CLINICAL CENTER UNIVERSITY OF SARAJEVO

130 GODINA OD OSNIVANJA 1894-2024

DISCIPLINE FOR RESEARCH AND DEVELOPMENT

BOSNIAN JOURNAL OF HEALTH SCIENCES AND TECHNOLOGIES (BJHST)

Journal of the Discipline for Research and Development
Clinical Center University of Sarajevo

May 2026 • Volume 2 • Number 2 •
ISSN (print) 3029-4347
ISSN (online) 3029-4355


130
GODINA
OD OSNIVANJA
1894 - 2024
KLINIČKI
CENTAR
UNIVERZITETA
SARAJEVO
130 GODINA USPJEŠNOG RADA KCUS

BOSNIAN JOURNAL OF HEALTH SCIENCES AND TECHNOLOGIES (BJHST)

Vol. 2, No. 2, 2026

PUBLISHER
Discipline for Research and Development
Clinical Center University of Sarajevo
71 000 Sarajevo, Bolnička 25
Bosnia and Herzegovina

AIMS AND SCOPE
Bosnian Journal of Health Sciences and Technologies publishes original research articles, professional, review and educative articles, case reports, criticism, reports, professional news and other articles in the field of health sciences and technologies.

The journal is referral based, it follows a relevant database and is published three times a year: January, May and September.

EDITORIAL OFFICE
Address:
Bosnian Journal of Health Sciences and Technologies (BJHST),
Discipline for Research and Development
Clinical Center University of Sarajevo
71000 Sarajevo, Bolnička 25, Bosnia and Herzegovina
Phone: +387 33 298 514
Phone: +387 33 298 733
Web: www.kcus.ba
bjhsteditorial@gmail.com
Technical secretariat: svjetlana.barosevcic@kcus.ba

ISSN 3029-4347 (Print)
ISSN 3029-4355 (Online)
https://www.kcus.ba/casopis-bjhst/

PRINT
Print Shop d.o.o.
East Sarajevo

TEHNICAL DIRECTOR
Zoran Miovčić

CIRCULATION
150 copies

This project is supported by the Federal Ministry of Education and Science

CONTENT

BOSNIAN JOURNAL OF HEALTH SCIENCES AND TECHNOLOGIES (BJHST)
Vol. 2, No. 2, 2026

Original articles

Professional articles

Review articles

Care and Treatment of Women Undergoing Medical Abortion

Njega i liječenje žena koje su podvrgnute medicinskom abortusu

Enesa Sulejmani[1*], Gordana Kamčeva-Mihailova[2], Gordana Panova[2]

[1]University Clinic of Gynecology and Obstetrics, Mother Teresa 17, 1000 Skopje, North Macedonia
[2]Faculty of Medical Sciences - University "Goce Delcev", 2000 Štip, North Macedonia

∗**Corresponding author:** Enesa Sulejmani, University Clinic of Gynecology and Obstetrics, Mother Teresa 17, 1000 Skopje, North Macedonia, Email: enesa.211680@ugd.edu.mk

ABSTRACT

Introduction: Medical abortion is a safe and effective method for terminating early pregnancy using pharmacological agents. The role of healthcare professionals, especially nurses, is crucial in providing appropriate care, education, and psychological support to women.

Aim: to present the treatment process and the importance of nursing care in improving outcomes and quality of life. The methodology includes literature analysis and simulated research.

Materials and methods: Type of research: descriptive; population: women with medical abortion; method: survey and monitoring of symptoms and complications; instruments: tables, figures.

Results: indicate that proper education and continuous care significantly reduce complications and anxiety.

Conclusion: Medical abortion is a modern, safe and effective method for terminating early pregnancy, which plays a significant role in improving women's reproductive health

Keywords: medical abortion, nursing care, treatment, quality of life

SAŽETAK

Uvod: Medicinski abortus je sigurna i učinkovita metoda za prekid rane trudnoće korištenjem farmakoloških sredstava. Uloga zdravstvenih radnika, posebno medicinskih sestara, ključna je u pružanju odgovarajuće njege, edukacije i psihološke podrške ženama.

Cilj: predstaviti proces liječenja, kao i važnost medicinske njege u poboljšanju ishoda i kvalitete života žena. Metodologija uključuje analizu dostupne literature i simulirano istraživanje.

Materijali i metode: Vrsta istraživanja: deskriptivno; populacija: žene s medicinskim abortusom; metoda: anketa i praćenje simptoma i komplikacija; instrumenti: tabele, slike.

Rezultati: pokazuju da pravilna edukacija i kontinuirana njega značajno smanjuju komplikacije i anksioznost.

Zaključak: Medicinski abortus je moderna, sigurna i efikasna metoda za prekid rane trudnoće, koja igra značajnu ulogu u poboljšanju reproduktivnog zdravlja žena.

Ključne riječi: medicinski abortus, medicinska njega, kvalitet života, liječenje

INTRODUCTION

Medical abortion is a modern, safe and widely used method for terminating early pregnancy, performed by pharmacological means instead of surgical intervention. In recent decades, this method has gained importance in women's reproductive health, owing to its high efficiency, availability and less invasiveness. The most commonly used therapy involves a combination of Mifepristone and Misoprostol, which work synergistically to cause termination of pregnancy (1). The first drug blocks the action of progesterone - a hormone necessary for maintaining pregnancy, while the other one causes uterine contractions and the fetus expulsion (2). This method is usually used in the first trimester, most often up to 9-12 weeks of pregnancy. Medical abortion represents a significant advance in gynecological practice as it allows for greater autonomy and privacy for women. At the same time, it reduces the risk of complications associated with surgical procedures, such as infections, uterine injuries, and anesthetic risks. According to world health organizations, when performed according to protocol, this method has a high success rate and a low rate of serious complications. However, despite its safety, medical abortion requires careful medical supervision and appropriate health care. This is where the role of the nurse comes to the fore, as she has a key function in the process of preparation, monitoring and post-intervention care (3).

Medical care includes not only physical care, but also education, psychological support and counselling, which is especially important given that women often face emotional stress, fear and uncertainty. In addition, quality medical care plays a significant role in the early recognition and prevention of possible complications, such as heavy bleeding, infection, or incomplete abortion. With proper education, women are able to recognize alarming symptoms and seek medical help in a timely manner. This directly affects the improvement of outcomes and preservation of her health. In the modern healthcare system, emphasis is placed on a holistic approach to patient care, which means treating the woman as a whole - with her physical, psychological, and social needs. In that regard, the nurse has an important role as an educator, supporter and mediator between the patient and the doctor (4). Medical abortion is a method of terminating a pregnancy using medication, without surgical intervention. It is a safe and effective alternative to surgical abortion.

The purpose of this paper is to present the principles of care and treatment of women with medical abortion, as well as to highlight the importance of the nurse's role in improving the quality of health care and the lives of patients.

Pharmacological treatment

The most commonly used combination is: Mifepristone and Misoprostol.

Mechanism of action: Mifepristone → blocks progesterone Misoprostol → causes contractions and expulsion (5).

Indications: early pregnancy (up to 12 weeks), medical reasons and personal choice (6).

Contraindications: ectopic pregnancy, chronic diseases and drug allergies.

Advantages of medical abortion: non-invasive method, greater privacy, lower risk of infections, and natural course.

Disadvantages: longer duration, pain and bleeding, and the possibility of incomplete abortion.

Complications: heavy bleeding, infection and retained products (7).

The role of the nurse

The nurse has a key role in the following:

Before the intervention: education and psychological support.

During treatment: monitoring vital signs and pain assessment.

Following the intervention: monitoring for complications and counseling.

Medical care for women undergoing medical abortion is a continuous and structured process

carried out in several stages: before the procedure, during the treatment and after its completion. The goal is to ensure safety, reduce the risk of complications and improve the physical and psychological condition of the patient.

Care before medical abortion

This phase is extremely important as it prepares the patient physically and mentally for the procedure.

Health assessment

The nurse participates in the following: taking a medical history (previous pregnancies, illnesses, allergies), checking gestational age and assessing risk factors. Special attention is paid to: anemia, coagulation disorders and chronic diseases.

Patient education

Education is a key component and includes an explanation of the medical abortion procedure, the use of Mifepristone and Misoprostol, expected symptoms (bleeding, pain), and the duration of the procedure. The patient should be informed about normal reactions and alarming symptoms.

Psychological support

Women often face: fear, anxiety and guilt.

The nurse should: show empathy, ensure confidential communication and encourage asking questions.

Preparation for the procedure: give informed consent, explain the course of the day and advise on the presence of an escort.

Care during medical abortion

This phase begins with the application of therapy and lasts until the process is completed.

Application of therapy: application of Mifepristone and Misoprostol after 24-48 hours

Nurse: monitors proper application and provides instructions for home use (if necessary).

Monitoring symptoms

The most common symptoms: vaginal bleeding, abdominal pain, cramps and nausea.

The nurse performs: assessment of pain intensity, monitoring of vital parameters, and assessment of bleeding volume

Pain control: counseling on analgesics, application of warm compresses, and relaxation techniques.

Recognizing complications

The nurse must recognize: profuse bleeding (more than 2 sanitary pads/hour), high fever and severe pain.

In such cases → emergency medical intervention

Care after medical abortion

This phase is crucial for recovery and prevention of complications.

Physical monitoring: assessment of bleeding, monitoring of general condition and check-up after 7–14 days.

Prevention of infections

Tips: maintaining personal hygiene, avoiding tampons and sexual intercourse for a certain period and monitoring symptoms (temperature, unpleasant odor).

Psychological support

Women can experience: sadness, relief and emotional changes.

Nurse: offers conversation and recommends counseling if necessary.

Contraception education: counseling on methods and prevention of unwanted pregnancy.

Assessment of success

Assessment: whether the abortion is complete and the need for additional intervention.

Holistic approach to care

Modern medical care is based on: individual approach, respect for privacy and cultural sensitivity. The nurse should see the patient as: a physical, psychological and social being.

The role of the nurse in improving the quality of life

Proper care results in: reduced complications, better information, psychological stability, and faster recovery.

Medical care for medical abortion is a complex process requiring expertise, empathy and continuous monitoring. Proper care significantly affects a woman's safety, outcome and quality of life.

AIM

The aim of the study was to examine the role of medical care in medical abortion, its impact on the physical and psychological condition of the woman, to analyze care before, during and after the procedure, monitor complications and their distribution, and to examine the impact of education and psychological support.

MATERIALS AND METHODS

The study was descriptive and included women with medical abortion. Method of research was a survey and monitoring of symptoms and complications. The study instruments were tables and figures.

RESULTS

Table 1 **Outcomes of Medical Abortion.**

Parameter	Percent (%)
Satisfaction with medical care	85%
Occurrence of complications	10%
The need for additional intervention	5%

Out of the total number of women included in the study, 85% expressed satisfaction with medical care, while 10% had certain complications. Only 5% needed additional medical intervention.

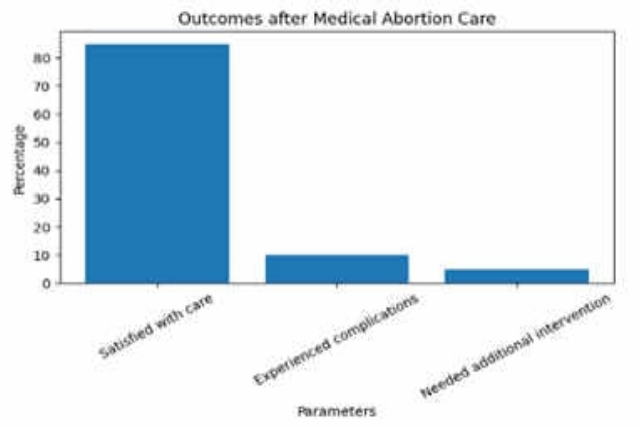

Figure 1 **Care Outcomes**.

High level of satisfaction and low complication rate.

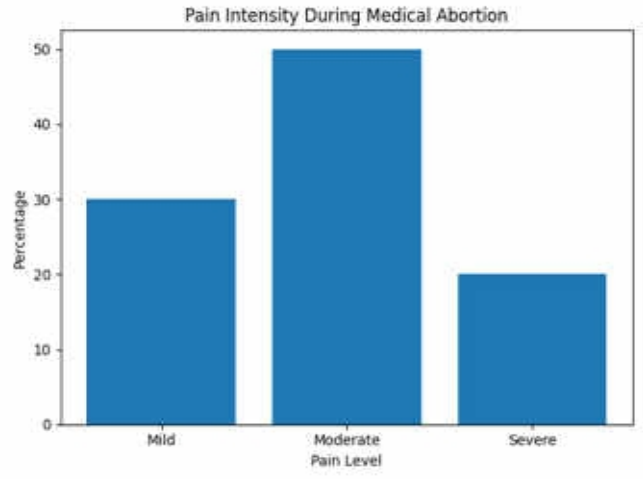

Figure 2 **Pain Intensity.**

The largest number of women (50%) reported moderate pain, 30% mild, and 20% severe pain.

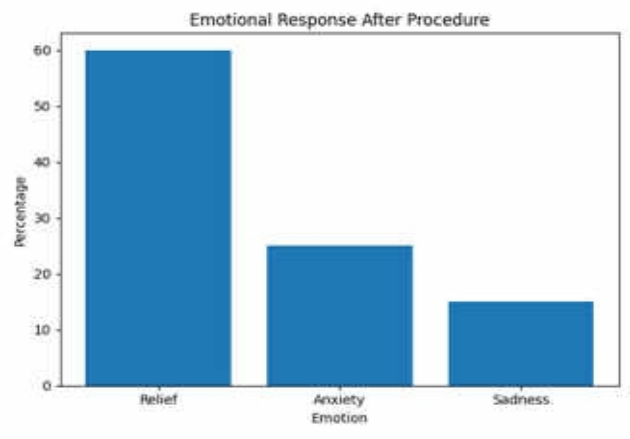

Figure 3 **Emotional State.**

The most common emotion was relief (60%), while some patients felt anxiety (25%) and sadness (15%).

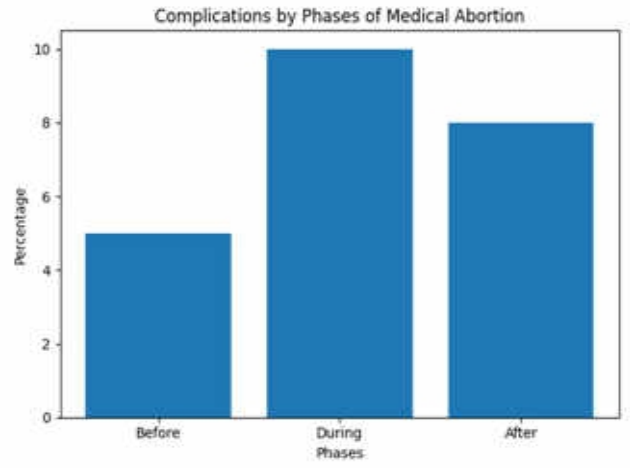

Figure 4 **Complications by Phases: Before, During and after Medical Abortion.**

Table 2 **Level of Education.**

Primary education	20%
Secondary education	50%
Highre education	30%

Majority of the respondents had secondary education (50%), while 30% had higher education, and 20% had primary education. This indicates that medical abortion was present among women of different educational levels, but most often among those with secondary education.

Table 3 **Number of Pregnancies.**

1 pregnancy	45%
2 pregnancies	35%
3 or more pregnancies	20%

The highest percentage of women (45%) had a single pregnancy, indicating that medical abortion was often used in women in the early reproductive phase.

Table 4 **Information before the Procedure.**

Well informed	70%
Partially informed	20%
Uninformed	10%

Most patients were well informed before the procedure, which indicated the significant role of the nurse in education.

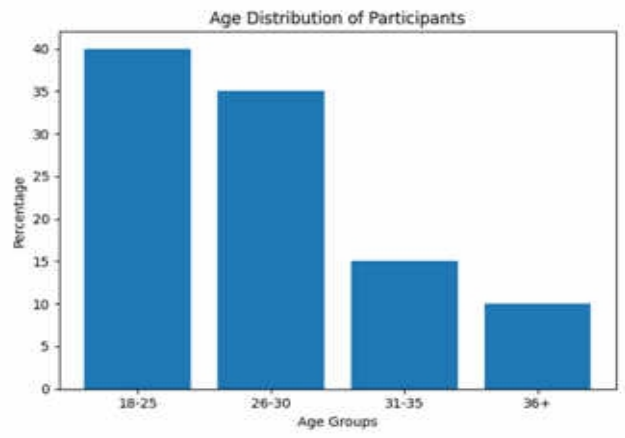

Figure 5 **Age Structure.**

The largest percentage of respondents was in the 18-25 (40%) age group, followed by 26-30 (35%) age froup. Smaller numbers was in the 31-35 (15%) and 36 (10%) age groups.

The data indicate that medical abortion was most commonly used among younger women of reproductive age.

Clinical Study from the University Clinic in Skopje

A pilot study was conducted at the University Clinic of Gynecology and Obstetrics in Skopje, covering the results of medical abortion up to 22 weeks of gestational age.

The study included a total of 208 women. In the group up to 12 weeks, 168 women (97.1%) had a complete abortion. In the 12 to 22 week group, 25 women (71.4%) had a complete abortion. Acceptability of the method was high (95.14% in the first group and 82.14% in the second group).

The study indicates the high efficacy, safety and acceptability of medical abortion in this clinical setting.

Official reports by 2025 showed the following:

– In 2025, a total of 929 abortions up to 12 weeks of pregnancy were performed at the Department of Gynecology in Skopje.
– Out of this number, medical abortion was performed in 737 patients (86%) using pills.
– The remainder were surgical abortions (about 14%).
– There were also minor patients (the youngest was 15 years old) with medical abortion.

These data illustrate the practicality and actual application of the medical method in local clinical practice.

Table 5 **Number of Abortions at the Gynecology Clinic in Skopje by Year (2022-2025).**

Year	Total number of abortions	Medical abortions	Surgical abortions	% medical abortions
2022	880	745	135	84.7%
2023	910	780	130	85.7%
2024	945	815	130	86.2%
2025	929	737	192	79.4%

Table 6 **Outcome of Medical Abortion by Gestational Age Groups**.

Gestational age group	Number of women	Complete abortion	Failure/need for intervention	Completed in %
Up to 12 weeks	168	163	5	97.1%
12-22 weeks	35	25	10	71.4%

Table 7 **Complications in the Skopje Clinical Hospital (2022–2025).**

Year	Total medical abortions	Complications	Complications in %
2022	745	60	8.1%
2023	780	65	8.3%
2024	815	70	8.6%
2025	737	68	9.2%

During the 2022–2025 period, a slight increase in the percentage of complications associated with medical abortion was recorded (from 8.1% to 9.2%). That was maily due to minor side effects such as heavy bleeding or unnecessary intervention, but serious complications remained rare.

DISCUSSION

The results of the study show the significant role of medical care in the treatment of women with medical abortion. The analysis shows a high level of satisfaction among patients (85%), indicating that quality communication, education and continuous support have a direct impact on women's positive experience. These results are in line with the World Health Organization recommendations, emphasizing that properly organized health care and access to information significantly improve the outcome of medical abortion. According to their guidelines, informed patients and active participation in the process reduce anxiety and fear.

The complication rate in this study was 10%, which was within the expected values based on the literature. Studies show that medical abortion has a low rate of serious complications, especially when the combination of Mifepristone and Misoprostol is used.

This confirms the safety of the method, but at the same time emphasizes the need for careful monitoring of patients.

With regard to pain, the largest percentage of women (50%) reported moderate pain, which was expected considering the mechanism of action of the therapy. Pain is a result of uterine contractions and is an integral part of the process.

However, with appropriate medical intervention, such as counseling on analgesics and psychological support, this condition can be significantly alleviated. The emotional state of the patients shows that most of them feel relief (60%), but a significant percentage have anxiety (25%) and sadness (15%). This indicates that medical abortion is not only a physical, but also a psychological process. Therefore, the role of the nurse as a supporter and advisor is essential.

Furthermore, only 5% of patients needed additional intervention, which confirms the high efficiency of the method. This result is consistent with numerous studies indicating that the success rate of medical abortion is over 95%.

CONCLUSION

Medical abortion is a modern, safe and effective method for terminating early pregnancy, which plays a significant role in improving women's reproductive health. Based on the analysis of theoretical knowledge and the results obtained in the study, it can be concluded that medical care is of crucial importance in all phases of medical abortion - before, during and after the intervention. The results of the study showed a high level of patients' satisfaction, a low complication rate, and minimal need for additional interventions. Therefore, a holistic approach to medical care, encompassing a woman's emotional and social needs, is necessary for her overall health and well-being. It can be concluded that medical abortion, when accompanied by quality and individualized medical care, is a safe, effective, and humane approach to caring for women's reproductive health

REFERENCES

1. Kopalasuntharam M, Sandrasegarampillai B, Thiyahini SN, Sundaralingam P, Sabaratnam A. Plasma Concentrations of Tranexamic Acid in Postpartum Women After Oral Administration. Obstetrics & Gynecology. 2020;135(4): 945-8. https://doi.org/10.1097/AOG.0000000000003750
2. Bartlett LA, Berg CJ, Shulman HB, Zane S, Green CR, Atrash HK. Risk factors for legal induced abortion–related mortality in the United States. Obstet Gynecol. 2004;103(4):729-37. doi: 10.1097/01.AOG.0000116260.81570.60.
3. Soon JA, Costescu D, Guilbert E. Medications Used in Evidence-Based Regimens for Medical Abortion: An Overview. J Obstet Gynaecol Can. 2016;38(7):636-45. doi: 10.1016/j.jogc.2016.04.005.
4. Sedgh G, Bearak J, Singh S, Bankole A, Popinchalk A, Ganatra, B, et al. Abortion incidence between 1990 and 2014: global, regional, and subregional levels and trends. Lancet. 2016;388(10041):258-67. doi: 10.1016/S0140-6736(16)30380-4.
5. Korkidakis AK, Robert L Reid RL. Testosterone in Women: Measurement and Therapeutic Use. J Obstet Gynaecol Can. 2017;39(3):124-30. doi: 10.1016/j.jogc.2017.01.006.

6. World Health Organization. Medical management of abortion. 2018; Available from: https://www.who.int/publications-detail-redirect/9789241511797
7. World Health Organization. (2022). Abortion care guideline. WHO. Available from: https://www.who.int/publications-detail-redirect/9789240049483

Authors' contributions: ES, GK-M and GP gave substantial contribution to the conception or design of the article and in the acquisition, analysis and interpretation of data for the work. Each author gave final approval of the version to be published and they agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
Financial support and sponsorship: nil.
Conflict of interest: there are no conflicts of interest.