# Racial vulnerability and individual barriers for Brazilian women seeking first care following abortion

Vulnerabilidade racial e barreiras individuais de mulheres em busca do primeiro atendimento pós-aborto

Vulnerabilidad racial y barreras individuales de mujeres en busca de la primera atención post-aborto

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## Abstract

*Social inequalities in Brazil are reflected in women's search for abortion care, when they face individual, social, and structural barriers and are exposed to situations of vulnerability. Black women are the most heavily exposed to these barriers, from the search for the service to the care itself. The study aimed to analyze factors related to individual barriers in the search for first post-abortion care according to race/color. The study was conducted in Salvador (Bahia State), Recife, (Pernambuco State) and São Luís (Maranhão State), Brazil, with 2,640 patients admitted to public hospitals. Logistic regression was performed to analyze differences according to race/color (white, brown, and black), with "no individual barriers in the search for first care" as the reference category in the dependent variable. Of the women interviewed, 35.7% were black, 53.3% brown, and 11% white. Black women had less schooling, fewer children, and reported more induced abortions (31.1%) and more second-trimester abortions (15.4%). Black women reported more individual barriers in the search for first care (32% vs. 28% in brown women and 20.3% in whites), such as fear of being mistreated and lack of money for transportation. Regression analysis confirmed the association between black and brown race/color and individual barriers in the search for post-abortion care, even after adjusting for all the selected variables. The results confirmed the situation of vulnerability for black women and brown women in Brazil. Racial discrimination in health services and abortion-related stigma can act simultaneously, delaying women's access to health services, a limitation that can further complicate their post-abortion condition.*

*Social Vulnerability; Racism; Abortion; Health Care (Public Health)*

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## Introduction

Brazil's inequalities are reflected in women's search for abortion care, when they experience itineraries affected by individual, social, and structural barriers that expose them to situations of vulnerability [1,2,3].

Ayres et al. [4] defines vulnerability as a set of individual and collective aspects related to the degree and mode of exposure to a given situation and indissociably to greater or lesser access to adequate resources. The author highlights such aspects of vulnerability as poverty, racially based exclusion, gender inequalities, and generational issues [5].

For the black population in Brazil, vulnerabilities are structurally linked to racism, which acts to produce such vulnerabilities, leading to worse social and health indicators and resulting in a scenario of inequities [6,7,8]. Black women are the most vulnerable in Brazilian society, since they experience race, gender, and class inequalities when compared to white women and white and black men. Black women experience disadvantages in schooling and income, live in more precarious housing, have more children and fewer steady partners, and are most often the family breadwinners [8,9,10,11]. Their extreme social vulnerability definitely impacts their health and their access to services.

Brazilian studies on the use of sexual and reproductive health services show that black women are the most heavily exposed to individual and institutional barriers to access to care, from the initial search for services to the moment of care itself [7,12,13]. One consequence of this type of vulnerability is a more limited capacity to exercise reproductive planning and avoid unintended pregnancies. Black women have more limited access to contraceptive methods, and most Brazilian black women use a narrower range of the contraceptive mix [14].

When a woman decides not to continue a pregnancy, the illegality of abortion does not deter it in practice, but merely accentuates the social inequalities. Women who cannot afford to undergo an abortion in private clinics and offices [15] use misoprostol, purchased on the illegal, underground market, and when the bleeding begins, they go to public hospitals to complete the uterine evacuation and treat the complications [16]. A study on abortion itineraries and methods in five Brazilian state capitals described the most common characteristics of women undergoing their first abortion: age 19 years, black, and with children. The most widely used method to terminate the pregnancy is a combination of herbal teas with misoprostol, and in some cases the abortion's finalization occurs in the hospital on the following day [17].

Brazilian national surveys agree in showing that the women most vulnerable to unsafe termination of pregnancy are black, young, single, with children, and with low schooling and low income [1,3,17,18,19]. Even in countries like the United States where abortion is legal, women face personal obstacles in their search for abortion services, since they need to ensure financial resources and arrangements for transportation, and the services are often private and far from their homes. These are the most common barriers reported in U.S. studies, especially for young black women, low-income women, and rural women [20,21,22]. In South Africa as well, black women and those living with HIV, with low socioeconomic status, and living in remote areas are disproportionally more vulnerable to unsafe abortion, since these barriers mean that access to legal abortion services is more limted [23,24]. In Latin America, despite important research output on unsafe abortion [25,26], there is still a gap in studies on racial differences in access to post-abortion care.

The literature on access to (and use of) health services emphasizes that effective and timely use of services results from factors that precede and determine the search for care and entry into the system, which include individual characteristics (social, economic, cultural, and psychological) [27]. In Brazil, it is not known to what extent black women's greater social vulnerability is translated as individual barriers to access to care following unsafe abortion. The current study intends to fill this gap and identify women's individual barriers in the search for first care following unsafe abortion, adopting a racial perspective. Another objective was to test the hypothesis of an association between barriers to care and race/color.

## Materials and methods

This cross-sectional study is part of the GravSus/NE research project, a multicenter project in three state capitals in Northeast Brazil (Salvador, Recife, and São Luís), whose methodological aspects have been published elsewhere [28].

Briefly, a census was conducted in 19 public hospitals in the three cities from August to December 2010, reaching all 2,804 women 18 years and older residing in the three cities and who had been hospitalized while in process of abortion or due to abortion complications, independently of the clinical condition's severity or type of abortion (spontaneous or induced). The study included cases of abortion allowed by Brazilian legislation; ectopic pregnancy and hydatidiform mole; and abortion resulting from other abnormal products of conception, whose clinical and legal justifications supported uterine evacuation in safe conditions.

The data were produced by applying a structured questionnaire with face-to-face interviews conducted by university-level health professionals in the morning and afternoon, seven days a week, including holidays, after the women's hospital discharge had been authorized. There were 5.8% of losses (due to discharge or death before the interview) and 2.7% of refusals.

Information on race/color was obtained from the question, "Among the following options, which would you choose to identify your skin color or race?", and the options were white, black, yellow (Asian-descendant), brown, and indigenous, based on the official racial classification of the Brazilian Institute of Geography and Statistics [29].

The current study analyzed 2,640 women that self-identified as black (942), brown (1,407), or white (291). Indigenous women (78) and Asian-descendant women (71) were not included in the analysis, due to their small numbers (5.3% of total) and the fact that they present important distinctions that prevent combining them with any of the three former groups.

The information on individual barriers in the search for first care was obtained from the question, "Did you have any difficulty finding first care?", with the following possible multiple and cued alternatives: "no money for transportation"; "no one to leave the children with"; "no one to accompany me"; "could not miss work"; "afraid of being mistreated or humiliated at the health service"; "did not know which service to look for"; and "did not have any difficulty". In the analysis, the construct was dichotomized as "yes", when there was at least one affirmative answer to the difficulties, and "no" if the woman answered that she "had no difficulty".

Initially, a descriptive analysis of the variables was performed according to race/color, where the differences between proportions were tested for statistical significance using Pearson's $\chi^2$ test with 5% significance.

The variables were selected according to the literature on access to abortion care and belonging to two subsets: sociodemographic and abortion characteristics (age bracket, schooling, current work, own income, head-of-household, current religion, conjugal status, children, gestational age when the abortion occurred, self-reported type of abortion) and search for first care (self-reported pain intensity during the search for first care, symptom leading to the first care, request for help from others when the first symptoms appeared, first healthcare service visited, number of health services visited before hospitalization, and care in all the services visited).

The symptom that motivated the initial search for care was identified with the question, "What was the main symptom that led you to go for the first care?", with the following cued answers: "abdominal pain", "bleeding", "high fever", "vaginal discharge with foul odor or pus", "other symptoms" (loss of liquid and headache), "no symptoms, but the ultrasound showed that the fetus was dead". A numerical scale was used to classify the intensity of pain [30], when present, and the results were categorized as "no pain" (0), "mild/moderate pain" (1 to 6), and "intense pain" (7 to 10).

Next, we estimated the strength of the association by calculating the odds ratio (OR) and respective 95% confidence intervals (95%CI) between race/color and "personal difficulties in the search for first care", according to specific strata to identify potential effect modifiers or confounders. The variables (age bracket, schooling, current work, own income, head-of-household, conjugal status, children, gestational age when the abortion occurred, and self-reported type of abortion) were selected on the basis of the relevant scientific literature. Potential modifying effect was defined as a variable

whose point value in each category extrapolated the limits of the confidence interval from the other categories in the specific stratum. The potential confounders were the variables that presented a difference between the crude and adjusted measures (by the Mantel-Haenszel method) greater than or equal to 10%. Confirmation of modifying effect used the product term in the multivariate analysis.

The logistic regression analysis considered "no individual barriers in the search for first care" as the reference category in the dependent variable. The potential effect modifying variables (as product terms) and confounders were included simultaneously in the model, removing those in which the association was not statistically significant (p-value > 0.05).

Data processing and analysis used Stata, version 13.0 (https://www.stata.com).

The project was approved by the three universities' Institutional Review Boards and Brazilian National Research Ethics Commission (CONEP) (CEPISC UFBA 006/09, CEP CCSUFPE 061/09, CEP HUUFMA 002065/2009-30). The study guaranteed voluntary participation by the women, dispensing with signing of the free and informed consent form, which was read and signed exclusively by the interviewer. The option for verbal consent aimed to increase the interviewees' trust and protection, so that they could not be identified or associated with an illegal and clandestine practice under Brazil's legislation.

The interview was conducted after the woman had been clinically discharged, while waiting for the administrative procedures to leave the hospital. All participants had the right not to answer any question, and complete confidentiality and total anonymity were guaranteed by breaks in descriptors to prevent their possible identification. The questionnaires received a numerical code as a unique identifier of all the information obtained from the interviews and consultations in the patient charts. The code key was kept in a separate place from the questionnaires and was only accessible to the project coordinator.

## Results

Of the 2,640 women included in the analysis, 35.7% self-identified as black, 53.3% as brown, and 11% as white. The groups did not differ in age distribution, with approximately one third of each group consisting of young adults (18 to 24 years) (Table 1). Compared to the white women, black women had less schooling, particularly university level (5.9%), while brown women were in an intermediate position, although closer to the black women with 7.5% having a university education. Black women were more active in the labor market (64% versus just over half of the brown and white women). The absolute majority of the women reported having their own income, but the proportion was higher among black women (78.2%). Some three-fourths of the interviewees were heads of their households, with no statistically significant differences according to race/color. There were also no statistically significant differences between the racial groups as to conjugal status, and a minority reported not having a spouse or steady partners, but fewer black women had children, while more brown women had children. Spontaneous abortion was reported by most of the women, but black women were more likely (31.1%) to report having terminated the pregnancy when compared to brown women (24.2%) and white women (21%). Black women were more likely to have second-trimester abortions (15.4%, versus 11.1% in brown women and 11.4% in white) (Table 1).

The main symptom leading to search for care was bleeding, and there were no statistically significant differences according to race/color or for intensity of pain or request for help from others to search for care (Table 2). In addition to their own partners, most of the interviewees relied on help from other women. The first health service visited by more than 70% of the women was a public hospital. Interestingly, 12.4% of white women went to a private hospital, clinical, or physician's office (versus 8.4% of black women and 10.6% of brown women), while 10.1% of black women turned first to other types of solutions, such as pharmacies, self-medication, or home remedies (versus 7.6% of brown women and 4.8% of whites). Before admission to the hospital where they were interviewed, 71.4% of the white women and 66.3% of the brown women had gone to at least one other service for care, and the majority (53.7% and 56.7%, respectively) had managed to receive care at all the services visited. Proportionally more black women (42.4%) went directly to the hospital where the uterine evacuation was performed (Table 2).

**Table 1**

Sociodemographic and abortion characteristics according to race/color. Salvador (Bahia State), São Luís (Maranhão State), and Recife (Pernambuco State), Brazil, 2010.

| Characteristics | Race/Color (%) | | | p-value |
|---|---|---|---|---|
| | **Black (n = 942)** | **Brown (n = 1.407)** | **White (n = 291)** | |
| Age bracket (years) | **942** | **1.407** | **291** | 0.587 |
| ≥ 25 | 64.8 | 64.4 | 61.5 | |
| 18-24 | 35.2 | 35.6 | 38.5 | |
| Schooling | **932** | **1.396** | **289** | 0.000 |
| Elementary School | 36.4 | 33.2 | 33.6 | |
| Secondary School | 57.6 | 59.2 | 50.2 | |
| University | 5.9 | 7.5 | 16.3 | |
| Currently working * | **942** | **1.404** | **290** | 0.000 |
| Yes | 64.0 | 54.6 | 52.4 | |
| No | 36.0 | 45.4 | 47.6 | |
| Own income ** | **939** | **1.398** | **289** | 0.026 |
| Yes | 78.2 | 73.6 | 72.7 | |
| No | 21.8 | 26.4 | 27.3 | |
| Head of household | **942** | **1.402** | **291** | 0.735 |
| Yes | 75.5 | 74.6 | 76.6 | |
| No | 24.5 | 25.4 | 23.4 | |
| Conjugal status | 942 | 1.404 | **291** | 0.084 |
| Married/Living together | 54.6 | 56.3 | 62.5 | |
| Steady partner without cohabiting | 34.0 | 32.0 | 30.2 | |
| No steady partner | 7.2 | 11.7 | 11.5 | |
| Children | **924** | **1.383** | **290** | 0.018 |
| Yes | 65.8 | 71.2 | 67.2 | |
| No | 34.2 | 28.8 | 32.8 | |
| Reported type of abortion | **934** | **1.394** | **286** | 0.000 |
| Spontaneous | 68.9 | 75.8 | 79.0 | |
| Induced | 31.1 | 24.2 | 21.0 | |
| Gestational age at time of abortion (weeks) | **892** | **1.312** | **273** | 0.009 |
| ≤ 12 | 84.6 | 88.9 | 88.6 | |
| ≥ 13 | 15.4 | 11.1 | 11.4 | |

* Work defined as any activity for which the woman received money or some other form of payment;

**Wages, self-employed income, pension, benefits, conditional cash transfer, retirement, and/or rent received.

Fear of mistreatment was the main barrier reported by the women, but there was a gradient according to race/color; the proportion of black women (13%) was more than double that of whites (5.9%) (p = 0.001) (Figure 1). Fear of mistreatment was more frequent among women that reported induced abortion (18.5%) when compared to spontaneous abortion (7.6%) (p = 0.000) (data not shown).

Lack of money for transportation was three times more common among black women (5.6%) when compared to whites (1.7%) (p = 0.018) (Figure 1). The other difficulties, such as not having an accompanying person or someone to care for the children, did not show statistically significant differences.

Black women reported higher rates of individual barriers in the search for first care (32%, versus 28% in brown women and 20.3% in whites) (Table 3).

Stratified analysis revealed an association between individual barriers in the search for first care and black or brown skin color/race (Table 3). Age was identified in this phase as a potential effect

**Table 2**

Search for first care by women experiencing abortion, according to race/color. Salvador (Bahia State), São Luís (Maranhão State), and Recife (Pernambuco State), Brazil, 2010.

| Characteristics | Race/Color (%) | | | p-value |
|---|---|---|---|---|
| | Black (n = 942) | Brown (n = 1.407) | White (n = 291) | |
| Intensity of pain when seeking first care | **942** | **1.404** | **290** | 0.137 |
| No pain | 14.5 | 12.5 | 11.7 | |
| Moderate/Mild pain | 26.7 | 30.5 | 26.2 | |
| Intense pain | 58.8 | 57.0 | 62.1 | |
| Symptom that motivated first care | **942** | **1.407** | **291** | 0.201 |
| No symptoms | 5.3 | 3.8 | 4.8 | |
| Abdominal pain | 26.9 | 23.9 | 24.1 | |
| Bleeding | 55.2 | 60.8 | 61.2 | |
| Signs of infection * | 5.9 | 5.7 | 3.8 | |
| Other symptoms ** | 6.7 | 5.8 | 6.2 | |
| Request for help from others at onset of symptoms | **939** | **1.402** | **291** | 0.189 |
| Spouse/Partner | 29.6 | 33.2 | 35.1 | |
| Other women *** | 41.5 | 39.4 | 38.1 | |
| Others | 12.5 | 10.1 | 12.4 | |
| Did not request help | 16.3 | 17.3 | 14.4 | |
| First health service visited | 942 | 1.401 | 291 | 0.020 |
| Public hospital | 74.3 | 73.3 | 73.9 | |
| Private hospital/clinic/office | 8.4 | 10.6 | 12.4 | |
| Public primary care clinic/health post | 7.2 | 8.5 | 8.9 | |
| Other solutions # | 10.1 | 7.6 | 4.8 | |
| Number of services visited before the hospitalization | **938** | **1.399** | **290** | 0.000 |
| None | 42.4 | 33.7 | 28.6 | |
| One | 38.0 | 46.1 | 49.3 | |
| Two or more | 19.6 | 20.2 | 22.1 | |
| Care was received at all services visited before hospitalization | **933** | **1.396** | **291** | 0.000 |
| Yes | 44.7 | 53.7 | 56.7 | |
| No | 10.7 | 9.1 | 10.6 | |
| Went directly to the hospital | 44.6 | 37.2 | 32.7 | |

* High fever and vaginal discharge with foul odor or pus;
** Loss of liquid and headache;
*** Mother, sister, friend, neighbor;
# Pharmacy, self-medication, home remedy, other.

modifier, and other covariables such as schooling, current work, own income, head-of-household, conjugal status, children, gestational age at abortion, and type of abortion presented statistically significant associations (p-value ≤ 0.05) and were incorporated as potential confounders in the simultaneous logistic regression analysis.

In this stage, age was not confirmed as an effect modifier, and the product term was removed from the model. The potential confounders were not confirmed either. However, in order to improve the model's fit, covariables were maintained in the model when the stratification phase sowed them to be associated with individual barriers, with statistical significance set at ≤ 0.05.

Modeling confirmed the association between black and brown race/color and encountering more individual barriers in the search for first care, in the final model (black OR = 1.7; 95%CI: 1.2-2.4) (brown OR = 1.5; 95%CI: 1.1-2.1) (Table 4).

**Figure 1**

Individual barriers in search for first care by women experiencing abortion, according to race/color. Salvador (Bahia State), São Luís (Maranhão State), and Recife (Pernambuco State), Brazil, 2010.
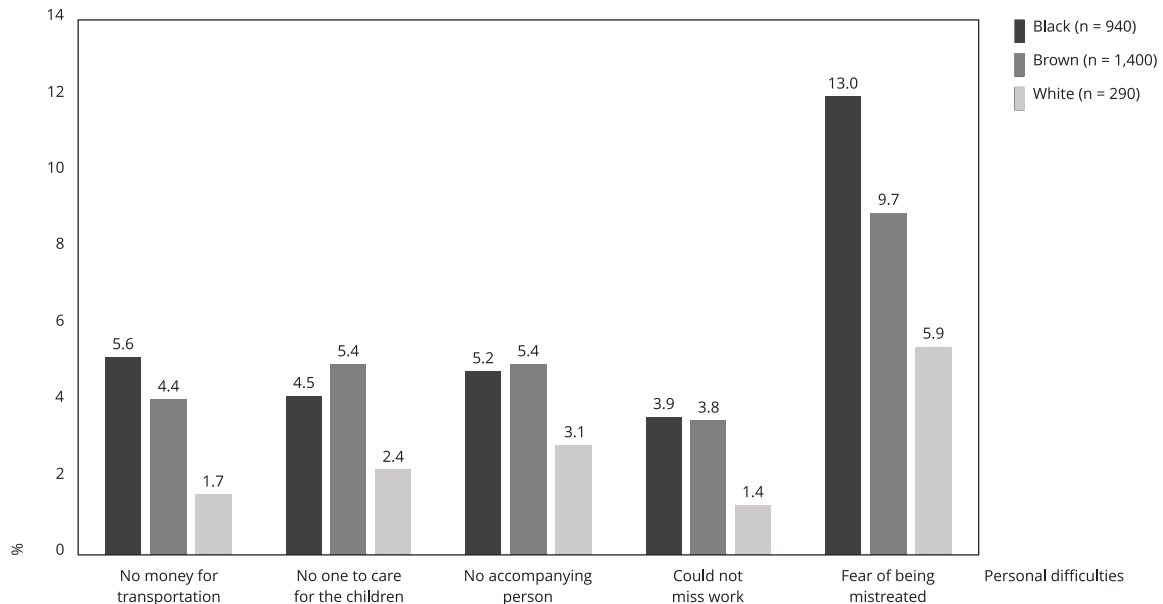


## Discussion

The results show the degree to which black and brown women are exposed to situations of vulnerability in the search for first post-abortion care. Previous studies on the search for (and access to) other types of health services by these women have shown equivalent situations [10,12,13]. The relationship between race/color and individual barriers in access to care for unsafe abortion is mediated by other variables such as age, schooling, work status, own income, responsibility for the household, conjugal status, children, and gestational age at the time of the abortion, all reported as determinants of access [1,2,3,17,18,19,26], controlled and adjusted for in the analysis of the principal association.

In the search for first care, most women in this study turned to public hospitals, but black women relied in second place on pharmacies, self-medication, and home remedies. While black women tended to have shorter itineraries in their search for care, going directly to the hospital to finalize the abortion, they were also more vulnerable to complications due to more second-trimester abortions.

Gender, race, and class inequalities determine health disparities, limiting the black population's access to goods and services. Black women in this study were more likely to report lack of money for transportation, which was the second most important individual barrier to access to care. Despite having less schooling, they were more likely to be working and to have their own income when compared to brown and white women (which might appear paradoxical). However, this may be due to the more precarious work performed by black women, with a higher proportion working as self-employed or without formal work papers, mostly as domestic workers [11].

One of the study's limits was the lack of valid information on family income, since a high proportion of women could not (or chose not) to answer this question. However, black women were more likely to report not being married or not living with a partner, although there were no statistically significant differences according to race/color in the proportion of women who were heads of the household.

**Table 3**

Stratified analysis of individual barriers in search for first care according to race/color among women experiencing abortion, according to selected characteristics. Salvador (Bahia State), São Luís (Maranhão State), and Recife (Pernambuco State), Brazil, 2010.

| Selected characteristics | % | Black OR (95%CI) | p-value | % | Brown OR (95%CI) | p-value | White * % |
|---|---|---|---|---|---|---|---|
| Race/Color (crude) | 32.0 | **1.8 (1.3-2.5)** | 0.000 | 28.0 | **1.5 (1.1-2.1)** | 0.008 | 20.3 |
| Age bracket (years) | | | | | | | |
| ≥ 25 | 31.3 | **2.6 (1.6-4.0)** | 0.000 | 29.6 | **2.4 (1.5-3.6)** | 0.000 | 15.1 |
| 18-24 | 33.4 | 1.2 (0.8-2.0) | 0.370 | 25.2 | 0.8 (0.5-1.3) | 0.424 | 28.8 |
| Adjusted | | 1.8 (1.3-2.5) | 0.000 | | 1.5 (1.1-2.1) | 0.008 | |
| Schooling | | | | | | | |
| University | 36.4 | 2.1 (0.8-5.0) | 0.112 | 22.9 | 1.1 (0.5-2.5) | 0.880 | 21.7 |
| Secondary School | 29.3 | **2.0 (1.3-3.4)** | 0.002 | 26.0 | **1.8 (1.1-2.8)** | 0.016 | 16.6 |
| Elementary School | 34.0 | 1.5 (0.9-2.6) | 0.096 | 33.0 | 1.4 (0.9-2.3) | 0.168 | 25.8 |
| Adjusted | | 1.8 (1.3-2.5) | 0.000 | | 1.5 (1.1-2.1) | 0.007 | |
| Currently working | | | | | | | |
| Yes | 32.1 | **1.7 (1.1-2.6)** | 0.014 | 27.6 | 1.4 (0.9-2.1) | 0.138 | 21.7 |
| No | 31.9 | **2.0 (1.2-3.3)** | 0.005 | 28.6 | **1.7 (1.1-2.7)** | 0.023 | 19.0 |
| Adjusted | | 1.8 (1.3-2.5) | 0.000 | | 1.5 (1.1-2.1) | 0.008 | |
| Own income | | | | | | | |
| Yes | 32.5 | **1.8 (1.2-2.5)** | 0.000 | 28.7 | **1.5 (1.0-2.1)** | 0.032 | 21.4 |
| No | 29.3 | **2.1 (1.1-4.0)** | 0.033 | 25.9 | **1.7 (0.9-3.3)** | 0.088 | 16.7 |
| Adjusted | | 1.8 (1.3-2.5) | 0.000 | | 1.5 (1.1-2.1) | 0.007 | |
| Head of household | | | | | | | |
| Yes | 30.3 | 1.5 (0.9-2.8) | 0.154 | 26.3 | 1.3 (0.7-2.3) | 0.393 | 18.0 |
| No | 37.4 | **2.0 (1.4-2.9)** | 0.000 | 33.2 | **1.6 (1.1-2.3)** | 0.010 | 27.9 |
| Adjusted | | 1.8 (1.3-2.5) | 0.000 | | 1.5 (1.1-2.1) | 0.008 | |
| Spouse or steady partner | | | | | | | |
| Yes | 30.5 | **1.8 (1.3-2.5)** | 0.001 | 27.6 | **1.6 (1.1-2.2)** | 0.008 | 19.7 |
| No | 43.5 | 1.9 (0.7-5.3) | 0.203 | 31.1 | 1.1 (0.4-3.1) | 0.035 | 28.6 |
| Adjusted | | 1.8 (1.3-2.0) | 0.000 | | 1.5 (1.1-2.0) | 0.010 | |
| Children | | | | | | | |
| Yes | 33.3 | **2.0 (1.4-2.9)** | 0.000 | 30.6 | **1.8 (1.2-2.6)** | 0.003 | 20.0 |
| No | 29.4 | 1.5 (0.6-2.7) | 0.122 | 22.7 | 1.1 (0.9-2.7) | 0.762 | 21.3 |
| Adjusted | | 1.8 (1.3-2.5) | 0.000 | | 1.5 (1.1-2.1) | 0.007 | |
| Gestational age at time of abortion (weeks) | | | | | | | |
| ≤ 12 | 30.8 | **1.8 (1.2-2.5)** | 0.000 | 26.1 | **1.4 (1.0-2.0)** | 0.055 | 20.3 |
| ≥ 13 | 39.4 | **2.2 (0.9-5.0)** | 0.084 | 39.3 | **2.2 (0.9-5.5)** | 0.084 | 22.6 |
| Adjusted | | 1.8 (1.3-2.5) | 0.000 | | 1.5 (1.1-2.1) | 0.016 | |
| Type of abortion | | | | | | | |
| Spontaneous | 29.1 | **1.7 (1.2-2.5)** | 0.004 | 25.4 | **1.4 (1.0-2.1)** | 0.046 | 19.1 |
| Induced | 38.6 | **1.9 (1.0-3.5)** | 0.048 | 35.6 | 1.7 (0.9-3.1) | 0.112 | 25.0 |
| Adjusted | | 1.8 (1.3-2.0) | 0.000 | | 1.5 (1.1-2.0) | 0.011 | |

95%CI: 95% confidence interval; OR: odds ratio.

* Reference group.

**Table 4**

Multiple logistic analysis of association between race/color and individual barriers in search for first care by women experiencing abortion. Salvador (Bahia State), São Luís (Maranhão State), and Recife (Pernambuco State), Brazil, 2010.

| Race/color | Final model * OR (95%CI) |
|---|---|
| Black | 1.7 (1.2-2.4) |
| Brown | 1.5 (1.1-2.1) |
| White | 1.0 ** |

95%CI: 95% confidence interval; OR: odds ratio.

 * Final model (adjusted for head of household, gestational age at abortion, and type of abortion);

** Reference group.

International studies, primarily in the United States and South Africa, show a similar situation for black women in the search for abortion services, although their jurisdictions allow abortion. Namely, transportation logistics and financial resources for reaching and having the procedure performed are also factors that limit access in the U.S. and South Africa [20,21,22,23,31]. In Brazil, universal coverage by the Brazilian Unified National Health System (SUS) means that the financial factor is limited essentially to access to urban transportation, mainly by spatial segregation, where poor people live in the more peripheral urban areas that lack public services, including healthcare services. In relation specifically to maternity hospitals, there is a major disparity in geographic location, which aggravates social inequalities due to large healthcare voids [32].

Single-parent family arrangements are a growing reality for women in Brazil, where black, single, low-income women from the Northeast are the most likely to be heads of their households [11]. The current study did not find significant differences in conjugal status or responsibility for the household according to race/color, which can be explained by the fact that all the women in the sample were users of the public health system (SUS) and from the Northeast region of the country.

However, the main barrier reported by the women, especially black women, was fear of being mistreated, which was more common among those that reported the abortion as induced. The real difference may actually be even greater, since part of the abortions reported as spontaneous may have been induced. Discrimination in health services has been reported recurrently in women experiencing abortion, and such discrimination can be both direct and indirect, with disrespectful treatment, moral judgment, and embarrassments and duress materializing in violent practices at the time of care for these women [32,33,34,35]. Discrimination appears to be redoubled by institutional racism and becomes a barrier to access even before entry into the health system.

This negative expectation towards care at the hospital, expressed in the experience of other women that reported discrimination due to abortion at public health services, has been recorded in studies in various Brazilian cities [35,36,37,38]. The treatment received at hospitals even affects women with miscarriage, suspected of having induced the abortion. Such practices range from delayed care, verbal abuse, and withholding information on procedures, exposing women to complications. In Brazil, this situation has been aggravated in recent years by an increase in health professionals reporting women with abortion to the police, even while the women are still hospitalized, in clear violation of the patient-provider confidentiality ensured by health professions' Codes of Ethics [33,35].

For black women in South Africa, abortion's social stigma and racial discrimination in health services are also determinants for postponing use of services, one of the factors resulting in the high rate of unsafe abortion and in the search for abortion services at later stages in the pregnancy [23,24], corroborating our study's results. In the United States, black and Latina women suffer discrimination and stigma in health services even during spontaneous abortion, jeopardizing their search for care [39].

In a similar situation in relation to stigma and discrimination, young black women living with HIV in a community in Rio de Janeiro reported that they often avoid returning to the health service to avoid being mistreated, and end up turning to alternatives such as over-the-counter drugstore advice, medicines from others, and home remedies [7].

Accessibility to health services involves a set of obstacles in seeking and obtaining care, as well as adequate capacity by the population to overcome such barriers, viewed as power to utilize the services [25]. Resistance to seeking services is included among the impediments that extrapolate the mere availability of services, but involve the population's power, time, and access to transportation, buying power, and power to deal with the healthcare organization. Women experience numerous difficulties to obtain post-abortion care, since the legal restrictions on induced abortion in Brazil contribute to delays in seeking care [40]. Racism in health services and stigma towards abortion can act simultaneously, delaying black and brown women's search for services, and this decision puts women in an extreme situation with exacerbation of their post-abortion condition.

One limitation to the study was that it only analyzed what the women perceived as individual barriers in their search for care. In conditions of severe vulnerability, one cannot rule out the possibility that some barriers are taken for granted to the point of not even being interpreted as such. However, by obtaining information on difficulties in the search for first care through a question with multiple and cued answers, we attempted to minimize this potential bias and standardize the interviewees' reports.

One of the study's strengths was that the results were obtained from a hospital-based census covering all the services that provided abortion care in the three cities, and that at least among the women that actually used such services, it investigated individual barriers that hindered access prior to reaching the hospital. A high response rate was obtained, with few losses due to discharge or death before the interview and an even smaller proportion of refusals, even though the study dealt with a sensitive issue due to the illegality and moral condemnation of abortion in Brazil. We should also point out that the study only allowed measuring situations in which the barriers did not definitively prevent access to the hospital and continuity of care until hospital discharge [25]. The adoption of a composite indicator consisting of various individual barriers to care involves the summarization of given experiences in distinct measures by racial inequalities, allowing one to suppose that the association might be even greater, which merits further investigation. One cannot rule out the possibility of information biases, which are common in studies on abortion, including self-report on the type of abortion. That said, one can assume that such biases were not differential in relation to the principal target variables.

The study's main contribution was in filling a major gap in a middle-income country with restrictive abortion legislation, by revealing that even after adjusting for multiple covariables, black and brown race/color remained as an obstacle to the search for first post-abortion care. The results should serve as stimulus for further research in measuring perceived discrimination, especially on the relationship between racism and abortion stigma as a mechanism that aggravates black women's vulnerability, leaving them in a situation of greater severity of complications from abortion and preventing the reduction of maternal morbidity and mortality. We also hope that these results can contribute to the debate on black women's health rights in the framework of reproductive and human rights.

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## Additional informations

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## Resumo

*As desigualdades sociais no Brasil se refletem na busca por atenção pelas mulheres com abortamento, as quais enfrentam barreiras individuais, sociais e estruturais, expondo-as a situações de vulnerabilidades. São as negras as mais expostas a essas barreiras, desde a procura pelo serviço até o atendimento. O estudo objetivou analisar os fatores relacionados às barreiras individuais na busca do primeiro atendimento pós-aborto segundo raça/cor. A pesquisa foi realizada em Salvador (Bahia), Recife (Pernambuco) e São Luís (Maranhão), Brasil, com 2.640 usuárias internadas em hospitais públicos. Foi realizada regressão logística para análise das diferenças segundo raça/cor (branca, parda e preta), considerando-se "não houve barreiras individuais na busca pelo primeiro atendimento" como categoria de referência da variável dependente. Das entrevistadas, 35,7% eram pretas, 53,3% pardas e 11% brancas. Mulheres pretas tinham menor escolaridade, menos filhos e declararam mais o aborto como provocado (31,1%), após 12 semanas de gestação (15,4%). Relataram mais barreiras individuais na busca pelo primeiro atendimento (32% vs. 28% entre pardas e 20,3% entre brancas), tais como o medo de ser maltratada e não ter dinheiro para o transporte. Na regressão, confirmou-se a associação entre raça/cor preta e parda e barreiras individuais na busca de cuidados pós-aborto, mesmo após o ajuste por todas as variáveis selecionadas. Os resultados confirmam a situação de vulnerabilidade das pretas e pardas. A discriminação racial nos serviços de saúde e o estigma em relação ao aborto podem atuar simultaneamente, retardando a ida das mulheres ao serviço, o que pode configurar uma situação limite de maior agravamento do quadro pós-abortamento.*

*Vulnerabilidade Social; Racismo; Aborto; Atenção à Saúde*

## Resumen

*Las desigualdades sociales en Brasil se reflejan en la búsqueda de atención sanitaria por parte de las mujeres que abortan, que enfrentan barreras individuales, sociales y estructurales, exponiéndolas a situaciones de vulnerabilidad. Las negras son las más expuestas a estas barreras, desde la búsqueda del servicio hasta la atención. El estudio tuvo como objetivo analizar los factores relacionados con las barreras individuales en la búsqueda de la primera atención post-aborto según raza/color. La investigación se realizó en Salvador (Bahia), Recife (Pernambuco) y São Luis (Maranhão), Brasil, con 2.640 pacientes internadas en hospitales públicos. Se realizó una regresión logística para el análisis de las diferencias según raza/color (blanca, mulata/mestiza y negra), considerándose "no tuvo barreras individuales en la búsqueda de la primera atención" como categoría de referencia de la variable dependiente. De las entrevistadas 35,7% eran negras, 53,3% mulatas/mestizas y 11% blancas. Las mujeres negras tenían menor escolaridad, menos hijos y declararon más el aborto como provocado (31,1%), tras 12 semanas de gestación (15,4%). Informaron más barreras individuales en la búsqueda de la primera atención (32% vs. 28% entre multas/mestizas y un 20,3% entre las blancas), tales como el miedo de ser maltratada y no tener dinero para el transporte. En la regresión se confirmó la asociación entre raza/color negro y mulato/mestizo y barreras individuales en la búsqueda de cuidados post-aborto, incluso tras el ajuste por todas las variables seleccionadas. Los resultados confirman la situación de vulnerabilidad de las negras y mulatas/mestizas. La discriminación racial en los servicios de salud y el estigma en relación con el aborto pueden actuar simultáneamente, retardando la ida de las mujeres al servicio de salud, lo que puede constituir una situación límite de mayor gravedad en el cuadro post-aborto.*

*Vulnerabilidad Social; Racismo; Aborto; Atención a la Salud*