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Factors Associated to the Decision to Terminate or not an Unwanted Pregnancy Among a Sample of Civil Servant in São Paulo State, Brazil

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Abstract

This is a cross sectional study of a sample of civil servants from the interior of São Paulo state, carried out with the purpose of evaluating the occurrence of unwanted pregnancies, the proportion which were terminated, the reason given for having or not having an abortion and which factors were associated to the decision whether or not to terminate an unwanted pregnancy. Just over one fifth declared to have experienced an unwanted pregnancy and over half of them were aborted. The reasons to abort concentrate on interferance with their life expectancy: "to continue studying or working" "being single", "too young to get married" and "to become a father or mother". Also important were fear of parents and rejection by the respondents'partner. Among those who did not terminate the unwanted pregnancy religion acted as a barrier among almost one third and the legal barrier for almost one fourth. Not having a permanent partner, being in use of behavioral or barrier method of contraception and higher education were associated with higher incidence of abortion of the unwanted pregnancy, but in multiple regression, only higher education remain significantly associated. Our results showed that once the unwanted pregnancy occur, more than half of them will be aborted, confirming the need to concentrate the efforts in reducing unwanted pregnancies if we want to prevent abortion.

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Introduction

Abortion remains an important women's health problem, considering that it is estimated that almost 56 million abortions occurred worldwide each year between 2010–14, with 45% being unsafe. The proportion of abortions which were unsafe was significantly higher in developing countries than in developed countries (49·5% vs 12·5%)[1]. In addition, studies carried out between 1988 and 2014 allowed to estimate that at least 9% of abortion-related hospital admissions have a near-miss event and approximately 1.5% ends in a death[2]. These data shows that the health consequences of unsafe abortion remain frequent and severe, in spite of the contribution that access to misoprostol has made to reduce abortion related mortality and morbidity[3].

Abortion is usually the results of women's failure to prevent a pregnancy they neither planned nor wanted. A number of studies have been done in Brazil, intending to measure the prevalence of induced abortion, but there has not been the same interest in studing the frequency of unwanted pregnancy in Brazilian populations[4],[5],[6]. We found only one study carried out in 1990 among women who were employees or student of a University of the State of Sao Paulo, where those who had considered the possibility of terminating their pregnancies were identified and their reasons for either carrying out an abortion or choosing not to abort were evaluated[7].

The present study intended to evaluate the occurrence of unwanted pregnancies in a sample of Brazilian civil servants from the interior of the State of Sao Paulo, who belong to the middle class segment of the population.

We intended to identify the women in the sample who ever had an unwanted pregnancy and men who had known of an unwanted pregnancy of their female partners. We evaluated which proportion of the unwanted pregnancies was terminated and the reason given for having or not having an abortion of such pregnancies. Finally, we evaluated which factors were associated to the decision of whether terminate or not an unwanted pregnancy.

Subjects and Method

A cross-sectional, descriptive survey was carried out among civil servants from a large Municipality in the state of São Paulo, Brazil. A questionnaire for self-completion was used, which included information on age, sex, marital status, number of children, years of schooling, family income, and history of having an absolutely unwanted pregnancy, use of contraception at the time of that pregnancy and whether that pregnancy had ended in induced abortion. In addition, the respondents who declare to have had an absolutely unwanted pregnancy were asked questions related to the reasons for deciding to terminate or not to terminate the unwanted pregnancy.

The questionnaire and a cover letter together with a pre-paid response envelop, were sent out by the Municipal authorities to its 15,800 employees along with their salary statement. The letter explained that the recipient was absolutely free to respond or not, although we would be grateful if she or he were willing to collaborate with the study. An informed consent form was not used because it would allow us to identify the respondents. The response and return of the questionnaire was interpreted as informed consent.

The same questionnaire, together with a second cover letter and pre-paid response envelop was sent one month later. This second letter explained that it should be disregarded if the recipient had already returned the questionnaire sent earlier.

The purpose of this second invitation was to increase the proportion of responses, and it had to be sent to all the civil servants, because we did not know who had responded and who had not done so.

The response rate was 11%, 72 of which were sent back blank, and one participant sent back two questionnaires in the same envelope, but only one was included in the data bank. Thus, a total of 1,660 questionnaires were included in the analysis.

That number was judged appropriate, because the sample size had been estimated in 1.499 subjects, based in an earlier study which found that 58,9% of women in the same region were in favor of permitting abortion in case of fetal malformation[8], with a significance level of 5% and a difference between the sample and the population of 2.5 percentage points.

The answers on the questionnaires were reviewed, numbered and double entered. SPSS software was used in all the procedures to enter, check and

analyze data. The chi-square test was used in a contingency table, and the significance level was set at 0.05[9].

Poisson regression models were constructed to study the association between the dependent and predictor variables while controlling for other predictors[10]. All predictor variables were initially included in the model, and backward elimination criteria were used to retain only the significant ones. When a predictor variable was not significant, it was excluded and a new model was calculated without it. Prevalence ratios are presented for the predictors that were statistically significant.

The predictor variables investigated were age (in years), sex (male/female), marital status (no permanent partner/living in union); years of schooling (up to secondary school/college or university); number of children (0/1 or more); use of contraception at the time of the unwanted pregnancy (barrier or behavioral/ modern or none).

This study was carried out in compliance with Brazilian norms for research on human beings. The protocols were evaluated and approved by the Institutional Review Board, Faculty of Medicine, State University of Campinas, SP, Brazil.

Results

The socio-demographic characteristics of the participants are shown on Table 1.

A relatively large proportion of the sample (214 out of 1660, or 12.9%) did not respond the question about history of having an unwanted pregnancy. One fourth (20.5%) of the respondents reported having had the experience of an absolutely unwanted pregnancy in themselves, if female, or with their partner, if male. Over half of those pregnancies were aborted, as shown in Table 2.

Almost one third of the respondents gave moral or religious reasons for not aborting an absolutely unwanted pregnancy and one fourth reported lack of knowledge, money or courage; these and the other reasons are shown on Table 3.

The most frequent reason for deciding to terminate the unwanted pregnancy was being single with 37%. Arround 30% aborted because the male partner did not accept that he was the father, for fear of their parents reaction and in order to keep studying. Almost one fourth felt that they were too young to become a mother or father. Only 6% referred to financial problems (Table 4).

The decision to abort the unwanted pregnancy was associated to not having a permanent partner, higher educational level and using barrier or behavioral methods of contraception at the time of getting pregnant, in bivariate analysis (Table 5).

The main reason for not using a contraceptive method at the time the woman got pregnant was that she did not expect to have a sexual relation (39% of cases) and in an additional 11% the male promised to use a condom, but did not used it. Only 5% did not have information on contraception. Respondents gave a variety of other reasons related to lack of responsibility and disbelief that they could get pregnant (Data not shown in tables).

The Poisson regression showed that the only factor being independently associated to terminate the unwanted pregnancy was having higher education. (Table 6).

Discussion

According to the answer of the interviewees, only 20% had experienced an absolutely unwanted pregnancy and only 11% had aborted. These percentages are much lower than the proportion of women who declared to have aborted found in other studies with similar populations, but where face to face interviews were used to collect the information[11].

As abortion is basically illegal in Brazil, it is to be expected that an unknown proportion of those who responded a self reported questionnaire did not trust the confidentiality of the data collection and were not willing to declare to have done something that is punished as a crime in this country. The difficulty to obtain correct information on abortion has already been shown in our population [6].

Looking at the reasons given to terminate their pregnancy by those who declared to have aborted, it is clear that the reasons concentrate around answers which indicated that the pregnancy interfered with their life expectancy: "to continue studying or working" "being single", "too young to get married" and "to become a father or mother". Also important were

Table 1. Socio-demographic characteristics of the subjects who responded the survey.

Characteristics	n	%
Age (n=1.636)		
18 – 29	153	9.4
30 – 49	980	59.9
≥ 50	503	30.7
Sex (n=1648)		
Female	1204	73.1
Male	444	26.9
Schooling (n=1644)		
Up to secondary	495	30.1
Higher education	1149	69.9
Marital status (n=1650)		
In stable union	1030	62.4
Not in union	620	37.6
Total of living children (n=1601)		
None	485	30.3
1 – 2	857	53.5
≥ 3	259	16.2
Family income (n=1625)		
Up to 10 minimum wages	1025	63.1
>10 minimum wages	600	36.9
GRAND TOTAL*	1660	

* Information missing for 24 participants on age, for 12 on sex, 16 on schooling, 10 on marital status, 59 for living children and 35 on family income.

Table 2. Experience of having an absolutely unwanted pregnancy and outcome of that pregnancy

Absolutely unwanted pregnancy and abortion	n	%
Had and aborted	165	11.4
Had and did not abort	131	9.1
Did not have such experience	1150	79.5
Total*	1446	

* Information missing for 214 respondents.

Table 3. Main reasons for not aborting an absolutely unwanted pregnancy

Main reasons#	n	%
Religious, moral reasons	39	32.3
Didn't know where, not enough money, fear.	29	24.0
It is a crime	28	23.1
Partner's opposition	15	12.4
Accepted to have a baby	14	11.6
Total*	121	

* Information missing for 10 participants. # Some participants gave more than one reason

Table 4. Main Reasons for aborting an absolutely unwanted pregnancy

Main reasons#	n	%
Being single	60	37.0
Male partner does not recognize	51	31.5
Fear of parents reaction	50	30.9
To continue studying	47	29.0
Too young to be mother/father	38	23.5
To keep working	25	15.4
Did not want to get married	23	14.2
Financial problems	10	6.2
Total*	162	

* Information missing for three participants. # Some participants gave more than one reason

Table 5. Proportion of respondents who aborted an absolutely unwanted pregnancy according to socio demographic characteristics

Characteristics	n	(%)	Total	p-value
Sex				
Female	111	53.1	209	0.199
Male	54	62.1	87	
Age at the time of the pregnancy (years)				
≤ 17	16	47.1	34	0.224
18 – 24	81	62.3	130	
≤ 25	59	55.1	107	
Number of children				
0	123	58.9	209	0.309
1 or more	37	48.7	76	
Marital status				
In union	32	41.6	77	**0.004**
Not in union	129	61.7	209	
Years of schooling				
Primary	34	47.9	71	**<0.001**
Secondary	36	42.9	84	
Higher	90	70.3	128	
Contraceptive used at the time of pregnancy				
None	44	47.3	93	**<0.002**
Modern	30	46.2	65	
Barrier/behavioral	88	68.8	128	

Table 6. Final model of Poisson regression for aborting an absolutely unwanted pregnancy (n=217)

Dependent variable: aborting an unwanted pregnancy	RP	IC 95% para RP	p-value
Years of schooling at the time of unwanted pregnancy			
Up to secondary school	1		
Higher education	1.71	1.19-2,47	0.004

indicators of family or partnership disfunction, such as fear of parents and denial of responsibility for the pregnancy by the partner. As reason to abort, the little relevance of finantial problems is a disagreement with a similar study carried out in 1990, where financial problems was given as a reason for abortion by almost three quarters of the respondents of a mail survey[7]. The low relevance of finantial problems in this sample may be explained by the relatively high socioeconomic status of the study sample, as judged by the high level of schooling, with more than two third of the sample population having higher education.

Among those who did not terminate an unwanted pregnancy it appears that religion acted as a barrier among almost one third of them and the legal barrier for almost one fourth. The effect of religion over opinion and behavior related to abortion has been already described in a number of studies on abortion and it is not a surprise [7,12,13]. The proportion of over 30% who did not abort for moral or religious reason is in agreement with the almost 70% of gynecologists who gave great relevance to religion and who declared to have aborted their own unwanted pregnancies[14].

The fear of committing a crime punished by law is also understandable, and it may have also been a reason for the relatively low proportion of subjects who declared to have had an abortion. The high proportion of respondent, over three quarters, who did not gave this reason for not having a abortion is in agreement with the international acknowledgement that women who decide to terminate a pregnancy do so in a similar proportion independently of the legal conditions of abortion in the country they live[15].

The significant association of higher educational level with a higher chance of having an abortion when confronted with an unwanted pregnancy is also in agreement with earlier studies, which shows that although women with higher education had less risk of having an unintended and unwanted pregnancy, when they get pregnant against their will, they do have a higher risk of aborting[16].

The significantly higher proportion of abortion among those who were using a barrier or behavioral method of contraception, in comparison with those using none or modern methods was not expected, considering that behavioral methods are promoted by religious groups, which also oppose to abortion. However, as the correlation disappears in the multiple regression analysis it may be that it only reflects that women with higher education use behavioral and barrier methods more often than those with lower eduation[17,18].

The main limitation of this study is that it is based in the data obtained from a self-responded questionnaire and it is impossible to estimate how well those who responded represent the universe of public servant we intended to reach. It means that the percentages of participants with history of unwanted pregnancy and abortion are not necessarily representative of the population of civil servant in the interior of the state of Sao Paulo that we intended to sample.

It doesn't mean, however, that the reason given for having or not having abortion is not valid, as that is not dependent on which proportion responded and on possible selection bias.

We also did not explore in this study, what happened with the babies born from unwanted pregnancies which were not terminated. A study had suggested that those babies are at higher risk or morbidity and mortality that babies born from planned pregnancies[19].

Our results showing that more than half of the respondents who have an unwanted pregnancy decided to terminate their pregnancies, contributes to confirm that the most important means to prevent abortion is by preventing unwanted pregnancies. Such purpose is achieved by facilitating access to information and provision of modern contraceptives, including long acting method given at no cost[20], and also, by providing early education on responsible sexuality, which is known to delay sexual experience and to reduce the number of partners, unwanted pregnancies and abortions among adolescents [21,22].

We hope that the publication of these results contribute to estimulate authorities to promote and carry out the interventions known to be effective in reducing unwanted pregnancies and abortion, instead of insisting in keeping abortion illegal, which has been shown to be ineffective to achieve that purpose[15].

Conflict of Interest

The authors declare not having any conflict of interest.

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