

Desire for a Child Among Women Living with HIV/AIDS in Northeast Brazil

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ABSTRACT

In Brazil, an increasing proportion of new HIV infections and AIDS cases involve women of reproductive age. To describe the reproductive desire of women with HIV/AIDS and to identify factors associated with the desire for motherhood, a cross-sectional study was carried out in the referral hospital for infectious diseases in Ceará State, northeast Brazil. In total, 229 women were included in data analysis. Median age was 32 years (interquartile range, 26–37), and 63% had a monthly family income of less than 210 USD. Forty-nine percent were using a contraceptive method, and 37% wished to undergo tubal ligation. Sixty-four percent of the latter women were motivated by the fear of having an HIV-positive child. Forty percent of the participants wanted to have a child. In the multivariate regression analysis, variables independently associated with women's desire to have a child were: younger age (in years, odds ratio [OR] = 0.94; 95% confidence interval [CI]: 0.90–0.98), number of children (OR = 0.73; 95% CI: 0.57–0.96), and partner's desire for a child (OR = 3.35; 95% CI: 1.75–6.39). Having a partner who did not know about the woman's positive serostatus was negatively associated with the woman's desire for a child (OR = 0.17; 95% CI: 0.04–0.69). No variable related to clinical status was significantly associated with the outcome variable. Our data showed that many unsterilized HIV-positive women in northeast Brazil, at whatever stage of illness, have a desire for children. We recommend that nondirective counseling, consisting of helping women evaluate their own feelings, goals and needs with respect to reproductive options be provided.

INTRODUCTION

AN INCREASING PROPORTION of new HIV infections and AIDS cases involve young women, and this has created challenges for reproductive and sexual health.¹ Because of the improvement of therapeutic options in the last decade, persons

living with HIV/AIDS have a longer survival time and better quality of life. In addition, the Pediatric AIDS Clinical Trials Group (PACTG) showed that transmission rates could be reduced by nearly 70%.² As a consequence, increasingly more women and men living with HIV/AIDS are taking the decision to become parents.

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Generally, women want a child independent of their serostatus or measures of HIV progression.^{3,4} Several studies have shown the importance of cultural, religious, psychological, demographic, and socioeconomic aspects for reproductive decision making, such as: young age, having few children, partner's desire for children, number of prior abortions, loss of a child, role of HIV in their lives, role of motherhood, traditional gender roles, partner's serostatus, and religious beliefs.⁵⁻¹² Of the 13,933 newly registered AIDS cases in Brazil in the first 6 months of 2004, 5567 (40%) were women, the vast majority (81.1%) aged between 20 and 49 years.¹³ Given the fact that most HIV-positive women are of reproductive age and that the desire for children is common in Brazilian culture, we need to better understand factors that influence the reproductive desires of HIV-positive women.

This study describes the reproductive desire of asymptomatic HIV-positive women and those living with AIDS and explores possible factors associated with the desire for motherhood in a northeast Brazilian population.

PATIENTS AND METHODS

Study population and design

This cross-sectional study was carried out in the referral hospital for infectious diseases (Hospital São José de Doenças Infecciosas) in Fortaleza, the capital of Ceará State (Brazil). This is the only hospital in the state that runs an HIV/AIDS outpatient clinic. Ceará has a total population of approximately 7.4 million inhabitants and lies in the northeast, which is one of the poorest regions of the country.

The study population was drawn from all women in the HIV/AIDS outpatient department of the hospital who came for appointments from July to August 2004. All HIV-positive women aged between 18 and 49 years were eligible. HIV-positive women, who were not mentally and/or physically able to reply to a questionnaire were excluded. Women who had undergone tubal ligation were excluded from data analysis, because pregnancy in these women can be regarded as very unlikely, even if desired, and it is a definitive method. Data

on sterilized women will be presented elsewhere.

The interviews were carried out by trained female health professionals in a private area of the outpatient department. Interviewers applied a semi-structured pretested questionnaire. Questions were categorized into four groups: sociodemographic variables, sexual and reproductive history, clinical status, and health education received regarding mother-to-child transmission. The interviews lasted an average of 30 minutes.

Ethical considerations

The study was approved by the Research Ethics Committee of the Hospital São José de Doenças Infecciosas where the study was conducted. Written consent was obtained from all study participants after explaining the objectives of the study. Data were kept strictly confidential.

Data analysis

Comparisons of medians were made using the Mann-Whitney two sample test. The Fisher's exact test was used to determine the differences in relative frequencies. Bivariate analysis was carried out between the outcome variable (desire to have a child) with all variables in the four categories. Multivariate logistic regression was performed to calculate adjusted odds ratios for the independent association between the outcome with all exposure variables with a *p* value <0.2 in the bivariate analysis. For the analysis, STATA[®] software was used (version 8.0, College Station, TX).

RESULTS

Of the 389 women invited to take part in the study, 19 (4.9%) refused, and 130 (33.4%) had already undergone tubal ligation. Eleven (2.8%) answered less than 50% of the questionnaire and were excluded from analysis. Thus, 229 participants were available.

The median age of these women was 32 years (interquartile range, 26-37); 52% were illiterate or had not completed primary school, 63% had a monthly family income of less than 2 mini-

imum monthly wages (1 minimum wage = 105 USD) and 42% came from municipalities in the interior of Ceará State. Thirty-six percent were married or lived with a partner.

The median age of the first sexual intercourse reported was 17 (interquartile range, 15–19) and the median number of lifetime partners was three (interquartile range, 2–5). Forty-three percent reported, at least once in lifetime, having had casual sex, 1% of these in exchange for a gift, 7% in exchange for money, and 1% in exchange for drugs. For the last 12 months, the median number of partners was one (interquartile range, 0–1). The median number of children was 1 (interquartile range, 1–2). Fifteen percent had a child after discovering they were HIV positive. The majority of the interviewees (49%) were using a contraceptive method and 37% would like to undergo tubal ligation. Sixty-four percent of the latter women were motivated by the fear of having an HIV-positive child.

Of the 229 women, 91 (39.9%) wanted to have a first child or another child. Being asked how they thought their doctor would react if they said they would like to have a child, 201 (88%) reported that the response would be negative. Of these, 47 (23%) thought that the health professionals would ask them if they were crazy, laugh at their question, be “horrified,” give them a “telling off” or say they were being irresponsible. Only 12 (5%) believed that the doctor would state clearly that they agreed and would give them support.

The age of those who wanted a child was significantly lower than those who did not (Table 1). There was a positive association with the woman’s desire for a child, having a permanent partner ($p = 0.04$), and the partner’s knowledge about her serostatus ($p = 0.03$) as well as the partner’s desire for a child ($p < 0.001$, Table 1). Having at least three children was negatively associated with the woman’s desire for another child ($p = 0.003$).

No variable related to the participant’s clinical status was significantly associated with the desire to have a child, however, knowledge about the chances of HIV being transmitted during pregnancy ($p = 0.03$) was positively associated with that desire (Table 1).

In the multivariate logistic regression analysis, variables independently associated with the women’s desire to have a child were: younger age, number of children, the partner’s desire for a child, and having a partner who knows about the woman’s positive serostatus (Table 2).

DISCUSSION

The reproductive choices among HIV-positive women have recently been the center of debate.^{14,15} The results of our study corroborate the existing literature demonstrating the complexity of issues reflecting reproductive choices for HIV-positive women that go beyond the issue of their serologic status.

The high proportion of women desiring a child (40%), even knowing their seropositive status, suggests the complex interplay of disease, healthcare providers and social and cultural features that play an important role in this choice within Brazil.^{9,15,16} The proportion of HIV-positive women desiring a child was almost double than that found in another study carried out in São Paulo in southeastern Brazil (21% of 148 women), one of the most developed regions in the country.¹⁶ In a more recent Brazilian study, nearly 60% of nonsterilized HIV-positive women desired to have a child.¹¹ In the United States, 29% of almost 35,000,³ and in a small study in Switzerland, 48% of 46 HIV-positive women desired a child.¹⁷ The availability of therapy and the improvement in the quality of life may be associated with the woman’s desire to have a child. In Brazil, AIDS prevention and control is a government priority and all citizens have free access to highly active antiretroviral therapy (HAART), including prevention of mother-to-child transmission, which may explain our findings. In contrast, data from Uganda predating ART access have shown that only 7% of HIV-positive women attending an AIDS support organization wanted children.¹⁸

We point out that desire for children is unrelated to serostatus of previous children and independent of the health professional advice or support. In fact, HIV-positive women are often encouraged by medical professionals to un-

TABLE 1. BIVARIATE ANALYSIS OF FACTORS ASSOCIATED WITH THE DESIRE TO HAVE A CHILD

	Total n	Has the desire to have a child ^a n (%)	OR (95% CI)	p value
Socioeconomic and demographic variables				
Age group:				
18–30 years	102	51 (50%)	1	
31–49 years	126	40 (31.8%)	0.47 (0.26–0.83)	<i>p</i> = 0.007
Place of residence:				
Capital	129	56 (43.4%)	1	
Interior	99	35 (35.4%)	0.71 (0.40–1.26)	<i>p</i> = 0.2
Education:				
never attended school	17	4 (23.5%)	1	
≤7 years of school education	101	40 (39.6%)	2.13 (0.60–9.56)	<i>p</i> = 0.03
≥8 years of school education	110	47 (42.7%)	2.28 (0.67–9.89)	<i>p</i> = 0.2
Family income:				
<1 minimum wage	49	20 (40.8%)	1	
1–2 minimum wages	94	33 (35.1%)	0.78 (0.36–1.70)	<i>p</i> = 0.6
≥2 minimum wages	76	33 (43.4%)	1.11 (0.51–2.47)	<i>p</i> = 0.9
Sexual life and reproductive history				
Number of children:				
None	52	28 (53.9%)	1	
1–2	133	53 (39.9%)	0.57 (0.28–1.14)	<i>p</i> = 0.1
≥3	43	10 (23.3%)	0.26 (0.09–0.69)	<i>p</i> = 0.003
Number of partners in lifetime:				
1	34	14 (41.2%)	1	
2–5	122	49 (40.2%)	0.96 (0.41–2.63)	<i>p</i> = 1.0
>5	50	19 (38%)	0.88 (0.33–2.35)	<i>p</i> = 0.8
Partner knows about HIV-positive ^b				
Yes	107	53 (49.1%)	1	
No	15	3 (16.7%)	0.25 (0.04–1.03)	<i>p</i> = 0.03
Partner is HIV-positive ^b				
Yes	62	26 (41.9%)	1	
No	34	22 (64.7%)	2.54 (0.99–6.65)	<i>p</i> = 0.05
Partner would like to have a child ^b :				
Yes	69	41 (59.4%)	1	
No	48	13 (27.1%)	0.25 (0.10–0.60)	<i>p</i> = 0.001
Ever had a child that died:				
No	193	80 (41.5%)	1	
Yes	35	11 (31.4%)	0.65 (0.27–1.47)	<i>p</i> = 0.3
Yes, from AIDS	7	4 (57.1%)	1.88 (0.31–13.16)	<i>p</i> = 0.3
Yes, but not from AIDS	28	7 (25%)	0.47 (0.16–1.22)	<i>p</i> = 0.1
Has or had an HIV-positive child:				
Yes	21	8 (38.1%)	1	
No	196	80 (40.8%)	1.12 (0.41–3.27)	<i>p</i> = 1.0
Clinical status:				
Classification				
HIV-positive	52	19 (36.5%)	1	
AIDS	176	72 (40.9%)	1.20 (0.61–2.42)	<i>p</i> = 0.6
Period since when infection is known:				
1 year	37	15 (40.5%)	1	
1–4 years	105	49 (46.7%)	1.18 (0.52–2.72)	<i>p</i> = 0.7
4 years	78	25 (32.1%)	0.69 (0.29–1.70)	<i>p</i> = 0.4
Currently under HAART:				
Yes	162	63 (38.9%)	1	
No	66	28 (42.4%)	1.16 (0.62–2.15)	<i>p</i> = 0.7
Have ever been admitted to hospital due to AIDS:				
Yes	71	30 (42.3%)	1	
No	157	61 (38.9%)	0.87 (0.47–1.60)	<i>p</i> = 0.7

(continued)

TABLE 1. BIVARIATE ANALYSIS OF FACTORS ASSOCIATED WITH THE DESIRE TO HAVE A CHILD (CONT'D)

	Total n	Has the desire to have a child ^a n (%)	OR (95% CI)	p value
Health education received by the women from health professionals				
There is a chance of HIV transmission during pregnancy:				
Yes	161	72 (44.7%)	1	
No	62	18 (29%)	0.51 (0.25–0.99)	p = 0.03
There is a chance of HIV transmission during labor:				
Yes	156	69 (44.2%)	1	
No	64	21 (32.8%)	0.62 (0.32–1.18)	p = 0.1
There is a chance of HIV transmission by breastfeeding:				
Yes	172	75 (43.6%)	1	
No	53	16 (30.2%)	0.56 (0.27–1.13)	p = 0.06
There are drugs that reduce the chance of transmission:				
Yes	165	68 (41.2%)	1	
No	56	20 (35.7%)	0.79 (0.40–1.54)	p = 0.5
After the birth, the newborn should take drugs for a while:				
Yes	156	63 (40.4%)	1	
No	67	26 (38.8%)	0.95 (0.50–1.75)	p = 0.9

^aIn some cases, data were not available from all women.

^bOf those with a current permanent partner.

OR, odds ratio; CI, confidence interval; HAART, highly active antiretroviral therapy.

dergo tubal sterilization.¹⁵ In Brazil, sterilization is a very common means of contraception even in the general population, with rates being as high as 57% in women in the late reproductive years (40–49 years).^{15,19}

Our results confirm other Brazilian studies regarding age and number of children, with younger women showing a greater intention to have children, as well as women with less chil-

dren.^{11,16,20–22} However, in the present study, women whose partners were also HIV-positive had less desire to have a child than the ones with a seronegative partner, an association not found previously in Southeast Brazil.^{11,16} Some authors have argued that the couples' relationships could be a key for understanding female sterilization in Brazil, and therefore the woman's decision for having a child or more

TABLE 2. MULTIVARIATE LOGISTIC REGRESSION ANALYSIS OF FACTORS RELATED TO THE DESIRE TO HAVE A CHILD

	Adjusted OR (95% CI)	p value
Age (years)	0.94 (0.90–0.98)	p = 0.05
Number of children (<i>n</i>)	0.73 (0.57–0.96)	p = 0.02
Has a partner who does not know that woman is HIV-positive	0.17 (0.04–0.69)	p = 0.01
Has a partner who wants a child	3.35 (1.75–6.39)	p < 0.001

OR, odds ratio; CI, confidence interval.

children.^{23,24} In our study, the partner's desire for a child was an important factor positively associated to the women's desire. A recent study from Southeast Brazil reported similar findings.¹¹ In Uganda, approximately 50% of women who wanted more children stated that it was very important to their spouses to have more children (in contrast to 14% of women who did not want more children).¹⁸ A study from the United States found similar results regarding the influence of the partner on the desire for a child.⁷

Our data also suggest that the progression of the illness does not interfere with reproductive desire. If from the medical perspective these factors are strong enough to advise against pregnancy, they did not appear to be relevant to these women's desire for a child. Other studies from the United States and Switzerland have shown similar results.^{3,17}

Considering that the desire for children is so common, especially in the northeast region, professionals should be prepared to counsel women living with AIDS or HIV about contraception and family planning. Our findings show that women did not feel confident discussing reproductive options with their health professionals, even if they had been well informed about mother-to-child transmission. In the study carried out in São Paulo, even in a very specialized center for the treatment of HIV/AIDS, female patients were not informed about family planning options and the professionals were much more concerned about treatment compliance than with reproduction.¹⁶

As our study was performed in the only public reference hospital of the State for the treatment of HIV/AIDS, and virtually all women who attended the consultations in the study period were included, the results can be regarded as representative for the HIV/AIDS female population assisted by the public health system in a northeastern Brazilian state. However, our study is subject to limitations. We cannot exclude that women that do not frequent the health service show different characteristics. For example, women with higher income may have been underrepresented, as they may attend private clinicians. Additionally, as a result of the cross-sectional design, causal and temporal relationships are difficult to establish.

CONCLUSION

This paper demonstrates that many unsterilized HIV-positive women in northeast Brazil, at whatever stage of illness, have a desire for children. Health professionals should not lose sight of the relational, social and cultural context of this desire. Therefore, to treat reproductive issues as merely biological problems, ignoring psychosocial and cultural influences will not promote informed decisions. It is necessary to adopt non-directive counseling which consists of helping women evaluate their own feelings, objectives and personal needs and identify their reproductive options.

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