

The scenario chosen for the students' experience in the pre-insertion of the copper IUD was in the waiting room at the Dr. Márcio Souza Espínola Ramos Municipal Polyclinic, which consists of a health unit for medical specialty care connected to the Municipal Health Secretary in Juazeiro – BA. This moment occurred during the period from April 2023 to March 2024, on Fridays, in the morning. The scenario was chosen because it is at the Municipal Polyclinic that the insertion of the copper IUD is offered by two gynecologists, considering that the Basic Health Units still face difficulties in performing this type of procedure.

The second moment, post-insertion of the copper IUD, occurred with the monitoring of the women post-insertion, three and six months after the insertion of this contraceptive method, through Whatsapp calls or filling out an electronic form via Google Forms consisting of 12 questions about the sociodemographic and reproductive profile, age, education level, marital status, color/race, religion, number of pregnancies, number of living children, number of miscarriages, adaptation to the use of the IUD, about some type of discomfort (pain or other symptom shortly after insertion of the copper IUD), about satisfaction with the copper IUD.

The field of experience comes from a research project "Demystifying the use of copper IUDs through the monitoring of women users and educational actions among health professionals in the region of the São Francisco Valley", which was approved by an institutional notice of the Federal University of the São Francisco Valley (UNIVASF), Petrolina - PE, the Institutional Academic Incentive Scholarship Program (BIA), which offers scholarships to undergraduate students regularly enrolled in the 1st or 2nd semester of the course. This project aimed to evaluate and characterize women who had IUD

insertion, in addition to identifying and combating possible misinformation that patients had about this contraceptive method.

This project was built by a professor of the Medicine course at UNIVASF, with the participation of a scholarship holder and a volunteer from the Medicine course for the aforementioned institution and was developed from April 2023 to March 2024, which has the provision of several services, including the insertion of the copper IUD. It was approved by the CEP of the University Hospital of the Federal University of Vale do São Francisco CAAE 68802323.7.0000.0282 and Opinion Number: 6.089.470.

Results

The project involving 29 women during the pre-insertion in the waiting room of the Municipal Polyclinic and post-insertion of the copper IUD with the monitoring of the women post-insertion, three and six months after the insertion of this contraceptive method, enabled reflective analyses on how this method is still surrounded by fears and taboos.

In the pre-insertion of the IUD, the students presented the research project before the procedure, in its vast majority, the students were received with fear by the women, who did not feel comfortable talking about their reproductive health, so it was possible to observe that talking about women's health as students would be challenging.

However, through a professional and objective approach, it was possible to start productive conversations with these women, allowing them to express, little by little, their fears, apprehensions and doubts about the IUD. After the insertion of the copper IUD, the woman was again informed about the monitoring in the period of three and six months after the insertion of the IUD with the application of the questionnaire.

Regarding the profile of the 29 women who received the copper IUD and who answered the questionnaire of this project, we found that most of them had a level of education, up to complete high school (n=19, 65.5%); self-declared brown race/color (n=19, 65.5%); Catholic religion (n=10, 34.4%). Regarding reproductive life, number of pregnancies from 1 to 3 (n=19, 65.5%); number of living children from 1 to 3 (n=20, 68.9%); number of abortions none (n=28, 96.5%). Regarding the fitting of the copper IUD more or less (n=13, 44.8%). Regarding the process of adaptation to the copper IUD, adverse events, cramps and heavy menstrual bleeding (n=7, 24.1%).

Discussion

- Copper IUD pre-insertion moment

We can see that among the women who were waiting in the waiting room for the insertion of the copper IUD, anxiety surrounded this moment. This anxiety was possibly often caused by rumors and myths that patients heard from people who do not work in the field of reproductive health, which allowed an opportune moment in a waiting room for students to start the process of approaching and demystifying the copper IUD with brief conversations about the information that women had about this contraceptive method. because sometimes they have misinterpreted information, which can

lead to not choosing the contraceptive method or wanting to remove it early, without medical necessity.

From this perspective, the waiting room is an environment to gather information to seek and improve health knowledge, the place where the first contact between the patient and the health professional takes place[11], and the latter has the opportunity to develop activities that go beyond the technique of listening, asking questions and carrying out an action plan[12]. Thus, the waiting room intends to provide humanized care, establishing a greater reception for users and improving the interrelationship between them[11].

This moment carried out by the students is seen as welcoming, a proposal for service planned to serve in a certain space, the guidance, clarification and strengthening of the relationship between students and the target audience and which was organized taking into account the National Humanization Policy (PNH), in which it assigns an action that evidences the user's complaint and the approximation of the relationship between the team/service and the user/population (university) through qualified listening, aiming to guarantee user access through an appropriate methodology[13].

In addition, the students' primary objective in welcoming them was to provide a space of free expression for women who sought the copper IUD, that is, a place where there was a guarantee that they would be heard in a context of valued active voice. It is noteworthy that spaces such as these are fundamental to make welcoming a process in the exchange of knowledge, as the importance of communication between those involved is considered, as it is believed that communication can conduct a shared, dialogical and transformative work process[14].

Each experience of welcoming through listening was taken to the project coordinator to be reflected on and evaluated, in order to respond in the best possible way to the user of the copper IUD, functioning as a laboratory, in which some cases were discussed, but in general, this moment is intended for theoretical-practical constructions based on the technical manual for health professionals on the copper IUD[15], because it is important that the protocols are socialized and respected by all professionals so that they can meet the objectives of a health service[14].

It should be noted that these points were of great value for the evolution of the students as future health professionals, as they were able to practice the skill of anamnesis, especially in a situation in which the patient is afraid to share information. In addition, when allowed by the patients, the students followed the insertion of the IUD, which in turn enabled a moment of technical learning about the performance of the procedure performed by the gynecologist at the Polyclinic.

This real context, including the participation of students in an extension project involving the health system, health professionals and the approximation with the population, becomes a valuable moment, as it will allow them to make decisions based on experiences and training, which can be crucial for the clinical evolution of the patient. In this sense, scientific initiation for the conclusion of the medical course allows the maintenance of knowledge and has a positive impact on the training of undergraduates, since it enables them to develop a critical and analytical sense of the information presented to them[16].

- Monitoring three and six months after copper IUD insertion

The second moment involved direct contact with the patients, this time, through monitoring three and six months after the insertion of the copper IUD, as important as the previous moment, because the women were in the period of adaptation to the IUD, thus, a new opportunity for the patients to report their doubts as users of this contraceptive method, no longer coming from third-party information, but rather from your own experience.

This stage required the students to receive and validate the patient's fears about the possible complaints presented during the period of adaptation of the copper IUD, such as the presence of sporadic cramps, or the concern about the presence of the IUD wire in the vaginal canal, which was often reported by partners, but which by itself has no negative predictive value.

In these cases, the students helped the patients to understand the signs and symptoms that could appear in this adaptation period, in addition to resuming the topic of self-touch, especially for those who had the report of partners attesting to the presence of the IUD wire. In cases of more worrying complaints or those not understood by the students, they were recommended to seek medical attention. These points highlight the importance of health education, as the scenario of doubts and fears can often hinder the process of adherence to the contraceptive method. Health education aims at the educational process, aiming at the exchange of information, from the health professional to the population and can be provided with simple resources[17].

In addition, it is worth noting that this form of care is a lack reported by women, in view of the gap in health education in the Basic Health Units in Juazeiro - BA related to this theme, which strengthens the dissemination of existing myths and taboos about intrauterine devices. Another point pointed out in the scientific literature, the lack of knowledge and training of health professionals regarding the copper IUD was also considered a factor of interference in access to this contraceptive method[7].

These results show not only the positive impact of the educational intervention in demystifying the use of the copper IUD, but also the importance of continuous monitoring in the adaptation of users to the method. The experience made it possible to identify real challenges faced by patients and highlighted the need for a humanized and informative approach, elements that are essential to promote adherence and satisfaction with long-acting contraceptive methods. These findings reinforce the fundamental role of health professionals in guiding and supporting the IUD during the process of choosing and using the IUD.

The participation of students in a research and extension project in the second period is an enriching experience, considering that this interaction with the population of which the university is inserted, helps in a broader view of the medical reality, not merely through statistics, as it allows the visualization by students of the concerns, patients' anxieties and fears in relation to various medical practices, which, when not addressed with due attention and care by the health professional, can undermine the patient's experience and even interfere with the final result of the care offered. In addition, it is worth highlighting the opportunity of the first contact with academic writing, which is fundamental throughout the academic journey of students and is of great importance for evidence-based medical practice.

Conclusion

The experience lived by the students throughout this research and extension project was fundamental for the development of practical and humanistic skills, essential in the training of future health professionals. The direct interaction with the patients, from the moment before insertion of the copper IUD to post-insertion monitoring, provided a more in-depth view of issues related to reproductive planning and women's health, in addition to reinforcing the importance of health education to demystify taboos and provide correct information about contraceptive methods. The project allowed students to hone communication, empathy, and clinical practice skills, tackling real-world challenges that are not easily addressed in purely theoretical settings. The educational approach and the follow-up of patients during the process contributed to the reduction of anxieties and misinformation, favoring adherence and satisfaction with the chosen contraceptive method. In summary, the experience was enriching for all involved, evidencing the relevance of research and extension initiatives in the context of medical training, promoting a more comprehensive and humanized care for women's health.

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References

1. Modesto W, Bahamondes MV, Bahamondes L. A randomized clinical trial of the effect of intensive versus non-intensive counselling on discontinuation rates due to bleeding disturbances of three long-acting reversible contraceptives. Human Reproduction. 2014;29(7):393–1399.doi: https://doi.org/1010.1093/humrep/deu089

2. World Health Organization. Medical eligibility criteria for contraceptive use. 5th ed. [Internet]. Geneve; 2015.

3. BEDNAREK, P. H. et al. Immediate versus delayed IUD insertion after uterine aspiration. N Engl J Med., v. 364, p. 2208-17, 2011.

4. OMS. Departamento de Saúde Reprodutiva e Pesquisa (SRP) da Organização Mundial da Saúde (OMS) e Escola Bloomberg de Saúde Pública/Centro de Programas de Comunicação (CPC) da Universidade Johns Hopkins, Projeto INFO. Planejamento Familiar: Um Manual Global para Prestadores de Serviços de Saúde. Baltimore e Genebra: CPC e OMS, 2007. http://http://pdf.usaid.gov/pdf_docs/PNADL195.pdf.

5. Alencar GP, Almeida RC, Banzatto S. Análise das principais intercorrências em usuárias de Larcs na atenção primária à saúde. Braz. J. Develop. 2022;8(11):71425-33. doi: https://doi.org/10.34117/bjdv8n11-046

6. Silva EC, Ferreira RS, Mouzinho LF, Ferreira VHP, Figueiredo EFG. Impacts of the use of long-term reversible contraceptive devices on women's health. RSD. 2021;10(15):e466101523281. doi: https://doi.org/10.33448/rsd-v10i15.23281.

7. Nogueira CS, Ferreira RY de S, Medeiros F das C. (Des)interesse feminino pelo DIU na APS. Rev Bras Med Fam Comunidade. 2023;18(45):3822. doi: https://doi.org/10.5712/rbmfc18(45)3822.

8. Pareja HBJ, Alves MHM, Nascimento I, Peres JAP, Silva MLC, Moyses MLR. Cholecystitis with fistula stomach and intestine: A case report. ISJHR. 2024;3(4):1094-102. https://sevenpublicacoes.com.br/ISJHR/article/view/5192

9. Justino GB da S, Stofel NS, Gervasio MDG, Teixeira IM de C, Salim NR. Educação sexual e reprodutiva no puerpério: questões de gênero e atenção à saúde das mulheres no contexto da Atenção Primária à Saúde. Interface (Botucatu) [Internet]. 2021;25:e200711. doi: https://doi.org/10.1590/interface.200711 .

10. Queiroga VE, Martins IMO, Barbosa A de S, Holanda VR de, Faustino W de M, Nóbrega MCP. Intervenção educativa para enfermeiros sobre saúde sexual e reprodutiva com ênfase em dispositivo intrauterino: efeito no conhecimento de enfermeiros. Saberes Plur. 2023;7(2):e135700. https://seer.ufrgs.br/index.php/saberesplurais/article/view/135700

11. Carel JMJ, Jagt RK, Reijneveld AS, Ellen L, Winter ELAF, Hoeks JCJ. Improving Health Literacy Responsiveness: A Randomized Study on the Uptake of Brochures on Doctor-Patient Communication in Primary Health Care Waiting Rooms. International Journal of Environmental Research and Public Health. 2021;18(9):5025. doi: http://dx.doi.org/10.3390/ijerph18095025 .

12. White F. "Application of Disease Etiology and Natural History to Prevention in Primary Health Care: A Discourse." Medical principles and practice: international journal of the Kuwait University, Health Science Centre.2020;29(6): 501-513. doi: http://dx.doi.org/1010.1159/000508718.

13. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Núcleo Técnico da Política Nacional de Humanização. HumanizaSUS: Documento base para gestores e trabalhadores do SUS. 4. ed. 4. reimp. Brasília: Editora do Ministério da Saúde, 2013

14. Matheus FAV, Oliveira JRN, Oliveira CM, Azevedo LP, Santos LL, Almeida SS, et al. Implantação de protocolo assistencial voltado a pessoas com úlceras venosas na atenção primária a saúde. REVISA. 2024; 13(Esp1): 315-23. doi: https://doi.org/10.36239/revisa.v13.nEsp1.p315a323

15. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Manual Técnico para Profissionais de Saúde: DIU com Cobre TCu 380A / Ministério da Saúde, Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. – Brasília: Ministério da Saúde, 2018.

16. Pirola SBFB, Padilha FD, Di Mauro JMB, Gabriel SA, Pirola LHFB. A importância da iniciação científica na graduação de medicina. Rev Corpus Hippocraticum. 2020; 1(1). https://revistas.unilago.edu.br/index.php/revista-medicina/article/view/232.

17. Gonçalves PCC, Silva BMFR, Apolinário FV. A importância da educação em saúde como ferramenta a favor da vacinação contra o sarampo e o combate ao movimento antivacina e fake news. REASE. 2021;7(10):2938-49. https://periodicorease.pro.br/rease/article/view/2979

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