

Women hospitalized due to abortion in a maternity teaching hospital in Recife, Brazil

MULHERES HOSPITALIZADAS POR ABORTAMENTO EM UMA MATERNIDADE ESCOLA NA CIDADE DO RECIFE, BRASIL

MUJERES HOSPITALIZADAS POR ABORTO EN UNA MATERNIDAD ESCUELA EN LA CIUDAD DE RECIFE, BRASIL

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ABSTRACT

This cross-sectional study was performed with 160 women between 2005-2006. The objective was to describe the social-demographic and reproductive characteristics of women hospitalized due to abortions, and their knowledge about contraceptive methods and abortion induction. In order to determine the association between the abortion classification and social-demographic variables, Pearson's chi-square test was used, with a significance level of 5%. A frequency of 56.3% was found for *probably induced* abortions. Most cases of abortion occurred before 12 weeks (55.7%). As for the women's profiles: 48.9% were between 20-29 years old, 72.0% had eight years or more of schooling, 90.1% had a partner, 52.0% had 1-3 children, 100% knew about oral contraceptives and condoms and 80.0% had heard about misoprostol. The social-demographic and reproductive profile of women hospitalized at the referred service due to abortion did not change over the last years. Misoprostol remains the most known method for abortion induction.

KEY WORDS

Abortion.
Abortion, induced.
Misoprostol.

RESUMO

Estudo de corte transversal, realizado com 160 mulheres no período de 2005-2006, com o objetivo de descrever as características sócio-demográficas e reprodutivas de mulheres hospitalizadas por abortamento e o conhecimento sobre métodos contraceptivos e de indução para o abortamento. Para determinação da associação entre a classificação do abortamento e as variáveis sócio-demográficas e reprodutivas, utilizou-se o teste qui-quadrado de Pearson, considerando-se o nível de significância de 5%. Observou-se uma frequência de 56,3% de abortamento *possivelmente induzido*. A maioria ocorreu antes das 12 semanas (55,7%). Em relação ao perfil das mulheres: 48,9% entre 20-29 anos, 72,0% com oito anos ou mais de estudo; 90,1% tinham companheiros; 52,0% tinham de 1-3 filhos, 100% conheciam a pílula e o preservativo, e 80,0% o misoprostol. O perfil sócio-demográfico e reprodutivo das mulheres hospitalizadas por abortamento no serviço não se alterou nos últimos anos. O método mais conhecido para indução do abortamento continua sendo o misoprostol.

DESCRIPTORIOS

Aborto.
Aborto induzido.
Misoprostol.

RESUMEN

Estudio de corte transversal, realizado con 160 mujeres en el período 2005-2006 con el objetivo de describir las características socio-demográficas y reproductivas de mujeres hospitalizadas por aborto, el conocimiento sobre métodos anticonceptivos y de inducción del aborto. Para la determinación de la asociación entre la clasificación del aborto y las variables socio-demográficas y reproductivas se utilizó el test qui-cuadrado de Pearson, considerándose el nivel de significatividad de 5%. Se observó una frecuencia de 56,3% de abortos *posiblemente inducidos*. La mayoría ocurrió antes de las 12 semanas (55,7%). En relación al perfil de las mujeres: 48% entre 20 y 29 años, 72,0% con ocho años de estudios o más, 90,1% con compañeros, 52,0% tenían entre 1 y 3 hijos, 100% conocían la píldora y el condón y 80% el misoprostol. El perfil socio-demográfico y reproductivo de las mujeres hospitalizadas por aborto en el servicio no se alteró en los últimos años. El método más conocido para la inducción del aborto continúa siendo el misoprostol.

DESCRIPTORIOS

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INTRODUCTION

The abortion issue has been broadly discussed and under different focuses, going through the ethics, the politics, organized women's movements, churches, health sectors, juridical aspects, among others. The problem is even more comprehensive in countries where the abortion is considered illegal, such as in Brazil, since in these countries its true dimension is not properly documented, due to the lack of reliable records⁽¹⁾. Therefore, its prevalence is based on estimates, mainly on records of hospitals from the public health system, as there are no records from private services⁽²⁻³⁾.

It is estimated that among the almost 20 million unsafe abortions that take place all over the world every year with consequent death, complication or irreversible sequelae, 97% occur in developing countries⁽⁴⁾. In Brazil, abortions contribute with 10 to 15% of the maternal deaths, representing the fourth cause of maternal mortality and being intimately related to the Brazilian social inequalities⁽⁵⁾. In Recife, in 2002, abortions were responsible for 9% of the deaths by direct preventable obstetric causes, being the fourth leading cause of maternal death⁽⁶⁾.

In Brazil, despite of the lacking data, some studies have described the profile of women in risk of submitting themselves to an abortion⁽³⁻⁷⁾. A document of the Ministry of Health, which systematized 20 years of research on the abortion in Brazil, observed that women who make an abortion are predominantly young, between 20 and 29 years old, have a stable partner, have studied for up to 8 years, work, are catholic, have at least one child, are users of a contraceptive method and use Misoprostol to cause an abortion⁽³⁾. Currently, it has been the most known and used abortion method⁽³⁾. Studies on the knowledge about contraceptive methods have indicated that women generally state they know most of the available methods, especially oral contraceptives and condoms, even though a lower proportion of appropriate knowledge is observed when the information quality is evaluated⁽⁷⁾.

The limited knowledge about contraceptive methods and the lack of national programs of contraception care contribute to the inappropriate use, abandonment and failure of the method, which may favor the unsafe abortion⁽⁸⁾.

OBJECTIVES

Aimed at offering subsidies for the situational diagnosis of abortion in the city of Recife and contributing to the implementation and multiplication of care services for women in the post-abortion period, the present study had the purpose to describe the social-demographic and reproductive characteristics of women hospitalized due to abortions, and their

knowledge about contraceptive methods and methods used for abortion induction according to the abortion classification at a maternity school hospital in Recife.

METHOD

A cross-sectional descriptive study was performed with 160 women who searched the maternity hospital of the Women Care Center of the Instituto de Medicina Integral Professor Fernando Figueira (IMIP), in the city of Recife, Brazil, with abortions occurring before 20 weeks and/or fetuses weighing less than 500 grams. The sample comprised all the women who were treated in the period from November 2005 to July 2006. The women were selected through the "Records of the Obstetric Center", in which the researchers looked for women who had been registered with an abortion diagnosis. Afterwards, these women were located at the nursing wards to confirm the diagnosis, and then invited to participate in the study. Those who accepted to participate were interviewed in a reserved environment, once they had signed the Term of Free and Clarified Consent.

A questionnaire was applied regarding the socioeconomic and reproductive data, and the knowledge about contraceptive methods and methods for abortion induction. The records also provided data regarding the type of abortion, the presence of complications and the treatment performed in order to complement the information. The abortions were classified according to the criteria suggested by the WHO: 1- induced, either when the woman stated she induced the abortion or in case there were signs of uterine intervention/manipulation found; 2- possibly induced, either when there was presence of uterine infection or peritonitis at the admission or when the pregnancy had not been planned and the woman was not using any contraceptive method in the gestational cycle; 3- spontaneous, when none of the criteria used for the previous classifications were found. Pearson's chi-square test was used to determine the association between the abortion classification and the socioeconomic and reproductive variables, with a significance level of 5%. The project was approved by the Committee of Ethics and Research of the Institution under the number 649/2005.

presence of uterine infection or peritonitis at the admission or when the pregnancy had not been planned and the woman was not using any contraceptive method in the gestational cycle; 3- spontaneous, when none of the criteria used for the previous classifications were found. Pearson's chi-square test was used to determine the association between the abortion classification and the socioeconomic and reproductive variables, with a significance level of 5%. The project was approved by the Committee of Ethics and Research of the Institution under the number 649/2005.

RESULTS

Regarding the gestational age, there was a prevalence (55.7%) of abortions before 12 weeks (early), but in nine out of the 160 women (5.6%) it was not possible to determine the gestational age. As for the type of abortion, 14.3% were classified as induced and 56.3% as possibly induced. There was no association found between the classification and the gestational age in which the abortion occurred ($p=0.223$) (Table 1).

Table 1 - Distribution of the frequency of hospitalized women by abortion according to the criteria suggested by the WHO to differ spontaneous and induced abortions by gestational age, IMIP - Recife - 2005/2006

Abortion Classification	Gestational Age							
	< 12 weeks		> 12 weeks		Unknown		Total	
	n	%	n	%	n	%	n	%
Induced	15	9.4	7	4.3	1	0.6	23	14.3
Possibly Induced	46	28.8	41	25.6	3	1.9	90	56.3
Spontaneous	28	17.5	14	8.8	5	3.1	47	29.4
Total	89	55.7	62	38.7	9	5.6	160	100.0

Fisher's Exact test (p=0.223)

Regardless the classification, the highest occurrence of abortions was found in the age group between 20 and 29 years old, which corresponds to 48.9% of the total number of cases. The adolescents (under 20 years old) contributed with 17.9% of the sample. Regarding the abortions classified as induced, there were no records of women over 40 years old. It was observed that 72% of the women had over eight years of education and 50% had a job. As for their marital status, approximately 10% did not have a

partner. It was observed that 44.3% of them were nulliparous, and it was in this category that most of the abortions were classified as spontaneous (21.9%). There was an association found between the number of children and the classification of the abortion (p<0.001). There were no records of previous abortions in 72.5% of the women and there was no association between the number of previous abortions and the classification of the current abortion (Table 2).

Table 2 - Distribution of the frequency of women hospitalized due to abortion according to their biological, reproductive and social-demographic characteristics, IMIP - Recife - 2005/2006

Variables	Abortion Classification								P
	Induced		Possibly Induced		Spontaneous		Total		
	n	%	n	%	n	%	n	%	
Age (years old)									
<20	5	3.1	18	11.2	6	3.7	29	17.9	0.213
20 30	14	8.7	41	25.7	23	14.4	78	48.9	
30 40	4	2.5	22	13.7	17	10.7	43	26.9	
≥40	-	-	9	5.7	1	0.6	10	6.3	
Total	23	14.3	90	56.3	47	29.4	160	100.0	
Education (years of study)									
<8	4	2.5	28	17.5	13	8.1	45	28.0	0.444
≥8	19	11.8	62	38.8	34	21.3	115	72.0	
Total	23	14.3	90	56.3	47	29.4	160	100.0	
Partner									
Yes	20	12.5	77	48.2	47	29.4	144	90.1	0.008
No	3	1.8	13	8.1	-	-	16	9.9	
Total	23	14.3	90	56.3	47	29.4	160	100.0	
Employment									
Yes	8	5.0	46	28.8	26	16.3	80	50.0	0.267
No	15	9.3	4	27.5	21	13.1	80	50.0	
Total	23	14.3	90	56.3	47	29.4	160	100.0	
No. of alive children									
0	6	3.7	30	18.7	35	21.9	71	44.3	< 0.001
1 - 3	15	9.4	57	35.7	11	6.9	83	52.0	
>3	2	1.2	3	1.9	1	0.6	6	3.7	
Total	23	14.3	90	56.3	47	29.4	160	100.0	
No. of previous abortions									
0	17	10.6	66	41.3	33	20.6	116	72.5	0.700
1	6	3.7	17	10.6	10	6.3	33	20.6	
≥2	-	-	7	4.4	4	2.5	11	6.9	
Total	23	14.3	90	56.3	47	29.4	160	100.0	

Considering each contraceptive method individually, 100% of the interviewed women stated they knew oral contraceptives and condoms. The tubal ligation was mentioned by 90% of the women and the vasectomy by 73% (Table 3).

Regarding the methods to cause the abortion, the most known methods by frequency order were: Misoprostol/Cytotec®; herbal abortifacients and tube (Table 4).

Table 3 - Distribution of the frequency of women hospitalized due to abortions according to their knowledge about contraceptive methods, IMIP - Recife - 2005/2006

Known Method	Abortion Classification							
	Induced		Possibly Induced		Spontaneous		Total*	
	n=23	%	n=90	%	n=47	%	n=160	%
Contraceptive Pill	23	100.0	90	100.0	47	100.0	160	100.0
Male Condom	23	100.0	90	100.0	47	100.0	160	100.0
Injectable Contraceptive	23	100.0	89	98.9	45	95.7	157	98.1
IUD	21	91.3	82	91.1	41	87.2	144	90.0
Female Condom	21	91.3	81	90.0	41	87.2	143	89.4
Calendar-based Methods	20	86.9	76	84.4	41	87.2	137	85.6
Tubal Ligation	19	82.6	73	81.1	41	87.2	133	83.1
Vasectomy	14	60.8	66	73.3	37	78.7	117	73.1
Diaphragm	12	52.2	45	50.0	21	44.7	78	48.7
Coitus interruptus	10	43.5	36	40.0	23	48.9	69	43.1
Lactation-Amenorrhea	4	17.4	24	26.6	9	19.1	37	23.1

* Each one of the 160 women stated they knew one or more methods.

Table 4 - Distribution of the frequency of women hospitalized due to abortions according to their knowledge about abortion methods, IMIP - Recife - 2005/2006

Known Method	Abortion Classification							
	Induced		Possibly Induced		Spontaneous		Total*	
	n=23	%	n=90	%	n=47	%	n=160	%
Misoprostol/Cytotec®	20	86.9	72	80.0	36	76.6	128	80.0
Herbs	17	73.9	71	78.9	35	74.4	123	76.9
Tube	3	13.0	25	27.8	8	17.0	36	22.5
Curettage	2	8.7	18	20.0	6	12.7	26	16.2
Other drugs	1	4.3	11	12.2	6	12.7	18	11.2
Injection	-	-	11	12.2	6	12.7	17	10.6
Other methods	3	13.0	5	5.5	3	6.4	11	6.9

* Each one of the 160 women stated they knew one or more methods.

DISCUSSION

The 160 women who were hospitalized with a diagnosis of abortion represented 3.1% of the obstetric hospitalizations in the period. The comparison of the results with a study developed in the same institution⁽⁹⁾ in the early 90's, aimed at identifying the risk factors for hospitalizations due to abortion, indicated no changes in the profile of these women over the last decade. At the occasion, there was a prevalence of 5.7% of abortions among all the obstetric hospitalizations⁽⁹⁾. Another study, previously developed and with data collected from 1988 to 1992, in the same hospital, found a prevalence of abortions at around 10.0%⁽²⁾. This decrease in the number of hospitalizations due to abortion, observed between the two previous periods, followed the popularization of the use of Misoprostol in the early 90's, which resulted in a decrease of hospitalizations for treatment of possible complications due

to abortions, since women who use Misoprostol may not search for the health service by having their abortions performed at home⁽³⁾. In addition, the fact of the difficulty found to obtain information from women who induced the abortion, not only due to its illegal character but also to the fact that this issue is almost always permeated by cultural, ethical, religious and psychological aspects, which interfere in the collection of information⁽¹⁾. The WHO, in 1978, established scores for the classification of the abortions according to the statement of the woman and the circumstances in which she arrived at the hospital⁽¹⁰⁾. Based on the criteria of the WHO, the abortions in this study were classified as spontaneous or induced (subdivided in certainly and possibly induced). Considering the 160 abortions, 29.4% were classified as spontaneous, in other words, there were no signs indicating the abortion could have been induced. A study developed in Campinas⁽²⁾ emphasized the difficulty to establish the true

number of spontaneous abortions among all, since many of them are not even diagnosed as they do not require hospital care. Furthermore, among the clinically known pregnancies, there is an estimated rate between 12 and 15% of spontaneous abortions that occur before 12 weeks and most of them do not need hospitalization⁽¹¹⁾. Despite of the possibility of a classification error, the adoption of the criteria suggested by the WHO and adapted for this study aim at identifying indirectly the induced abortions that, otherwise would only be possible with the woman's statement.

Considering the criteria of the WHO, 70.6% of the abortions mentioned in this study were classified as induced (among induced and possibly induced), and only 14.3% of the women reported they had undergone a procedure to induce the abortion. The proportion of women who stated they had induced the abortion was rather lower than that obtained in a study developed about 10 years ago at the same place⁽⁹⁾, as well as in a study developed in 2001, in the region of the *Triângulo Mineiro*, in the state of Minas Gerais⁽¹²⁾, which identified 30.4% and 37.9% of induced abortions, respectively. In fact, these data may translate a decrease in the number of induced abortions that would need hospitalization, but, on the other hand, it is necessary to consider the fear of the women to disclose such intimate information, since the interviews were performed when there were no longer risks of complication, and some of the women had already been discharged from the hospital⁽¹²⁾.

Regarding the women's age, the highest incidence of abortion, regardless its classification, was found between 20 and 29 years old, corresponding to 48.9% of the women. This was also the prevalent age group in a study developed among women with septic abortion in the region of the *Triângulo Mineiro*, in the state of Minas Gerais⁽¹²⁾, which found 62.0% of the women were also in this age group. In the previous study, in the same institution where this study was developed, more than half of the women (54.3%) also belonged to this age group⁽⁸⁾. In general terms, this is the prevalent age range in most of the studies about abortion or about problems related to the pregnancy⁽¹²⁾, since it corresponds to the age that is considered ideal to get pregnant. Besides, a review about the characteristics of women who search for an induced abortion, in different countries, observed a higher occurrence of abortions in women from 20 to 29 years old, probably because there is a higher probability for women in this age group to be married, sexually active and fertile, resulting in high pregnancy rates⁽¹³⁾. This review also found a lower percentage of abortions in women who were in the extremes of the reproductive age (under 20 and over 40 years old)⁽¹³⁾. In the present study, the adolescents represented less than 20% of the sample, a discretely lower percentage than that found in the previous study developed at the same hospital (25.7%), which may suggest a decrease in the number of abortions among adolescents, following a tendency in the decrease of hospitalizations due to abortion, in a general way⁽⁹⁾.

In the present study, a high percentage (72.0%) of the interviewed women had at least eight years of education,

which may indicate an improvement in the population education, according to recent data provided by the NRDH (National Research of Demography and Health of the Child and the Woman)⁽¹³⁾. A review study showed that most of the abortions, in different countries, happens with women who have some high school education⁽¹⁴⁾. Women with higher education levels may be more motivated to terminate an unplanned pregnancy and completing their education or increasing their work experience.

This study also observed that 90.1% of the women stated they had a partner, similarly to the findings of the previous study in the institution⁽⁹⁾, in which 67.4% of the women who suffered an abortion had a partner, evidencing the influence of the partner's opinion in the decision to abort^(2,9). A study about the risk factors and predictors for the induced abortion found different predictors according to the age group, and being separated or divorced was the predictor for aborting in the age group between 20 and 29 years old, whereas between 30 and 39 years old the predictor was living with a partner or in a stable relationship⁽¹⁵⁾. On the other hand, other studies showed the little involvement of men in the decision to abort, with a consequent greater responsibility of the woman in the process of making the decision about the future of the pregnancy⁽¹⁶⁻¹⁷⁾.

Regarding their knowledge about contraceptive methods, the present study observed that all women knew contraceptive pills and male condoms. A study developed in Campinas observed that the contraceptive pill and the condom were also the two most known contraceptive methods, with 95.1% and 72%, respectively. Considering that this information was spontaneously referred by the women, the fact that all women in this study recalled the condom may reflect, somehow, the sexual education and the informative work developed by the care programs aimed at the health of the woman and the adolescent, as well as the programs against STD/AIDS strengthened in the last decade⁽¹⁸⁾.

It was observed that 80% of the women in this study identified Cytotec® (Misoprostol) as an abortion method, which was similar to the findings of the previous study⁽⁹⁾. Since the first studies that appeared in the early 90's, evidencing the indiscriminate use of Misoprostol as an abortifacient in Brazil, this substance has been associated to a lower health risk, as well as to a shorter hospitalization period and cost in case of an abortion⁽²⁾. The document that systematizes the national studies about abortions over the last 20 years showed a change in the scenario of the abortion practices, in which 50% to 85% of the women who stated to have induced the abortion used Misoprostol, mainly in the Northeast and Southeast⁽³⁾.

Despite of the methodological limitations regarding the design of the present study, it outlines the most updated profile of the population of women who search for the evaluated health service for solving complications due to abortions. The identification of this profile will be able to contribute to the implementation of the post-abortion program of this health service, aimed at breaking the abortion

cycle through the facilitated access to the contraceptive counseling and to the sexual education that allow free and clarified choices in the post-abortion⁽⁸⁾.

CONCLUSION

Misoprostol is still the most known method for inducing an abortion. The social-demographic and reproductive

profile of the women hospitalized due to abortion did not change over the last years, when compared to a study developed in the same hospital 10 years ago.

Therefore, the data allow to subsidize the planning and implementation of actions aimed at the abortion care, especially at the education in the family planning in the institutional areas, with the possibility of multiplying this initiative in other contexts.

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