Quem está mais propensa a optar pelo aborto provocado diante de uma gravidez consumada? Um estudo com mulheres em idade fértil, residentes em três regiões da cidade de São Paulo, Brasil\*

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Palavras-chave: Aborto provocado, Gravidez não desejada, Escolaridade

#### Resumo

O objetivo desse estudo é estimar a proporção de mulheres que declararam ter praticado aborto alguma vez na vida e avaliar o efeito de atributos sócio-demográficos e tipo de abordagem sobre essa prática em mulheres em idade fértil com histórico de alguma gestação residentes na cidade de São Paulo, Brasil. Trata-se de uma análise conjunta de 3 inquéritos domiciliares transversais conduzidos em amostras aleatórias dessas mulheres realizados em Vila Madalena (VM, 1987 e 2000) e na cidade de São Paulo (CSP, 1993). Dentre as 2805 mulheres entrevistadas, 15,1% (423 mulheres) declararam ter provocado aborto alguma vez na sua vida. A abordagem indireta (OR=4,7; p<0,001), uso de métodos contraceptivos não eficazes (OR=1,5; p=0,011), e ter mais que 8 anos de escolaridade (OR=1,6; p=0,011) foram independentemente associadas à declaração de aborto. Ter número de filhos menor ou igual ao considerado ideal (OR=1,6; p=0,001), ser solteira (OR=3,4; p=0,002), e ser sempre favorável à prática do aborto (OR=5,2; p<0.001) foram associadas com a declaração de aborto quando ocorrem individualmente. A interação de terceira ordem entre número de filhos menor do que ideal, ser solteira e ser sempre favorável ao aborto foi significativa (p=0,025) aumentando as chances de 4,13 vezes quando essas situações ocorrem simultaneamente.

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Who is more likely to have had an induced abortion? A pooled analysis of three studies in women with history of pregnancy in the city of São Paulo,

Brazil

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#### Introduction

In most Latin American countries where induced abortion is restricted by law [1], the majority of the unwanted pregnancies are terminated under unsafe circumstances, being a risk to health and life [2, 3]. The mortality ratio in 2003 due to unsafe abortion was estimated to be 20 per 100,000 live births in South America [4].

The practice of induced abortion, though frequent, as revealed by its complications, is not a well-known event. Legal, social, moral and ethical questions surrounding abortion make it difficult to do research in this area, affecting the quality and validity of the obtained information [5, 6, 7]. Even in countries where abortion is legally permitted, its practice is under reported [8].

Essentially, the induced abortion currently represents one of the most neglected public health problems. Our proposal is to fill in some of the gaps in this area.

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# **Objectives**

To estimate the proportion of women that report to have had an induced abortion at least once in their lifetime and to evaluate the joint effect of some sociodemographic attributes, place of residence and type of approach when questioning about abortion practice in women in fertile age with history of pregnancy residing in São Paulo, Brazil.

## **Material and Methods**

This is a joint analysis of 3 domiciliary cross-sectional surveys conducted in random samples of women in fertile age – 15 to 49 years old – with history of pregnancy (that resulted in live births or abortions), residing in Vila Madalena (VM, 1987 and 2000) and in the city of São Paulo (CSP, 1993). As research instruments, questionnaires were applied by trained interviewers – in VM, 1987 and CSP, 1993 – and auto completed in VM, 2000.

Logistic regression models with forward selection of variables were used to analyze the data. The dependent variable was to have had at least one induced abortion during the reproductive life (yes; no), and the independent variables were age at interview, years of education (≤ 8 years; > 8 years), current marital status (single; married; consensual union; others: separated, divorced, widowed), current use of contraceptive methods (no use; use effective methods: pill, IUD, sterilization; use of non effective methods: all others), number of live births, difference between actual number of children and ideal number of children, opinion towards abortion practice (always favorable; never favorable; favorable: law/economical reasons), type of questioning approach (direct; indirect approach) and place of residency (CSP, 1993; VM, 1987; VM, 2000), and their interactions.

## **Results**

Of the 2805 interviewed women with history of pregnancy, 15.1% (423 women) declared to have had an induced abortion sometime during their reproductive life (Table 1).

Due to missing values, 2737 with complete information were considered in the multiple analyses. The information loss was less than 5%.

Table 1. Demographic characteristics of the studied women.

		Induced				
Characteristics	No			es	TOTAL	
	N	%	N	%	N	%
Questioning Approach*						
Direct	2051	86.1	245	57.9	2296	81.9
Indirect	331	13.9	178	42.1	509	18.1
Marital Status*						
Single	246	10.3	139	32.9	385	13.7
Married	1593	66.9	121	28.6	1714	61.1
Consensual union	228	9.6	75	17.7	303	10.8
Other	308	12.9	85	20.1	393	14.0
Subtotal	2375	99.7	420	99.3	2795	99.6
No information	7	0.3	3	0.7	10	0.4
Education*						
≤ 8 years	1706	71.6	213	50.4	1919	68.4
> 8 years	669	28.1	206	48.7	875	31.2
Subtotal	2375	99.7	419	99.1	2794	99.4
No information	7	0.3	4	0.9	11	0.4
Contraceptive Methods*						
No use	1012	42.5	131	31.0	1143	40.7
Use effective methods	1021	42.9	171	40.4	1192	42.5
Use non effective methods	347	14.6	118	27.9	465	16.6
Subtotal	2380	99.9	420	99.3	2800	99.8
No information	2	0.1	3	0.7	5	0.2
Opinion towards Abortion						
Never favorable	405	17.0	45	10.6	450	16.0
Always favorable	515	21.6	261	61.7	776	27.7
Favorable: law/economic	1424	59.8	110	26.0	1534	54.7
Subtotal	2344	98.4	416	98.3	2760	98.4
No information	38	1.6	7	0.7	45	1.6
Difference						
<	993	41.7	283	66.9	1276	45.5
=	848	35.6	83	19.6	931	33.2
>	541	22.7	57	13.5	598	21.3
Income						
5 min wage (CSP 1993)	1006	42.2	79	18.7	1085	38.7
7.5 min wage (VM 1987)	1045	43.9	166	39.2	1211	43.2
10 min wage (VM 2000)	331	13.9	178	42.5	509	18.1
TOTAL	2382	100.0	423	100.0	2805	100.0

<sup>\*</sup>Chi-squared - p < 0.001

The main results revealed (Table 2) that the indirect questioning approach (OR=4.7, p<0.001), the use of non effective contraceptive methods – mostly condom – (OR=1.5, p=0.011), and to have more than 8 years of education (OR=1.6, p=0.011) were positively and independently associated with abortion declaration. Also, to have less or equal the number of kids than considered ideal (OR=1.6, p=0.001), to be single (OR=3.4, p=0.002), and to be always favorable to abortion practice (OR=5.2, p<0.001) were positively associated with abortion declaration when occurring individually. The third order interaction between the number of kids than considered ideal, to be single and to be always favorable to abortion practice was statistically significant (p=0.025), increasing the odds by 4.13 when these three situations occur simultaneously. Current age was not significant (Mean=35.0 years; SD=8.2).

Table 2. Final logistic regression model.

						95% CI	
	В	Std. Error	Wald χ2	p	Exp(B)	Lower Bound	Upper Bound
Intercept	-3.629	0.145	625.75	< 0.001			
Questioning approach	1.536	0.143	116.21	< 0.001	4.65	3.52	6.15
Education >8 years	0.439	0.135	10.53	0.001	1.55	1.19	2.02
Use non effective method	0.388	0.152	6.51	0.011	1.48	1.09	1.99
Single	1.224	0.386	10.06	0.002	3.40	1.60	7.24
Diff<	0.484	0.144	11.33	0.001	1.62	1.22	2.15
Always Favorable to abortion	1.689	0.149	128.00	< 0.001	5.42	4.04	7.26
Alw Favorable * Single	-0.696	0.577	1.45	0.228	0.50	0.16	1.55
Diff< * Single	0.047	0.438	0.01	0.915	1.05	0.44	2.47
Diff< * Alw Favorable * Single	1.419	0.635	5.00	0.025	4.13	1.19	14.33

The great majority of them had the intervention in private clinics and there were only three reports of post abortion sequels (mild hemorrhage) in the city of Sao Paulo 1993. In Vila Madalena no woman declared to have had any subsequent problem after the induced abortion.

## **Conclusions**

Since the regions covered by our domiciliary inquiries are constituted of women that have a median to high socioeconomic situation, the abortions tend to occur in private clinics, without sequels to those who recur to them. Among the wealthier women, the ones in the beginning of their reproductive life are the ones that mostly recur to induced abortion. To be single, to have low fecundity and to be always favorable to abortion practice simultaneously increase the intensity of this practice, mainly if the woman has high education and does not use effective contraceptive methods. Generally, single women aim to continue their education, to get a job and to establish economically before they dedicate themselves to maternity and or to constitute a family.

Among the poor women the reality might be very different, though. It is estimated that the induced abortion is the fourth cause of maternal morbi-mortality in the City of Sao Paulo. That is, the poor women bear the onus of abortion risks. As in Brazil the poor women have a precocious fecundity and less access to effective contraceptive methods, even if they are more inclined to "tolerate" the birth of unwanted kids, fatally they will face the extreme choice of the induced abortion at an early age.

In summary, there are strong indications that the women are more exposed to the risk of abortion in the beginning of the reproductive life and should be privileged to have access to family planning programs.

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