Vulnerability and prevention of sexual HIV transmission among HIV/AIDS serodiscordant couples*

VULNERABILIDADE AO HIV/AIDS E A PREVENÇÃO DA TRANSMISSÃO SEXUAL ENTRE CASAIS SORODISCORDANTES

VULNERABILIDAD AL VIH/SIDA Y LA PREVENCIÓN DE LA TRANSMISIÓN SEXUAL ENTRE PAREJAS DONDE SOLO UN SUJETO ESTÁ CONTAMINADO POR EL VIH

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ABSTRACT
This exploratory, descriptive study aimed to describe and analyze the vulnerability of HIV serodiscordant couples. The research was developed at an Aids Outpatient Service in a city in the State of Sao Paulo. Data were collected through individual interviews with 11 HIV/AIDS carriers who had a known serodiscordant partner. Prose analysis was applied for data organization and analyses, and the concept of vulnerability was used as a theoretical reference. The naturalization of HIV/AIDS related to an undetectable viral load, the invulnerability feeling that stems from the time spent together by the couple, and its influence in the maintenance of safe sex are vulnerability factors for seronegative sexual partners. Specialized services to assist HIV/AIDS carriers need to include sexual partners in actions promoted by healthcare professionals targeting prevention and/or education.

KEY WORDS
Sexual partners.
Acquired Immunodeficiency Syndrome.
HIV.
Vulnerability.
Communicable disease prevention.
Public health nursing.

RESUMO
Este estudo descriptivo e exploratório objetivou descrever e analisar a vulnerabilidade de casais sorodiscordantes ao HIV, e foi realizado em um Serviço Ambulatorial Especializado em AIDS de um município do estado de São Paulo. Os dados foram coletados através de entrevistas individuais com 11 portadores do HIV/AIDS, que convivem com parceria sabidamente sorodiscordante. Para organização e análise dos dados, empregamos o método de análise de Prosa e o conceito de vulnerabilidade como referencial teórico. A naturalização da infeção do HIV/AIDS como doença controlável por medicamentos, crença na impossibilidade de transmissão do HIV relacionadas com carga viral indetectável, sentimento de invencibilidade que surge com o tempo de convívio entre o casal, e sua influência na manutenção do sexo seguro são fatores de vulnerabilidade para o parceria sexual soronegativa. Serviços especializados para atendimento a indivíduos com HIV/AIDS necessitam incluir ser parceria sexual nas ações educativas/preventivas promovidas pelos profissionais de saúde.

DESCRITORES
Parceiros sexuais.
Síndrome de Imunodeficiência Adquirida.
HIV.
Vulnerabilidade.
Prevenção de doenças transmissíveis.
Enfermagem em saúde pública.

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Parejas sexuales.
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VIH.
Vulnerabilidad.
Prevención de enfermedades transmisibles.
Enfermería en salud pública.

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INTRODUCTION

Two and a half decades after the AIDS epidemic appeared, and in view of its impact in Brazil, health professionals have faced some paradoxes that should be looked at more carefully. If on the one hand information about HIV transmission and prevention has been broadly disseminated, on the other hand, the epidemic is on the rise, with progressive increase in the number of cases among young heterosexual individuals. This shows that sexual intercourse is the main form of transmission in the country.

It is also noticed that there is a gap between available information and people taking preventive measures. This is observed at health care services, where prevention actions focused on HIV/AIDS carriers are not continuous and exclusively destined for individuals rather than couples. In addition, HIV/AIDS-specialized health care centers disregard individuals’ sex-affective life within the health-care context, which is an issue to be addressed, considering HIV/AIDS prevention and the quality of the care provided.

Although AIDS remains incurable, scientific advancements involving the drugs used for treatment, antiretroviral therapy and opportunistic diseases, there has been a significant increase in carriers’ life expectancy, so that it is now considered a chronic disease. The life of those living with the disease has been changing, and they face new challenges in terms of their understanding and coping.

The new resources that are more effective in diagnosing and treating HIV/AIDS infections make it possible for the carriers to have different perspectives in life, generating new needs or increasing present needs. This new perspective certainly implies new demands for understanding these individuals, their families and, as a result, the care they receive.

With the change in the epidemic and its chronic nature, it has been more common to see couples with different HIV serology.

Serodiscordant is a term used in the literature to refer to heterosexual or homosexual couples in which only one of the partners is an HIV/AIDS carrier.

It appears that society in general disregards this situation, as do health professionals and health care services, since they often do not provide specific care to these individuals and their partners. Serodiscordant relationships is an underexplored topic, with few Brazilian studies on the theme.

One important aspect is the difficulty to identify the prevalence of serodiscordant couples, because individuals need to know their own serologic condition as well as their partner’s. However, it is not a rare type of relationship and many serodiscordant couples face big challenges in their lives when they find out they have opposite serologic conditions.

A study performed with serodiscordant couples from Brasilia highlights that it is difficult to sensitize health professionals who see HIV/AIDS carriers, and that studies on this topic are scarce. Until the early 1990s, most studies that addressed the psychosocial issues associated with HIV/AIDS were focused on the individual. Likewise, health services and prevention campaigns were centered on the HIV-positive individual, as if the subjects had stopped having sex or excluded any affective relationships from their lives.

Serodiscordant couples deserve better attention from health care services, which should provide comprehensive care, encompassing the aspects of their affective-sex life. Health care should include the patient and the partner, since the couple faces difficulties to maintain a safe sexual relationship, which implies reviewing actions to prevent sexual transmission of HIV/AIDS.

Considering the particular condition of HIV/AIDS carriers living with partners with a different HIV serology in terms of their vulnerability to HIV infection, the objective of this study was to describe and analyze the vulnerability of HIV serodiscordant couples and their prevention of sexual transmission.

METHOD

This descriptive and exploratory study used a qualitative approach and was performed at a public outpatient clinic of a university hospital, which is a reference for health care to HIV/AIDS carriers, located in the state of São Paulo, Brazil.

Subjects were 11 HIV/AIDS carriers living with a serodiscordant partner. All subjects were seen at the referred outpatient clinic during the study period. Subjects were selected according to the following criteria: be an HIV/AIDS carrier and know their serologic condition for at least six months; have a HIV serodiscordant affective-sexual partner; attend the outpatient clinic of the studied hospital for follow-up; attend the medical appointments in the studied period; agree to participate in the study and present the necessary physical and emotional conditions to participate in the interview.

Individual interviews were performed with the subjects at the outpatient clinic, using a semi-structured script. In order to assure the reliability of the collected data, the interviews were performed on the day of the previously scheduled medical appointment and were recorded and fully transcribed. Subjects provided informed consent. The interviews were performed after the medical or nursing appointment and lasted from 30 to 90 minutes. All inter-
views were performed between September 2003 and January 2004.

The number of subjects was not previously determined. The criterion used was information recurrence.

The theoretical framework used was the concept of vulnerability to HIV/AIDS(9), which can be understood as the effort to produce and disseminate knowledge, debate and action with respect to the different degrees and natures of individuals’ and groups’ susceptibility to infection, illness, or death by HIV. This integrates individual or behavioral, social or contextual and programmatic or institutional dimensions. Individual vulnerability comprises aspects of cognitive and behavioral nature, associated with the behavior and resources that provide or not the necessary means for protection. Social vulnerability addresses the socio-cultural asymmetries which individuals with poor social, educational and economic conditions are exposed to. Programmatic vulnerability encompasses programs that are specifically centered on prevention, control, and health care of the AIDS epidemic at all health care service levels.

This concept was chosen because it increases the need to go beyond the traditional behavioral approaches of individual strategies for HIV prevention, generating new and promising perspectives for knowledge and intervention in the AIDS epidemic, especially in terms of prevention.

This study was approved by the Research Ethics Committee at the referred hospital (File #7656/2002). Subjects were assured the information would remain classified and their identification anonymous. Fictitious names were used to refer to the subjects.

The data was organized and analyzed using the Prose(10) analysis method, since it is pertinent to the study objectives. This analysis is a way to study the meaning of the qualitative data, a means to raise questions about the content of certain material, including messages that are intentional and non-intentional, explicit or implicit, verbal or non-verbal, alternative or contradictory. The first step in the qualitative analysis is to build a system of categories. This is done by examining the collected material to identify the topics, themes and patterns that are relevant, and then characterize the topic as an issue and the theme as an idea. Themes involve a level of abstraction higher than topics. The material obtained from the patients’ statements was read twice. Next, the discourse units were excerpted and grouped according to thematic similarity. Based on the subjects’ statements and interpretation of the meanings, the theme vulnerability of serodiscordant sex partners was created, as well as the following topics: naturalization of the infection, time living together, believing that HIV is not transmissible.

RESULTS AND DISCUSSION

In this study, interviews were performed with 11 HIV/AIDS carriers who live with a partner with different HIV serology. This section presents the results according to the obtained data.

Regarding the participants’ gender, four were women and seven were men. Their ages ranged between 30 and 51 years. As for their education, seven had not completed the primary level, two had primary level education, and two had superior education.

As for the form of exposure to HIV, all women were exposed sexually, by means of sexual relationships with a fixed partner (husband/wife or boyfriend/girlfriend). Men were infected with HIV mainly by means of extramarital heterosexual relationships. One man reported being infected by using intravenous drugs and another reported becoming infected by blood transusions due to hemophilia.

Regarding the arrangement of the serodiscordant couples, seven of the relationships already existed before they found out that one of the partners was infected with HIV, and four relationships began after they found out about the HIV/AIDS infection. The type of relationship between the partners was understood as stable, which refers to a relationship that involves, besides being married or in a consensual union, having an affective-sexual relationship maintaining regular sexual intercourse.

The serodiscordant partner’s vulnerability to HIV infection

Naturalization of the infection

With AIDS being chronic as a result of using strong antiretroviral therapy, it has been observed that there is a naturalization of the HIV/AIDS infection among the studied individuals, in addition to their confidence that there is no risk of HIV being sexually transmitted. These two factors increase the vulnerability of the HIV-negative partner. It is noticed that, with time, some partners consider the disease as something natural in their everyday lives and they deny the risk of their partner being infected.

He tells me that AIDS isn’t the only thing that kills. He says diabetes kills more than AIDS, so we have to take care of ourselves anyway. He really doesn’t care. He says that if it’s meant for him to catch it, he’ll catch it! (Solange).

I really don’t worry much about it, I lead a normal life, I think there is no risk for him, because we are really careful (Julia).

Examples of beliefs and attitudes of serodiscordant couples that increase their vulnerability include believing that the HIV/AIDS infection is a controllable disease because they can get drugs, that taking drugs is something simple and easy to do, and that because there is a specific treatment to control HIV infection people can take risks with their partner(11).

The statements below show that the HIV-negative partner is often the one who denies the possibility of being infected by HIV. This attitude can result in the couple not taking preventive measures.
Oh, I think that I’m the only one who sees the risk, because he is calmer than me and it kills me. I don’t know, it kills me inside because I’m afraid. It’s like I told him; I don’t wish anybody to go through what happened to me (Solange).

... he doesn’t feel the risk of being infected… (Júlia).

... he doesn’t care about it. He’s careful but he doesn’t worry about it (Aline).

The statements also give evidence of the resistance of HIV-positive individuals to using condoms. This makes the partner vulnerable, since they have to negotiate having safe sex for their protection and this involves issues directly related to gender and power differences.

On my side it’s what I’m telling you, I wouldn’t use the condom if I didn’t have to. I really wouldn’t (Sandro).

We’ve talked about it (using he condom) and she kind of wants to continue using it, I’d like to stop using it (Rogério).

Regarding condom use, many couples choose not to use it as a proof of their love for each other and not due to a lack of information. It is their attempt to feel closer to their partner and increase the union between them as a couple, as if protection against the virus meant drawing away from their partner or a lack of fidelity in the relationship(6).

In addition, there are three main barriers that interfere in serodiscordant couples’ maintaining safe sex: their disbelief in the efficacy of condoms as a method to prevent the sexual transmission of HIV; the change in sexual satisfaction because of being forced to use the condom and the disagreement between men and women about systematic condom use(6).

The consequence of serodiscordant couples’ not using condoms regularly is the risk of the HIV-negative partner being infected, in addition to the possibility of an unwanted pregnancy. In Brazil, there are few studies that address the reproductive aspects of HIV/AIDS carriers(8,9,11). Furthermore, it is uncommon for Brazilian health services specialized in providing care to HIV/AIDS carriers to give any advice regarding the use of birth control and family planning(11). This fact is evidenced in Brazilian studies that show that many pregnancies are unplanned, including among HIV serodiscordant couples(2,12-13).

The increase in the survival rate of people with HIV/AIDS has given new life perspectives, and the progress in vertical pregnancy. In Brazil, there are few studies that address the reproductive rights of serodiscordant couples, since they are often prejudiced against those couples(13).

Time living together

Another factor that affects vulnerability to HIV infection is the time the serodiscordant couple has been living together, hence the need to provide these individuals with orientation and counseling.

Prevention among those living together for a long time, with repeated negative tests for one of the partners, is particularly important. Educative actions should set straight any myths and wrong beliefs, since the couple might stop using condoms based on their belief that their sexual relationship offers no risk of infection.

After all those exams, she’s a lot calmer, she’s more… she doesn’t care any more, she no longer worries about having a risk… (João).

...today it seems she worries less than me (Cláudio).

The time together affects the couple’s decision about maintaining safe sex, because it can generate feelings of accommodation and invincibility, reinforced by the partner’s repeated negative tests(6).

When counseling serodiscordant couples, the health professional should stress that the risk of infection is an actual possibility that can increase with time, which increases the exposure to HIV.

Health services are usually not well prepared to work with HIV-negative partners. This is made evident by the lack of specific care to serodiscordant couples, including in services specialized in providing care to people living with HIV/AIDS. These services usually center care on the individual—the HIV carrier, mainly focusing on the issue of their compliance with the drug treatment and disregarding their affective and sexual relationships and sexuality. This shows that there is, to some extent, vulnerability in the programmatic dimension. In other words, it concerns the practice and human resource organization, which somehow affect individual and social vulnerability to HIV/AIDS(14).

A study with serodiscordant couples regarding the representation of serodiscordance among health professionals in Rio de Janeiro(16) showed that some health professionals do not see serodiscordance as a problem for the partners and that, for this reason, it remains invisible at health units. The health professionals stated the Centers of Testing and Counseling - CTC (Centros de Testagem e Aconselhamento) as a special place to address the theme.

Although the CTC can be the first place to identify these issues, there is a loss in terms of following up with these
individuals. In fact, even in other health units, where serodiscordance is frequently unnoticed, these couples usually disappear in terms of any control by health service professionals\(^7\).

According to the interviewed health professionals, it is necessary to overcome technical and structural difficulties to deal with serodiscordance. The difficulties, stated by these professionals, include the need to have multidisciplinary discussions, enough time for study and training, strong integration in the team, sufficient resources. They also mention the barriers of the service itself, such as the difficulty to propose any work that differs from the biomedical model, having to follow rigid hours and methods, as well as administrative and bureaucratic barriers\(^7\).

**Believing that HIV is not transmissible**

One crucial issue that should be considered in terms of preventing the sexual transmission of HIV among couples with different HIV serum status is their compliance with safe behaviors to prevent HIV transmission and any other sexually transmissible infections. However, several psychological and cultural factors affect people’s adhesion to using condoms\(^8\), including serodiscordant couples\(^8\).

One factor that hinders the adoption of preventive strategies in the sexual transmission of HIV is the belief that HIV is not transmissible. Individuals with this belief think that the antiretroviral therapy and mainly the undetectable viral load impede the risk of transmitting the virus.

...based on history, we had a two-year relationship. We had sex with normal ejaculation, and it didn’t transmit, and I had a high viral load. Why would it transmit now that I have 50 per ml? I think the chance is insignificant (Rogério).

The data corroborate with the results of another study\(^7\), stating that this belief increases the possibility of HIV carriers not using condoms, which would favor risky sexual behavior.

The feeling of invincibility is likely to be reinforced by repeated negative HIV serological tests for the partner. Therefore, it is necessary to provide counseling after each serological test performed for the HIV-negative partner, so that the couple does not stop using prevention strategies for the sexual transmission of HIV\(^8\).

As for the risk of HIV transmission among patients in retroviral therapy and with undetectable viral load, health professionals should emphasize that, despite the risk of transmission being smaller, it exists. Furthermore, health professionals should also inform the couple that, although the viral load is undetectable in the blood, it is possible for the replication of HIV to occur at high rates in the genital tract or in other locations\(^7\).

In addition, even with negative results, it is worth remembering that the result does not assure that the partner is not infected because there is an immunological window, which implies the need for tests every six months. In this sense, health professionals should follow up with serodiscordant couples with a view to providing orientation after each negative test and should orient and reinforce the need for them to adopt and maintain preventive strategies.

One mechanism used by the interviewed subjects was believing that religion can affect the impossibility of sexual HIV transmission among partners with different HIV serum status. This makes them believe that it is impossible to sexually transmit the virus to the partner, thus increasing the vulnerability of infection for the HIV-negative partner.

I praise God, neither (current and former partner) have it. I am not a transmitter, I don’t transmit, there are many cases, I’ve read a lot of magazines saying that some people don’t transmit it. I am sure, if I have another child with her, the baby will be normal, she won’t have anything (Mário).

Religion is an important resource to cope with seropositivity and is a strong ally for HIV/AIDS carriers, providing them with spiritual comfort. On the other hand, when religion influences the serodiscordant couple, encouraging them into not adopting preventive measures, it can be an element of vulnerability, making the couple believe in the impossibility of transmitting HIV to the partner\(^7\).

The fact that a person had sexual intercourse with an individual infected with HIV for months or years without protection and was not infected is no guarantee of definitive immunity against the virus. This issue should be explored among serodiscordant couples to demystify beliefs or fantasies of either biological or spiritual resistances that could have a negative influence on their maintaining safe sex\(^8\).

It is important to discuss this information with serodiscordant couples. However, it was evidenced that the study participants had doubts about the issue and they did not understand why, after living together for so long and having unprotected sexual intercourse, the HIV-negative partner did not get HIV.

...I’m surprised that my wife’s exam was negative, but I can’t understand why, because we always had normal sex, without protection until I came here and found out... (Sandro).

...because it is very vague, from what I read and experienced, including here, I have heard there are people who transmitted the virus to their partner, couples in which one is positive and the other is negative and they don’t use condoms and have normal sex and they don’t transmit it to their partners, so I think there isn’t much to it... (Rogério).

...because we used to go out a lot and we didn’t use any protection, neither of us, even I’m surprised, I mean, three exams and all were negative (João).

From a biological point of view, everyone is vulnerable to infection by HIV when exposed, but certain factors can interfere and eventually increase or reduce the risk of transmission.
The sexual transmission of HIV does not occur in 100% of sexual intercourse involving a person infected with the virus. The estimated risk to acquire HIV in unprotected sex is from 0.1% to 0.3% for women and 0.03% to 0.09% for men\(^\text{18}\).

Factors that increase the risk of HIV transmission in a heterosexual relationship include: partner with a viral load of more than 1000 copies/ml and less than 200 CD4 T lymphocytes/mm\(^3\); advanced immunodeficiency; receptive anal sex due to the probability of causing small injuries and because of the rich population of local immune system cells; sex during menstruation; and the presence of other sexually transmissible infections (STI), especially ulcerative infections\(^\text{19}\).

Protective factors include circumcision and the use of antiretroviral therapy by the infected partner. Studies about immunogenetic factors have added new knowledge about the susceptibility to infection by HIV\(^\text{20}\). Some molecular markers have been associated with susceptibility to or protection against acquiring the infection, and with the evolution of the disease. Today, the most studied are the chemokine receptors CCR5 and CXCR4. These chemokines are soluble proteins that direct cell traffic to the locations with infections. They are also considered co-receptors for HIV penetration into the host cell. The mutation in the CCR5 co-receptor gives a non-functional origin to this chemokine, offering resistance to HIV in individuals with high risks of exposure\(^\text{20}\).

It is estimated that a person has an 8% to 10% chance of having one of these natural HIV resistance mechanisms for Caucasians and between 1% and 2% for people of African descent. Furthermore, the author states that this information is frequently advertised in the media, and could be misinterpreted and thus contribute to making the partner who is negative for HIV feel magically protected and stop having safe sex\(^\text{18}\).

Access to broad and precise information about AIDS is one of the elements that reduce the vulnerability to infection by HIV/AIDS, especially among serodiscordant couples when they misinterpret information about prevention. The author also considers that health care services have not worked on health and prevention, since their emphasis has been on the disease and not on the patient, and this logic does not leave room for care delivery to HIV-negative partners. It is important to emphasize that the place of study is a Specialized Outpatient Clinic (SOC) for AIDS, which departs from the premise of an urgent need to provide specific care to these individuals.

Among the interviewed individuals, it was evidenced there is a need to include their sexual partner in the care provided, since they stated their interest and need to receive this care. This shows the importance of providing specific care to serodiscordant couples.

She (wife) would like to talk about it, get information, if condoms are really necessary or not, if she is at risk. In fact, she wanted to come today (Rogério).

...they guy I’m seeing wants to come, for follow-up, for prevention, take some tests, because he wants to know everything about me. So, since he is with me, he has to prevent it... (Solange).

...he wants to come, to participate, but he can’t keep missing work... but when it is necessary he comes, if it’s necessary he comes (Júlia).

When providing counseling to serodiscordant couples, information about the sexual transmission of HIV and natural resistance mechanisms should be given using comprehensible language. Scientific information and argumentation are important elements for awareness, acceptance and incorporation of protected sex\(^\text{18}\). It is also important to include the sexual partner in the specialized health services provided to HIV/AIDS carriers, considering that the beliefs and difficulties regarding the adoption of preventive strategies might actually come from the HIV-negative partner.

**FINAL CONSIDERATIONS**

The fragmentation of preventive actions breaks the professionals’ work into specialties within the health care service, pushes the HIV-negative partners away from the health services because they are seen as a healthy individual and the preventive actions are discontinuous and focused only on the sick individual, the HIV/AIDS carrier.

It was shown that serodiscordant couples have particular aspects that imply the need for care, orientation and counseling, with a view to addressing several psychosocial aspects that contribute to the vulnerability of the HIV-negative partner.

In terms of individual vulnerability to HIV, understanding AIDS as a chronic, potentially controllable disease could favor its naturalization and even some vulgarization of its physical and psychosocial consequences. Furthermore, believing that HIV is not transmissible to the sexual partner can imply underestimating the risks and not adopting strategies and behaviors to prevent the sexual transmission of HIV.

In addition, feelings of invincibility to the risk of sexually transmitting HIV to the partner, which contributes to the perception of invulnerability, can appear over time as serodiscordant partners live together. This reinforces the belief that the risk of sexual transmission of HIV is null or impossible. There is a need to provide serodiscordant couples with specific care that takes these psychosocial aspects into consideration, so that they adopt preventive strategies. The sexual partner should be included in the services to receive orientations and counseling, in view of the challenge posed by preventing the sexual transmission of HIV through the systematic use of male or female condoms in every sexual intercourse.

Regarding the pragmatic vulnerability of the HIV-negative sexual partnership lived by HIV/AIDS carriers seen at...
the studied location, it can be observed that there is no specific care for serodiscordant couples. In addition, there is a lack of continuous preventive actions. Furthermore, when this issue is evidenced, it is usually done upon the individual initiative of some health professionals. It should be emphasized that the studied location is a Specialized Outpatient Clinic (SOC) for AIDS, which implies the urgent need for health professional training, to enable them to provide comprehensive health care to HIV/AIDS carriers and their partners, encompassing sexuality, conjugality, the use of condoms, prevention of sexual transmission of HIV and family planning.

REFERENCES


