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HIV Risk Assessment in Family Planning Clinics in Brazil

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Abstract

As family planning programs consider including STD and HIV prevention advice and services, an important issue is how to identify women in needed of these services. In 1992 BEMFAM clinics in Recife and Rio de Janeiro tested two techniques to assess their clients risk of HIV infection. The first was a checklist of seven risk factors. The second consisted of the open-ended question "After all we have talked about today, do you think you are at risk of HIV infection?." According to the checklist, 36% and 38% of the women were considered at risk in Recife and Rio, respectively. Reported risk factors include genital lesions, anal intercourse, and male partners with multiple sexual partners; these did not vary by city*. The open-ended question elicited 42% at risk in Recife and 68% in Rio. By controlling for age, education, marital status, residence and frequency of condom use, residence in Rio and higher education significantly increased the odds of a woman perceiving herself at risk. These results indicate that after receiving information and counseling about HIV many clients and FP program staff perceive themselves and their clients at risk of HIV, suggesting that staff should inform women about their risks and encourage the use of barrier methods.

** except anal intercourse.*

Resumo

Objetivo:

Como os serviços de planejamento familiar incluiram em suas atividades ações de prevenção para as DSTs/AIDS torna-se um ponto importante identificar as mulheres que necessitam de tal atenção.

Métodos:

Em 1992, clínicas da BEMFAM em Recife e no Rio de Janeiro utilizaram duas metodologias para avaliar com seus clientes, os riscos de infecção pelo HIV. Uma metodologia consistiu na aplicação de um questionário de verificação de sete fatores de risco. A outra metodologia consistiu em uma pergunta de auto percepção. Depois de tudo que conversamos hoje, você acha que está em risco para infecção pelo HIV"?

Resultados:

De acordo com o questionário de verificação , 36% das mulheres em Recife e 38% no Rio de Janeiro foram consideradas em risco. Os fatores de risco relacionados no questionário indicam a presença de lesões genitais prática do coito anal e vida pessoal com parceiros masculinos que tem relações com várias parceiras. Apenas a prática do coito anal variou por cidade. A pergunta de auto-percepção denotou 42% risco em Recife e 68% no Rio. Comparando idade, instrução, estado civil, residência e freqüência do uso de condom, residir no Rio e ter maior nível educacional , elevava significativamente a probabilidade das mulheres distinguirem o risco por si própria.

Conclusões:

Os resultados revelam que, após receber informação e orientação sobre a AIDS muitas clientes de planejamento familiar percebem por si próprias risco para infecção pelo HIV e que os serviços podem assisti-las, esclarecendo e discutindo comportamentos que reduzam as possibilidades da exposição ao HIV.

Introduction

Many family planning (FP) providers see a necessity and want to include prevention activities for sexually transmited diseases (STDs), including human immunodeficiency virus (HIV) (Ronald and Aral, 1992; Population Reports, 1993). At the same time, some policymakers argue that the FP clinic is not the most appropriate setting in which to curb the epidemic, based on the assumption that most women who attend FP clinics are not at high risk of HIV infection and are at the end of the transmission chain. Nevertheless, because the FP clinic already functions as a source of information regarding sexual issues and pregnancy prevention, it may be an ideal site to inform women about the risks of STD/HIV infection and to encourage and improve the use of condoms or other barrier contraceptives (Williamson, 1992;

Cates and Stone, 1992).

The expansion of quality health care services is complicated by limited resources. Routine STD and HIV screening and testing would be prohibitively expensive in many countries, including Brazil. Thus, determining more cost effective prevention activities is of great importance to program planners (Faúndes and Tanaka, 1992). If a simple strategy were found that could identify men and women at risk of HIV, these individuals could receive, as necessary, counseling and access to methods that protect them from STDs as well as unwanted pregnancies.

Little is known about the feasibility of assessing risk for HIV in FP clinics, especially in less developed countries (Bowen et al, 1990; Thonneau et al. 1991). A study from inner city Baltimore, carried out by tye Johns Hopkins University, looked at the ability of verbal screening of pregnant women to identify those who were actually HIV + (Barbacci et al. 1991). A verbal risk assessment for high risk behaviors identified 57% of the HIV + women. However, the researchers concluded that the verbal risk screening which relies solely on voluntary admission of high risk factors was not the best tool; they recommended routine HIV testing which takes away the stigma, does no rely on truthfulness, and will increase the chance that HIV + women are identified and pre-and postnatal precautions taken. Yet if testing all patients is economically impractical, is not verbal risk screening significantly better than nothing?

Project Setting

Brazil has the third largest number of reported AIDS cases in the world (WHO, 1993). The majority of cases are men, but the ratio of men to women has changed from 29 to 1 in 1985 to 4 to 1 in 1992 (Ministério de Saúde, 1993). The states of São Paulo and Rio de Janeiro have reported about 72% of all cases in Brazil; in the Northeast of the country, the state of Pernambuco has reported only 2% of all cases, but has the largest number of cases in the region.

In 1991 BEMFAM (Sociedade Civil do Bem-Estar Familiar no Brasil), the International Planned Parenthood Federation affiliate in Brazil, began working in AIDS prevention, focusing on high risk groups, such as sex workers, truck drivers and street children. BEMFAM also began to integrate HIV prevention activities into their family planning and reproductive health services. They have educated their clinic staff as well as health care providers at other institutions in STD/HIV prevention.

In 1992 two BEMFAM clinics that offer a variety of reproductive health services tested two techniques designed to assess their clients' risk of contracting HIV infectin. The two sites chosen were the Meier Clinic in Rio de Janeiro and a clinic in Recife, the capital of the state of Pernambuco, both of which tend to serve low income women. Prior to the implementation of the assessment techniques, several focus groups in each city were conducted to assist in the preparation of 1) educational materials that addressed HIV transmission, prevention and partner communication that were used in the clinics during counseling sessions, and 2) a checklist composed of risk factors for HIV infection that included intimate details of women's personal and sexual lives.

The focus group participants reacted positively to their opportunity to talk about sexuality, contraception, STDs and AIDS. Many women described their marital relationship as an "immunization certificate" against the HIV virus. Others acknowledged their partners' infidelity. Unanimously, they recommended that meetings such as theirs take place for their partners (BEMFAM, 1992).

Methodology

At each clinic site, 200 women participated in the risk assessment study. Regardless of their reason for visiting the clinics, women participated in half hour small group counseling sessions about HIV transmission and prevention. These sessions were new clinic activities that included specially designed photonovelas. The session counselors were given similar training, but actual uniformity between cities was not monitored. Afterwards, the 200 women were randomly assigned to one of the two risk assessment techniques administered by clinic staff in privacy. One hundred women in each clinic answered only the non-invasive open-ended question: "After all we have talked about today, do you think you are at risk of HIV infection?" The second 100 checklist referred to her and to her partner's symptoms and behaviors, and included: genital sores (woman and partner), multiple sexual partners (woman and partner), and anal intercourse (woman). These risk factors were restricted in time to the last year. The sixth and seventh factors referred to her and her partner's ever use of IV drugs. All women were asked their age, educational level, marital status, reason for visiting the clinic, contraceptive method used and frequency of condom use in the last year.

Women were classified at risk if they answered yes to the open-ended question or if they answered yes to any one of the seven risk factors. These women were counseled further and encouraged to consider taking condoms from the clinic.

Analyses were performed using SPSS-PC. To determine statistical significance, analysis of variance was used to compare means and chi-square tests for distributions; significance was defined with a p-value of less than or equal to

Table 1: Characteristics of FP clinic clients by city (percent distribution)

Characteristics	Total	Recife	Rio de Janeiro
Age			
<20	15.8	18.0	13.5
20-29	44.3	47.0	41.5
>30	40.0	35.0	45.0
Mean (years)	29.1	28.2	30.1
Education*			
<8 years	59.0	65.5	52.5
>9 years	41.0	34.5	47.5
Marital status*			
In union	62.8	71.0	54.5
Not in union	37.3	29.0	45.5
Marital history**			
Once	70.1	70.8	69.5
More than once	29.9	29.2	30.5
Condom use*			
Never	60.9	69.2	51.9
Sometimes	33.6	26.3	41.5
Always	5.5	4.5	6.6
Contraceptive use*			
OCs	24.0	17.5	30.5
Sterilization	17.5	22.5	12.5
Condoms***	12.0	12.0	12.0
Other methods	12.3	10.5	14.0
No method	34.3	37.5	31.0
Reason of visit*			
Ca screening	30.5	34.5	26.5
Gyn consult	24.8	30.0	19.5
FP consult	22.0	10.0	34.0
Mixed reasons (3 above)	9.5	7.0	12.0
STD & other****	13.3	18.5	8.0
Nr. of women	**(400)**	**(200)**	**(200)**

* $p < .05$
** Based on 338 women ever in union.
*** Women who reported either condoms only or condoms in combination with another method.
**** In Recife, 5.5% of the women reported going to the FP clinic for STD services, in Rio no one gave this answer.

Table 2: Percent of women "at risk" for HIV or not by assessment technique and city

Risk Classification		Checklist		Self - assessment*	
	Total	Recife	Rio	Recife	Rio
With risk	46	36	38	42	68
Without risk	54	64	62	58	32
Nr. of women	**(400)**	**(107)**	**(101)**	**(93)**	**(99)**

* $p < .05$

Table 3: Percent of women with the HIV risk factors of the checklist by city

Number and type of risk factor	Total	Recife	Rio de Janeiro
Number of factors			
1	19.7	18.7	20.8
2	11.5	10.3	12.9
3-4	5.3	6.5	4.0
Total with risk	36.5	35.5	37.6
Risk factor			
Genital sores	18.6	22.9	14.1
Partner with sores	4.8	6.9	3.0
> 1 partner	11.5	14.3	9.1
Partner with > 1 partner	14.3	13.3	15.2
Anal intercourse	15.0	11.0	18.4
Used IV drugs	0.0	0.0	0.0
Partner used IV drugs	2.2	3.5	1.0
Nr. of women	**(208)**	**(107)**	**(101)**

Table 4: Distribution of women with and without risk according to the checklist, by self-assessed risk status

Self-assessed risk status	Recife Checklist		Rio de Janeiro Checklist	
	With risk	Without risk	With risk	Without risk
At risk	11	23	30	49
Not at risk	27	46	8	14
Total	**38**	**69**	**38**	**63**

Numbers are absolute numbers.

Table 5: Probability of being classified at risk of HIV infection by assessment technique (odds ratios)

	Checklist		Self-assessment	
Independent variables	**Adjusted OR**	**Confidence intervals**	**Adjusted OR**	**Confidence intervals**
Age				
<20	.85	(.29-1.41)	.75	(.33-1.17)
20-29	.97	(.53-1.40)	1.20	(.88-1.53)
>30	1.00		1.00	
Education				
<8 years	1.00		1.00	
>9 years	.64	(.00-1.29)	1.76	(1.29-2.22)
Marital status				
In union	1.00		1.00	
Not in union	1.89	(1.25-2.54)	.96	(.47-1.44)
Residence				
Recife	1.00		1.00	
Rio	.98	(.34-1.62)	5.06	(4.59-5.52)
Condom use				
Never	1.07	(.44-1.70)	1.18	(.71-1.66)
Sometimes/always	1.00		1.00	
Nr. of women	**(198)**		**(381)**	

0.05. The relative importance of the independent variables was assessed using multivariable logistic regression techniques.

Results

The two samples of women attending the clinics in Recife and Rio were significantly different from one another for most characteristics (Table 1), only in age and marital history were they similar. Compared with the women in Recife, Rio women were better educated, less likely to be in union, more likely to have used condoms in the last year, more likely to contracept with OCs and less likely to be sterilized. Finally, a greater proportion of the women in Rio, compared with Recife, attended the clinic to receive family planning services.

In spite of the differences in personal characteristics, almost equal proportions of the women in Recife and Rio were classified at risk according to the checklist (36% and 38%, respectively) (Table 2).[1] Nineteen percent of women in Recife reported one risk factor and 17% reported between two and four risk behaviors (Table 3). In Rio, 21% reported one and 17% between two and four. The most frequently reported behaviors were, in descending order, the woman's report of genital lesions, anal intercourse, a partner with more than one partner, and the woman's report of more than one partner, these did not vary significantly by city.

The open-ended question elicited different results: 42% of the women in Recife perceived themselves at risk compared with 68% in Rio (Table 2). The difference between cities is striking; even more striking, however, is the differ-

[1] *The questionnaire allowed women who answered the open-ended question about risk indecisively to skip to the checklist questions. For this reason the number of women who received the open-ended question appears to be less than 200 and the number who answered the checklist greater than 200.*

ence between the two risk assessments in Rio (38% vs 68%).

In Table 4, we examined the 208 women who received the checklist followed by the open-ended self-assessment question to determine how the two risk assessments correlate. In Recife, among the women classified at risk by the ckecklist, only 11 of 38 (29%) perceived themselves at risk. In contrast, in Rio 30 of 38 women (79%) classified at risk by the checklist also perceived themselves at risk.

We examined the characteristics of women at risk by stratifying first by city of residence and secondly by assessment technique (data not shown). None of the variables examined (age, education, marital status, marital history, and condom use in the last year) was significantly associated with self-assessed risk. Risk according to the checklist was associated with not being in union in Recife and with having had a previous union in Rio ($p<.05$).

To control for these multiple variables, logistic regression was carried out, regressing on risk status as defined by the checklist and by self-assessment (Table 5). Because only half of the sample received the checklist, the sample for this model consists of fewer than 200 women. The only variable to have an independent effect on risk status as defined by the checklist was current union status: women not in union were almost twice as likely to be at risk than women in union. Two variables are associated with self-assessed risk: residence in Rio increased risk by a factor of five and women with nine or more years of education were almost 80% more likely women with less education to perceive themselves at risk.

Discussion

Living in Rio de Janeiro is the overriding differential in self-assessment of risk. HIV/AIDS has probably become more of a concern to women in Rio than Recife because of wider media coverage about the epidemic locally, large anti-AIDS campaigns launched at the time of carnival (especially targeted at tourists), and a greater degree of openness towards bisexuality and homosexuality in Rio society. It is not clear whether HIV soroprevalence is higher in Rio than in Recife as there are few soroprevalence studies from the Recife region. However, more than 6,000 AIDS cases have been registered in the state of Rio compared with less than a 1000 in Pernambuco (U.S. Bureau of the Census, 1991 and Ministério de Saúde, 1993). Statistically, education was positively and independently associated with self risk-assessment. This suggests two things: 1) better educated women already know a considerable amount about AIDS, have fewer misperceptions as to what places them at risk, and may be better equipped to make an assessment, and 2) the counseling sessions may have facilitated self-assessment among educated women, but not among women with less education.

STDs are a major health problem in Recife and Rio. The invasive cervical carcinoma agestandardized rates for Recife are among the highest in the world (Carvalho and Franco, 1986). In this study, 5.5% of the Recife population attended the clinic seeking STD services (no one in Rio reported this reason), another 30% reported gynecological consultation which may have included a large number of women seeking care for suspected infections, and among the women who received the checklist, 23% reported genital sores or lesions in the last year compared with 14% in Rio ($p = .11$).

This study clearly shows that FP clinics, including those that provide other reproductive health services, should not assume that their client population is free from the risk of HIV infection. The conservative risk checklist and the more inclusive self-assessment tool suggest that at the very least, one third of the clinic attendees at each site could benefit from HIV education, skills and condoms. We believe that if misreporting has occurred, the number at risk, particularly women identified through the checklist, has been underestimated.[2] Besides the possibility that not all women answered truthfully, the checklist excluded some factors, such as blood transfusions or male partners who have had homosexual relationship. Some of the underreporting may have been "picked up" in the higher proportions of women who assessed themselves at risk. The group counseling can cover risk factors not listed on a checklist. It also provides emotional support together with the development of negotiation skills. On the other hand, in the absence of counseling, the checklist alone can be administered.

The counseling actually had a significant impact on self-assessed risk. After this component of the project was complete, the clinic staff repeated the counseling and self-assessment exercise, but asked about self-perceived risk before the counseling and after the counseling. They found that the proportion of women perceiving themselves at risk doubled after counseling.

A shortcoming of this study and others concerned with health risks, is that risk per se cannot be validated. HIV testing could have determined who actually was infected,

[2] *In a discussion with the two persons from each clinic who had contact with the clients during the counseling and the administration of the two assessment tools, it was their opinion that underreporting ranged from as much as 50% in the reporting of anal intercourse to 20-30% underreporting in the questions concerning their and their partners' multiple partners.*

but that was not the purpose of the study. Women who report risky behaviors can clearly benefit from more prevention information and techniques. However, we cannot determine how many of the women who assessed themselves at risk are truly at risk or how many have been frightened into perceiving risk when none exists. An additional role of these FP providers is to help the "worried safe" make decisions that will relieve anxiety and promote healthy life-styles. This additional service may not stop the HIV pandemic, but it should assist women to reduce their HIV risks and STD incidence – no small contribution as the epidemic spreads to women.

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