

Perception of HIV among pregnant women in the public health system in two municipalities of the state of São Paulo

Cléa Adas Saliba Garbin¹, Karina Tonini dos Santos Pacheco², Thaís Fonseca Santiago³, Simone Miyada¹, Artênio José Ísper Garbin¹, Suzely Adas Saliba Moimaz¹

¹Universidade Estadual Paulista – UNESP, Araçatuba Dental School, Department of Pediatric and Social Dentistry, Araçatuba, SP, Brazil

²Universidade Federal do Espírito Santo – UFES, Centro de Ciências da Saúde, Department of Dentistry, Area of Dental Clinic, Vitória, ES, Brazil

³Dental surgeon – Caraguatatuba, SP, Brasil

Abstract

Aim: To verify the knowledge of pregnant women on mother-to-child transmission (MTCT) of HIV, the availability of HIV tests in the public health system and counseling on the disease in two cities, Birigui and Piacatu, São Paulo State, Brazil. **Methods:** This is a descriptive and exploratory research using as samples, the files of 141 pregnant women attending the Basic Health Unit. Data were collected by survey, followed by a semi-structured questionnaire with open and closed-end questions. Data were analyzed on Epi Info™ 7.1.4, by the Chi-square and Exact Fisher tests. **Results:** From all the 141 pregnant women, 119 were interviewed and 92.4% reported to have been informed about the need of taking the HIV test during prenatal exams. However, only 5.9% were counseled and 20.2% reported to be aware of how to prevent MTCT of HIV, usually mentioning lactation suppression and prescribed medication. The association between the knowledge about how to prevent MTCT of HIV and some social, demographic and economic variables like ethnics, educational level, home location, occupation, age and parenting was not verified. **Conclusions:** It is necessary to advise pregnant women on the importance of taking the HIV test regardless of the examination outcome, which was not observed in the cities where the research was conducted.

Keywords: maternal and child health; HIV; public health.

Introduction

The prevalence of HIV among parturient women in Brazil is approximately 12,000 cases a year, and the detection rate has presented a significant statistical raise in the past 10 years¹. This result has reflected the adaptation of prenatal care health policy with the aid of HIV vaccines².

The HIV tests made during pregnancy guarantee the care and treatment for women and their children³. The Health Ministry advises both the HIV tests and counseling during pregnancy at the first prenatal visit and, whenever possible, the reapplication of vaccines at the beginning of the third trimester. Several guidelines have been established by the Health Ministry to direct how counseling should be conducted before and after the HIV test². Counseling is a practice that allows both reflection and decision making. It is based on active listening, by which the health professionals seek to establish trust bonds, providing strategies

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Correspondence to:

Cléa Adas Saliba Garbin
Departamento de Odontologia Infantil e Social
Faculdade de Odontologia - UNESP
Rua José Bonifácio, 1193
CEP: 16015-050 Araçatuba, SP, Brasil
Phone: +55 18 3636 3249 Fax: +55 18 3636 3332
E-mail: cgarbin@foa.unesp.br

that facilitate the recognition of users as participants in their own health condition⁴.

Knowledge of possible ways of HIV transmission from the mother to the infant is the most successful means of prevention⁵. However, researches report that social and demographical variables, such as educational level, age, urban life and the fact that these women are housewives or not, affect the mothers' knowledge about transmission⁶⁻⁹.

The purpose of this study was to verify the knowledge of pregnant women about MTCT transmission of HIV, availability of HIV tests in the public health system and counseling on the disease.

Material and methods

The present study is a descriptive exploratory research, approved by Ethics Committee of Araçatuba Dental School, UNESP, Brazil (process number FOA 2007-01422). Two cities in the state of São Paulo participated in the study, Birigui and Piacatu.

The records on all pregnant women from the Basic Health Units were used to determine the sample, according to their medical records and appointments, accounting to 141 pregnant women. The data were collected from patients scheduled to a gynecological visit at the Health Unit. The sample group was interviewed at the Basic Health Unit, whereas the patients who were not programmed timely were called and an interview with the pregnant women was scheduled at their homes.

The subjects were given explanations on the study objectives, and those who agreed to participate had their identities protected for ethical reasons. A pilot study was carried out in order to validate the research instrument and standardize the investigators.

Data were collected through a series of interviews, following semi-structured directions with open and closed-end questions, designed especially for research purposes. The proposed questions comprised social, economical and demographic features, as well as knowledge about HIV prevention, MTCT of HIV, HIV testing and also the subsequent counseling.

The collected data were analyzed on Epi Info™ 7.1.4. The Chi-square using the Yates correction and Exact Fisher tests were used in order to verify the association between the patients' knowledge about MTCT of HIV and some social and economic variables, such as: ethnics, educational level, home location, occupation, age and parenting.

Results

Among the 141 pregnant women, 119 (84.4%) agreed to take part in the study. The age of the population under study varied from 14 to 41 years old (mean age of 24.7 years old) and 48.7% were brown-skinned. Concerning the educational level, the majority (60.5%) completed high school and only 8 (6.7%) completed higher education.

Regarding the home location, the majority (96.6%) reported to live in urban areas. As for their occupations, 52.29% were housewives and 48.7% were primigravidae (Table 1).

The pregnant women who reported to have information on how to prevent HIV (89.1%) indicated the television, school and health units as main sources of information; the relatives were less frequently indicated as sources of information.

Table 1 – Numeric distribution and percentage of social, economical and demographical variables.

Variables	Characteristics n (%)
Color	
Caucasian	47 (39.5)
Black	14 (11.8)
Brown	58 (48.7)
Level of education	
Illiterate	1 (0.8)
Elementary school	38 (32.0)
High School	72 (60.5)
Superior	8 (6.7)
Area of residence	
Rural	4 (3.4)
Urban	115 (96.6)
Occupation	
Employed	56 (47.1)
Unemployed	63 (52.9)
Age*	
Young	91 (76.5)
Adult	28 (23.5)
Number of children	
Primigravidae	58 (48.7)
Non-primigravidae	61 (51.3)

*Young: 14-29 years old; Adult: 30-49 years old

The majority of pregnant women (92.4%) were informed about the need of taking the anti-HIV test during prenatal and 94.1% took the test. However, during the prenatal, 69.6% took the test only once and when questioned about counseling, only 7 women (5.9%) answered positively.

Only 20.2% out of the sample reported knowing how to prevent MTCT of HIV and they mentioned only one method to avoid it. The most frequent answers were "not to breastfeed the baby" and "take medication" (Table 2).

The statistics showed a 0.0123 significance in the association between "HIV/AIDS awareness" and "level of education", as well as "age" ($p < 0.0001$). No association was verified among "realization of the tests", "counseling" and "prevention of MTCT" to the social, demographical and economical variables, such as ethnicity, level of education, home location, occupation and number of children" (Table 3).

Discussion

The profiles of the interviewed women match the ones found in the literature references¹⁰⁻¹³. It exposes a set of

Table 2 – Percentage and absolute frequency distribution of the categories referring to the positive answers about the awareness of prevention of MTCT of HIV.

Categories	Frequency	
	n	%
Lactation suppression- <i>"The mother must not breastfeed"</i> .	14	58.3
Medication- <i>"The doctor prescribes a medication to avoid transmitting HIV to the baby"</i>	6	25.0
Labor - <i>"Health cares to the umbilical cord"</i> .	3	12.5
Total	24	100

characteristics which fit in the pattern of favorable situations to the infection by HIV/AIDS, such as low level of instruction, customs, imposed sexual guidelines to women, lack of economical opportunities, lack of control over the relationships as well as gender vulnerabilities¹⁴.

Propagation of the knowledge on HIV/AIDS has arisen a conscious and preventive attitude in the population, especially regarding the conduction of the HIV tests, which cooperates to control dissemination of the disease and to the improvement of the population's health conditions. It was also verified all the pregnant women were doing prenatal visits, since their recruiting was through the Basic Health Unit, according to Veloso et al.¹⁵ (2010). Moreover, most of them took the HIV test, which strengthens other literature references¹¹, setting its availability in the public health service.

In a previous study¹⁶, although the majority of interviewed pregnant women (89.1%) reported to have received information on how to prevent HIV, there was little specific knowledge of transmission from mother to child,

since 79.8% did not know how to prevent transmission. These results differ from those of Byamugisha et al.¹⁰ (2010), who reported that the majority of the interviewees were aware of the risks of HIV transmission and the ways to prevent contamination, accomplishing a successful outcome of a strong policy of counseling, monitoring, treatment and conduction of the HIV test. The low levels of knowledge about MTCT of HIV may be explained by lack of necessary information and counseling.

It is acknowledged that the pregnant women's serological status, availability of information and counseling are contributing factors to reduce the MTCT of HIV¹⁷. It must be stressed that the availability of information and advice is essential, so that there will be knowledge of the risks and means of prevention.

Filippi et al.¹⁸ (2006) showed that education is strongly associated with health. The perception of health problems and the ability to understand information on health problems, adoption of healthy lifestyles, use of health services, as well

Table 3 – Numeric and percentage distribution of positive answers given by pregnant women about information on HIV/AIDS, conduction of tests and counseling and prevention of MTCT, according to some social, economical and demographic variables.

Variables	Information on HIV/AIDS n(%)	p	Conduction of test n (%)	p	Conduction of counseling n (%)	p	Prevention of MTCT n (%)	p
Color								
Caucasian	44 (93.6)	0.4384	45 (95.7)	0.3564	2 (4.3)	0.3896	13 (27.7)	0.1807
Black	12 (85.7)		12 (85.7)		0 (0.0)		1 (7.1)	
Brown	50 (86.2)		55 (94.8)		5 (8.9)		10 (17.2)	
Educational level								
Illiterate	0 (0.0)	0.0144	1 (100.0)	0.6861	0 (0.0)	0.8648	0 (0.0)	0.5801
Elementary school	32 (84.2)		37 (94.7)		2 (5.4)		8 (21.1)	
High School	66 (91.7)		67 (93.1)		4 (5.8)		13 (18.1)	
Superior	8 (100.0)		8 (100.0)		1 (12.5)		3 (37.5)	
Area of Residence								
Rural	4 (100.0)	1.0000	4 (100.0)	1.0000	0 (0.0)	1.0000	0 (0.0)	0.5817**
Urban	102 (88.7)	**	108 (93.9)	**	7 (6.3)	**	24 (20.9)	
Occupation								
Employed	51 (91.1)	0.7661	53 (94.6)	1.0000	3 (5.5)	1.0000	10 (17.9)	0.7163
Unemployed	55 (87.3)	**	59 (93.7)	**	4 (6.7)	**	14 (22.2)	
Age*								
Young	83 (91.2)	0.2959	85 (93.4)	0.6862	6 (6.9)	0.6862	20 (22.0)	0.4339
Adult	23 (82.1)	**	27 (96.4)	**	1 (3.6)	**	4 (14.3)	
Number of children								
Primigravidae	51 (83.6)	0.9233	53 (91.4)	0.2644	4 (6.7)	0.7125	8 (13.1)	0.1439
Non-primigravidae	55 (94.8)		59 (96.7)	**	3 (5.5)	**	16 (27.6)	

p – probability with significance level of 5%. *Young: 14-29 years old; Adult: 30-49 years old. ** Exact Fisher test utilization

as submission to therapeutic procedures are all consequences of the individual's educational level¹⁹. It was found that the educational level is associated with the fact that pregnant women receive information on AIDS prevention of, that is, pregnant women who have a higher educational level have shown a greater ability to assimilate information on how to prevent disease. It was also verified that, besides the lack of awareness about MTCT of HIV, most of the women in this research were not counseled, as only 5.9% answered positively when asked whether they had been counseled or not.

Thus, even if there is availability of medication for all the pregnant women and their vaccine records are acknowledged, it was noted that, in the surveyed cities, the great barrier to HIV prevention is the lack of counseling and knowledge about the subject.

In such cases, the prenatal care providers have an important role in the prevention of MTCT of HIV, for the risk of transmission to the baby is minimum when the physicians routinely offer the HIV test, conduct counseling regardless of the risk, guide those who refuse to take the test and still have proficiency to treat the ones whose outcome is positive. Therefore the importance of training the prenatal care providers is fundamental, so they may acquire more skills on prevention and treatment of MTCT of HIV⁶.

The pre-test counseling can be done in groups with the intent of sharing similar situations and risks among the pregnant women, creating an exchange of knowledge which can motivate them to take the HIV test and even to accomplish the prenatal care, in case the patient is HIV-positive. In this last case, the counseling must be conducted individually, because the health condition of each patient is unique and it requires specific treatment and counseling from the health care providers²⁰. It must be stressed that the availability of information and counseling is indispensable, so the patients can be aware of the risks and means of prevention²¹.

In order to have positive outcome of national control and prevention of MTCT of HIV, it is necessary to implement a solid policy in the public health system, in which parents are encouraged to take HIV testing, receive prenatal routine counseling, have the availability of ARV medications, have skilled health care providers and humanized care for HIV-positive patients²²⁻²⁴.

Education is the basis for the prevention of HIV/AIDS contamination, and therefore, information and awareness campaigns for the entire population can collaborate with increased knowledge of the disease, and consequently, its prevention methods. However, when it comes to keeping the new educational precepts, the cultural aspect can negatively impact the expected outcome, that is, knowledge can reach the pregnant woman, but the use of preventive methods of MTCT during pregnancy relies solely on the mother²⁵.

Access to HIV testing is critical to reduce MTCT rates, but, based on the study findings, it appears that it is not enough. Adequate prenatal care with counseling, monitoring, treatment and testing for HIV, should be implemented in early pregnancy. Thus, research aimed to evaluate the public health system should be carried out in the prenatal visits,

which improve and strengthen the struggle against MTCT of HIV.

Although most pregnant women have taken the HIV test, many of them did it only once during the prenatal care and very few received counseling. This factor probably reflected the remarkable lack of knowledge concerning the prevention MTCT of HIV, even by those who reported knowing how to avoid it. In this scenario, it is suggested that the State improve management skills and train health professionals and service providers, aiming for excellence in promoting public health. Dissemination of information on this subject by more effective media campaigns is also recommendable. Given this situation, the health care models in these municipalities have to be revised in accordance with the institutional dynamics and a more humane treatment for pregnant women with HIV.

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