

# Analysis to assess menstrual poverty in vulnerable and non-vulnerable populations served in a public service in Brazil

## Análise para avaliar a pobreza menstrual em populações vulneráveis e não vulneráveis atendidas em um serviço público no Brasil.

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### Abstract

**Objective:** this study aims to identify the factors influencing menstrual period management among vulnerable and non-vulnerable patients treated at the Emergency Department of a public hospital. **Methods:** the sample comprised patients who sought care at the Emergency Department of Santa Casa de São Paulo between July 2022 and August 2023. Participants were stratified by gender (women, trans men, or non-binary individuals who menstruate) and social vulnerability (homeless, living in non-permanent housing such as shelters, without fixed income, or earning less than the minimum wage). Inclusion criteria were women, trans men, or non-binary individuals who menstruate, aged 18 years or older, and those who signed the Informed Consent Form (ICF). Exclusion criteria were individuals not menstruating or unable to sign the informed consent. Statistical analysis was performed using the Chi-Square Test. **Results:** seventy (70) patients participated in this study, 34 of whom were classified as vulnerable and 36 as non-vulnerable. Key differences between the groups included hygiene practices during menstruation, frequency and ability to purchase menstrual products and medications, type of material used, duration of exposure to the material, and health conditions during menstruation. Similarities between the groups were observed in the most commonly used materials, contraceptive methods, menstrual flow volume, and experiences of embarrassment. **Conclusion:** the study reveals both differences and similarities between the groups. Understanding these factors allows for the proper management of the menstrual period in vulnerable patients, supporting the development of public policies aimed at improving gynecological health outcomes for these populations.

**Keywords:** menstrual poverty; menstruation; social vulnerability.

### Resumo

**Objetivo:** este estudo tem como objetivo identificar os fatores que influenciam o manejo do período menstrual entre pacientes vulneráveis e não vulneráveis atendidas no Pronto Socorro de um hospital público. **Métodos:** a amostra foi composta por pacientes que procuraram atendimento no Pronto Socorro da Santa Casa de São Paulo entre julho de 2022 e agosto de 2023. Os participantes foram estratificados por sexo (mulheres, homens trans ou indivíduos não binários que menstruam) e vulnerabilidade social (situação de rua, vivendo em moradias não permanentes, como abrigos, sem renda fixa ou ganhando menos que um salário mínimo). Os critérios de inclusão foram mulheres, homens trans ou indivíduos não binários que menstruam, com idade igual ou superior a 18 anos e que assinaram o Termo de Consentimento Livre e Esclarecido (TCLE). Os critérios de exclusão foram indivíduos que não menstruam ou incapazes de assinar o termo de consentimento livre e esclarecido. A análise estatística foi realizada por meio do Teste Qui-Quadrado. **Resultados:** participaram deste estudo setenta (70) pacientes, sendo 34 classificados como vulneráveis e 36 como não vulneráveis. As principais diferenças entre os grupos incluíram práticas de higiene durante a menstruação, frequência e capacidade de compra de produtos e medicamentos menstruais, tipo de material utilizado, duração da exposição ao material e condições de saúde durante a menstruação. Semelhanças entre os grupos foram observadas nos materiais mais utilizados, métodos contraceptivos, volume do fluxo menstrual e experiências de constrangimento. **Conclusão:** o estudo revela diferenças e semelhanças entre os grupos. A compreensão desses fatores permite o manejo adequado do período menstrual em pacientes vulneráveis, apoiando o desenvolvimento de políticas públicas que visam melhorar os resultados de saúde ginecológica dessas populações.

**Palavras-Chave:** pobreza menstrual; menstruação; vulnerabilidade social.

### INTRODUCTION

Menstrual poverty refers to the lack of access to menstrual hygiene products, compounded by inadequate sanitary infrastructure and limited knowledge. It affects girls, women, trans men, and non-binary individuals who cannot adequately manage their menstruation. Menstrual insecurity is linked to various United Nations Sustainable Development Goals (SDGs), including gender equality, poverty eradication, health and well-being, quality education, clean water and sanitation, decent

work and economic growth, and responsible consumption and production, as it is closely tied to the perpetuation of socioeconomic barriers such as school dropout rates, health problems, and work absenteeism<sup>1,2</sup>.

For this vulnerable population, the use of improvised materials such as newspapers, bread crumbs, old clothing, and rags is not only a source of embarrassment but also exacerbates the issue,

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even though these may be the only available options<sup>3</sup>. Health risks become more severe due to the inadequate frequency of changing menstrual products, which should be replaced three to six times a day. This leads to allergies, irritations, and urological and genital infections, such as acute pelvic inflammatory disease—a frequent cause of chronic abdominal pain—and even Toxic Shock Syndrome<sup>4</sup>. Furthermore, this reality perpetuates unequal access to rights and opportunities, causing significant emotional distress<sup>5,6</sup>.

In addition to access issues, cultural stigmas and prejudices surrounding menstruation negatively impact the management of the menstrual cycle for many individuals. In various societies, menstruation remains a taboo topic, perceived as something shameful or as a failure to conceive<sup>7</sup>. Misconceptions, such as the belief that internal menstrual products can "take away virginity" or "get lost inside the body," create confusion and fear<sup>8</sup>. This inhibits open dialogue and the dissemination of accurate information, perpetuating a negative cycle that affects not only menstruating individuals but society as a whole<sup>7,9</sup>.

With the onset of the COVID-19 pandemic and the worsening of social vulnerability, menstrual poverty has emerged as both a health and social issue, particularly in the pandemic's aftermath<sup>10,11</sup>. Given the severity of this issue, the Menstrual Health Protection and Promotion Program was established in Brazil in March 2022. This program guarantees the free distribution of sanitary pads and basic care for low-income students, homeless women, those in extreme social vulnerability, incarcerated women, and individuals in juvenile detention centers<sup>12</sup>. However, menstrual poverty remains a significant public health concern in the country<sup>13</sup>. A Brazilian study found that participants facing financial difficulties were 3.1 times more likely to experience menstrual poverty<sup>14</sup>.

Given the importance of this issue, this study aims to conduct an epidemiological analysis of menstrual poverty among vulnerable and non-vulnerable populations treated in the Emergency Department of Santa Casa de São Paulo. The academic relevance of this study is underscored by the scarcity of data on menstruation and social vulnerability in large urban centers.

## METHOD

### Study Objective

This study aims to identify factors that interfere with the management of menstruation among vulnerable and non-vulnerable individuals treated at the Obstetrics and Gynecology Emergency Department and the Central Emergency Department of Santa Casa de São Paulo. Data were collected through a questionnaire administered immediately after each patient's consultation. The study seeks to characterize vulnerable and non-vulnerable patients by assessing factors such as housing type, frequency of menstrual product use, and type of product and identifying experiences of embarrassment or sexual abuse

related to menstruation.

### Sample and Study Design

The sample consisted of 70 patients who completed the questionnaire: 34 vulnerable and 36 non-vulnerable individuals. Participants were stratified by gender (women, trans men, or non-binary individuals who menstruate) and were 18 years or older. All participants were treated at the Santa Casa de São Paulo Emergency Department between July 2022 and August 2023.

Vulnerable patients were further categorized based on their current vulnerability status, including homelessness, living in non-permanent housing (e.g., shelters, shared accommodations), having no fixed income, or earning less than the minimum wage. Statistical analysis was performed using the Chi-Square Test.

Inclusion criteria consisted of women, trans men, and non-binary individuals who menstruate, are 18 years or older, belong to either vulnerable or non-vulnerable populations, and signed the informed consent form. Exclusion criteria included individuals who did not menstruate or were unable to sign the informed consent form.

Informed consent was obtained from each participant by the attending physician and/or research assistant in accordance with good clinical practices. The consent process was integrated into the questionnaire. This study was approved by the Ethics and Research Committee (CAAE: 58635322.5.0000.5479).

## RESULTS

The vulnerable group predominantly consisted of individuals of mixed-race (*parda*), single, Catholic, native to São Paulo, with incomplete primary education, unemployed, with a monthly income below the minimum wage. They were not using contraceptive methods at the time of the study. Most lived in rented housing, primarily used sanitary pads purchased when possible, and did not tend to obtain them from other sources such as non-governmental organizations or Basic Health Units. They used paper more frequently for personal hygiene, had access to their own bathroom during menstruation, did not use medications, experienced discomfort during menstruation, and had a medium menstrual flow.

The non-vulnerable group similarly consisted mostly of mixed-race (*parda*), single individuals, either Catholic or without religion, native to São Paulo, with completed high school education, employed, with a monthly income between one and two minimum wages. They were also not using contraceptive methods at the time. Most lived in rented housing, primarily used sanitary pads and were able to purchase them, used water and soap more frequently for personal hygiene, had access to their own bathroom during menstruation, did not use medications, experienced nervousness during menstruation,

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and had medium menstrual flow.

Regarding the use of illicit drugs, in the vulnerable group, 2.9% were crack users, 2.9% used cocaine, and 5.9% used marijuana. In contrast, among the non-vulnerable group, 16.7% were marijuana users.

**Table 1.** pattern of illicit drug use among vulnerable and non-vulnerable women.

Illicit drug use	Vulnerable (%)	Non-vulnerable (%)
Crack	2,9	-
Cocaine	2,9	-
Marijuana	5,9	16,7

Regarding contraceptive methods, in the vulnerable group, 8.8% used oral contraceptives, 8.8% used an intrauterine device (IUD), 5.9% used condoms, 2.9% used injectable contraceptives, and 2.9% used contraceptive implants. In the non-vulnerable group, 5.6% used condoms, 5.6% used oral contraceptives, 5.6% used an IUD, 2.8% used injectable contraceptives, and 2.8% used contraceptive implants.

**Table 2.** most used contraceptive methods among vulnerable and non-vulnerable women.

Contraceptive method of choice	Vulnerable (%)	Non-vulnerable (%)
Birth control pill	8,8	5,6
Condom	5,9	5,6
IUD	8,8	5,6
Injectable contraceptive	2,9	2,8
Contraceptive implant	2,9	2,8

**Table 3.** Type of material most used during the menstrual period among vulnerable and non-vulnerable women

Type of material used during the period	Vulnerable (%)	Non-vulnerable (%)
Pads	94,1	100,0
Menstrual cup	-	2,8
Toilet paper	2,9	2,8
Rags	11,8	-
Nothing	2,9	-

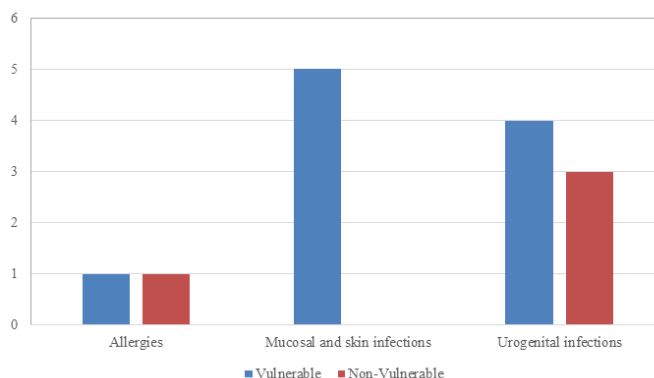
Regarding menstrual hygiene, 52.9% of vulnerable women used toilet paper, while 47.1% used water and soap. Among non-vulnerable women, 42.2% used water and soap, and 38.9% used toilet paper.

**Table 4.** type of hygiene used during the menstrual period among vulnerable and non-vulnerable women

Hygiene method	Vulnerable (%)	Non-vulnerable (%)
Water and soap	47,1	47,2
Wet wipes	20,6	36,1
Toilet paper	52,9	38,9
Rags	5,9	-
Nothing	2,9	-

Concerning health issues during the menstrual period, 14.7% of vulnerable patients reported skin and mucosal irritation, while 11.8% had urogenital infections compared to 8.3% in the non-vulnerable group.

**Figure 1.** most common health conditions during the menstrual period among vulnerable and non-vulnerable women: Allergies (Condition 1), skin and mucosal infections (Condition 2), and urogenital infections (Condition 3).



The main emotions experienced by both groups were discomfort and nervousness.

## DISCUSSION

This study on menstrual poverty, which compares vulnerable and non-vulnerable populations treated at the Emergency Department of Santa Casa de São Paulo, highlights significant disparities in menstrual management across different social groups. The demographic profile of women affected by vulnerability is characterized by low income, unemployment, and limited educational attainment, with a higher prevalence of individuals identifying as mixed-race (parda). These socioeconomic conditions not only restrict access to sanitary products but also lead to inadequate hygiene practices, stemming from a lack of awareness and cultural perceptions that regard menstruation as taboo<sup>7</sup>. This limited access to appropriate information and resources results in the use of improvised materials, such as rags and paper, thereby placing these women at increased risk for urogenital infections, dermatitis, and other health complications, including Pelvic Inflammatory Disease and Toxic Shock Syndrome<sup>4</sup>.

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Despite the majority of participants in both vulnerable and non-vulnerable groups reporting the use of disposable sanitary pads, notable differences persist in their access to hygiene products and adequate facilities. Vulnerable women often resort to using paper for personal hygiene, while their non-vulnerable counterparts have access to water and soap, exacerbating health issues within this disadvantaged population.

Another critical finding is the higher prevalence of illicit drug use among vulnerable women, reflecting not only their socioeconomic circumstances but also a diminished expectation of quality of life. This issue may be further exacerbated by the hospital's proximity to areas with high levels of drug use, a common characteristic of central zones in major cities. Consequently, this underscores the need for targeted health policies that address the intersections between menstrual poverty and other social determinants of health<sup>6</sup>.

Interestingly, the research revealed an unexpected similarity in contraceptive method preferences between the groups. Initially, it was hypothesized that vulnerable women would choose methods aimed at suppressing or reducing menstrual flow, such as subcutaneous implants. However, a majority of both groups opted for oral contraceptives that allow for monthly menstruation, indicating a shared preference that transcends socioeconomic status.

These findings underscore the urgent need for public policies that ensure menstrual dignity for all menstruators. Initiatives such as the free distribution of sanitary products, educational campaigns, and improved access to sanitary facilities are vital

for addressing the observed inequalities and enhancing the quality of life for menstruating women in socially vulnerable contexts<sup>1,2</sup>.

While the study acknowledges its limitations, including a cross-sectional design that restricts the assessment of long-term impacts, the lack of Brazilian data on menstrual poverty renders this research highly relevant for the development of public policies in the country. Furthermore, although data on menstrual poverty during the COVID-19 pandemic have been published in both developed<sup>15,16,17</sup> and developing<sup>18</sup> countries, there remains a significant gap in data regarding menstrual health in Brazil during this period.

#### CONCLUSION

In conclusion, given the scarcity of Brazilian data on this subject, this study contributes significantly to the understanding of menstrual poverty in urban settings and emphasizes the necessity for effective interventions to alleviate the effects of social vulnerability on the gynecological health of menstruators. This study identified differences between vulnerable and non-vulnerable women concerning menstrual hygiene practices, frequency, purchasing power for sanitary products and medications, and exposure to diseases resulting from improper material usage. Similarities were also noted in the types of materials utilized, contraceptive methods, and occurrences of leaks and menstrual flow. These findings will aid in developing public health strategies aimed at enhancing menstrual hygiene and gynecological health.

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