ACCESSIBILITY AND USE OF HEALTH SERVICES BY HIV INFECTED PREGNANT WOMEN: INTEGRATIVE REVIEW

Objective: to evaluate the accessibility and use of health services by pregnant women living with human immunodeficiency virus (HIV). Method: integrative review carried out in the LILACS, PubMed and SCOPUS databases in January 2016, totaling 39 articles. The classification of the level of evidence was used for critical evaluation of primary studies. Results: accessibility has been hindered by aspects such as time, hours of operation, insufficiency of inputs, transportation, location, costs, structure of services, stigma, lack of support, access to knowledge, privacy, confidentiality and professional-user relationship. Regarding the use of health services, this was limited to anti-HIV tests and presented incomplete prophylaxis. The type of use of services included tests, antiretroviral treatment, prenatal care, and childbirth. Conclusion: the accessibility and the use of services by HIV-infected pregnant women faces barriers related to time, location and psychosocial aspects.

Descriptors: Access to health care services. Pregnant women. HIV. Aids.

Objetivo: avaliar a acessibilidade e a utilização dos serviços de saúde pelas gestantes que vivem com o vírus da imunodeficiência humana (HIV). Método: revisão integrativa realizada nas bases de dados LILACS, PubMed e SCOPUS no período de janeiro de 2016, totalizando 39 produções. Para avaliação crítica dos estudos primários utilizou-se a classificação do nível de evidência. Resultados: a acessibilidade tem esbarrado nos aspectos: tempo, horário de funcionamento, insuficiência de insumos, transporte, localização, custos, estrutura dos serviços, estigma, ausência de apoio, acesso a conhecimentos, privacidade, confidencialidade e relação profissional-usuária. Quanto à utilização dos serviços de saúde, o mesmo foi limitado ao exame anti-HIV e apresentou profilaxia incompleta. O tipo de uso dos serviços incluiu exames, uso de antirretrovirais, pré-natal e parto. Conclusão: a acessibilidade e a utilização dos serviços pelas gestantes com HIV encontram barreiras relacionadas ao tempo, a localização e aos aspectos psicossociais.


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Objetivo: evaluar la accesibilidad y la utilización de los servicios de salud por las gestantes que viven con el virus de la inmunodeficiencia humana (VIH). Método: revisión integradora realizada en las bases de datos LILACS, PubMed y SCOPUS en el período de enero de 2016, totalizando 39 producciones. Para evaluación crítica de los estudios primarios se utilizó la clasificación del nivel de evidencia. Resultados: la accesibilidad ha impedido en aspectos tales como tiempo, horario de funcionamiento, insuficiencia de insumos, transporte, localización, costos, estructura de los servicios, estigma, ausencia de apoyo, acceso a los conocimientos, privacidad, confidencialidad y relación profesional-usuaria. En la utilización de los servicios de salud, el mismo fue limitado al examen anti-VIH y presentó profilaxis incompleta. El tipo de uso de los servicios incluyó exámenes, uso de antirretrovirales, prenatal y parto. Conclusión: la accesibilidad y la utilización de los servicios por las gestantes con VIH encuentran barreras relacionadas al tiempo, la localización y a los aspectos psicosociales.


Introduction

In Brazil, the most prevalent form of HIV infection in childhood is vertical transmission. This form of transmission caused 159 cases of infection by the Acquired Immune Deficiency Syndrome (AIDS) among under-five children in 2014 alone. However, these cases can be related both to maternal/newborn conditions and to actions aimed at the promotion, prevention and recovery of health\(^{(1,2)}\).

The access to inputs such as rapid tests, follow-up examinations, antiretroviral drugs and technical materials is expected to be intensified through the organization of the Health Care Networks (HCN). These networks consist in organizational arrangements to systematically integrate health services of different technological densities in order to expand the promotion and preventive actions and the provision of integral attention based on Primary Health Care (PHC) as the main nucleus\(^{(3)}\).

The HCN is fundamental for decision-making and follow-up of prophylactic and therapeutic actions\(^{(3,4)}\). Considering their proposal of integration between the social, governmental and non-governmental actors, they may represent a mechanism to approach the feminization of the epidemic\(^{(4,5)}\). Investment and integration of strategies for prenatal care, counseling, provision of antiretroviral therapy for women and children exposed to infection, and follow-up of clinical outcomes of cases of child exposure are critical to reduce vertical HIV transmission\(^{(5,6)}\).

However, the journey that users need to go through in the HCN needs to be taken into consideration to estimate the universal access to these conducts. The attention given at the first contact of users with the health services has effects on the accessibility (structural element) and use (procedural element) to address each problem or episodes of a same problem\(^{(7)}\).

Thus, the understanding of these elements goes beyond the ease or difficulty to enter in the health services. Accessibility involves aspects such as proximity between the health services and the assisted population, availability of dates and hours for consultations, and flexibility to schedule appointments. It reflects on the dynamics of offer of actions and on the use of services by users. This will define, among other situations, the possibility of return to give continuity to the follow up\(^{(7,9)}\).

Furthermore, although specialized services represent the reference for the training of professionals on the care of HIV infected pregnant women, the PHC should be considered the gateway to the health system\(^{(10)}\). However, the difficult articulation between HCN points needs to be overcome in order to provide care for this population and increase the access to services. The obstacles include the disproportion between PHC services and the number of inhabitants, the insufficiency of HCN in services of different technological densities and professional unpreparedness to meet the...
demands related to HIV, culminating in the fragmentation of actions\textsuperscript{(11)}. Considering that the investment in access to services by this population is important for resolutive actions during pregnancy, this study aimed to evaluate the accessibility and use of health services by pregnant women living with HIV.

**Method**

This study consists of an integrative review\textsuperscript{(12)} based on the guiding question: “What are the scientific evidences of barriers to accessibility and use of health services by pregnant women living with HIV?”

The search was made in January 2016 in the Latin American and Caribbean Literature in Health Sciences (LILACS), *National Library of Medicine/National Institutes of Health* (PubMed) and *SciVerse Scopus* (SCOPUS) databases. The search in each base employed different strategies, as described in Figure 1. Regarding the time period considered during the selection of articles, there was no temporal cut-off. The different search strategies and the non-use of temporal cut-off allowed increasing the possibility of finding evidence to answer the research question.

The selection of papers was carried out by two persons independently, considering the possibility of bias in this stage. The inclusion criteria were: research articles that answered the guiding question and published in English, Portuguese or Spanish. A total of 668 papers were found, of which 39 made up the corpus of the present study (Figure 1).

It should be noted that repeated papers were considered only once. The critical evaluation of primary studies was carried out considering the complexity of combining different methodological approaches. Therefore, the system of classification of level of evidence of the selected articles as results in the present integrative review was used\textsuperscript{(13)}.

After the analysis of the productions included, an extraction file was completed, consisting of the following items: identification of the article, place where the study was developed, area of knowledge, objective and design of the study, level of evidence and main results. The ethical aspects were respected through the reliable citation of the ideas, concepts and definitions expressed by the authors of the articles used as results in the present study.

**Results**

The characterization of the included articles (N = 39) revealed that the majority (31) consisted of quantitative researches. The critical evaluation of the findings showed that most of the primary studies had their clinical question focused on prognosis/etiology (22), with evidence level four (21). Studies carried out in the United States (USA) were predominant (14). The areas of expertise that stood out were Medicine (19) and interdisciplinary (17). As for the temporal distribution, the five-year arrangement pointed to a growing publication of studies related to the theme between 2011 and 2015 (22) (Table 1).
Figure 1 - Flowchart of selection of papers in LILACS/PubMed/SCOPUS. Santa Maria, Rio Grande do Sul, Brazil, 2015

668 scientific productions found (LILACS: 61; SCOPUS: 487; PUBMED: 120).

LILACS: "HIV" or "AIDS" [Subject Descriptor] and "pregnant" or "gestation" or "pregnancy" or "pre-natal" [Words] and "access" or "accessibility" or "use" [Words]

PUBMED: "HIV" [All Fields] or "AIDS" [All Fields] and "pregnant women" [All Fields] and "health services accessibility" [All Fields]

Source: Created by the authors.
Table 1 – Characterization of the analyzed articles, LILACS/PubMed/SCOPUS. Santa Maria, Rio Grande do Sul, Brazil, 2015

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
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</tr>
<tr>
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<td></td>
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</tr>
<tr>
<td>Treatment/intervention</td>
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<td>28.2</td>
</tr>
<tr>
<td>Meaning</td>
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<td><strong>Evidence level</strong></td>
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<tr>
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<tr>
<td><strong>Origin</strong></td>
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<tr>
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<tr>
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<td>6</td>
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<tr>
<td><strong>Temporal distribution</strong></td>
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<td>2011-2015</td>
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<td>56.4</td>
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Source: Created by the authors.

The descriptive analysis of the main results obtained considered the similarity between them. In this way, it was possible to establish categories to answer the question of the present study, namely: Accessibility - related to time, related to geography and related to psychosocial; and Use - related to the extent of use of the services and related to the type of use of the services (Figure 2).

**Discussion**

The scientific evidence of Accessibility points out that the opportunity for diagnosis and treatment of cases of HIV infection has been hindered by structural aspects such as time (14), hours of operation of the services (15) and insufficient inputs for management of the maternal infection and prevention of vertical HIV transmission (16). For this population, the waiting time for receiving care is significantly associated with overall satisfaction with the health service (17). This shows that, in spite of access to the service, the gaps in the availability of health actions focused on HIV infection happen due to the late onset of prenatal care (16) and inadequate provision of follow-up HIV testing (18-19).
Barriers that make access to HIV prevention services less accessible are also related to geographical aspects such as transportation, localization of facilities, costs, and the structure of the health services, with frequent turnover of professionals and the limited stock of essential materials. Such difficulties are even higher for HIV infected women residing in locations far from health services and with limited resources. This leads to unawareness of the HIV serological status, increased costs to receive health actions and low acceptability of care. In this sense, the integration between the services aimed at prevention of vertical transmission and the management of maternal HIV infection and prenatal care could result in increased the users' satisfaction, and consequent increased use of these services.

As for the psychosocial aspects that may influence the accessibility, stigma is an obstacle during intrapartum procedures, anti-HIV testing, adherence to antiretroviral therapy and other interventions recommended for the prevention of vertical HIV transmission. Additionally, the lack of support and restricted access to knowledge were also identified as hindering factors to preventive strategies against vertical HIV transmission, especially the use of antiretrovirals, testing and counseling. The perception of privacy and confidentiality, as

<table>
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<th>Use</th>
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<td><strong>Related to the time:</strong></td>
<td><strong>Related to the extent of use of health services:</strong></td>
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<td>- access limited to anti-HIV tests;</td>
</tr>
<tr>
<td>- hours of operation of the health services;</td>
<td>- scheduling and attendance to prenatal consultations;</td>
</tr>
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<td>- moment of prenatal start;</td>
<td>- anti-HIV tests during pregnancy;</td>
</tr>
<tr>
<td>- time of adequate supply for follow-up examinations;</td>
<td>- antiretroviral drugs;</td>
</tr>
<tr>
<td><strong>Related to geography:</strong></td>
<td>- prenatal care;</td>
</tr>
<tr>
<td>- transportation to the health service;</td>
<td>- type of delivery;</td>
</tr>
<tr>
<td>- location of the health service;</td>
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<tr>
<td>- costs with services;</td>
<td></td>
</tr>
<tr>
<td>- structure of the health services;</td>
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</tbody>
</table>

**Related to psychosocial:**

- stigma;
- professional-user relationship;
- prejudiced attitudes of health professionals;
- inattentive and insensitive attitudes of health professionals;
- lack of support;
- perception of privacy and confidentiality;
- restricted access to knowledge.

Source: Created by the authors.
well as the professional-user relationship (14,17,20-21,35), when permeated by prejudice (33), inattention and insensitivity (21), contribute to the decline of the quality of care. However, when the relationship between the pregnant woman and the team is positive, overall satisfaction with the service can be achieved (37).

With regard to the Use of services, the scientific evidence points to flaws related to the extension of use of health services. Access was limited to anti-HIV tests (37) and prophylaxis was incomplete, especially among those women who became pregnant without knowledge of their serological status (30). The scheduling and attendance to prenatal consultations (24,29-40) in Brazil, although free of charge, present barriers for HIV infected pregnant women to access specialized care (39).

The type of health services use include follow-up tests for HIV during pregnancy (19,25,41-42) and anti-HIV tests (18,25,27,37,45-50), antiretroviral therapy (19,25,26,29,36,43-45,48-52), prenatal care (37) and type of delivery (42). Evidence indicates that the occurrence of vertical HIV transmission depends on maternal diagnosis before or during pregnancy (36,41), quantification of HIV viral load and CD4 T-lymphocyte counts (41). In order to be able to focus on these factors, the challenge is to expand the screening and introduce the HIV rapid test in the delivery room (41) so as to increase the percentage of women receiving interventions to prevent vertical HIV transmission (37). Such investments are important, considering the high number of women who are not aware of their serological status (45) and women who do not receive measures to prevent vertical HIV transmission (46).

The improvement of the therapeutic approach to the diagnosis of HIV infection may help to increase the use of antiretrovirals, which is also associated with the reduction of vertical transmission (45). In Brazil, the difficulty in obtaining treatment during pregnancy and childbirth has contributed to the increase in vertical transmission (51). Although it is recognized that compliance with prenatal consultations can guarantee the provision of interventions for the prevention of vertical transmission (50), late admission can be considered an important factor that prevents the implementation of preventive strategies, such as the diagnosis and treatment of pregnant women (38).

**Conclusion**

The results found in this study allow us to conclude that the accessibility and use of services to each problem or episodes of the same problem by pregnant women living with HIV faces barriers related to time, location and psychosocial aspects.

Deficits related to the team, facilities and supplies to prevent HIV vertical transmission and the management of maternal infection translate into dissatisfaction of users with the service. Besides having an impact on the use of services, and regardless of whether the health service considers itself a care provider, the access in the first contact will be guaranteed if the users consider the service as such. Investment and qualification of care for HIV infected pregnant women will attract them to the service, making it possible to improve access, regardless of the presence of HIV.

**Collaborations**

1. conception, design, analysis and interpretation of data: Raquel Einloft Kleinubing, Cristiane Cardoso de Paula, Tamiris Ferreira and Fernanda Severo da Silva;
2. writing of the article, relevant critical review of intellectual content: Raquel Einloft Kleinubing, Cristiane Cardoso de Paula, Stela Maris de Mello Padoin and Tamiris Ferreira;
3. final approval of the version to be published: Raquel Einloft Kleinubing, Cristiane Cardoso de Paula, Stela Maris de Mello Padoin, Tamiris Ferreira and Fernanda Severo da Silva.
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