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ORIGINAL ARTICLE

Atenas Program: Pioneer Brazilian service of outpatient care by telemedicine for women with miscarriage or incomplete abortion

Programa Atenas: serviço pioneiro de atenção extra hospitalar ao aborto no primeiro trimestre por telemedicina

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ABSTRACT The criminalization of abortion and restricted access to misoprostol in Brazil force women to seek unsafe methods to terminate a pregnancy. Hospital care for miscarriage or abortion is standard. In contrast, telemedicine for the medical management of miscarriage and abortion is the gold standard of care internationally. This article presents the Atenas Program – an unprecedented initiative for first trimester abortion/miscarriage care, aiming at a humanized out-of-hospital service based on telephone monitoring by nurses, allowing women to choose the method of uterine evacuation (expectant, medical or surgical). For this purpose, ethnographic research was carried out in a northeastern public maternity hospital, between 2014 and 2021. In the context of structural and conjunctural difficulties, among the 723 Atenas participants, 73,6% dispensed with hospital admission for miscarriage and abortion resolution: 58,4% occurred spontaneously and 15,2% through hospital misoprostol. No complications were registered. Telephone monitoring by nurses provided the basis for continuity of individualized care for this invisibilized public. Atenas Program, initiative of a SUS institution run without external financial support, represents an advance in humanized care for women with miscarriage and abortion. It should be extended to the entire public health network, to expand access to rounded and humanized care for abortion and miscarriage.

KEYWORDS Abortion. Miscarriage. Telemonitoring. Misoprostol. Telemedicine.

RESUMO *A criminalização do aborto no Brasil e o acesso restrito ao misoprostol obrigam mulheres a buscarem métodos inseguros para sua indução. Atenção hospitalar ao aborto induzido ou espontâneo é padrão. Na contracorrente, no cenário internacional, a telessaúde no aborto medicamentoso é padrão ouro da atenção às perdas gestacionais, espontâneas ou induzidas. Este artigo apresenta o Programa Atenas – iniciativa inédita de atenção ao aborto no primeiro trimestre gestacional – com foco no atendimento extra-hospitalar, através de monitoramento telefônico por enfermeiras, facultando às mulheres escolher o método de esvaziamento uterino (expectante, medicamentoso ou cirúrgico), com vistas à humanização da atenção. Foi realizada pesquisa etnográfica, em maternidade pública nordestina, entre 2014 e 2021. No contexto de dificuldades estruturais e conjunturais, 723 participantes foram atendidas; 73,6% prescindiram de hospitalização para resolução do aborto: 58,4% ocorreram de forma espontânea e 15,2% através do misoprostol hospitalar. Não houve registro de complicações. O monitoramento telefônico promoveu vínculo e cuidado individualizado a este público invisibilizado. Esta iniciativa orgânica do SUS, sem apoio financeiro de órgãos externos, representa um avanço na atenção humanizada às mulheres com aborto. Recomenda-se estender a toda rede pública de saúde, visando ampliação do acesso a um cuidado integral e humanizado no aborto.*

PALAVRAS-CHAVE *Aborto. Perda precoce da gravidez. Telemonitoramento. Misoprostol. Telemedicina.*

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Introduction

Abortion is part of women's reproductive lives. In Brazil, hospitalization associated with curettage is the main model of care aimed at those with pregnancy losses, whether spontaneous or induced, treated in the public health network[1]. The use of curettage contradicts the recommendations of international organizations, considered obsolete, implying greater risks to women's health[2].

This article presents an unprecedented initiative to provide care for abortion in the first trimester of pregnancy – called the Atenas Program – in a public maternity hospital in the Northeast, focusing on extra-hospital care, in line with national and international standards of humanization of care, within legal criteria and health safety parameters. In this article, we show how the experience of the Atenas Program serves as a basis for thinking about a broad reform of abortion care in Brazil.

The World Health Organization (WHO)[3] recommends, for uterine emptying of pregnancies up to 14 weeks, the use of the medication method, using misoprostol, alone or combined with mifepristone, in addition to aspiration (manual or electric). Women with miscarriages up to 13 weeks can also choose expectant management, in addition to medication or surgical aspiration, under local or general anesthesia[3,4].

Medicated uterine emptying, whether for abortions or miscarriages, has shown safety[3-7], effectiveness[3-7] and good acceptability[5-7]. The regimen combining mifepristone-misoprostol is considered the most efficient. Misoprostol alone is equally safe, but less effective, requiring more time and more doses for the abortion to be complete[5-7]. Cheaper than mifepristone and, if the latter is unavailable, misoprostol alone is an important alternative to promote access to safe abortion in low-income countries[6].

Abortion monitoring, even after 12 weeks, has been carried out in some countries by nurses, midwives and doctors[3]. There are no recorded deaths associated with medical abortion, there is little need for hospitalization and the adverse effects are tolerable, self-limited, controllable with prophylactic and therapeutic medications[5-8], in addition to favoring women's privacy[8].

With the COVID-19 pandemic, the use of the medication method expanded, aiming to guarantee access to safe miscarriage and abortion. Belgium, Estonia, Ireland, Finland, France, Germany, Norway, Portugal, Switzerland, England, Wales, Scotland and Northern Ireland have expanded their access[9]; Argentina, Mexico City and Colombia provided miscarriage and abortion guidance via telehealth (telephone or Whatsapp®); The United Kingdom and France encouraged telehealth, associated with the use of mifepristone-misoprostol, for miscarriage and abortion[10].

Telehealth (here synonymous with telemedicine) has been gaining ground, due to its greater convenience for users and the provision of care at lower costs, and can be used as a complement or substitute for in-person care[11]. Recommended by the WHO[12], the International Federation of Gynecology and Obstetrics (FIGO)[13] and the Federación Latinoamericana de Sociedades e Obstetricia y Ginecologia (FLASOG)[14], telehealth in medical abortion is well accepted[15,16] and promotes greater autonomy[16] and privacy for women; allows better management of care by professionals, in addition to reducing hospital supplies[17] and shorter average waiting time for treatment, compared to face-to-face care[15]. It is configured as a safe strategy[15,16], even in contexts where safe abortion is inaccessible[12,18], such as the helplines on the feminist websites Women Help Women and Women on Web[19].

The restriction on the legal use of misoprostol in hospitals in Brazil, however, contributed to this drug taking on two aspects: use by doctors and nurses for obstetric hospital procedures, and clandestine use by women for abortions[20]. Mifepristone remains unavailable in the country.

In Brazil, the criminalization of abortion forces women who decide to terminate a pregnancy to carry it out in an unsafe manner, either by resorting to private clinics without health control, or by using Cytotec® (misoprostol) on their own, in illicit drug circuits[21,22]. There is no guarantee of product quality or authenticity, nor is there advice from trained healthcare professionals. Alternatively, women seek information from networks of friends, relatives and acquaintances[22], or follow-up with feminist organizations – still little researched[23].

The 2021 National Abortion Survey (PNA) estimated that 43% of those who terminated their pregnancies were hospitalized to complete the procedure or deal with post-abortion complications[24]. In Brazil, maternity hospitals constitute a mandatory stage of care[25], where the majority of women are compulsorily subjected to uterine curettage, the third most performed obstetric procedure in the public network[26], to the detriment of Manual Vacuum Aspiration (MVA), recommended by the WHO[2]. In legal abortion services, curettage also persists as the main technique, with MVA and misoprostol being omitted[27].

In this scenario, Atenas offers a stimulus to think about a broad reform of miscarriage and abortion care in Brazil, offering guidance, the possibility of choosing the uterine evacuation method and support during the resolution period.

Material and methods

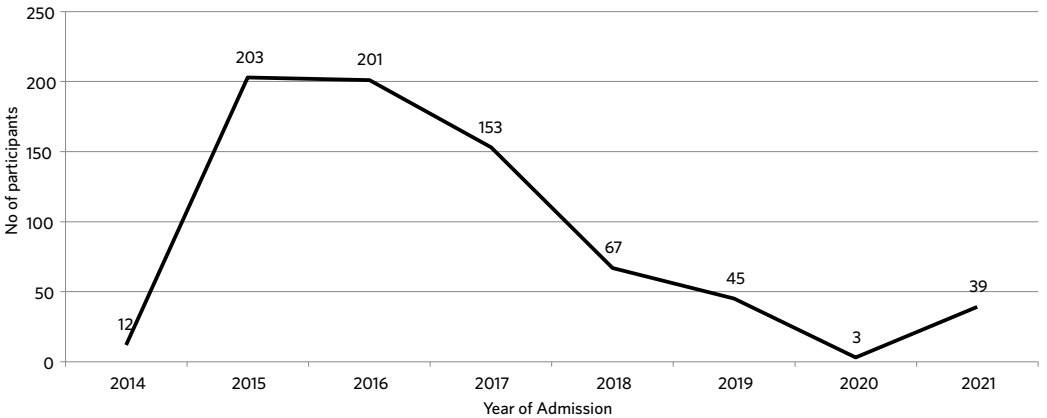
The present study is part of a broader research, of an ethnographic nature, at the Maternidade Climério de Oliveira, a public institution in Salvador-Bahia (BA), linked to Ebserh (Empresa Brasileira de Serviços Hospitalares), which housed Atenas. The study involved document analysis, participant observation and semi-structured interviews with hospital professionals and 'former patients' of the initiative, carried out between July and September 2018. The research was approved by the institution's Research Ethics Committee (CAAE 91231818.5.3001.5543, protocol number 077258/2018, opinion no. 5,153,976).

The analysis covers a documentary research in service protocols and consultations of the database constructed over medical records of women treated since 2014. There was also the analysis of the sociodemographic, reproductive and clinical characteristics of the women. To measure the follow-up time in the Program according to the type of evacuation method, the median was calculated, as it is not a normal distribution.

Field notes produced by the first author of this work, based on participant observation in maternity spaces where women circulated, carried out during three shifts on weekdays and weekends, were also used. During observation, attention was paid to routines, service dynamics and interactions between professionals and women.

Between 2014 and 2021, 814 women were treated at Atenas. For this research, 85 participants who did not follow-up were removed from the database (ten consecutive unsuccessful attempts to contact by nurses and/or unjustified absences from face-to-face consultations) and 6 were excluded because they were ineligible for Atenas, with other diagnoses (3 ectopic and 2 topical pregnancies; 1 Asherman Syndrome). In the end, information from 723 participants was analyzed (*graph 1*).

Graph 1. Participants in the Atenas Program, according to year of admission. Climério de Oliveira Maternity Hospital, 2014-2021[1]



Source: Own elaboration.
[1] In 2021, the data is about women discharged until december ot that year.

Results

Atenas was created in 2014 on the initiative of doctors who held strategic positions in hospital management. At the time, the Maternity Unit – a century-old property with a precarious physical structure – faced problems common to public institutions of the Unified Health System (SUS), such as overcrowding and a shortage of obstetric beds[28]. At that time, proposals from Rede Cegonha and HumanizaSUS[29] raised the agenda of humanized care in hospitals, contributing to the implementation of improvements in care in maternity wards. In line with these proposals, Atenas aimed to offer humanized care to women with miscarriages and abortions; reduce hospitalizations for surgical uterine emptying; and reduce the consumption of hospital supplies[30,31].

The first protocol was drawn up in 2014[30], with updates in 2015, 2017 and 2021[31]. These included monitoring illiterate and foreign women (with translators); administration of ergometrine maleate only at the first appointment; telemonitoring exclusively by nurses; and digitalization of medical records[31]. The care flow and protocol were adjusted in light of the structural reform of the Maternity Unit between 2017 and 2021[31].

Women diagnosed with miscarriage/abortion were invited to participate, and the following were considered eligible: those with pregnancy loss (inevitable, unviable, incomplete, retained, or home medication); less than 12 weeks of gestation; and who reported one to two previous episodes of miscarriage/abortion (non-molar, non-ectopic and non-infected). At first contact, they should be hemodynamically stable; have their own telephone; and live in Salvador-BA (or have easy access to the institution). At Atenas, women were monitored by a multidisciplinary team (medical, nursing, psychology and social work professionals) and benefited from the Maternity structure (urgency/emergency and outpatient care; imaging and laboratory tests)[30,31].

After initial assessment in the obstetric emergency and examinations (laboratory and ultrasound), they received explanations about Atenas; started the spontaneous method with administration of ergometrine maleate medication to stimulate uterine contractions and control vaginal bleeding; signed the TCLE (consent form) and were sent home[30,31] (*graph 1*).

At the first outpatient medical consultation, the maintenance of the spontaneous method or its substitution by another, medication or surgery – preferably MVA (*figure 1*) – was assessed. A dose of 600 mcg of misoprostol from the medication strategy was applied by the Atenas medical team, with reassessment in fifteen days through transvaginal ultrasound and laboratory tests. In the absence of complete uterine emptying, misoprostol was reapplied on an outpatient basis; if ovular remains persisted, the participant was referred for surgical uterine evacuation at the institution. Although the literature recommends 600 mcg vaginally for incomplete abortion and 800 mcg for retained abortion[32], the first institutional protocol[29] recommended 600 mcg vaginally for these two types of pregnancy loss, an orientation maintained in subsequent versions. Even though misoprostol is an easily manageable and safe medication[5-8], to avoid resistance from the institution's professionals, self-administration at home, as happens in countries where abortion is not criminalized, was not considered.

In the meantime, Atenas' nurses monitored the participants every three days[30], by telephone, on a line that was not exclusive to the program. In the first call, information about the initiative was repeated; monitoring and guidance were provided on clinical signs and symptoms (fever, pain, odor, bleeding, signs of infection, among others). In subsequent phone calls, women were listened to or issues identified by the team were discussed (anxiety about bleeding or pressure from family members to immediately perform curettage); the evolution of the clinical picture was monitored; socio-emotional demands were monitored (such as domestic violence, anxiety about the completion of the abortion) and scheduling of appointments and exams (*figure 1*).

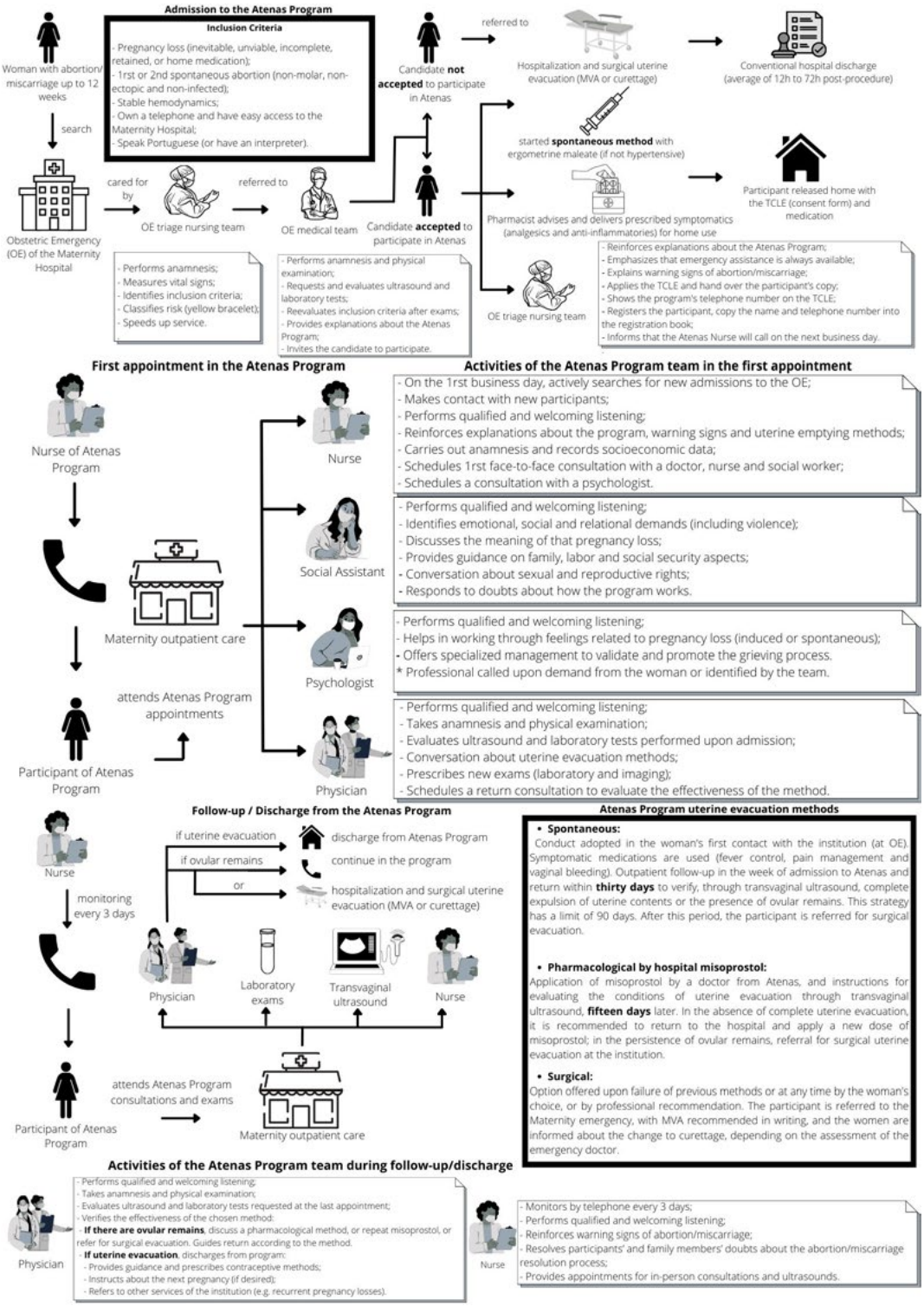
Upon discharge from Atenas, they received medical guidance: family planning; counseling for future pregnancy (if they wanted); prescription of contraceptives (including IUD – Intrauterine Device); referral to other sectors of the institution, such as monitoring of recurrent pregnancy losses. Nurses and social workers in the program addressed aspects related to sexual and reproductive rights; violence against women and labor issues (legal removal from work activities) (*figure 1*).

By Atenas' internal decision, the multidisciplinary team was instructed not to inquire about the type of abortion, whether induced or spontaneous, unless this information was important to enable some type of care. However, this questioning could occur in interactions with other health professionals at the Maternity Hospital.

Having developed protocols and care flows, professionals, allocated to the outpatient sector or with an administrative work schedule, were directed to the Atenas team. The coordinating doctor strategically trained professionals responsible for the first care of women in the obstetric emergency, making herself available to answer questions by phone and text messages via WhatsApp®.

The initial challenge was to overcome the professionals' resistance, on the one hand related to fears about telephone monitoring, on the other, to the legal ethical aspects involved. To face the fear of being disbarred due to complications or death of women due to lack of assistance and the fear of legal proceedings, the team sought to certify the safety of the proposed behaviors. Clarifications, supported by scientific evidence, were addressed in protocols and training, reiterating the low risk of the proposed procedures, and Atenas' compliance with national legislation on abortion and miscarriage and professional practice standards.

Figure 1. Flowchart of the Atenas Program. Salvador-Bahia, 20211



Source: Own elaboration.

Profile of services

The 723 women assisted at Atenas had diverse sociodemographic characteristics, although they largely self-declared as black (37.3% black, 47.9% mixed race) and young adults (80.5% between 20 and 39 years old). Half (54.1%) were married or in a stable/consensual union. The majority (62.5%) had secondary education; and 14.4% higher. A large proportion (80.4%) professed some religious belief, with Catholics (42.2%) and evangelicals (32.1%) standing out (*table 1*).

The occupations that stand out are housewives (12.6%); students (11.1%); health professionals (8.2%); educators (3.0%) and administrators (1.4%). The majority of women came from the Maternity emergency department, referred by those on duty; another part came from private clinics and institutions that sought the service on the recommendation of professionals who worked in the Maternity Unit or colleagues, but there is no record of the number of these participants (data not presented). This is reflected in the profile of the participants, with a portion of women having a higher level of education, different from SUS users.

To empty the uterus, the majority (73.6%) did not need hospitalization: for 58.4% of them, this occurred spontaneously and 15.2% through the medication method (*table 2*). Only 191 (26.4%) women underwent surgical uterine evacuation, the majority at the institution: 14.5% curettage, 10.4% MVA and 1.5% MVA followed by curettage (*table 3*). Among those who underwent surgical evacuation, 21.5% did so after hospital misoprostol failed. Almost half (52.4%) of those who opted for surgical evacuation did so by giving up the spontaneous method; pain; bleeding; and fear of complications, and 47.6% received medical advice, related to heavy bleeding, infectious risk, suspicion of Gestational Trophoblastic Disease and conditions not resolved by previous methods (data not shown).

During follow-up, women generally complained of symptoms that were easily resolved, such as "*headache*" and "*pain in the stomach*", which were remedied with the painkillers received. There were no episodes of serious complications, transfers to the Intensive Care Unit (ICU), nor records of deaths during the period analyzed (data not shown).

Women, when monitored by telephone, were particularly anxious at the time of home vaginal bleeding. Despite individualized monitoring and the attempt to build a bond between nurses and women (they addressed each other by their first names, for example), many reported receiving pressure from family and friends to perform the curettage immediately. Since this procedure has become the standard hospital abortion care in the country, some of these people, through their lack of knowledge, opposed expectant and medication-assisted treatment, even when supported by the multidisciplinary team.

Atenas did not count the time relative to the end of the abortion, evidenced by surgical evacuation or by women's reports of expelling clots and ovular remains at home, confirmed by the "*no abnormalities*" result of the ultrasound. Only the total period of follow-up at Atenas was quantified: from the first day of care in the obstetric emergency until discharge from the program (after the participant's attendance and evaluation of the exams), even after MVA/curettage at the institution itself.

The care period at Atenas ranged from zero (discharge on the same day of admission) to 361 days (difficult to follow-up). For 12.3% of women, this occurred within 15 days. The majority (55.3%) were discharged between 16 and 60 days (*table 2*). The shortest follow-up time occurred with surgical methods of uterine evacuation, with medians of 28, 33 and 39 days, respectively, for MVA with curettage; curettage; and MVA (*table 3*). Even though these are more immediate resolution methods, this period also includes receiving discharge, which occurred during Atenas' final medical consultation. Financial difficulties in

attending and/or incompatibility of women's schedules with the dates of in-person medical appointments may also have contributed to the increased length of stay at Atenas.

In addition to the difficulty of women in attending discharge appointments – for professional, financial, family reasons or because they believed that the abortion had already been resolved – adversities related to the Atenas follow-up involved problems with access to transvaginal ultrasound, as the imaging sector provided the demand of the entire institution. As the result of this exam was a condition for discharge, its limited scheduling postponed the final meeting with the doctor, increasing follow-up time. Long follow-ups still occurred among participants with mobility disabilities, who sometimes answered the phone, sometimes not, until they were classified as lost to follow-up. From 2020 onwards, with the COVID-19 pandemic, women with flu-like symptoms had outpatient appointments and ultrasounds postponed until the condition was resolved, also contributing to the extension in Atenas.

For those with reported miscarriages, the longer follow-up time was assessed as beneficial, helping them to work through feelings related to grief, allowing them to process the pregnancy loss and of the one they had lost.

The Program, as a whole, had setbacks, such as changes in coordination, lack of its own telephone line with private space and a non-exclusive multidisciplinary team. The professionals shared this activity with others related to the care of pregnant women, parturient women and postpartum women. There was no internal selection process for the composition of the team, with professionals being allocated according to the outpatient care charts.

Between 2017 and 2020, with the reform of the Maternity Unit, the obstetric emergency service (the Program's main entry point) only admitted for care patients on a referenced demand, contributing to fewer women entering Atenas, whose spontaneous demand was the most important form of access. In 2020, due to the pandemic, Atenas was deactivated, being resumed in 2021.

Table 1. Women assisted by the Atenas Program between 2014 and 2021, according to sociodemographic and reproductive characteristics. Salvador-Bahia, 2021

SOCIODEMOGRAPHIC AND REPRODUCTIVE CHARACTERISTICS[1]	No = 723	%
Age (in years)		
10-14	02	0,3
15-19	44	6,1
20-29	263	36,4
30-39	319	44,1
40-49	95	13,1
Rece/color		
Black	270	37,3
Mixed race	346	47,9
White	93	12,9
Indigenous	05	0,7
Yellow	02	0,3
Education		
Incomplete secondary	159	22,0

Table 1. Women assisted by the Atenas Program between 2014 and 2021, according to sociodemographic and reproductive characteristics. Salvador-Bahia, 2021

SOCIODEMOGRAPHIC AND REPRODUCTIVE CHARACTERISTICS[1]	No = 723	%
Complete secondary	452	62,5
Complete higher	104	14,4
Religion		
Candomblé	05	0,7
Catholic	305	42,2
Evangelical	232	32,1
Spiritualist	15	2,1
Other creeds	10	1,4
No religion	142	19,6
Marital Status		
Married / stable union	391	54,1
Divorced / separated	08	1,1
Single	320	44,3
Widow	01	0,1
Pregnancy (incluing this)		
Primigravida	239	33,1
Secundigest	229	31,7
Multigest	248	34,3
Living children		
Yes	378	52,3
No	338	46,7
Abortion (including this)		
1 episode	478	66,1
2 episodes	162	22,4
≥ 3 episodes	76	10,5

Source: Own elaboration.

[1] The totals vary according to the lack of information for each of the variables.

Table 2. Women treated in the Atenas Program between 2014 and 2021, according to type of uterine evacuation method and follow-up time. Salvador-Bahia, 2021

Type of uterine evacuation method	N = 723	%
MVA	75	10,4
Curettage	105	14,5
MVA and Curettage	11	1,5
Spontaneous	422	58,4
Misoprostol	110	15,2
Follow-up time (days)		
0 – 7	23	3,2
8 – 15	66	9,1
16 – 30	115	15,9

Table 2. Women treated in the Atenas Program between 2014 and 2021, according to type of uterine evacuation method and follow-up time. Salvador-Bahia, 2021

Type of uterine evacuation method	N = 723	%
31 – 45	184	25,4
46 – 60	101	14,0
61 – 75	73	10,1
76 – 90	55	7,6
≥ 91	106	14,7

Source: Own elaboration.

Table 3. Resolution time (in days) of the Atenas Program outcome types. Salvador-Bahia, 2021

TYPES OF DISCHARGE IN ATHENAS	RESOLUTION TIME	MD (1Q – 3Q) M	1Q	3Q
MVA	3 a 260	39	22	61
MVA and Curettage	8 a 107	28	14	55
Curettage	1 a 179	33	16	57
Spontaneous	0 a 361	44	34	73
Misoprostol	0 a 252	52	23	81

Source: Own elaboration.
M = Median.
1Q = 1st quartile.
3Q = 3rd quartile.

Discussion

Atenas has proven to be a feasible, safe and viable initiative, in a context of criminalization of abortion. It presents itself as an alternative to hospital-centric care, made up of practices considered institutional violence: compulsory curettage, mistreatment, neglect of care, and even reporting women to the police by health professionals[1].

The program was designed in response to the initiative to humanize care for safe abortion and miscarriage, and in accordance with national and international standards. It led to dehospitalization and the redirection of human and hospital resources. It provided individualized care based on bonds with carers. For women who reported miscarriage, it represented a moment of elaboration of feelings, such as mourning. For those who aborted, it became a more protected, safe space for them to be the object of care. It stand outs for putting forward a team of nurses who telemonitor women, welcoming them and advising them on warning signs and symptoms to seek medical attention.

In the absence of work on initiatives such as Atenas in Latin America, we resort here to a comparison with helplines, taken as a reference, even though these have different origins and assume specific configurations in the contexts where they operate.

Helplines in Latin America (such as Argentina, Chile, Ecuador, Peru and Venezuela) are led by feminist groups, without government support, with a regular need to raise funds. They provide telephone guidance on medical abortion

(self-management, medication dosage, route of administration, symptoms and complications). In a context of illegality, they inform how to behave in the case of hospital care to avoid complaints from health professionals[33]. In contrast, Atenas is part of the SUS, is carried out by health professionals and provides abortion care.

There is also little comparability of Atenas with national studies, due to the Program's novelty, but telemonitoring is similar to that offered by Nuavidas[34], which offers legal abortion via telemedicine.

The Atenas results are in line with similar initiatives in socioeconomically and culturally different countries, especially regarding the legal status of abortion. In the USA, for medical abortion (misoprostol-mifepristone) up to 12 weeks, telemedicine has established itself as an alternative to reproductive planning centers, especially after the COVID-19 pandemic[35]. Flexibility of appointment times; privacy; lower cost; non-displacement; less stigma; greater convenience; and equivalence to in-person care are some of the attractions highlighted by women[35], contributing to the increase in medical abortion via telemedicine36. With just a camera and computer, consultations are carried out remotely[37]. Users of Planned Parenthood, one of the American reproductive services, for example, are assisted via videoconference by doctors and nurses, and can contact these professionals in case of doubts or lack of response to mifepristone/misoprostol[38]. In France, doctors and sage-femmes (midwives) are authorized to carry out all stages of medical abortion by teleconsultation, with pills being dispensed by the woman's pharmacy of choice[39]. It is also possible, in Canada, for doctors and nurses to use telemedicine at different stages of care, such as initial consultation (86%), medication prescription (82.2%) and monitoring the abortion process (92.2%); they also monitor the patients mainly through β-HCG (84.2%) and telephone (56.4%)[40].

Between 2014 and 2021, the majority of Atenas participants (73.6%), up to 12 weeks of gestation, did not need hospitalization to empty the uterus (58.4% did so spontaneously and 15.2% through hospital misoprostol). In Hawaii, a study showed that 95.8% of women, up to 77 days of pregnancy, who associated telemedicine with medical abortion, did not need surgical intervention[41]. In England, 98.8% of users of three abortion services, up to 69 days of pregnancy, were also successful with telemedicine[15].

Despite the potential, Atenas faced difficulties in its implementation. Changes in coordination, institutional reform, the COVID-19 pandemic and institutional limits (lack of infrastructure and dedicated team) made it difficult to consolidate the program. In other contexts, where abortion is legal, health professionals also reported difficulties among users of telemedicine abortion services: in the USA, confirmation of identity, guarantee of who would use the medicines sent, access for those underage without parental consent[35]; in Canada, dating pregnancy using ultrasound, difficulty in paying professionals, lack of access to the β-HCG test, lack of nearby emergency services – factors that would represent barriers to accessing abortion via telemedicine[40]. Some service users in the USA pointed out technical failures (with the internet or access platforms) that hindered teleconsultation; fear of breach of privacy and preference for face-to-face service[42].

Macrostructural factors also negatively impacted Atenas, such as the criminalization of abortion, as women delay seeking hospital care for fear of being reported or mistreated[21]. The absence of mifepristone in Brazil also prevents access to a more effective technology, as the isolated use of misoprostol makes the expulsion time of uterine contents longer[5–7], prolonging monitoring in the program.

Latin American feminist groups operating in Brazil that offer medical abortion via telemedicine and provide mifepristone-misoprostol

pills also identified difficulties related to users' access. A study with interviews and a focus group with activists shows that, in 2019, there was greater use of the service by older, white, more educated women, as well as by more educated residents in richer states, located in the South, Southeast and Central-West regions, with a lower proportion of population racialization. Social inequalities related to gender, race and class are being reproduced in internet access, becoming barriers to telemedicine abortion services[43]. With this in mind, Kerestes and collaborators[41] emphasize the importance of maintaining in-person service as an option for people with limited technological access.

The potential of Atenas, in the Brazilian context, suggests possibilities for new quantitative and qualitative studies of the program, in order to analyze the distinct experiences of women, according to social markers, such as education and race/color, in addition to the type of pregnancy loss: miscarriage or abortion; to investigate the implications of the non-declaration of type of loss and whether there was a tendency to refermainly women with miscarriage to the Program; to understand the factors associated with choosing the type of uterine emptying and the reasons stated by the participants; and to verify the relationship between the choice of method, waiting time and type of loss, given that, supposedly, women with induced abortion prefer quick resolution.

This is the first study to highlight the importance of an unprecedented miscarriage and abortion care initiative in the SUS, one that offers spontaneous and medical methods to resolve missed and incomplete miscarriages and abortions. It showed the good acceptability of spontaneous and pharmacological emptying on the part of the participants, few losses to follow-up, as well as the recognition by professionals, who referred women from the private service. It revealed the pioneering spirit of the SUS, presenting the technology of telephone nursing monitoring as a strategy for linking and maintaining comprehensive care; bed management; and reallocation of resources.

Final considerations

Telehealth, a consolidated alternative for care for women with miscarriage and abortion, has shown strong growth in recent decades. Defined since 2002 by the competent authorities in Brazil[44], it was strengthened, in the face of the COVID-19 pandemic, through Law No. 13,989/2020[45]; Ordinance No. 467/2020[46] of the Ministry of Health; of Official Notice No. 1,756/2020[44] and Resolution No. 2,314/2022[47] of the Federal Council of Medicine; and Resolution No. 696/2022[48] of the Federal Nursing Council.

The WHO[12] recommends the guarantee of sexual and reproductive health services, especially in health and humanitarian crises, at the risk of exposing the population of women and girls to unintended pregnancies; unsafe abortions, birth complications and maternal deaths. It is estimated that, due to non-pharmacological measures to combat COVID-19 (quarantine, social distancing and restriction of movement), or even fear of the disease, thousands of women have been left without access to important services, such as prenatal care and reproductive planning[49]. The inaccessibility of contraceptive methods can result in millions of unintended pregnancies. In Brazil, 45% of the 76 legal abortion services were discontinued before the pandemic[49]. In this context, telehealth has been strongly recommended by several international (WHO[12], FIGO[13], FLASOG[14]) and national (Brazilian Federation of the Society of Gynecology and Obstetrics – FEBRASGO[50]) entities, especially for abortion and miscarriage, so that women can enjoy their sexual and reproductive rights.

Atenas – an organic Maternity initiative, without financial support from external bodies, – represents progress towards humanized care for women with miscarriage and abortions in line with national and international

recommendations. It should be extended to the entire public health network, aiming to expand access to comprehensive and humanized miscarriage and abortion care. Its' basic premiss of humanization should integrate and support all obstetric care, including childbirth and the postpartum period.

To overcome the difficulties encountered, an exclusive team is needed (with the definition of selection criteria and schedule setting for all members), considering that Atenas professionals work in other activities; raising awareness among all hospital professionals, including students and residents, in so becoming a mandatory internship field; implementation of an exclusive telephone line in a space with guaranteed privacy; offering ultrasound scans or other technologies that prove the resolution of the miscarriage or abortion; broad dissemination of the Program across the health services network, including digital media.

The emergence (and consolidation) of Atenas at the heart of the SUS is a symbol of resistance and advancement. It represents how much the public health system – despite underfunding and scrapping – is capable of providing a higher quality service to women.

Athens resisted an adverse political situation, which included attacks on sexual and reproductive rights; denial of women's rights; ordinances hindering access to legal abortion; persecution of scholars and institutions that worked on the topic; inflexibility of the legislature and anti-abortion activism of the federal executive. With Lula's third presidential term, it is expected that changes will occur in the conduct of this agenda at the Ministry of Health, not basing its decisions and public policies on moral and religious issues, but on scientific evidence, in order to qualify miscarriage and abortion care, ensuring women's right to health and life.

Collaborators

Victa AGLB (0000-0002-9442-1345)* carried out the conception, design, collection, analysis and interpretation of data. McCallum C (0000-0003-1927-7774)* and Menezes G (0000-0002-8393-2545)* also participated in these stages, except for data collection. Regarding the writing of the article, critical review of the intellectual content and final approval of the version to be published, all authors contributed.■

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