**ABSTRACT**

Human immunodeficiency virus (HIV) infection has increased considerably among middle-aged women. In this work we reviewed recent studies aimed at identifying possible factors related to HIV infection in climacteric women. Several associated factors are addressed, such as: climacteric symptoms, partner’s change in sexual behavior in face of new drugs, negotiation over the use of preservatives in sexual intercourse, risk behavior for HIV, global self-esteem and sexual self-esteem, history of sexual abuse, drug use, stereotypes of sex life in maturity, use of antiretroviral therapy and approach to sexual function.

**Key words:** Climacteric. Menopause. Acquired immunodeficiency syndrome. HIV

**INTRODUCTION**

Human sexual behavior has a range of approaches that encompasses philosophical, social, anthropological, psychological and physical aspects, often interrelated.\(^1,2\) These aspects of sexual behavior are associated to risk attitudes and factors that contribute to contamination and dissemination of sexually transmitted disease (STD), including AIDS.\(^3,4\)

In 2008, the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimated that there are between 30 to 36 millions of people contaminated by the HIV in the world.\(^5\) Among the virus carriers, currently half are women, while in the 1980s they represented only one third of the cases. The increase of HIV prevalence in this group was expected, considering that the main means of transmission of the virus is the heterosexual relation. According to UNAIDS, one third of the people who live carrying the HIV in Latin America is in Brazil.\(^6\) What happens in the country is consistent with the tendency of feminization and heterosexualization of the epidemic in the world, associated to the increase of incidence among socioeconomically more vulnerable populations. In women, the higher incidence rates are in the age group of 30 to 39 years, with an increase from the 40s on. Data collected between 1996 and 2005, in Brazil, show an increase in the AIDS incidence in women between 1996 and 1998, a tendency to slightly decrease until 2000 and a further increase until 2004. In 2005 the coefficients returned to values close to those found in 1997. The mortality rate has been stable since 1997, in the age group of 30-39 years. In the group over 40 years old the mortality rate presented an increase between 1999 and 2005.\(^7\)

Between 1990 and June 2008, in Brazil, it was observed that the percentage of AIDS cases in both sexes showed a tendency to increase, in people over 50 years old, in all the countries’ regions. It was also perceived in this group that the heterosexual transmission had escalated, stabilizing in the end of the period. In women heterosexual transmission was predominant in the whole period. Among men, from 2000 to 2006, the mortality rate raised from 7.2 to 10.3/100,000 inhabitants, and in women it went from 2.5 to 4.3/100,000 inhabitants.\(^8\)

This raise in HIV infection in middle-aged women has been attributed mainly to their partners’ sexual behaviors.\(^9\) However, there are various other associated factors that may coexist and interact.

**Factors associated to HIV infection raise in climacteric women:**

**Climacteric and HIV**

Menopausal transition and menopause bring about anatomic, physiological, psychological and social changes that influence women’s life.\(^10\)

Physiological alterations, resulting from the diminution in the estrogen production in the ovary, modify menstrual pattern, vaginal lubrication, bone density and thermal regulation, vascular and urogenital systems. All these, related to the midlife context, may lead to alterations in mood, sleep, and cognitive function, which contributes to the reduction in self-esteem and sexual responses.\(^10-15\)

In a qualitative study with 40-65 year-old women, conducted in Belo Horizonte, the climacteric period was associated, for many of the subjects, to fear, to the perception of difficulty, and to anxiety. In this sample, these findings were more evident in

1. Doutorado – Professora da Faculdade de Medicina da Universidade José do Rosário Vellano- UNIFENAS, Belo Horizonte, MG Pós- doutoranda da Universidade Estadual de Campinas – UNICAMP, Campinas, SP
2. Doutorado – Professor titular do Departamento de Ginecologia da Universidade de Campinas – UNICAMP, Campinas, SP
3. Doutorado – Professor do Departamento de Psiquiatria da Universidade de São Paulo – USP, São Paulo, SP
4. Doutorado - Professor do Departamento de Ginecologia da Universidade Federal de Minas Gerais – UFMG, Belo Horizonte, MG
women showing more symptoms and need of attention. In this study, the women's complaints about medical care were also observed.16

According to Gomez,17 the main social value for the woman, and even her identity, has been defined in terms of her reproductive and attractive potential. Consequently, for many women there are difficulties in accepting aging, with the menopause as the first sign that this procreative potential is finishing. They may feel vulnerable and become susceptible to risk relations and STDs both in stable and casual relations.

In HIV-positive women, climacteric symptoms may be more severe due to metabolic complications related to HIV infection and antiretroviral drugs use. Studies conducted in Brazil and abroad showed that climacteric symptoms are common among women infected by HIV, even when they are not yet climacteric. Therefore, these women experience or will experience, at the same time, climacteric symptoms and metabolic alterations related to HIV infection and with the use of antiretroviral therapy (ART) that may influence their well-being and psychological and sexual behaviors. Factors related to climacteric alterations, usually assessed in seronegative women, are frequently neglected.18

**Sexual partner’s behavior in face of new drugs**

Since 1998, the propagation of drugs for erectile dysfunction in Brazil contributes to an active sexual life in older ages. Middle-aged or older men, not used to use condoms, have became more vulnerable to STDs, compromising the health of their partners.19,20 Prevention programs have pointed to a higher resistance in middle-aged men, even when in risk settings, verifying this group's difficulties to use the condom.21,22

**Negotiations on the use of condom**

The preservative is not easily taken in sexual relations among men and women. Generally there are big negotiation difficulties concerning its use and, especially, its constant use in relations that stretch over time. With a casual partner, women can be more emphatic on the use of preservatives, while with steady partners, they seem not to be able to negotiate on safe sex. Studies show that preservatives are less used with steady or main partners.23,24

The couples' resistance in adopting the preservative may be linked to misperceptions concerning the partner's behavior or even the correct meaning of some laboratory trials. Besides that, it may be influenced by psychological and emotional factors. Historically, the use of condoms is associated to prostitution, promiscuity, and extramarital relations. All these conceptions bring about embarrassment and suspicion between the partners for its acceptance. To this bad reputation of the condom is added the perception that it is uncomfortable, hinders the occurrence of the erection, and weakens sexual pleasure. A great number of people still do not adopt the use of condom for considering the possibility of contamination unlikely.25,26

According to Macklin, women are more vulnerable to AIDS due to their social and economic position in society, undermining negotiations on using the preservative, the discussion on fidelity and abandoning risk relations. Feelings of powerlessness and inner conflicts reported by women express a fatalist conception of the disease, against which nothing can be done.27 Investigating sexuality among heterosexuals in stable relationships must take into consideration moral beliefs and values like love, fidelity, respect, trust, and partnership.27,28 Nevertheless, the current configuration of the AIDS epidemic confirms the fallibility of this model.29 Male promiscuity and female sexual, legal, and economic submission make women's self-protection difficult.30

Actually, there is a socially constructed behavior that affirms penetration as the legitimate proof of sexual activity and sees the condom as an obstacle. This makes men and women more fragile and vulnerable, due to the limitation of sexual expression.31,32

As Guimarães states, safe sexual practices involve complex mechanisms. Social representations permeate the exercise of different sexualities, which are present in gender interrelations.33 A study conducted in Switzerland with heterosexual couples showed that in sexual contacts in which there was equity of power, the use of condom was more frequent. However, it diminished in older couples and in those where the men had more power within the relationship.34

Other aspects related to the use of condom in general population include the introduction of highly active antiretroviral therapy, leading to the misperception of cure, difficulties in maintaining preventive practices for long periods of time, and lack of preventive campaigns in certain populations.35

**Risk behavior in HIV-positive people**

In Brazilian seropositive women, under ART, the researchers have also not found receptivity for safe sex or disclosure of their HIV status. The main obstacle was the fear of unsettling the relationship with their partners.36

In studying risk behavior within marriage, Bunnell et al.37 evaluated women undergoing ART in the baseline and after six months of follow up, and they observed risk sexual acts in almost 90% of the couples. In other study, conducted in England, with HIV-infected heterosexual individuals, 70% reported being sexually active, and out of these, 73% reported using condom in vaginal sex.38

Thus, HIV-infected women may both contaminate and remain vulnerable to STD. Their partners frequently have other partners or are drug users.39 So this behavior in men and women favors (AIDS) and other STDs dissemination.

**The self-esteem approach**

Studies suggest that individuals have two self-esteem instances: global self-esteem and sexual self-esteem. The former influences broad personality aspects and the latter impacts on sexual desire. Sexual self-esteem is part of the global context, but often works independently, that is, many people may have a high sexual self-esteem, even if presenting low indexes of global self-esteem.40

This approach helps in understanding the HIV-positive women's behavior, who, as studies show, keep feeling desire and maintain an active sexual life even being seropositive. To achieve this purpose, they seem to follow their previous behavioral patterns, opening doors to new contaminations. Following this line of thought, mature women with high self-esteem tend to get more vulnerable to unsafe sex, considering that in this phase they may present a low global self-esteem, once they have experienced physical, social, and behavioral changes. Their ability to
They would be more prone to risk behavior. In face of this context, we believe that the negotiation process between the partners collide with human sexuality, before which feelings, impulses, and emotions are dominant. However, a substantial part of literature on negotiation emphasizes that resolutions are made in a rational way. This belief has been denied by more recent approaches, which consider the results of negotiations as largely contingent on the context. They also highlight the role the emotions play in orienting the processes.

**Previous history, drugs and sexual behavior.**

The inconsistency in condom use among HIV-positive people may be associated to the previous history of being a victim of sexual violence. As Browning and Laumann affirm, people who have suffered abuse may internalize a sexuality scenario in which affective or cognitive connection play no part. Consequently they do not know how to communicate sexual needs neither to participate in decision making concerning sexuality. Therefore, they would be more prone to risk behavior.

In a study conducted with female seropositive drug users in climacteric, it was seen that a big number of them, even being aware of this infection, kept on practicing unprotected sex.

**Sexual stereotype in maturity**

The increase of the virus incidence in middle-aged women may also be related to the stereotype of lowering sex drive in maturity. Thus, the prevention programs should comprehend this population group, aiming at opposing the new epidemic context. Sormanti e Shibusawa, evaluating a middle-aged women cohort, observed that 73% of them affirmed to be sexually active in the six months prior to the study. In this same study, 81.1% of the women said they did not use condoms, 11.8% reported a regular use, and 7.1% said to use it in an irregular basis, while only 45% had taken the HIV test. The use of condom was associated to higher instruction degree and to the fact of the woman not living with the sexual partner. The findings of this study indicate that most middle-aged women remain sexually active, do not have safe sex, and were not submitted to HIV test.

**HIV/AIDS mortality**

The introduction of ART, of prophylactics for opportunistic diseases and diagnosis during early stages of the disease has allowed for HIV-positive women to live longer after diagnosed, enabling a bigger number of them to reach middle-age and to continue sexually active. Factors mentioned above collaborate to the understanding of the increase in the number of HIV-positive middle-aged women.

Summing up, they show that most women have an active sexual life; many of them have difficulties in facing psychosexual changes related to midlife, present frequent climacteric symptoms, communication problems with their sexual partners and are more vulnerable. From the medical care standpoint, there seem to be deficits of attention to both sexuality and climacteric.

**Potential intervention points**

To improve evaluation of climacteric women, treat climacteric symptoms, encourage changes in life style and address sexual difficulties.

To make room within clinics for HIV-positive and climacteric patients care in general for them to talk about sexual function and relationships.

To know better the problems and difficulties more often reported by HIV-positive climacteric women. Many aspects concealed by cultural and behavioral issues in the sexuality field may come forth. In addition to that, factors associated to prevention of other STDs, as well as those associated to HIV transmission, may be better understood.

To create support groups for climacteric women in general and specifically for the HIV-positive ones, for them to take responsibility for their sexual health and behavioral decisions.

To invest in education directed to both professionals who assist HIV-positive climacteric women and those who treat climacteric women in general.

**Conclusion**

This review’s findings indicate that a big proportion of middle-aged women remain sexually active, practice unsafe sex, have a low perception of HIV infection risk, are not able to negotiate the use of preservatives, and do not treat climacteric symptoms.

A better approach to these women may favor the fight against the epidemic that is constantly increasing in this population group.

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HIV IN MIDDLE-AGED WOMEN: ASSOCIATED FACTORS

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