

# CUIDADO É FUNDAMENTAL







Escola de Enfermagem Alfredo Pinto – UNIRIO

RESEARCH

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## PREGNANCY, ACQUIRED IMMUNODEFICIENCY VIRUS AND COVID-19: CHALLENGES IN PRENATAL CARE

*Gestação, vírus da imunodeficiência adquirida e covid-19: desafios na assistência ao pré-natal*  
*Embarazo, virus de la inmunodeficiencia adquirida y covid-19: desafíos en la atención prenatal*

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### ABSTRACT

**Objectives:** to highlight the existing challenges during prenatal care in pregnant women seropositive for the Acquired Immunodeficiency Virus during a pandemic period. **Method:** This is a descriptive exploratory quantitative research, using data collection through field interviews with 19 pregnant women with Acquired Immunodeficiency Virus from a specialized assistance service, between July 2021 and July 2022. **Results:** they pointed out difficulties in scheduling consultations, performing tests and accessing the results, difficulties in getting transportation due to the distance from the infectology unit and difficulty in scheduling consultations at the basic health unit. **Conclusion:** the specialized assistance service carried out the reorganization of assistance to reduce the present challenges, which were difficulty in accessing the unit, scheduling and access to prenatal exam results.

**DESCRIPTORS:** COVID-19; Nursing; HIV; Pregnancy.

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## RESUMO

**Objetivo:** evidenciar os desafios existentes durante o pré-natal em mulheres grávidas soropositivas para o Vírus da Imunodeficiência Adquirida durante um período pandêmico. **Método:** Trata-se de uma pesquisa quantitativa exploratória de caráter descritivo, utilizando-se de levantamento de dados através de entrevistas em campo com 19 gestantes com Vírus da Imunodeficiência Adquirida de um serviço de assistência especializada, entre julho de 2021 e julho de 2022. **Resultados:** apontaram dificuldades para agendar consultas, realizar exames e acesso aos resultados, dificuldades para conseguir transporte devido a distância da unidade de infectologia e dificuldade para agendar consultas na unidade básica de saúde. **Conclusão:** o serviço de assistência especializada realizou a reorganização da assistência para diminuir os desafios presentes, que foram dificuldade de acesso a unidade, marcação e acesso a resultado de exames pré-natal.

**DESCRITORES:** COVID-19; Enfermagem; Gravidez; HIV.

## RESUMEN

**Objetivos:** resaltar los desafíos existentes durante la atención prenatal en gestantes seropositivas para el Virus de la Inmunodeficiencia Adquirida en período de pandemia. **Método:** Se trata de una investigación cuantitativa exploratoria descriptiva, utilizando la recolección de datos a través de entrevistas de campo con 19 gestantes con Virus de la Inmunodeficiencia Adquirida de un servicio de asistencia especializada, entre julio de 2021 y julio de 2022. **Resultados:** señalaron dificultades en la programación de consultas, realización de pruebas y acceso a los resultados, dificultades para conseguir transporte debido a la distancia de la unidad de infectología y dificultad para programar consultas en la unidad básica de salud. **Conclusión:** el servicio de asistencia especializada realizó la reorganización de la asistencia para reducir los desafíos presentes, que fueron la dificultad de acceso a la unidad, la programación y el acceso a los resultados del examen prenatal.

**PALABRAS CLAVE:** COVID-19; Enfermería; VIH; Embarazo.

## INTRODUCTION

The epidemiological scenario of some diseases has changed over time, for example, there was an increase in the growth of human immunodeficiency virus (HIV) infection cases among heterosexual individuals, which also increased the contamination of women of reproductive age.<sup>1</sup>

However, the identification of an epidemiological profile of HIV in pregnant women makes it possible to understand the social context and identify the social determinants that relate women's vulnerability to HIV infection.<sup>2</sup>

Some population groups, such as the elderly, people with chronic and immunosuppressed diseases are more susceptible to some diseases, among them, COVID-19 (Coronavirus disease - 2019), whose etiological agent is SARS-COV-2, which has spread worldwide in a rapid manner resulting in a pandemic, points out some population groups as more vulnerable to the severe form of the disease, among them are the elderly, people with chronic or immunosuppressed diseases, health care workers, pregnant women, and newborns.<sup>3-4</sup>

Pregnancy is a time of many expectations and uncertainties for most women. The emergence of the COVID-19 pandemic multiplied the doubts and anguish, with the postponement and/or withdrawal of prenatal consultations and exams, and the social distancing measures adopted to contain the disease's progress.<sup>5</sup> Therefore, it is necessary to reflect on the possible impacts on maternal experience of the changes generated by healthcare during the SARS-CoV-2 pandemic.<sup>6</sup>

Thus, given the relevance of this study, which is justified by the need to plan new strategies to meet the demands of pregnant women with HIV during critical scenarios, such as the period of the CO-

VID-19 pandemic, this study aims to highlight the challenges that exist during prenatal care in HIV-positive pregnant women during a pandemic period. To this end, the following guiding question will be followed "What are the challenges that pregnant women with HIV faced in accessing prenatal care, during the covid-19 pandemic?"

## METHOD

This is a quantitative exploratory descriptive research, using data collection and interviews. Quantitative research allows the measurement of opinions, reactions, habits and attitudes in a universe, through a sample that statistically represents it. Among its main characteristics are: obeys a pre-established plan, with the intention of enumerating or measuring events; uses theory to develop the hypotheses and the research variables; generally employs statistical instruments for data analysis, among others.<sup>7</sup>

The descriptive study has as its main purpose the description of the characteristics of a certain population or phenomenon, or the establishment of relationships among variables. There are numerous studies that can be classified under this title, and one of its most significant characteristics appears in the use of standardized data collection techniques. This type of research seeks to describe a phenomenon or situation in detail, especially what is occurring, allowing us to accurately cover the characteristics of an individual, a situation, or a group, as well as to uncover the relationship between events.<sup>8</sup>

The place for the research was the Infectious Diseases Day Hospital (HD) of the Hospital Universitário Professor Alberto Antunes (HUPAA), located in Maceió, Alagoas. The Service of Specialized Care in Infectology (SAE Infectology) provides assistance to patients

with infectious diseases, besides being a reference for the treatment of HIV/AIDS. We interviewed all pregnant women diagnosed with Human Immunodeficiency Virus (HIV) (19 pregnant women), accompanied by the HUPAA HD in the period from July 2021 to July 2022.

The study variables are related to sociodemographic characteristics and characteristics related to pregnant women with HIV: Age, gestation time, level of education, and the study variables related to the perception of pregnant women with HIV are: Knowledge of the interviewee about the prevention and care guidelines in pregnancy during the pandemic of COVID-19; Evaluation of the pregnant woman with HIV regarding the measures adopted in the service.

Pregnant women who had some behavioral or cognitive deficit already diagnosed that made it impossible for them to answer the survey forms, through the semi-structured form, were excluded from the study.

Data analysis was carried out by building a database that was organized and stored in a spreadsheet of EXCEL software (Microsoft Office) for the coding of variables, with double typing by different researchers to validate this spreadsheet. The results were organized in tables and graphs, using descriptive statistics.<sup>9</sup>

Initially, authorization was requested from the direction of the institution where the research was carried out. It was also necessary that the participants involved in the research agreed to participate in the research and to do so they signed the Informed Consent Form (ICF) and for those minors the Informed Consent Form (TALE). In this way, the study was developed according to the guidelines of the research protocol.

Thus, the study was developed according to the CNS resolutions 466/12 and 510/16, which establish standards for research involving human beings, aiming at the protection and integrity of the subjects that participated in the research. The research project was forwarded to the Ethics Committee of the Faculdade de Alagoas and approved, according to the consubstantiated opinion number 4.827.031.

## RESULTS

### Sociodemographic data

Nineteen interviews were conducted with pregnant women with HIV. According to the sociodemographic data collected, these women were within the age range of 15 to 42 years.

Most of the pregnant women interviewed were married, self-declared brown and had only studied up to high school. As for occupation, they were housewives, day laborers, students, and porters. Regarding income, the vast majority received up to 1 minimum wage, including those who received some kind of family allowance or grant (Table 1).

**Table 1** – Socio demographic data of pregnant women with HIV. Maceió, AL, Brazil 2022

Marital Status	
Single	9 (47,36%)
Married	10 (52,64%)
Total	19 (100%)

Skin color	
White	2 (10,52%)
Brown	11 (57,89%)
Black	6 (31,59%)
Total	19 (100%)
Education	
Uneducated	1 (5,26%)
Elementary School	8 (42,10 %)
High School	10 (52,64%)
Total	19 (100%)
Occupation	
Students	2 (10,52%)
Housewives	12 (63,17%)
Gate	1 (5,26%)
Domestic helpers	4 (21,05%)
Total	19 (100%)
Monthly income (R\$)	
No income	4 (21,05%)
Up to 1 minimum wage	15 (78,95%)
Total	19 (100%)

Source: Own authorship, 2022.

### Pregnancy data

Regarding the data about pregnant women, 13 (68.42%) of the interviewees could not answer in weeks the gestational period, so this data was collected in months. The gestational period of the interviewees varied from 3 months to 9 months. Of the 19 interviewees only five (26.31%) had a planned pregnancy, although this planning did not involve a health professional, but was only agreed upon with their partner.

When asked about what challenges they faced for gestational monitoring (prenatal care) during the pandemic of COVID-19, most claimed not to have encountered challenges for prenatal care, others pointed out the difficulty to schedule appointments, perform tests and get test results due to isolation, difficulties to get transportation and the distance to the infectious disease unit, and difficulty to schedule appointments at the basic health unit (Table 2).

**Table 2.** Challenges faced for gestational (prenatal) follow-up during the covid-19 pandemic. Maceió, AL, Brazil, 2022

Desafios	(n)%
Difficulty scheduling appointments, performing exams, and getting test results due to isolation	3 (15,78 %)
Difficulties in getting transportation and the distance to the infectious disease unit (CTA-HU)	4 (21,05%)
Difficulty in scheduling appointments at the basic health unit	1 (5,26%)
No challenges for prenatal follow-up	11 (57,91%)
Total	18 (100%)

Source: Own authorship, 2022.

According to the data collected in the interviews, pregnant women had between 1 and 12 prenatal consultations. These numbers vary according to the gestational age. Another point was related to tele-

-consultations. The interviewees were asked what is a tele-consultation and whether they had already had one during the pregnancy follow-up (prenatal). Three (15.78%) of the interviewees said that they had heard about it, but had never done it, while 16 (84.21%) had never heard about it, and 19 (100%) claimed that they had no contact with tele-consultation during the pandemic.

When questioned about what were their main fears/fears in this pandemic period regarding pregnancy, most said they had no fear/fear, however some pointed out the fear of being contaminated with COVID-19, of catching the disease and passing it to the baby (Table 3).

**Table 3.** Main anxieties/meanings in this pandemic period regarding pregnancy. Maceió, AL, Brazil, 2022

Anseios	(n)%
Fear of getting contaminated with covid-19	5 (26,31%)
Fear of taking the covid-19 and passing it on to the baby	2 (10,52%)
No fear/anxiety	12 (63,17%)
Total	17 (100% <sup>-</sup> )

**Source:** Own authorship, 2022.

Regarding the question whether during prenatal care the pregnant woman was informed about how her delivery would be. Six (31.57%) of them answered yes, it would be a cesarean delivery, two (10.52%) said that depending on the viral load until the end of pregnancy it could be a normal delivery, and 11 (57.89%) said they had not been informed yet.

When questioned about their understanding of how their children could acquire HIV, most of them answered that they knew how the baby could be infected, pointing out as means of contamination pregnancy 18 (94.73%), contact with blood during delivery 16 (84.21%) and breastfeeding

#### Data regarding the Human Immunodeficiency Virus (HIV)

Regarding the human immunodeficiency virus (HIV), the interviewees were questioned about when they discovered the serology + HIV, if during pregnancy or before, 15 (78.94%) discovered the positive serology during a pregnancy and four (21.06%) discovered it before pregnancy.

When asked if the pregnancy was planned, of the 19 interviewees, 14 (73.68%) answered no, and five (26.31%) said it was a planned pregnancy, however only with the husband, but without family planning accompanied by a health unit.

Regarding the use of antiretroviral drugs, 18 (94.73%) said they were using and had good adherence to treatment, and only one (5.26%) was not undergoing treatment yet, because she was 12 weeks gestational age (the indication to start antiretroviral therapy is from the 14th gestational week) and had recently discovered she was HIV positive. As for the viral load, 16 (84.21%) of the interviewees said that in the last test they had an undetectable viral load, and three (15.79%) could not answer.

Regarding previous pregnancies, when asked if they had children and what their serology was, 11 (57.89%) said they

had children after the discovery of HIV and that they were seronegative, eight (42.10%) had no children after the positive serology before the pregnancy in question.

Another question present in the questionnaire was: What challenges did you face for HIV treatment during the pandemic of COVID-19? 18 (94.37%) said that they did not face challenges regarding HIV treatment as they took prescriptions and medications with long schedules, one (5.26%) was not yet on treatment.

## DISCUSSION

In Brazil, the epidemiological profile of infection in pregnant women has been characterized by an increase in the number of cases in young women, with a low level of education and who do not engage in paid work. This may be associated with greater difficulty in understanding the information available and recognizing the susceptibility to HIV infection, reflecting in the non-reduction of risk behaviors.<sup>10</sup>

These data show that the lower the level of education and the higher the prevalence of indicators associated with socioeconomic vulnerabilities, the greater the chances of infection, since these women tend to have less access to information on means of infection and prevention, thus being more exposed to the risk of contamination by HIV.<sup>11</sup>

With regard to conception, most participants in this study did not have a planned pregnancy. Other studies conducted with pregnant women point out that the lack of dialogue about sexuality and contraceptive methods and the difficulty of access to health services can cause unsafe sexual practice, which, in addition to the acquisition of STIs (Sexually Transmitted Infections), favors the occurrence of unplanned pregnancy.<sup>12-13</sup>

Still in this context, a 2016 study<sup>12</sup> stresses the importance of guidance on the possibilities of conception with lower risk of contamination for the couple and the baby, citing for example, self insemination, assisted reproduction techniques, and guidance that considers possible drug interactions with antiretroviral drugs.

About the fears and anxieties regarding the pandemic of COVID-19, the pregnant women reported fear of being contaminated with the virus and passing it to the baby, which is similar to the study by Urasaki, Albuquerque, and Venâncio.<sup>14</sup>

Teleconsultation proved to be a very important tool in the face of social isolation, but it has some limitations, considering that in teleconsultation it is not possible to perform the physical examination, we must redouble attention to warning signs and symptoms screened by the anamnesis another point is that some populations may not have access to the internet or device with video resources (smartphone or tablet) for economic or cultural reasons; in this case, telephone contact has been an alternative.<sup>15</sup>

In the context of prenatal care, teleconsultations can be performed at the following gestational ages: below 11 weeks (to obtain the clinical history and orientations on how the prenatal follow-up will be performed), between 16 and 18 weeks, at 32, 38 weeks, and after hospital discharge. However, some consultations in person should be maintained.<sup>15</sup> Furthermore, according to this study, during the pandemic period, some difficulties were encountered, such as: diffi-

culty to schedule consultations, perform exams, and get test results due to isolation, difficulties to get transportation, and the distance to the infectious disease unit. However, the vast majority of interviewees pointed out not to have faced challenges in access to care.<sup>15</sup>

These data are in agreement with those found by Reis et al.<sup>16</sup>, who point out that the suspension of elective care during the pandemic delayed the performance of laboratory and ultrasound tests throughout the public health network, leading to the loss of the window of opportunity to perform several essential screenings during pregnancy. Another point was the displacement, the social isolation created a barrier of displacement due to the change of some units, some users were no longer served so close to home and needed public transportation services, which ended up creating crowds because of reduced schedules and buses, leading to difficulty of locomotion of patients from more distant areas and those who avoided closed and crowded places.<sup>16</sup>

According to the survey in question, most of the pregnant women interviewed had good adherence to antiretroviral treatment, and in the last test they had an undetectable viral load. Studies have shown that the risk of HIV transmission during labor is quite significant, followed by pregnancy and breastfeeding, respectively. However, adherence to prophylactic measures during pregnancy and delivery reduces the risk of mother-to-child transmission. The main factors associated with this transmission route are associated with high maternal viral load, non-use of antiretroviral drugs, rupture of the amniotic membrane for more than four hours, route of delivery, prematurity of the child, and drug use.<sup>10</sup>

During prenatal care for HIV-infected pregnant women, at least three HIV viral load (HIV-CV) tests should be performed during pregnancy. These tests should be performed in the following occasions: in the first prenatal visit, to establish the magnitude of viremia; two to four weeks after the introduction of antiretroviral therapy, to evaluate the response to treatment and from the 34th week, to indicate the route of delivery.<sup>17</sup>

Silva<sup>18</sup> discusses that although pregnant women are afraid when thinking about the transmission to the baby, there is also an incentive to use the medication, related to the issue of reducing the possibility of transmission, leading to a greater commitment to their own care. Medeiros, Faria and Piccinini<sup>19</sup> point out that the literature has identified these tendencies for women to follow more carefully the use of antiretroviral drugs during pregnancy, considering the possible concern with the prevention of vertical transmission of the virus and with the baby's health.

## CONCLUSION

The pandemic scenario required a reorganization of health care in order to receive and provide better care within the particularities of the moment, in which social isolation, hygiene measures and the use of masks were necessary as a measure for prevention of COVID-19.

During the pandemic of the new coronavirus, most pregnant women with HIV accompanied by the HUPAA Day Hospital, said they did not encounter major challenges regarding the access to prenatal care and treatment for HIV, since the service performed the

reorganization of assistance so that the dispensation of drugs for HIV occurred in larger quantities and more spaced, reducing the need for displacement and exposure of these pregnant women and the risks of low adherence to treatment due to lack of medication.

Furthermore, the prenatal appointments occurred in a scheduled manner aiming at a flow without agglomeration of this public. However, some challenges were encountered, such as difficulties in performing tests and accessing their results, as well as difficulties in traveling to the reference unit.

As limitations of the study we point out the difficulty in the process of data collection due to social isolation, rescheduling appointments without prior notice that corroborated to the mismatch with the interviewees to apply the collection instrument, in view of this, the collection period was extended according to the dates of consultations.

This research contributes to the literature on the subject by addressing the main challenges encountered in access to prenatal care by pregnant women with HIV in a specialized service unit of the State of Alagoas. However, more extensive studies on this topic are necessary in order to guide care measures that are more individualized, comprehensive and humanistic, favoring adherence to prenatal care for this public, even during critical scenarios.

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