

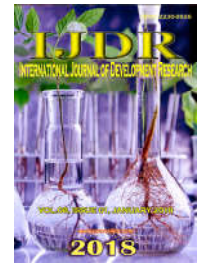


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OBSTETRIC APPROACH IN PREGNANT WOMEN LIVING WITH HIV/AIDS: A LITERATURE REVIEW

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ABSTRACT

After three decades since the first reports of the Acquired Immunodeficiency Syndrome (AIDS), resulting from the Human Immunodeficiency Virus (HIV) infection, the detection rate of pregnant women with HIV has been increasing in the last ten years. Investing in actions aimed at disseminating information on obstetric approach in pregnant women living with HIV/AIDS is necessary to guarantee the reduction of vertical transmission, considered the main mechanism of acquiring HIV in pediatrics. The objective was to conduct a survey of the scientific production on obstetric behaviors in pregnant women living with HIV/AIDS to reduce vertical transmission. A literature review was developed. To search the Virtual Health Library, the following descriptors were consulted: "HIV", "birth" and "obstetrics". After considering inclusion and exclusion criteria, the sample consisted of seven studies. Articles published in the year 2012 prevailed. The evaluation of the findings pointed to the importance of publicizing and standardizing obstetric behaviors in relation to pregnant women living with HIV/AIDS, as well as guiding them about their serological condition, since it is necessary to act in the responsibility of pregnant women regarding their role in preventing vertical transmission.

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INTRODUCTION

The research theme of this study is obstetric approach for pregnant women living with HIV/Aids, whose importance is the need to meet the scientific production on obstetric behaviors in pregnant women regarding diagnosis of HIV/AIDS in order to subsidize new knowledge.

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From the emergence of the Human Immunodeficiency Virus (HIV) that causes the Acquired Immunodeficiency Syndrome (AIDS), the Ministry of Health (MH) has been investing in planning and actions in public policies to prevent new cases of infection and improve health care for people who live with the disease (Padoin *et al.*, 2011). Based on scientific advances that have occurred in the last three decades of the epidemic, AIDS is considered a chronic disease, in which the person that lives with it requires a multidisciplinary monitoring, providing a satisfactory quality of life, being the participation of

psychosocial care support networks also important (Medeiros; Silva; Saldanha, 2013). In this sense, pregnant women living with HIV/AIDS need perform an obstetric, clinical and laboratorial follow-up with the health team in order to reduce vertical transmission and infant morbimortality when acquiring maternal virologic suppression (Sturt *et al.*, 2011). HIV infection in pregnancy has been a relevant theme, debatable and of great concern in recent years around the world, leading to the development of several scientific researches. The vertical form of transmission of HIV has decreased greatly, reiterating the growing success of the strategy in the field of obstetrics with prenatal services and identification and correct follow-up of HIV mothers and their newborns (NB) (Barros *et al.*, 2011). AIDS detection rate in children under five years old has been used as an indicator for monitoring HIV vertical transmission. There has been a downward trend in Brazil, of 33.3% in the last ten years (Brazil, 2015).

In 1985, HIV test for pregnant women was recommended for the first time. However, there were no treatment options for infected pregnant women (Barros *et al.*, 2011). The discovery of antiretroviral therapy (ART) is responsible for changing AIDS history considerably, since ART is capable of improving the quality of life of people living with HIV/AIDS (PLHA), increasing patients' survival, in addition to helping to reduce the spread of the epidemic by both sexual intercourse as vertical transmission. In this context, since 1996, Brazil has stood out in the international vanguard by providing PLHA with free healthcare through the Unified Health System (Nagata and Gutierrez, 2015). Within this perspective, it is important to invest in actions aiming at disseminating information on approach in pregnant women living with HIV/AIDS in order to ensure the reduction of mother-to-child transmission and the social stigma of the disease, the better understanding of pregnant women on obstetric behaviors in their pregnancy and promotion of health knowledge by stimulating women living with HIV to plan their pregnancy in order to reduce the chances of mother-to-child transmission. Therefore, it is necessary to consolidate partnership between public policy, professional and the expectant mother to hear, feel and think together solutions to overcome barriers. In this regard, knowing researches on obstetric approach in pregnant women with HIV/AIDS is relevant, as well as how the results may contribute to the knowledge of pregnant women and the population that being a mother living with HIV/AIDS and having children with negative serology for HIV is possible, since there is an obstetric effective approach. This study intends to contribute to the development of coping strategies to prevent harms to maternal and newborn's health, with emphasis on reducing the incidence of new cases, as well as its serious consequences to public health. This study aimed to conduct a survey of the scientific literature on obstetric behaviors in pregnant women living with HIV/AIDS to reduce vertical transmission.

MATERIALS AND METHODS

This is a literature review, which provides the summarization of relevant researches in order to obtain conclusions on certain topic of interest. It is the process of searching, analysis and description of a body of knowledge, whose goal is to build a background for the problem and the analysis of the opportunities present in the consulted literature for the design of the research theoretical framework (Benefield, 2003). Bibliographic search was carried out in the following

electronic bases: BVS, Lilacs, Medline/Pubmed, BDNF-Nursing, *Coleciona SUS*, CUMED, IBECS, Capes Portal, SciELO. Initially, we consulted the Health Sciences Descriptors (DeCS) to select and define the keywords and their translations in English and Spanish that would be used during the search on the Virtual Health Library (VHL). In order to gather as many publications as possible, though with well-defined delineation of the subject, we decided to use the following combination in a single search: "HIV", "birth" and "obstetrics". The search identified 33 articles, being refined for better delineation of the study object after attending the following inclusion criteria: a) studies in the obstetric area on pregnant women living with HIV/AIDS; b) studies published in journals from 2006 to 2016; c) published in Spanish, English or Portuguese; d) qualitative, quantitative or qualitative studies; e) electronically available in full-text format.

The exclusion criteria were: a) laboratory studies, such as blood tests, ELISA, CD4+ cell count, serum-antibody prevalence, even in pregnant women, because they are not the interest of this research; b) studies that cover pregnant women with any disabilities (intellectual or motor, such as cerebral palsy, muscular dystrophy); c) studies that did not specify their ethical care. Initially, we selected 11 articles that had met the aforementioned criteria. After reading the abstracts, however, three studies were discarded, as they discussed obstetric approaches to newborns, aimed at the prevention of vertical transmission of HIV, without mentioning the connection with the gestational period. After reading the abstracts, eight articles were included. For better analysis of the results, a data collection form was prepared, with the objective of extracting relevant information, such as: title, author, year of publication, methodology and main findings. The results, for better viewing, were presented in table form, specifying the information considered relevant to this review of the literature. We analyzed the articles that met the inclusion criteria previously established, which are presented in table 1. Since this study was not a research involving human beings, there was no need to send the material for evaluation by the Ethics Committee, in accordance with resolution nº 466/2012 of the National Health Council.

RESULTS AND DISCUSSION

Of the eight analyzed articles, 2012 concentrated the greatest number of publications, with two published articles. There was no work published in 2006, 2009, 2015 and 2016 that discussed the selected theme, revealing the lack of researches in the area. When the Brazilian structure for fighting HIV completed 30 years, many achievements had occurred over these decades. Among them, we highlight the substantial increase in the survival of the population since the beginning of the epidemic (Brazil, 2015). According to Tejada (2011), with the possibility of vertical transmission, most pregnant women living with HIV are involved and adhering to their treatment, learning about the disease, its evolution, and the manifestation of signs and symptoms, in addition to changing their lifestyle, in order to encourage health promotion. Thus, the child becomes the strength and encouragement to overcome the obstacles of life with HIV, benefiting the mental and physical health of pregnant women. Despite all the efforts made in the monitoring and adherence to treatment, the risk of vertical transmission has not been eliminated yet, although it has decreased considerably, to around 0 to 2%, since therapeutic recommendations are followed.

Table 1. Distribution of bibliographic data regarding analysis of information from the selected articles, 2016

Title	Author	Year	Methodology	Main findings
Consensus statement on monitoring of HIV: Pregnancy, birth, and prevention of mother-to-child transmission	Rodríguez <i>et al.</i> ,	2014	The study brought together experts appointed by the Secretariat of the National AIDS Plan (NAP) and scientific societies. Obstetrical behavior recommendations were reviewed, using recommendations by experts and levels of evidence, both based on the criteria of the Infectious Disease Society of America.	This work reviewed the current scientific knowledge and developed a set of recommendations on ART in all pregnant women regardless of the number of TCD4 cells, from both the point of view of the mother's individual health as in order to minimize the possible risk of vertical transmission (VT). A discussion was also made and other strategies that may reduce the VT were also evaluated, such as the planned cesarean section, the treatment of the child, and the aspects related to the subject, namely: orientation to the pregnant woman about ART, its toxicity, control of viral load during pregnancy and puerperium, etc.
HIV positive pregnant women and postpartum women: testimonial oral history	Medeiros.	2013	A research with qualitative approach.	The empirical data were produced based on interpretative thematic analysis, which subsidized the construction of two big thematic axis, respectively: 1) Experience of seropositivity for HIV/AIDS: the pain, the trauma and the suffering of discovery; and, 2) Condition of seropositivity: the challenge of facing. It was found, during the stages of search, that women in pregnancy and postpartum process are involved by conflicting feelings of life and death, joy and sorrow, fear and certainty. Therefore, they need a greater support and guidance by the health team.
Educating health professionals in obstetrics and gynecology regarding rapid human immunodeficiency virus (HIV) testing in labor and delivery: a local initiative	Levison <i>et al.</i> ,	2012	A multi-component intervention implemented to educate the multiprofessional team.	Professionals had little knowledge (<50%) in prevalence areas of HIV and use of rapid testing for preventing perinatal HIV transmission, as well as its treatment. Baseline knowledge among obstetric health professionals on how to diagnose and treat newly-diagnosed pregnant women was low.
Knowledge, Attitudes and Practices of HIV-positive Women during Pregnancy and Parenting (Popayán, 2009)	Muñoz <i>et al.</i> ,	2012	Qualitative ethnographic focused study, with six HIV-seropositive pregnant women through Western blot test.	Categories such as the concept of HIV, modes of transmission, feelings, socialization, care and bonding were listed. Stable relationships, trust, and faithfulness give the impression of immunity to infection, which facilitates risk denial of women who have contracted the virus and contributes to the follow-up of obstetric recommendations from prenatal to postnatal period.
Fast HIV screening test for parturients: a quantitative study	Gondim <i>et al.</i> ,	2010	Descriptive, documentary and retrospective study with quantitative approach	4,283 parturients were submitted to the fast test, in which 18 (0.42%) were positive. Therefore, there was an expressive number of parturients that did not perform HIV test during prenatal.
Use of antiretroviral agents during pregnancy and their possible adverse effects	Barros <i>et al.</i> ,	2011	Literature review study	Although there is an incontestable benefic effect of antiretroviral therapy, some studies show possible adverse effects in pregnant women and newborns after using the antiretroviral therapy. The possible adverse effects caused by antiretroviral therapy use during pregnancy are: insulin resistance and the development of gestational diabetes; preeclampsia; higher incidence of congenital abnormalities; higher rates of preterm birth, and/or low-birth weight.
Prevention of HIV vertical transmission: obstetricians' attitude in Salvador, Brazil	Farias <i>et al.</i> ,	2008	Transversal study, between August and November 2005, involving 129/152 (85%) of obstetricians from all Public Maternity Hospitals of Salvador.	69% of the obstetricians stated they knew integrally the recommendations of the Ministry of Health; 90.7% agreed with the compulsory request of quick testing for HIV; 63.6% chose the caesarean section as the type of delivery; 38% were against normal delivery; 37.5% recommended isolation of positive serum patients and 58.1% indicated tubal ligation. Most of them (90%) mentioned the existence of some factors that hinder applying the recommendations, such as inadequate prenatal admission and lack of information at during prenatal admission.
Treatment of HIV-seropositive pregnant women and prevention of vertical transmission.	Roig <i>et al.</i> ,	2007	Literature review on Medline database.	The main obstetric measures in pregnant women living with HIV/AIDS are: clinical and virological follow-up, immunological assessment at pregnancy detection, use of oral AZT, from 14 weeks until delivery, triple therapy, including AZT, if possible, when viral load is above 1000 copies/ml or in pregnant women with previous triple therapy, cesarean birth at 38 weeks, indication of intravenous AZT delivery, suspension of breastfeeding and use of AZT in the newborn for six weeks.

Vertical transmission has three ways to occur, namely: transplacental spread, which can occur during pregnancy or labor; through exposure of the fetus to secretions or blood from the mother during passage through the birth canal; and through breast milk. This transmission is one of the main concerns of experts unrelated to HIV infection. According to data from the Ministry of Health (2010), approximately 8% of pregnant women living with HIV transmit the disease to their baby. This rate is still high, since other countries have a rigid control on the monitoring of pregnant women, aiming at eliminating vertical transmission (Brazil, 2010). According to Aguiar (2010), pregnant women with positive diagnosis for HIV should receive counselling throughout the gestational period, during prenatal consultations. The information provided can help to minimize the anxiety generated by the diagnosis of HIV and the possibility of vertical transmission. These women face difficulties from the physical, psychological and social point of view, which hinders following the recommendations for prevention of vertical transmission, increasing the chances of disease transmission.

Due to the risk of HIV transmission to their baby, pregnant women are confronted with the need to adopt the recommended prophylactic measures, since their refusal or failure to follow the prescribed treatment put their child's health at risk (Stinson; Myer, 2012). To this end, all pregnant women need to receive guidance on their condition and feel responsible for their performance, by the multidisciplinary team, to prevent vertical transmission of HIV. International study of Stinson (2012) reveals that the prevention of vertical transmission has been the main motivating factor in adherence to ART in pregnant women living with HIV/AIDS. Nevertheless, the denial of the diagnosis, the fear of being discovered by others, and the side effects of medication are limiting factors. Pregnant women should be completely informed about their serological condition, mainly aiming at the reduction of vertical transmission. The explanations should be clear, involving the importance of obstetric recommendations, especially to control viral replication and improve immunological condition (Brazil, 2014).

The childbirth usually brings issues for women, often due to misinformation about the birth process and form. Pregnant women living with HIV need a special obstetric approach with counseling, prevention and treatment strategies. For that, health professionals must have in mind that guidance and understanding of this pregnant woman about her health situation are crucial for reducing vertical transmission of HIV (Moroni; Tristão; Urbanetz, 2011). Rodríguez *et al.* (2014) state in their study that every pregnant woman should know her serological condition before giving birth, being important to perform HIV serology in the first trimester (preferably before becoming pregnant), repeating it in the third trimester, in order to identify seroconversions produced during pregnancy. If the serology is unknown or negative, a new test should be performed at birth time. Pregnant women with a known positive HIV result should be advised to use ART in order to minimize the risk of vertical transmission. It is also recommended family planning for a new pregnancy, based on the couple's reproductive desire (Rodríguez *et al.*, 2014). Regarding obstetric recommendations, the National Commission on Incorporation of Technologies (2015) highlight the use of ART in all pregnant women and lactating mothers regardless of their immunological picture. Such strategy does not differ the prevention of vertical transmission

from treatment of pregnant women living with HIV/AIDS. The new protocol proposes a first-line scheme of antiretroviral drugs for treatment consisting of tenofovir, lamivudine and efavirenz, fixed-dose and combined, i.e., three drugs, on pill once a day, in order to facilitate adhesion and uniformity of treatment of PLHA. Regarding obstetric indications, the Ministry of Health (2010) states that pregnant women with HIV positive diagnosis require a high-risk prenatal follow-up service and proper adhesion to ART in order to acquire viral suppression. Given this, the route of delivery should be defined from the 34th week, being the value of viral load (VL) the examination of choice. When VL is above 1,000 copies, or unknown, the indication is cesarean birth route, and should be performed before the onset of labor, with complete amniotic membranes. For the purpose of indicating the route of delivery, unknown VL is the one checked before the 34th week of pregnancy. Some care must be adopted at the time of delivery. Regarding cesarean, gestational age confirmation should be carefully established; AZT, when indicated, should be started three hours before delivery; umbilical cord ligation, without milking, shall be made immediately after the expulsion of the newborn; without rupturing the amniotic sac; and there is no need to isolate the woman living HIV (Brazil, 2010).

Regarding vaginal birth, all invasive procedures are contraindicated, such as amniocentesis, cordocentesis, amniotomy, use of forceps and vacuum extractor; episiotomy should be avoided whenever possible; repeated touches are not indicated; use the partogram; prevent the parturient women living with HIV from remaining with route sac for more than four hours or in extended labor; whenever possible, keep the water bag full until the expulsive period (Brazil, 2010). Another innovation in obstetric behaviors is the recommendation of administering injectable zidovudine (AZT) at time of delivery only to pregnant women with detectable VL after 34 weeks of gestation. The previous recommendation indicated the administration of AZT to all pregnant women, regardless of viral load (Conit, 2015). Breastfeeding represents additional risk of 7% to 22%, being contraindicated. Mothers living with HIV should receive guidance not to breastfeed and clinical or pharmacological measures should be carried out, such as breast compression right after childbirth and lactation inhibitors intake orally (Brazil, 2010). Regarding the care of the newborn, it should make use of AZT during 28 days and artificial milk provided by the public network (Brazil, 2014). Eliminating vertical transmission of HIV is possible. To this end, it is imperative to ensure full assistance to the woman and her family, from pre-conception cycle to postnatal, ensuring that obstetric measures regarding pregnant women with HIV/AIDS are complied with and followed (Lozoya *et al.*, 2013). According to Gogna (2013), women with positive diagnosis for HIV and who suffered new pregnancy are more confident in taking care of their children and worrying about other activities of daily life, such as work and commitments. Therefore, they adhere better to the treatment, decreasing vertical transmission rate and, consequently, the illness of children resulting from HIV/AIDS. In individual aspect, the notion of vulnerability relates to life behaviors and habits, regarding the possibility of infecting the child. In accordance with the objectives of this study, it is essential to raise awareness for an attitude of responsibility to prevent vertical transmission among pregnant women facing the AIDS epidemic by encouraging obstetric consultations in order to reduce the chance of vertical transmission, and whose

impact will contribute to the health situation and to change infection and disease profile in this population of children (Pereira; Vieira; Amâncio 2010).

REFERENCES

- Barros CA *et al.* 2011. Uso dos antirretrovirais na gestação e seus possíveis efeitos adversos. *FEMINA*, 39 (7): 254-260.
- Benefield LE. 2003 Implementing evidence-based practice in home care. *Home Healthc Nurse*, 21 (12): 804-11.
- Brasil. Ministério da Saúde. *Recomendações para Profilaxia da Transmissão Vertical do HIV e Terapia Antirretroviral em Gestantes*. Brasília (DF); 2010.
- Brasil. Portaria nº 371, de 7 de maio de 2014. Disponível em: <http://pesquisa.in.gov.br/imprensa/jsp/visualiza/index.jsp?jornal=1&pagina=50&data=08/05/2014>
- Brasil. Ministério da Saúde. *Protocolo Clínico e Diretrizes Terapêuticas para Manejo da Infecção pelo HIV em Crianças e Adolescentes*. Brasília (DF); 2014.
- Brasil. Ministério da Saúde. *Boletim Epidemiológico HIV/Aids*. Brasília (DF); 2015.
- Brasil. Ministério da Saúde. *Conteúdo: Histórias da luta contra a AIDS; v.1. A união de todos os atores para o enfrentamento da AIDS*. Brasília (DF); 2015.
- Brasil. Ministério da Saúde. *Departamento De Informática Do SUS: - DATASUS*. Brasília (DF); 2015.
- Costa RHS; Silva RAR; Medeiros SM. 2015. Cuidado de enfermagem diante da prevenção da transmissão vertical do HIV. *J. res.: fundam. care. Online*, 7(1): 2147-2158.
- Gogna LML. 2013. Pregnancy and motherhood in the narratives of women HIV infection living in the metropolitan area of Buenos Aires, Argentina. In: *Liamputtong P. Women, motherhood and living with HIV/Aids: A cross-cultural perspective*. Hamburgo: Springer; pp. 47 – 61.
- Levison J *et al.* 2012. Educating health professionals in obstetrics and gynecology regarding rapid human immunodeficiency virus (HIV) testing in labor and delivery: a local initiative. *Matern Child Health J*; 16 (9):1748-53.
- Lozoya LC *et al.* 2013. Anatomopathological characterization of placentas from HIV+ patients associated with p24 expression. *J. Bras. Patol. Med. Lab.*,49 (6):437-445.
- Medeiros ADS. 2013. Mulheres gestantes e puérperas soropositivas para HIV/AIDS: história oral testemunhal / Pregnant women and HIV-positive mothers to HIV / AIDS: oral history testimonial. [Tese]. João Pessoa; s.n.
- Medeiros, B; Silva J; Saldanha AAW. 2013. Determinantes biopsicossociais que predizem qualidade de vida em pessoas que vivem com HIV/AIDS. *Estudos de Psicologia*, 19 (4): 543-550.
- Moroni RM; Tristão EG; Urbanetz AA. 2011. Infecção por vírus herpes simples na gestação: aspectos epidemiológicos, diagnósticos e profilático. *FEMINA*, 39 (76): 345-350.
- Muñoz SF *et al.* 2012. Conocimientos, actitudes y prácticas de las mujeres con VIH durante la gestación y crianza (Popayán, 2009). *Investig. Enferm. Imagen Desarro.*,14 (1): 45-55.
- Nagata D; Gutierrez EB. 2015. Characteristics of HIV patients who missed their scheduled appointments. *Rev Saúde Pública*. pp. 49 – 95.
- Padoin SMM *et al.* 2011. Fatores associados a não adesão ao tratamento antirretroviral em adultos acima de 50 anos que tem HIV/AIDS. *DST, j. bras. doenças sex. transm.*,23 (4): 241-247.
- Pereira AV; Vieira ALS; Amâncio FA. 2010. Grupos de Educação em Saúde: aprendizagem permanente com pessoas soropositivas para o HIV. *Trab. Educ. Saúde.*, 9 (1): 25-41.
- Rodríguez RP *et al.* 2014. Documento de consenso para el seguimiento de la infección por el virus de la inmunodeficiencia humana en relación con la reproducción, el embarazo, el parto y la profilaxis de la transmisión vertical del niño expuesto. *Enferm Infecc Microbiol Clin*, 32 (5): 310 – 333.
- Stinson K; Myer L. 2012. Barriers to initiating antiretroviral therapy during pregnancy: a qualitative study of women attending services in Cape Town, South Africa. *Afr J AIDS Res.*, 11.
- Sturt AS; Dokubo EK; Sint TT. 2011. A terapia anti-retroviral (ART) para o tratamento da infecção pelo HIV em mulheres grávidas ART-elegíveis. *Cochrane Database of Systematic Reviews*, 13 (3).
- Tejada R *et al.* 2011. Factores asociados a la no adherencia al tratamiento antirretroviral de gran actividad durante la gestación, periparto y postparto en mujeres VIH positivas atendidas en el Instituto Nacional Materno Perinatal, Lima-Peú. *Rev Peru Epidemiol.*15 (1).
