HIV prevention in Africa and couple sero-discordancy : is couple-centred HIV counselling and testing a relevant approach ?

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Although access to antiretroviral treatment is increasing worldwide, the need to reinforce HIV prevention efforts has never been stronger. Since the beginning of the epidemic on the African continent, HIV prevention campaigns and messages have mainly been focused on the prevention of "at risk" sexual behaviours, involving professional sex workers or occasional partners. And yet, many studies have shown that a large proportion of HIV infections occur within stable relationships, either because of prior infection of one of the partners or because of infidelity (1-3). It seems to be much more difficult to adopt preventive behaviours with a regular partner than with an occasional partner. The difficulties that women have to face to protect their sexual intercourses in a conjugal relationship have been largely described (4, 5). Recent studies tend to reveal that it may also be difficult for men to protect themselves from HIV within their couple (6, 7). Serodiscordancy in heterosexual couples is highly prevalent in sub-Saharan Africa (8). Hence, there is an urgent need to define relevant, feasible and acceptable strategies to improve HIV prevention in a conjugal context. In this communication, we focus on one of them: couple-centred approaches to HIV counselling and testing. We will first describe the stakes of HIV prevention within serodiscordant couple in sub-Saharan Africa. We will then systematically review all couple-centred approaches to HIV counselling and testing that have been evaluated in the research literature since the early nineties. We will finally discuss their outcomes, their strengths and weaknesses.

Methodology

We will review the published scientific literature addressing couple-oriented HIV counselling and testing, from the early nineties to December 2008. We will focus on the case of sub-

Saharan Africa, the continent most severely affected by the HIV/Aids epidemic and where HIV transmission is mainly heterosexual. Our bibliographic strategy will be the consultation of the scientific databases Medline and Scopus for peer-reviewed papers and unpublished reports when available on the web.

Couple issues in the fight against HIV infection

Recent analysis of large-scale studies has shed a new light on the question of HIV infection within the couple. The latest Demographic and Health Surveys (DHS) have been collecting HIV data and it is now possible to assess the HIV status of cohabiting couples, at a country level. The analysis of these DHS data in Burkina Faso, Cameroon, Ghana, Kenya and Tanzania revealed that, in each of these countries, at least two-thirds of HIV-infected couples were serodiscordant couples. In half of these serodifferent couples, the woman was HIV-positive and the man HIV-negative (8). This may be partly explained by women HIV infection during premarital sex. And indeed in Africa, a high proportion of young women are infected by HIV during their teens, before marriage, because they engage in transactional relations with older men (9). However De Walque's analysis suggests that extramarital sexual activity among women in union, as it has been described for men, is also a substantial source of vulnerability to HIV infection (8).

Hence, conjugal sexuality is at high-risk of HIV infection in countries heavily affected by the epidemic, for women and for men. It is not sufficient to promote preventive behaviours for occasional or transactional intercourses, and fidelity to the regular partner. The prevention of HIV transmission within sero-discordant couples should be a key strategy for HIV prevention. This is rarely mentioned as a priority in prevention efforts as regular sero-discordant couples usually don't belong to the list of "key populations" to whom prevention programs should be targeted.

The lack of HIV prevention within the couple partly comes from misperceptions of HIV sero-difference. The other main reason explaining why sexual intercourses in a regular

relationship are at risk of HIV infection is that condom use remains low in a conjugal context (8, 11).

HIV prevention in a stable couple also seems related to the communication level on sexual risks between partners: condom use is greater in couples where there is a conjugal dialogue on sexual risks (12, 13). The few studies available on this subject underline the crucial need of a structure providing men and women with information, support and condom supplies, in order to sustain long-standing conjugal condom use.

One of the potential strategies to facilitate the communication around the HIV status of each of the couple members would be the development of a couple-centred approach to HIV counselling and testing.

What place for couple-centred approaches to HIV counselling and testing in Africa?

Couple-centred HIV voluntary counselling and testing (CVCT) initiatives have been developed as early as during the 1990s. In the scientific literature, couple-centred HIV counselling and testing initiatives published to date concern five countries from Eastern and Central Africa, where adult HIV prevalence ranged from 3 to 17% in 2007 (14): former Zaire, Rwanda, Zambia, Tanzania and Kenya.

Whatever the CVCT procedures adopted, all programmes have shown globally positive outputs. But the situation appeared to be more uncertain for HIV-infected women, serodiscordant couples with an HIV-infected woman being more likely to report the break-up of a marriage than other couples (15, 16).

Till now, it seems that couple HIV counselling and testing services are both little promoted by policymakers and other influential groups, and little demanded for, despite mainly positive results. We will explore the reasons of this low supply and low demand. We will discuss them in relation to conjugal relationships and social and health stakes.

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