Behavioural interventions to promote condom use among women living with HIV

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In this review, behavioral interventions to promote condom use and/or modify risky sexual behaviours among women living with HIV failed to demonstrate any positive effects on behaviour change in favour of consistent condom use during intercourse.

RHL Commentary by Lert F

1. INTRODUCTION

Half of the 34 million people living with HIV worldwide are women. The proportion of HIV-positive women varies across regions and countries, but it is the highest (60%) in sub-Saharan Africa. In other world regions the proportion of HIV-positive women is between 30% and 35% (1). All over the world, gender relationships are shaped by a power imbalance in favour of men, which hinders women’s autonomy, especially as regards protection against sexually transmitted infections (STIs) (including HIV), HIV-testing, health-care seeking, and disclosure of HIV infection to their sexual partners and close relations.

In recent years HIV incidence appears to have plateaued globally and even decreased, but it remains high in low- and middle-income countries (1). Observations in serodiscordant couples have shown that antiretroviral therapy (ART) dramatically reduces HIV transmission from the treated patient to his/her uninfected partner (2, 3). However, to date reducing heterosexual transmission of HIV infection through universal testing and ART treatment remains an unattainable expectation because of stigma, insufficient human and financial resources and lack of health-care infrastructure in the most affected parts of the world. Current WHO treatment guidelines for low- and middle-income countries (4) recommend starting ART when CD4 counts fall under 350/ml. UNAIDS estimate for ART coverage among eligible patients was 47% (44%–50%) in 2011, with huge variations across countries (1). Although one study (5) in sub-Saharan Africa has found a significant reduction in risky sexual behaviour among people being treated with ART, another study has shown that while unprotected sex after HIV diagnosis reduces over time, women report unprotected sex more frequently than men (6). Thus, prevention of HIV transmission still needs to rely mainly on protected sex using male or female condoms. In this regard it is worth keeping in mind that only the female condom is under the woman’s control. This Cochrane review assesses the effectiveness of interventions targeting HIV-positive women to increase their motivation, skills and ability to use condoms during sexual intercourse.

2. METHODS OF THE REVIEW

Using a combination of terms such as “HIV”, “trial”, “sexual behaviour” and “behavioural interventions”, the authors searched for citations in medicine, health and social science electronic databases and conference proceedings covering the period 1980–2010. Studies were eligible if they were randomized controlled trials
with any type of behavioural intervention (providing information, counselling, individual cognition, emotional well-being, skills training, coping strategies, or peer education related to HIV risk behaviours) conducted among HIV-positive women with a minimum 3 months’ follow up after intervention. The outcome of interest was defined as reported consistent condom use in all acts of penetrative sexual intercourse over a 3, 6 or 12 month period. Standard procedures were used to assess the quality of the studies. Statistical analyses were performed as intention to treat on subjects randomized at study initiation. The results were expressed as odds ratios (OR) with 95% confidence intervals (CI) using a random effect model.

3. RESULTS OF THE REVIEW

Among the 3046 citations retrieved, 35 studies met the search criteria, but only 5 studies published between 2004 and 2009 met the inclusion criteria and were included in the meta-analysis. Three studies had been carried out in the USA and two in South-Africa among women on ART as part of medical care. Behavioral interventions used in the studies involved diverse theoretical models, content, forms and intensity.

The five studies did not have major biases, except insufficient power owing to inadequate numbers. Together the five studies had a total of 725 women (varying from 67 to 366), with one study (366 women) accounting for more than 50% of the total number. No effect of interventions was found on consistent condom use, neither globally (OR 0.82, 95% CI 0.65–1.04), nor at 3 months (OR 0.73, 95% CI 0.43–1.2), 6 months (OR 0.96, 95% CI 0.66–1.4) or at 12 months (OR 0.75, 95% CI 0.54–1.11). None of studies had individually found a significant positive effect. There was not even a trend towards a positive effect. The result was not affected by a heterogeneity bias. The small size of each study did not allow for subgroup analysis.

4. DISCUSSION

The included randomized controlled trials of behavioral interventions to promote condom use and/or modify risky sexual behaviours among women living with HIV failed to demonstrate any effect on behaviour change in favour of consistent condom use during sexual intercourse.

4.1 Applicability of the results

Considering the epidemiological situation and limited access to effective treatment in the most affected regions, the small number of studies carried out to improve prevention and support safer sex in HIV-positive women is striking. Results from randomized controlled trials included in the review are disappointing and raise both methodological issues and those related to preventive interventions at the individual level in a context of power imbalance between men and women.

The included trials were conducted only in two countries: the USA and South Africa. They were very heterogeneous as regards intervention models (motivational interviewing, coping skills, self-esteem, cognition-based approaches, etc.), intensity of interventions (from 2–15 sessions ranging from 15 minutes to 4 hours) in women with diverse individual characteristics living in different social situations, and having different levels of condom use at study initiation. The null result might be due to an overlap between the intervention and the control condition: actually, in four studies, the control condition included at least one basic counseling session tailored to individual needs as part of routine HIV care. This issue of components of the intervention being present among controls, albeit in a diluted form, is common in the field of HIV prevention research (7). Effects could have been different across women subgroups, but it was not possible to assess these owing to the small sample sizes in the studies. Moreover, the endpoint was very rigorously defined and might be considered as impossible to achieve while, as mentioned by the authors, other positive changes in sexual behaviour might have occurred which remained undocumented. Hence, the findings of this review cannot be considered to be applicable universally to any setting.
4.2 Implementation of the intervention

The fact that none of the five studies showed neither a positive result nor a trend towards an effect of the interventions suggest that individual women living with HIV might have specific needs according to their age, partnership status (not yet in partnership, married or separated, transactional sex), economic independence, reproductive intentions, etc. Observations among people living with HIV show that sexual partners do not disclose their HIV status and do not know their partner’s HIV status. Fear of rejection, couple disruption, violence and stigma hinder disclosure of HIV status and negotiation on protected sex, especially within stable couples (5). The issue of disclosure should be addressed in individual interventions, but remains strongly related to social norms and beliefs at the population level.

In the current context of expansion of testing and treatment, emphasis is put on combining structural interventions, behavioural change, biomedical intervention, testing and treatment (8). Except ART, which lowers the risk of HIV transmission, biomedical preventive methods such as circumcision or tenofovir vaginal gel (not yet marketed) only prevent HIV acquisition. Male and female condoms remain the only methods that protect HIV-positive men and women and their partners. Despite its effectiveness (9), to date the female condom, which is the only woman-controlled method, is not widely promoted and has not yet been studied to support safer sex among HIV-positive women. No studies were found among women diagnosed with HIV who are not yet on ART, given current treatment initiation guidelines, even though these women receive little care and are at high risk of HIV sexual transmission.

4.3 Implications for research

There is a need for further behavioral interventions trials among HIV-positive women within the context of a comprehensive approach to HIV care. The challenge for behavioral researchers is to conduct studies with focused interventions and well-defined precise objectives in specific subgroups of women (10). Further studies on the benefits to HIV-positive women of female condom use are also needed.

References

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