REVIEW ARTICLE

Women's issues in HIV infection

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Introduction

The epidemic of HIV/AIDS has changed from the early times, which affected primarily men who had sex with men, to the current one, which increasingly affects other groups such as injecting drug users (IDUs) and heterosexuals. As a result of this shift, the number and percentage of women with HIV and AIDS is increasing. HIV infected women have the potential for transmission to their infants.

An estimated 38.6 million [33.4 million-46.0 million] people world-wide were living with HIV at the end of 2005. An estimated 4.1 million [3.4 million-6.2 million] became newly infected with HIV and an estimated 2.8 million [2.4 million-3.3 million] lost their lives to AIDS (1).

Women are vulnerable to HIV infection and their biological susceptibility - at least two to four times greater than men's - is compounded by social, cultural, economic and legal discrimination or inequities. AIDS affects the poorest, the most vulnerable, the most uneducated. And women often constitute the poorest of the poor, the most vulnerable due to their low status and more likely to be illiterate than men. Women depend on their partners for protection - the onus of correct and consistent use of condoms rests with the male partner. In a marriage, a woman can risk accusations of infidelity or even violence if she insists on using condoms. In many parts of the world, young disadvantaged women are being infected with HIV at rates higher than their male counter parts (2). Heterosexual contact is the main risk factor for HIV among women worldwide and most frequently occurs with repeated sexual contact with an HIV-infected person or people. However, other factors might increase a woman's susceptibility to acquiring HIV infection, such as anal sex, sexually transmitted infections (e.g. gonorrhea, genital herpes, Chlamydia), coexisting genital tract inflammation, ulcers or abrasion, traumatic sex (for example, vaginal bleeding during sex), contraceptive practices and sexual intercourse during menstruation. (3)

The advent of AIDS in a family inevitably impacts women, who are usually the caregivers. It is women who work harder to make ends meet when their sons or husbands use drugs or fall ill with AIDS and suffer ill-health to care for others' health. For all these reasons, in year 2004, World AIDS campaign theme was Women, Girls, HIV and AIDS. The pandemic weighs heavily on women and it is being driven by unequal gender relations (4).

Most women diagnosed with HIV infection are of child bearing age between the ages of 16 and 44 yr. These women must make a series of complex decisions concerning contraception, pregnancy and abortion. Although little is known about how women living with HIV/AIDS make such decisions, the decision to have a baby is likely influenced by the interrelation of intrapersonal factors, family influences and social pressures. Numerous psychological and economic obstacles may prevent these women from seeking health care (5,6).

Women's low status makes it harder to demand fidelity from their partner, insist on condom use or refuse sex, even if they know their partner is infected. They may face violence, abuse or abandonment. Culturally, women are often expected to be unaware and submissive in sex, which makes safe sex negotiation harder. Many young women are coerced into sex or raped, which itself is a risk factor for HIV. Conflicts, trafficking and prostitution also increase female vulnerability. Lower literacy levels

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among women limit access to HIV/AIDS information. Without an education, women are more vulnerable to poverty, violence, abuse, dying in childbirth and are at greater risk of diseases, including HIV/AIDS.

Many women lack the economic independence to leave relationships that put them at risk of HIV. Despite the vulnerability of women, there is a dearth of programmes for them and even fewer for young women. Female sex workers are women at the highest risk of infection yet many have considerable difficulties accessing health services or HIV prevention.

AIDS disproportionately affects women in other ways. When women get HIV, they often endure greater hardship than men. They sometimes lack rights to property, inheritance and child custody and suffer greater stigma. As caregivers, particularly in areas of poor public services, women have less time for income generation and productive tasks. Care-related costs can push a family further into poverty. AIDS, women and poverty are inextricably linked. The need to accelerate the response for women and AIDS is thus urgent.

In its two-decade-old history, AIDS has generally been associated with men. Without doubt, men's sexual behavior and habits have driven the epidemic. In the Asia-Pacific region, men account for the vast majority of HIV infections. But there is a face of AIDS in the shadows which needs to be recognized and is fast emerging. It is the face of women. Not only are women vulnerable to the impact of AIDS, they are also susceptible to infection. Monogamous women, infected from their husbands, now account for the bulk of new HIV infections in Thailand and Cambodia. The numbers have spiralled and now, more women are HIV infected than men worldwide. Why is this so ? Biologically, women are twice as likely as men to contract HIV from a single act of unprotected sex. The female reproductive tract is more susceptible to infection than the male, as a larger surface area of tissue is exposed to the partner's sexual fluids. Semen has a higher viral content than vaginal fluids. Also, a greater quantity of fluids is transferred from men to women during sex. During sexual penetration, particularly forced sex, microtears can occur in vaginal tissue, which facilitate infection. Women are four times more vulnerable to acquiring other STI, which greatly increase the risk of HIV infection (4).

There have been reports of an elevated incidence of HIV among female as compared with male IDUs. A recent study in Vancouver estimated the HIV incidence rate among female IDUs to be about 40% higher than that among male users. An additional risk among female IDUs is the trading of unprotected sex for money and drugs. Studies reveal that the mechanisms compromising women's injection and sexual safety are intricately and intimately connected to life histories characterized by emotional, sexual and physical abuse. For women, previous sexual or physical victimization may be a predisposing factor to drug use. It has been found that the prevalence of drug abuse or dependence was four times as high among women with a history of sexual assault as among other women (3).

HIV manifests itself differently among women and men, especially with regard to early symptoms and later opportunistic infections. The presence of recurrent and persistent gynecological infections may be the first clinical manifestation of HIV in an infected woman and can occur early in the course of infection. Common early manifestations of HIV disease in women are recurrent or persistent vaginal candidiasis (yeast infections), menstrual changes, pelvic inflammatory disease, human papilloma virus infections, cervical abnormalities and cervical cancer (3).

HIV and Pregnancy

As the number of HIV-positive women of childbearing age continues to rise, and treatments available to manage HIV become more accessible, the issue of HIV-positive women's reproductive decision making is gaining importance for nurses in AIDS care. Nurses and other health professionals care for these women as they decide whether to bear children. The decision whether to have children is complex and influenced by a number of individual and societal factors, creating an ethical tension between the interests of HIV-positive women and those of society. With the improvement in treatment options for HIV patients and the increase in their life expectancy it is not surprising that many HIV patients desire children. Assisted reproductive technologies can assist serodiscordant couples in achieving pregnancy while at the same time minimizing risk of HIV transmission to the uninfected partner (7,8).

The recent spread of HIV infection into the heterosexual population in the United States, Europe, and Australia, as well as its earlier heterosexual presence in the developing world, has led to increased scientific and clinical attention to the role of HIV infection in pregnancy. In managing a pregnant HIV-positive woman, it is most important to treat the patient as someone who is HIV-positive rather than someone who is pregnant. Withholding antiviral or prophylactic therapies from the mother for fear of harming the child is not justified, because failure to treat the mother increases the fetal risk. The most important parameter to follow is the maternal plasma HIV-RNA level, and the most important treatment issue is to reduce this level because it is directly related to the risk of vertical transmission (9). Optimal antiretroviral management of pregnant women is a major global issue since antiretroviral regimens offered to pregnant women to decrease mother-to-child transmission in many countries are often not highly active against HIV. The subsequent emergence of resistant virus can have long-term sequelae for the mother, child, and ultimately, other exposed individuals. Further investigation into gender-related issues, including sex-associated antiretroviral toxicities, unique pharmacokinetic profiles and optimal antiretroviral management during pregnancy is needed (10).

Role of Maternal Nutrition in HIV-Positive Breast Feeding Women

A neglected issue in the literature regarding maternal nutrition and HIV is how HIV-positive women perceive their own bodies, health, and well-being, particularly in light of their infection, and whether these perceptions influence their infant feeding practices and their perceived ability to breast-feed exclusively. Research is needed to address specific information gaps regarding risk behaviors, testing patterns and HIV incidence and prevalence in women. This research needs to include the broader contextual factors that influence women's lives and their risk of HIV infection. Programs and prevention efforts must be gender and age-specific and should target not only individual behaviors, but also the social and cultural context in which these behaviors occur (11).

Psychological and Cultural Issues

The psychosocial issues for women living with HIV infection relate to economic issues, human relationship issues and cultural consideration. Women with HIV have many significant relationships with their partner, children, family members, physician, and employee and with themselves. These may affect each other and have a significant impact on how the woman deals with their HIV infection and other comorbidities. HIV infection is clearly a family issue, imposing social, psychological and economic burdens on women who care for family members while they are ill. Many women have a low self-esteem and have trouble negotiating safe sexual practices with their partners. Women who are pregnant and with dependent children may be even more reluctant to seek health care. Issues of prostitution and rape may make the decisions to seek health care more complex. Most women living with HIV live in poverty and struggle with complex economic issues. Most of their energy is spent meeting basic needs of life which take priority over any health issues including HIV. Limited financial and emotional resources affect their access to both psychological and medical services. Many women experience a variety of emotions related to infecting their child and / or the mode of transmission for themselves. They may feel anger at a partner who infected them sexually or guilt with a partner to whom they have been unable to disclose. Some of the emotional issues can be categorized by the time of encounter with women. At the initial visit with medical provider women is most vulnerable to a number of emotions such as shock, disbelief, guilt, anger, sadness and even suicidal ideation (12).

Women in Prison

Women in prison are at risk of HIV transmission as a result of injecting drug use as well as risky sexual behaviors. The practice of sharing needles and other injecting equipment can be exacerbated in prisons and jails because of the extremely limited availability of sterile injecting equipment. Two studies carried out in Quebec prisons reported a higher overall HIV prevalence rate among female than male inmates (9.8% versus 3.6% in one study and 7.6% versus 2.2% in the other) as well as higher rates among female than male IDUs (16% versus 7.7% and 15.6% versus 8.5%) female than male inmates (9.8% versus 3.6% in one study and 7.6% versus 8.5%). As well, both studies found that HIV seropositivity among female inmates was related to

prostitution and contact with an HIV positive partner, either sexually or through injecting drug use (3).

Preventing new HIV Infections

Progress in the fight against AIDS depends on what is done for women and girls. The response must consider the reality of women's lives. Research is needed to address specific information gaps regarding risk behaviors, testing patterns and HIV incidence and prevalence in women. This research needs to include the broader contextual factors that influence women's lives and their risk of HIV infection. Programs and prevention efforts must be gender and age-specific and should target not only individual behaviors, but also the social and cultural context in which these behaviors occur. Promoting reproductive rights is critical for HIV prevention and women's empowerment, and for preventing poverty, maternal and child deaths and STI. With good reproductive health, women feel more in control of their lives, are more productive, and tend to have fewer and healthier children. Reproductive problems are the leading cause of ill-health for women. Pregnancy and childbirth are the major cause of death for women of reproductive years, followed by STI including HIV. Women need to be given access to contraceptive options, including condoms. Women need to be empowered to make decisions and take action to protect their reproductive and sexual health. If women gained control in this area, and had access to contraception and relevant services, their health status would dramatically improve, with far less maternal deaths, unplanned births and STI. Measures that encourage equality, economic independence and education protect from HIV, mitigate the impact of AIDS and promote development. Upholding women's rights-including property and child custody rights-and combating violence against women are also critical.

HIV prevention strategies must be targeted to women's unique needs. Common messages such as the "ABC" slogan - abstain from sex, be faithful or wear condoms - may have little relevance. Some women may be forced to have sex, may be faithful while their partners are not, or have partners who refuse to wear condoms. HIV prevention for women - in terms of counseling, testing, education and STI prevention - can work in the wider context of improving reproductive health. Antiretroviral drugs can cut HIV transmission by half from mother to child. There is need for provision of these relatively inexpensive drugs urgently.

Microbicides work by killing or inactivating pathogens causing STI and HIV. They could become the most important innovation in reproductive health since "the Pill." Produced as a gel, cream, film, sponge, lubricant or ring that slowly releases its active ingredients, they are applied inside the vagina. They act as a barrier, stopping the virus entering cells. Their great advantage is allowing women to protect their reproductive health themselves rather than rely on their partners for condom use.

Besides women, men also have a role to play. Addressing practices, behaviors and beliefs of men that put women at risk is important. Men should be encouraged to treat women more equitably and with care. Awareness of their own risk can motivate behavior change. Men practicing safe behavior can be positive role models.

References

1 UNAIDS: 2006 Report on the global AIDS epidemic [www.unaids.org] accessed on 17th July 2006.

2 Shah R, Bradbeer C. Women and HIV. *Int J STD AIDS* 2000 ; 11 : 277-83.

3 Gatali M, Archibald C.Women and HIV. *BMC Women's Health* 2004 ; 4 (Suppl 1) S 27 : 6874.

4 UNAIDS. Women, Girls, HIV/AIDS - World AIDS Campaign 2004. [www.unaids.org] accessed on September 2005

5 Moneyham L, Hennessy M, Sowell R, Demi A, Seals B, Mizuno Y. The effectiveness of coping strategies used by HIV infected women. *Res Nurs Health* 1997 ; 21 : 351-62

6 Metcalfe KA, Langstaff JE,Evans SJ,Paterson HM,Reid JL.Meeting the needs of women living with HI. *Public Health Nurs* 1998 ; 15 : 30-34.

7 McCreary LL, Ferrer LM, Illagan PR, Ungerleider LS. Context -based advocacy for HIV - positive women making reproductive decisions. *J Assoc Nurses AIDS Care* 2003 ; 14 : 41-51.

8 Bendikson KA, Anderson D, Hornstein MD. Fertility options for HIV patients. *Curr Opin Obstet Gynecol* 2002 ; 14 : 453-57.

9. Kotler DP. Human immunodeficiency virus and pregnancy. *Gastronentrol Clin North Am* 2003 ; 32 : 437-38.

10 Clark RA, Squires KE. Gender specific considerations in the antiretroviral management of HIV- infected women. *Expert Rev Anti Infect Ther* 2005 ; 3 : 213-27.

11 Bentley ME , Corneli AL, Piwoz E *et al.* Perception of Role of maternal nutrition in HIV - positive breast feeding women in Malawi. *J Nut* 2005 ; 135 : :945-49.

12 Pivinck A, Jacobson A, Eric k, *et al.* Reproductive decisions among HIV positive drug using women the importance of mother/child co-residence. *International Conference on AIDS* 1991 (Abstract No 2) ; 7 : 352.