

Level of knowledge, attitudes and practices of puerperal women on HIV infection and its prevention

Grau de conhecimento, atitudes e práticas de puérperas sobre a infecção por HIV e sua prevenção

Raquel Ferreira Gomes Brasil¹
 Maysa Mayran Chaves Moreira¹
 Liana Mara Rocha Teles¹
 Ana Kelve de Castro Damasceno¹
 Escolástica Rejane Ferreira Moura¹

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Descritores

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Abstract

Objective: Evaluating the level of knowledge, attitudes and practices of puerperal women on HIV infection and its prevention.

Methods: A cross-sectional study with 278 puerperal women hospitalized in the rooming-in system. Interviews were carried out with the use of a questionnaire to evaluate the knowledge, attitudes and practices on HIV infection and its prevention.

Results: The age of puerperal women ranged from 13 to 43 years, with prevalence of the range between 20 and 34 years. The level of education between eight and 11 years of studies was predominant, as well as the stable union. Only 54 (19.4%) puerperal women showed adequate knowledge, six showed adequate attitude (2.2%) and four showed appropriate practices (1.4%).

Conclusion: The knowledge was inadequate due to the low percentage of puerperal women able to mention at least three ways of transmission and three forms of preventing the virus; inadequate attitude was marked by the high percentage of puerperal women who perceive becoming infected with HIV as 'unlikely', and 'little likely' that the same occurs with their partners. The inadequate practice was influenced by the low percentage of HIV testing in the recommended periods and the lack of condom use during pregnancy.

Resumo

Objetivo: Avaliar o grau de conhecimento, atitudes e práticas de puérperas sobre a infecção por HIV e sua prevenção.

Métodos: Estudo transversal com 278 puérperas internadas no sistema de alojamento conjunto. Foram realizadas entrevistas com a utilização de um questionário para avaliar o conhecimento, a atitude e a prática sobre a infecção pelo HIV e sua prevenção.

Resultados: A idade das puérperas variou de 13 a 43 anos, prevalecendo faixa entre 20 e 34 anos. Predominou escolaridade entre 8 e 11 anos de estudos e união estável. Apenas 54 (19,4%) puérperas apresentaram conhecimento adequado, 6 (2,2%) atitude e 4 (1,4%) práticas adequadas.

Conclusão: O conhecimento foi inadequado devido ao baixo percentual de puérperas que souberam citar pelo menos três formas de transmissão e três formas de prevenção do vírus; a atitude inadequada foi marcada pelo elevado percentual de puérperas que percebem como "improvável" infectar-se com o HIV e "pouco provável" o mesmo ocorrer com seu parceiro. A prática inadequada foi influenciada pelo baixo percentual de realização do teste anti-HIV nos períodos preconizados e pelo não uso do preservativo durante a gravidez.

Corresponding author

Raquel Ferreira Gomes Brasil
 Universidade Avenue, 2853, Fortaleza,
 CE, Brazil. Zip Code: 60020-181
 rafegobr@yahoo.com.br

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¹Universidade Federal do Ceará, Ceará, CE, Brazil.

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Introduction

The infection with the human immunodeficiency virus (HIV) and AIDS are important public health problems in the state of Ceará (northeastern Brazil), in the rest of Brazil and the world, with ascending and pandemic character.

The epidemiological profile of HIV/AIDS has undergone changes over the past two decades, no longer affecting only the so-called risk groups, but also beginning to affect men and women in general, observing the heterosexualization, the feminization and impoverishment of the epidemic.⁽¹⁾

As most infected women are of reproductive age, there is particular interest in prevention of vertical transmission of HIV, which can occur during pregnancy, labor, delivery or breastfeeding.⁽²⁾

Ensuring an effective preconception care is essential to tackle that problem, aiming at knowing the HIV status of the mother, instructing her and providing preventive care against vertical transmission, a policy that depends on the early identification of infected pregnant women to be successful.

In addition to preconception care, prenatal care is necessary to prevent virus infection, especially the guidance and advice that must be given before and after HIV testing. The advice is a conduct that requires building mutual trust, establishing a dialogue between professionals and clients, with accessible language, confidentiality and respect for differences and citizenship.⁽³⁾

The access of pregnant women to HIV testing in ideal time is still problematic, and may happen with delay or not happen at all.⁽⁴⁾ Thus, the necessary information about the prevention and detection of HIV should be received in the puerperal period, aiming to prevent vertical transmission.

The objective of this study is to assess the level of knowledge, attitudes and practices on HIV infection and its prevention among puerperal women.

Methods

This is a cross-sectional study with 278 women hospitalized in the rooming-in system of a maternity in

Fortaleza, state of Ceará, northeastern Brazil, in the period of November and December, 2011.

In this study, knowledge consists in recalling specific facts or having the ability to apply specific facts to solve problems or express concepts with understanding acquired in a particular event; the attitude is essentially, to have opinions, feelings, preconceptions and beliefs that are relatively constant and directed to a target, person or situation; and practice is the decision-making in order to perform an action.

The knowledge, attitudes and practices on the prevention of HIV infection were evaluated based on the following selected parameters:⁽⁵⁾

- Adequate knowledge: when puerperal women mentioned having heard about HIV, reported at least three forms of virus transmission and at least three forms of prevention. Inadequate knowledge: when puerperal women mentioned never having heard of HIV or having heard of, but not being able to cite at least three appropriate ways of transmission and at least three forms of virus prevention.

- Inadequate attitude: when puerperal women recognize that it is unlikely, little likely, or do not have an opinion about them and/or their partner being HIV-infected; when they consider unnecessary, not really necessary or do not have an opinion about health services offering HIV testing, and pregnant women getting tested; when they disregard the need for using condoms in case one partner is HIV positive.

- Adequate attitude: when puerperal women recognize that together with their partners, they are individuals susceptible to HIV infection; when they recognize that it is always necessary that health services offer HIV testing and that pregnant women get tested; when they recognize the need to use condoms in case one partner is HIV positive; that they recognize the need for the partner to do an HIV test if pregnant women discover to be HIV positive, and that women are accompanied by a specialized doctor.

- Adequate practice: when puerperal women did the HIV test during pregnancy or did the rapid testing in maternity and used condoms in all relationships before the last pregnancy and during the current one. Inadequate practice: when puerperal women did not do the HIV test nor the rapid testing in maternity and did not

use condoms in all relationships before pregnancy and after becoming pregnant.

In total, 278 puerperal women participated in the survey. The sample size was established based on the population of 1,000 births that occur every two months in the aforementioned maternity. A formula was applied for calculation with finite population, adopting a confidence interval of 95%, maximum possible error of 0.05 and a prevalence of 50% of the phenomenon.

Data were collected in interviews, compiled and analyzed using the Statistical Package for the Social Sciences (SPSS), version 11.0 and received descriptive statistical treatment.

The development of the study met the national and international standards of ethics in research involving human beings.

Results

The age of puerperal women ranged between 13 and 43 years; 93 of them (33.5%) were adolescents, aged between 13 and 19 years, 163 (58.6%) were between 20 and 34 years old, and 22 (7.9%) were aged between 35 and 43 years. Hence, the mean age was 23.53 ± 6.67 .

In total, 200 (71.9%) puerperal women were from the city of Fortaleza and 78 (28.1%) were from the countryside of the state of Ceará.

The level of education in years of study was, on average, 8.66 ± 2.55 ; 71 participants (25.5%) had less than eight years of study and 206 (74.1%) had between eight and 11 years of study. The family income of 152 puerperal women (54.7%) was up to one minimum wage, while 80 (28.8%) reported an income higher than one or up to two minimum wages, and 46 (16.5%) informed an income higher than two minimum wages.

Regarding the marital status, 213 (74.7%) declared to be in a stable union or married and 65 (23.4%) were single. Table 1 shows the knowledge of participants about prevention of HIV/AIDS, as well as regarding the sources of information for this knowledge. Table 2 shows the distribution of women according to the attitude towards prevention of HIV infection. Table 3 shows data on practice of prevention of HIV infection.

Table 1. Knowledge about the infection with HIV

Knowledge	n(%)
Sources of information	
TV and/or radio	219(78.8)
Health professionals	143(51.4)
School	126(45.3)
Others	88(31.6)
Unable to answer	10(3.6)
Forms of transmission	
Sexual	222(79.7)
Sharing contaminated needles	83(29.9)
Blood transfusion	47(16.9)
Vertical transmission	13(4.7)
Others	67(24.1)
Unable to answer	46(16.5)
Knowledge of preventive measures	
Avoid unprotected sex	232(83.5)
Unable to answer	40(14.4)
Not sharing needles	35(12.6)
Others	35(12.6)
Evaluation of knowledge	
Adequate	4(1.4)
Inadequate	274(98.6)

Table 2. Attitude of puerperal women towards prevention of HIV infection

Attitude	n(%)
Probability of women getting infected with HIV	
Always likely	73(26.6)
Little likely	55(19.8)
Unlikely	132(47.5)
No opinion	18(6.5)
Probability of the partner getting infected with HIV	
Always likely	65(23.4)
Little likely	120(43.2)
Unlikely	58(20.9)
No opinion	35(12.6)
Need for HIV testing offered by the service	
Always necessary	270(97.1)
Little need	2(0.7)
Unnecessary	5(1.8)
No opinion	1(0.4)
Need for HIV testing in pregnant women	
Always necessary	271(97.5)
Little need	5(1.8)
Unnecessary	1(0.4)
No opinion	1(0.4)
Need for the partner getting tested if HIV-positive pregnant woman	
Always necessary	271(97.5)
Little need	1(0.4)
Unnecessary	5(1.8)
No opinion	1(0.4)
Necessity to use condoms if HIV-positive partner	
Always necessary	272(97.8)
Little need	1(0.4)
Unnecessary	3(1.1)
No opinion	2(0.7)
Need for specific medical attention if HIV positive pregnant woman	
Always necessary	273(98.2)
Unnecessary	3(1.1)
No opinion	2(0.7)
Evaluation of attitude	
Adequate	54 (19.4)
Inadequate	224(80.5)

Table 3. Practice regarding prevention of HIV infection

Practices	n(%)
HIV testing	
Rapid test in maternity	100(36.0)
A test during prenatal care out of recommended period	160(57.6)
Two tests during prenatal care out of recommended period	36(12.9)
Two tests during prenatal care in recommended period	23(8.3)
Three tests in prenatal care	11(4.0)
Condom use before pregnancy and its motivations	
Yes	68(24.6)
Uses regularly	47(17)
Always uses	21(7.6)
No	210(75.5)
Dislikes	71(25.5)
Is monogamous	52(18.7)
The partner dislikes	47(16.9)
Uses another birth control method	29(10.4)
Others	11(4.0)
Condom use during pregnancy and its motivations	
Yes	24(8.6)
Used regularly	17(6.1)
Always used	7(2.5)
No	254(91.3)
Dislikes	73(26.3)
Monogamous	65(23.4)
Sexual partner does not like	47(16.9)
No need for contraception	29(10.4)
In sexual abstinence during pregnancy	29(10.4)
Others	11(3.9)
Evaluation of practice	
Adequate	7(2.2)
Inadequate	271(97.8)

Discussion

The limits of the results of this study refer to the cross-sectional design that does not allow establishing relations of cause and effect.

The most prevalent age ranged from 20 to 34 years, as expected, since the range corresponds to period of time in which the largest number of pregnancies occur. However, the high percentage of pregnant adolescents (33.5%) stands out, as well as the high number of pregnancies in the end of reproductive age (7.9%). The majority (71.9%) came from the city where the study was carried out and the others were from the countryside of the state, and referred to the maternity due to the risk associated with childbirth.

Most puerperal women reported a level of education between eight and 11 years of study. This result was also reported on a study carried out in the State of Rio de Janeiro, southeastern Brazil.⁽⁶⁾ Thus, the two contexts revealed a low level of education among participants (users), which may indicate poor information regarding the rights and duties when it comes to health, making them more vulnerable to diseases.

Approximately 54.7% of puerperal women had an income of up to a minimum wage. In this sense, the authors state that women, especially those with less purchasing power, have greater impairment of health and succumb to HIV infection more quickly than men.⁽⁷⁾

The marital status of married or in stable union was predominant, accounting for 165 (59.4%) puerperal women, a favorable aspect to the exercise of a safe motherhood, as these are women sharing the same residence with their partners and also the same feelings of complicity and companionship.⁽¹⁾

The instruction of participants on prevention of HIV infection revealed that four (1.4%) had adequate knowledge, i.e. although the majority had heard about the infection, knew some form of transmission and the care to prevent it, they were not able to mention at least three ways of transmission and three forms of prevention. Not unlike this Brazilian reality, a study carried out in Nigeria with 172 pregnant women about the knowledge, attitudes and practices focused on the prevention of HIV infection, found that 61.6% of participants believed that the infection was caused by a virus, while 44.2% reported it was a punishment from God, and 3.5% stated it was the result of witchcraft. Therefore, in the study carried out in the African country, it is observed that myths linked to religiosity must be overcome.⁽⁵⁾

In face of this scenario, it was found that the information provided during the prenatal care must include the approach on prevention of HIV infection, emphasizing the need for HIV testing and the adoption of specific measures to prevent vertical transmission. The percentage of inadequate knowledge detected in the studied group of puerperal women indicates failure in health education.

It is noteworthy however, that the attitude of 54 interviewed women (19.4%) regarding the prevention of HIV infection was adequate, while six (2.2%) showed adequate practice.

In the present study, a finding that deserves attention in relation to the practice of puerperal women, concerns the four women who reported not using condoms during pregnancy for believing that during this period of the reproductive cycle it was impossible to contract the disease. This leads again, to a reflection

on the importance of health education in nursing care during the puerperal cycle.

Considering the lack of HIV testing and/or rapid testing by a portion of the surveyed pregnant women, it is possible to conclude that the information provided to this population might be insufficient. However, the unavailability of exams in antenatal services and maternity hospitals is also questioned.

It is considered that the nursing team has the important action to promote changes in knowledge, attitude and practices of women.

Conclusion

The knowledge was inadequate due to the low percentage of puerperal women who were able to mention at least three ways of transmission and three forms of preventing the virus; the inadequate attitude was marked by a high percentage of puerperal women who perceive becoming infected with HIV as 'unlikely' and 'little likely' that the same occurs with their partners. The inadequate practice was influenced by the low percentage of HIV testing in the recommended periods and the lack of condom use during pregnancy.

Collaborations

Brasil RFG collaborated with the project design, analysis and interpretation of data, drafting the article, critical revision of the important intellectual

content and final approval of the version to be published. Moreira MMC contributed to the analysis and interpretation of data. Teles LMR and Damasceno AKC participated in the project design. Moura ERF collaborated in writing the article, critical revision of the important intellectual content and final approval of the version to be published.

References

1. Maia C, Guilhem D, Freitas D. [Vulnerability to HIV/AIDS in married heterosexual people or people in a common-law marriage]. *Rev. Saúde Pública.* 2008;42(4):242-8. Portuguese.
2. Gonçalves VL, Troiani C, Ribeiro AA, Spir PR, Gushiken EK, Vieira RB, Prestes-Carneiro LE. [Vertical transmission of HIV-1 in the western region of the State of São Paulo]. *Rev Soc Bras Med Trop.* 2011;44(1):4-7. Portuguese.
3. Fonseca PL, Iriart JA. Aconselhamento em DST/Aids às gestantes que realizaram o teste anti-HIV na admissão para o parto: os sentidos de uma prática. *Interface (Botucatu).* 2012;16(41):395-407.
4. Veloso VG, Portela MC, Vasconcelos MT, Matzenbacher LA, Vasconcelos AL, Grinsztejn B, Bastos FI. HIV testing among pregnant women in Brazil: rates and predictors. *Rev Saúde Pública.* 2008;42(5): 859-67.
5. Moses CC, Udo S, Omotora B. Knowledge, attitude and practice of ante-natal attendees toward prevention of mother to child transmission (PMTCT) of hiv infection in a tertiary health facility, Northeast-Nigeria. *East Afr J Public Health.* 2009;6(2):128-35.
6. Albuquerque VS, Moco ET, Batista CS. [Black Women and HIV: determinants of vulnerability in the mountainous region of the state of Rio de Janeiro]. *Saúde Soc.* 2010;19(2):63-74. Portuguese.
7. Okuno MF, Souza FD, Assayag BR, Aparecida BD, Silva BA. Knowledge and attitudes about sexuality in the elderly with HIV/AIDS. *Acta Paul Enferm.* 2012;25(Spec 1):115-21.