



# Barriers to Access of Medical Abortion in Brazil: The Role of Resistance by Obstetricians and Gynaecologists

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## Research Article

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## Abstract

**Objective:** According the WHO, not only gynaecologists but also other physicians, midwives and nurses can provide abortion services as safe and effectively as specialist. Considering the number of willing providers of legal abortion is limited, it is important to know the opinion of Ob & Gyn specialists regarding prescription of misoprostol for voluntary termination of pregnancy (VTP) by other professionals.

**Study Design:** A multicenter cross-sectional study carried out in 21 teaching hospitals in Brazil, aiming to determine who should be allowed to prescribe misoprostol for voluntary termination of pregnancy from the perspective of 407 residents in Obstetrics and Gynaecology who returned a self-responded questionnaire, 404 completed and three blank.

**Result(s):** Less than 8% of residents stated that other doctors besides specialists should be allowed to prescribe misoprostol for VTP. The proportion of residents who agreed to allow any physician to prescribe misoprostol for VTP was twice as large for those who had received information about the use of misoprostol in medical residency (15.1%). The logistic regression indicated that being male, in stable marital union and not giving very much importance to religion were significantly associated with agreement to allow any physician to prescribe misoprostol for voluntary termination of pregnancy.

**Conclusion(s):** The results showed an extremely low acceptance of non-specialist or midwives and nurses to prescribe misoprostol for VTP, which is against the WHO recommendations and world experience. We believe that contrasting such behavior with evidence-based recommendations may help to change such restrictive positions in a not so distant future.

**Keywords:** Medical abortion; Legal abortion; Medical residents; Safe abortion; Medical education; Residency training; Misoprostol; Family doctors

## Introduction

The availability of misoprostol in the world market had the unexpected effect of greatly reduced the risk of

complications and death after clandestine abortion [1-3]. At the same time, the current availability of medical abortion using either misoprostol alone or the combination of Mifepristone followed 24 to 48 hours later by misoprostol

as recommended by WHO [4], has greatly improve access to legal termination of pregnancy as the requirement to provide safe medical abortion are much less that those required to provide surgical abortion and facilitates the provision of safe abortion services at primary care level [5].

In the case of Brazil, the law does not punish abortion carried out to protect a woman's life, in cases of fetal anencephaly and if the pregnancy is the result of rape [6,7], but access to safe abortion for women who comply with the conditions included in the law was almost inexistent until the 1990s [8].

For the last 20 years, efforts have been made to improve access to safe legal abortion after rape in Brazil, but there are still many hospitals and cities where women do not have access to these services. One main barrier to the easy accessibility of safe legal abortion is the resistance of gynaecologists obstetricians (GO) to providing such services [9].

Under this conditions it would be very important to facilitate the provision of safe legal pregnancy termination at primary care level by general practitioners and family physicians, usually closer to the patients and more sensible to their needs, as it has been done in several countries, where access to safe legal abortion has greatly improved when midlevel health workers have been allowed to provide abortion services, particularly medical abortion [5,10,11].

The WHO has revised the evidence and concluded that not only can other physicians who are not Gynaecologists-Obstetricians provide safe abortion services, but also midwives and nurses; as safe and effectively as any other professional [12].

In Brazil, however, according to the law, only physicians can provide safe legal abortion, but they do not need to be specialists in Gynaecology and Obstetrics, which leaves the possibility that family physicians and general practitioners could provide safe medical abortion at primary care level.

The obstetricians and gynaecologist community is very powerful, and can be an insurmountable obstacle to any initiative to which they are opposed, Thus, it is important to know if they would accept that medical abortion can be provided by other professionals.

In this article we used a sample of medical residents in Obstetrics and Gynaecology as indicators of the opinion of obstetricians and gynaecologists, understanding that they are under the direct influence of their monitors and will reflect the prevalent ideas of Departments of Obstetrics and Gynaecology where they are trained.

The question was limited to who should be allowed to prescribe misoprostol for termination of pregnancy, considering that mifepristone was not available in Brazil.

## Subjects and Methods

A multicentre cross-sectional study was carried out in 21 teaching hospitals in Brazil, which had a residency program registered as a Residency in Obstetrics and Gynaecology program. These hospitals, located in four of the five geographical regions of Brazil, are part of the Brazilian Network for the Study of Reproductive and Perinatal Health. They are of tertiary level, take care of high complexity cases, and have more than 2.000 deliveries per year. Seven of them are Federal Hospitals, ten are State hospitals, two are Municipal and two are "Santas Casas". The data was collected from February of 2015 through January of 2016. At the time of the data collection there were 530 physicians registered in residency programs in Obstetrics and Gynaecology in the 21 hospitals included in the study. That number represents 30.2% of the 3018 physicians registered as resident in that specialty in the country, during 2017 [13].

A self-responded questionnaire with 30 questions, with fixed alternative answers or Likert scales, was used. It also had one open question requesting spontaneous comments on the subject. The questionnaire included the socio-demographic characteristic of the respondent, opinion on which conditions abortion should be legally permitted, whether abortion was included in the medical school program and teaching on misoprostol during residency, knowledge about misoprostol use, experience in attending to incomplete abortions and legal termination of pregnancy during residency, and willingness to provide safe legal abortion services. A local supervisor was appointed at each of the participating hospitals, with each one being given identical training in order to standardize the data collection procedures. At each hospital, the schedule for data collection was organized in such a way so as to take individual circumstances into consideration. In some cases, it was possible to invite all the residents to answer the questionnaire simultaneously; however, in other cases, the residents had to be interviewed individually.

## Ethical Considerations

Before agreeing to participate in the study, the residents were instructed to read an informed consent form and were given the opportunity to ask questions.

Anonymity was guaranteed by requesting the participants to deposit his/her questionnaire, completed or otherwise, into a sealed box. The residents were free to answer all the questions, some of the questions or even to deposit a blank questionnaire into the box if they preferred

not to answer any of the questions. The seals on the boxes were only broken at the coordinating centre. The purpose of this procedure was to ensure participants' privacy by reassuring them that the supervisor would not know whether they had decided to participate in the study or not.

The Institutional Review Board of the School of Medical Sciences, State University of Campinas (UNICAMP), approved the study protocol (CAAE: 21177013.3.0000.5404), as did the internal review boards of each of the participating hospitals. The need for signed informed consent was waived considering the nature of the study and to ensure complete confidentiality.

### Statistical Analysis

For the statistical data analysis, the associations between dependent variable and independent variables were evaluated by the chi-squared test and the Fisher Exact test.

Multiple logistic regressions was used to assess whether there were any correlations between opinion that family physicians and/or any other physician should be authorized to prescribe misoprostol for abortion and independent

variables. The odds ratios (OR) and their respective 95% confidence intervals are presented. For the tests used, p-values lower than 0.05 were considered significant.

The Statistical Package for Social Science - SPSS PC-DE (version 19), was used for data entering and checking. The statistical analysis was done using the software SAS (version 9.4).

### Results

Just over half of the respondents were 27 years of age or younger, about 80% were female and 70% did not have a permanent partner. Almost 20% declared not to profess any religion and about 30% gave very high importance to religion (Table 1). Just over half of the residents declared to have received lessons on abortion in medical school; more than two thirds were in their first or second year of residency, 80% have received information on the use of misoprostol during residency. A similar percentage had experience in caring for women with incomplete abortions, and 71% had experience in caring for women who had a legal termination of pregnancy (Table 2).

Variables	n	%
<b>Age (years on last birthday)*</b>		
Up to 27	227	56.3
28 or more	176	43.7
<b>Sex*</b>		
Female	327	81.1
Male	76	18.9
<b>Marital status*</b>		
With partner	121	30
Without partner	282	70
<b>Religion (1)*</b>		
With any religion	327	81.1
Without religion	76	18.9
<b>Declared Religion*</b>		
Catholic	235	58.3
Other	92	22.8
Without religion	76	18.9
<b>Importance of religion</b>		
Very much	121	30
Some, none	283	70

Missing: \* 1

**Table 1:** Percentage distribution of Brazilian residents in Obstetrics and Gynaecology, according to their sociodemographic characteristics.

Variables	n	%
<b>Abortion lesson as medical student *</b>		
Yes	210	52.1
No	193	47.9
<b>Year of residency**</b>		
First or second	274	68.2
Third to fifth	128	31.8
<b>Lessons on misoprostol during residency*</b>		
Yes	325	80
No	79	20
<b>Experience in caring for women with incomplete abortions**</b>		
Yes	328	81.6
No	74	18.4
<b>Experience in caring for legal termination of pregnancy**</b>		
Yes	286	71.1
No	116	28.9

Missing: \*1, \*\* 2

**Table 2:** Percentage distribution of Brazilian residents in Obstetrics and Gynaecology, according to training on abortion in medical school and as residents.

Not all the residents believed that obstetricians gynaecologists should be allowed to prescribe misoprostol for voluntary termination of pregnancy and less than 10% were of the opinion that any physicians or a family physician

should be allowed to prescribe misoprostol for VTP (Table 3). Only 1% believed that midwives should be allowed to prescribe misoprostol for this purpose and none accepted that other nurses should do so (Table 3).

Category of health professional Allowed to prescribe misoprostol for termination of pregnancy	N	%
Obstetricians-gynaecologist	381	94.3
Any physician	31	7.7
Family physician	29	7.2
Midwife	4	1
Other nurses	0	0

**Table 3:** Opinion of Brazilian residents in Obstetrics and Gynaecology on which Health Professional should be allowed to prescribe misoprostol for termination of pregnancy (n=404).

The socio-demographic characteristics associated with the opinion about who should prescribe misoprostol for VTP were the resident's sex and the importance of religion to them. Compared to female residents twice as many male residents were in favour of allowing any physician to

prescribe misoprostol for this purpose. There were also twice as many residents who gave little or no importance to religion in agreement that any physicians can prescribe misoprostol compared to those for whom religion was very important (Table 4).

<b>Agree that any physicians can prescribe misoprostol for the termination of pregnancy</b>			
Characteristics of residents	n/N	%	p-value
<b>Age (years)</b>			
≤ 27	32/227	14.1	0.524
>27	21/176	11.9	
<b>Sex</b>			
Female	37/327	11.3	0.011

Male	17/76	22.4	
<b>Marital status</b>			
With partner	22/121	18.2	0.051
Without partner	31/282	11	
<b>Religion (1)</b>			
With any religion	39/327	12	0.131
Without religion	14/76	18.4	
<b>Declared Religion</b>			
Catholic	28/235	11.9	0.32
Other	Nov-92	12	
Without religion	14/76	18.4	
<b>Importance religion</b>			
Very much	09/121	7.4	0.022
Other	45/283	16	

Chi-square test

**Table 4:** Residents in Gynaecology and Obstetrics who believe that any physician should be allowed to prescribe misoprostol for the termination of pregnancy, according to residents' characteristics.

The teaching on abortion during medical school or training in the residence did not have great influence over the residents' opinions on who should be allowed to prescribe misoprostol for VTP. Only residents who had received

training on the use of misoprostol were in favour of allowing any physician to prescribe this drug in a percentage that was between twice and three fold greater than those who had not received such training (Table 5).

<b>Agree that any physicians can prescribe misoprostol for the termination of pregnancy</b>			
Characteristics of residents	n/N	%	p-value
<b>Abortion lesson as medical student</b>			
Yes	30/210	14.3	0.586
No	24/193	12.4	
<b>Year of residency</b>			
First or second	33/274	12	0.232
Third to fifth	21/128	16.4	
<b>Lessons on misoprostol during residency</b>			
Yes	49/325	15.1	0.04
No	May-79	6.3	
<b>Experience in caring for women with incomplete abortions</b>			
Yes	45/328	14	0.723
No	Sep-74	12.2	
<b>Experience in caring for legal termination of pregnancy</b>			
Yes	41/286	14.3	0.405
No	13/116	11.2	

Chi-square test.

**Table 5:** Residents in Gynaecology and Obstetrics who believe that any physician should be allowed to prescribe misoprostol VTP, according to training in medical school and as residents.

The multiple regression analysis, which included as co-variables all those shown in Tables 4 & 5, indicated that being

male, having a permanent partner and not giving very much importance to religion were significantly associated with

agreement to allow any physician to prescribe misoprostol for VTP (Table 6).

Variable	OR	95% CI	p-value
<b>Sex</b>			
Female	1	-	
Male	2.29	[1.18-4.44]	0.014
<b>Marital status</b>			
Without partner	1		
With partner	2	[1.08-3.71]	0.027
<b>Importance religion</b>			
Very much	1		
Other	2.23	[1.03-4.84]	0.041

OR: Odds Ratio; CI: Confidence Interval.

**Table 6:** Multiple logistic regression for prescription of misoprostol for VTP by any physician (n=358).

## Discussion

The results of this study indicate that Brazilian residents in Obstetrics and Gynaecology show a very restrictive opinion on who should be allowed to prescribe misoprostol for VTP, against the recommendations of the World Health Organization [4] and the world experience [11,14].

A possible reason for this restricted opinion may be that allowing other physicians to prescribe misoprostol would be a loss of authority of the specialists in Obstetrics and Gynaecology and a consequent loss in income. A similar resistance was found by a qualitative study carried out in Nigeria, among physicians and non-physicians, where physicians were opposed to allow pharmacist to prescribe medicaments, while non-physicians supported [15].

This restrictive opinion of residents is indicative of the concepts prevailing on the Departments of Obstetrics and Gynaecology where they are being trained. The finding that an overwhelming majority is opposed to the prescription of misoprostol by non-specialists in Obstetrics and Gynaecology is a powerful barrier to the expansion in the provision of medical abortion services at primary care level by general practitioners and family physicians, which would allow that more women complying with the legal conditions could obtain a safe termination of pregnancy.

Such negative attitude may be a reflection of the lack of proper and complete information in relation to abortion that they received at medical school and even during the residency in GO. Just over half of respondents recalled having received information related to abortion in medical school, almost 20% had not received information on the use of misoprostol during residency or had taken care of an incomplete abortion, and 30% had not participated in

the care of women requesting safe legal termination of pregnancy. Of all these teaching experiences, only those who have received information on the use of misoprostol showed a more liberal opinion on who can prescribe the drug, but still, only 15% within that group agreed that any physician can prescribe misoprostol for VTP.

These residents' opinion may reflect the general concepts prevailing in the departments of GO where they are residents, showing a picture which corresponds to a social environment where the stigma of abortion is prevalent. Obstetricians and gynaecologists adopt an external position that they believe will be better accepted by the people around whom they work and live. In a previous study among civil servants of the state of Sao Paulo we found that only one fourth or fewer of the respondents were in favour of allowing abortion for any reason other than those currently legal, and just over half accepted abortion to protect women's physical health, but not their mental health [16]. We have already repeatedly shown that such opinions change and become quite liberal when the problem becomes closer to us [17]. Independently of the reasons that explain the current policies with reference to teaching about abortion in Brazilian Medical schools and Teaching Hospitals, there is a clear need to revise these policies. Abortion is one of the main reasons for admission in gynaecological wards, although both its frequency and severity had been greatly reduced with the availability of misoprostol instead of more dangerous procedures for clandestine abortion [1]. In addition it is one of the most dramatic experiences in a woman's life and in some specific cases they have the right to be provided with termination of pregnancy within the law, and gynaecologist have the ethical and professional obligation of providing such services [18]. According the WHO Safe Abortion Guidelines, "Ensuring that laws, even when restrictive, are interpreted

and implemented to promote and protect women's health is essential" [4]. Thus, there is no justification for continuing to ignore or giving very low priority to the teaching of abortion in medical schools, much less during the residency in GO.

The main limitation of this study is that the question asked was not clear whether it was related to legal abortion or any voluntary termination of pregnancy. Thus, the answers may reflect the rejection of abortion in general, and not precisely on the qualification of the professional with capacity to provide the method. That may explain that 5.7% of the respondents declare that not even GO should be allowed to prescribe misoprostol for VTP. This limitation, however, does not invalidate the results showing an extremely low portion accepting than non-specialists could prescribe misoprostol for VTP, and that almost no respondents accepted that midlevel providers, midwives and nurses could be allowed to prescribe misoprostol with that purpose, against the WHO recommendations and world experience.

We know that to change the current practices of medical schools and teaching hospitals regarding abortion is not an easy task, but we expect that by contrasting such behaviour with technical, evidence based, recommendations may help to open a discussion, which may lead to a behavioural change in the not too distant future.

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### Disclosure Statement

No potential conflict of interest was reported by the authors.

### Contributions

A. Faundes and R. C. Pacagnella conducted the study and participated in the conception, data analysis and interpretation, writing of the manuscript, and final approval. K. S. Pádua, S. F. Bento, K. G. Fernandes and M. J. D. Osis contributed to the data collection, analysis and interpretation, writing of the manuscript, and critical revision for the final approval. G. A. Duarte contributed to the data analysis and interpretation, writing of the manuscript, and critical revision for the final approval.

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