



EVALUATION OF STEPPING STONES:

A GENDER TRANSFORMATIVE HIV PREVENTION INTERVENTION

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What do we know about behavioural prevention of HIV?

All available strategies for preventing sexual transmission of HIV involve behaviour change, yet there has been remarkably little research into the effectiveness of individual level approaches, with the lack most notable in settings of high HIV prevalence. Research that has considered whether behaviour change interventions could reduce the number of new infections has not shown clear evidence of effectiveness (Kamali et al 2003; Ross, personal communication). A review of school-based HIV prevention programmes in Africa showed that studies commonly find improvements in knowledge and attitudes (Gallant & Matika-Tyndale 2004), but simply improving knowledge and attitudes might not be enough to prevent new occurrence of disease. There is an urgent need to identify effective behavioural interventions and to learn from their evaluation which approaches are more or less effective and how we can improve prevention programs.

What is Stepping Stones?

Stepping Stones (Welbourn 1995) is a programme for HIV prevention that aims to improve sexual health through building stronger, more gender-equitable relationships with better communication between partners. It uses participatory learning approaches to build knowledge of sexual health, awareness of risks and the consequences of risk taking and communication skills, and provide opportunities for facilitated self-reflection on sexual behaviour. It was originally developed for use in Uganda and over the last decade has been used in over 40 countries, adapted for at least 17 settings, and translated into at least 13 languages (Wallace 2006). The key features of Stepping Stones are outlined in the panel. The second edition of the South African adaptation was evaluated in this study (Jewkes, Nduna & Jama 2002).

What did we do?

The overall aim of the project was to study Stepping Stones scientifically in the rural Eastern Cape. Our primary aim was to determine the impact of Stepping Stones on new HIV infections, and secondary aims were to determine the impact on new genital herpes infections, sexual behaviour and male violence. We also used qualitative research methods to understand how youth responded to it and made meaning from the programme in the context of their lives. The Stepping Stones study was a cluster randomised controlled trial, in which Stepping Stones was compared with a 3 hour session on safer sex and HIV. It was designed as an

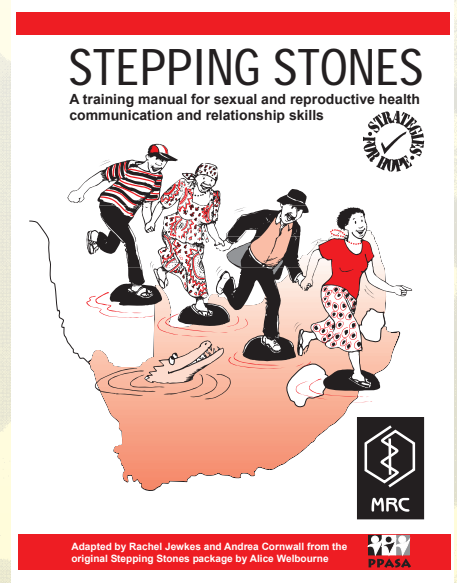
Key features of Stepping Stones

- Uses participatory learning approaches, including critical reflection, role play, drama
- Facilitated by project staff of the same sex and slightly older age than participants
- Delivered to groups over several weeks
- Sessions mainly held in schools
- Final meeting with whole community, including presenting a special request

Thirteen 3 hour sessions and three peer group meetings:

- Listening & communication
- How we act and what shapes it
- Sex and love
- Peer group meeting
- Contraception and conception, menstruation,
- Taking risks, sexual problems, unwanted pregnancy
- STDs and HIV
- Safer sex & condoms
- Gender-based violence,
- Peer group meeting
- Motivations for sexual behaviour,
- Peer group meeting
- Communication skills (2 sessions)
- Dealing with grief and loss.
- Preparing for the future
- Final community meeting

effectiveness trial, with the intervention delivered as far as possible according to operating norms of the Planned Parenthood Association of South Africa. The study was conducted in 70 clusters (mostly villages) in the area around Mthatha. Clusters were at least 10km apart and in each we recruited roughly 20 male and 20 female volunteers aged 15 to 26 years, most of whom were unmarried and in school. After learning about the



study and giving informed consent to participate, they were interviewed face-to-face by a Xhosa speaking interviewer and gave blood for HIV and herpes testing. They were then invited to attend the program that had been randomly allocated to their cluster and we re-interviewed and re-tested them 12 months and 24 months after the initial interview. Where people had moved, we attempted to locate them in their new home. All participants were given the opportunity to receive their HIV test results and were supported throughout the study by study nurses. The figure shows trial participation and follow up. The processes of recruitment and random allocation of villages to the two study arms resulted in two groups of participants whose characteristics at baseline were very similar. The study design and comparability of the two groups at baseline meant that we could expect any differences observed during follow-up to reflect the effect of > the different programs they attended. The data were analysed separately for men and women, after aggregating to cluster level, using an “intention to treat analysis” i.e. each participant for whom data were available was included in the analysis, whether or not they had attended the relevant sessions.

Community participation

The study had a very active Community Advisory Board Chaired by Chief Zwelodumo Sindile Mtirara. All clusters were recruited after a process through which the study was explained to the traditional leader or ward counsellor, and in rural areas a meeting of the community was addressed. In schools parents and interested students were invited to a meeting and the study was explained in great detail. Recruitment was only finalised after several days of reflection on the information provided.

The qualitative research was conducted with 21 participants (11 men and 10 women), who lived in two clusters, one in Mthatha and another in a village in Mthatha district. They participated in between one and three in-depth interviews each before attending Stepping Stones. We conducted 18 individual interviews and 4 group discussions 5-10 months after the end of the intervention (9-12 months after the initial interview). We also interviewed a school principal. All interviews were

taped, transcribed and translated from Xhosa and interviewers kept field diaries. The scope of interviews was initially to get a sense of informants’ lives and subsequently how they had responded to the intervention.

What did we learn?

Impact of Stepping Stones on new HIV and herpes infections

Two years after the baseline assessment, the women in Stepping Stones had 15% fewer new HIV infections than those in the control arm [incidence rate ratio = 0.85 (95% CI 0.60, 1.20) p=0.35] and 31% fewer HSV 2 infections [incidence rate ratio = 0.69 (95% CI 0.47, 1.03) p=0.07]. This provided some evidence that Stepping Stones had had a beneficial impact on sexual behaviour, although neither result was statistically significant at the 5% level.

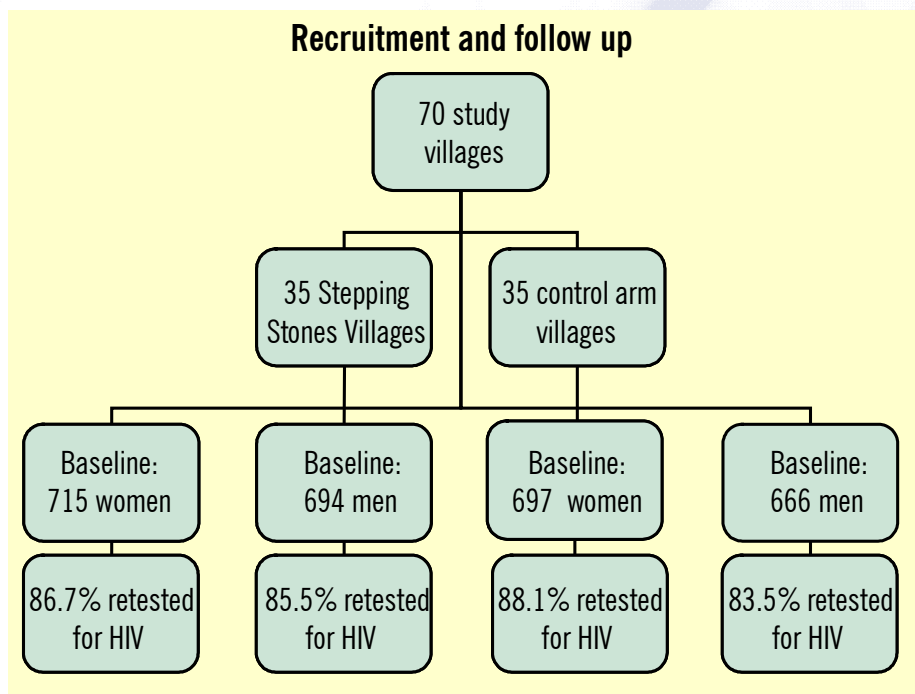
Overall the rate of HIV infection in men was very low, in fact 4-5 times lower than that for women. At this level, detecting a difference in new HIV infection among men was technically very hard, and indeed no difference was found. However, men also had 28% fewer HSV 2 infections [incidence rate ratio 0.72 (95%CI 0.36, 1.46) p=0.364], this was not statistically significant, but supports an overall conclusion that there was some evidence of biological impact of the intervention.

Impact of Stepping Stones on sexual behaviour and violent practices

We were not able to determine which behaviours had particularly changed in women to bring about impact on the biological indicators as we found no differences between arms in behaviours measured that could explain this. Transactional sex was more often reported by women in Stepping Stones at 12 months, but not at 24 months. We feel this may be due to bias in reporting of sexual behaviour that was influenced by the intervention. Men in Stepping Stones arm, however, reported fewer partners since the last interview at both 12 months and 24 months of follow up (p=0.027 and 0.043). They were more likely to report correct condom use at last sex at 12 months (p=0.044). There was little difference in the proportion reporting having had a casual partner, but the proportion reporting having had transactional sex since the last interview was lower at 12 months in the Stepping Stones arm (p=0.01). The proportion of men in the Stepping Stones arm who disclosed perpetrating severe intimate partner violence (defined as more than one episode of physical or sexual IPV) was lower at 12 and 24 months (p=0.11 and p=0.05).

Qualitative findings: “I woke up after I joined Stepping Stones”

The qualitative findings suggested that Stepping Stones impacted on several areas of participants’ lives. Many of the



participants spoke of changes in their relationships with their parents and other elders at home after the workshops. These included being more respectful and disciplined, as 17 yr old woman from Mthatha explained: *"[before the SS workshops] I didn't have any respect and talked anyway I wanted.. so I thought about the fact that you need to respect a person...an example is that I am now able to talk with my parents, in fact having discipline relating to other people even outside"*.

It also included learning to talk about sex to older people in a way that was polite and respectful. An 18 year old rural man explained to us how he could now discuss these issues with his father and his knowledge and confidence made him 'appear important' at home. Stepping Stones provided skills to deal with conflict constructively, as a 20 year old man explained: *"if ever I was scolded at home, I used to become angry and unable to listen and walk away, but now I am able to sit down with my mother and tell her the problem that I am having and be able to sit down and talk about it nicely."* One of the participants said his mother was so pleased with the changes she saw in him that she began to encourage all the young men she knew to attend.

Many of the participants described how after Stepping Stones they had come to be advisors to others on a range of issues, particularly related to HIV, preventing pregnancy, avoiding the use of violence and reducing risk taking. They had new knowledge that they could share, their attitudes towards some areas of life had changed and they had confidence in their ideas and ability to communicate these. Many of the men told us how they now tried to defuse friends' anger when they felt they have been slighted by others and wanted to resolve it with a fight. In the village there had been a long standing problem of faction fighting between the people from two locations. We were told that through Stepping Stones they decided to try and settle this problem and effectively stopped it. Men interviewed particularly spoke of how Stepping Stones had made them much more aware of the consequences of their acts. One result of this was a realisation that they should be much more responsible members of the community and understand 'right from wrong' and not get involved in acts of delinquency such as stealing pigs or robbing street vendors.

Improvements in communication of both men and women with partners were prominent. Stepping Stones, we were told, had profoundly changed communication by teaching them to express their opinions and feelings clearly, listen to each other and to discuss issues rather than remaining quiet and keeping things inside. As a 17 year old Mthatha woman told us:

"he listens to me, I just say 'OK I do not like this and that, the reason is this and that', ...I need to have a reason and he likes saying so as well... Sometimes when I went to Sisa I would arrive full of anger and I would also not give him space, not ask him politely... but now I am able to approach him and tell him "Sisa something like this and that is wrong, I do not like it"' As a consequence of this one man explained: "I think it brought some quietness in our relationship, it brought a lot of quietness"

The improved communication was coupled with a new realisation that violence against women was wrong. Some of the women had seen it as so normative before that they had not thought to act on it. Several of the men spoke of new awareness : *"I saw that thing that it is not a right thing. I mean when I beat a girl now you see at my age that means I*

will beat my wife, if I continue beating girls this time, so I decided that I must stop it."

One of the most critical areas in which new communication skills were applied was in gaining acceptance for condom use. Many of the participants said they were not aware before of the need to use condoms, but all of the sexually active male participants said they had come to understand the need to do so. Several said that as a group they 'took a decision' that from then onwards they would not have sex without a condom, *"If there is no condom I better not have sex"*. Men had a very clear sense of agency and conveyed a confidence that if condom use was their decision they would be able to follow the practice, at least most of the time and persuade their partners. Two of the women had the same confidence, but most did not. In some of these cases it was clear that it was because they were in relationships with very unequal power relations, or where they feared being demoted from their position as 'queen' if they did not ensure that sex with them was better than sex with the other women. Nonetheless, most of the participants became much more aware of sexual risk taking and concerned that they should avoid it if possible. Women who could not use condoms often did other things to reduce their risk including reducing their number of partners and learning their own and their partners' HIV status. Many of the participants took their results in the study or went to get tested from clinics, some got their partners to test and others inspired several family members to go and get tested.

What does it add?

Stepping Stones is an important intervention and, although not unequivocal, our findings provide evidence of success in bringing about changes that reduced sexually transmitted infections in study participants. We have also shown it to be effective in reducing sexual risk taking and violence perpetration among young, rural African men. The cluster of male behaviours transformed by the intervention are associated with ideas of masculinity that entail risk taking and anti-social behaviour, one that we have also shown be linked to perpetration of IPV, rape and participation in transactional sex. Our findings confirm conclusions of smaller scale evaluations of Stepping Stones in many other countries that have shown a reduction in male perpetration of intimate partner violence (Shaw 2002, Wallace 2006). Stepping Stones is the only intervention that has ever been subject to evaluation in a randomised controlled trial in Africa and shown to be effective in changing young men's sexual practices and perpetration of violence. These results are thus very important, but further research is needed.

The qualitative research shows that Stepping Stones impacted on a range of different areas of participants' lives and in many different respects supports the argument that, particularly men changed who they were as individuals and how they related to others. The programme brought about changes in attitudes which could critically influence HIV risk through providing knowledge, generally raising awareness of personal risk and giving a much greater openness about HIV. In the process it seems to have provided general life skills which made many of them better partners, friends, family members and citizens. These findings suggest that Stepping Stones can be seen as a broad-based programme of individual and, through this, relationship change, and it is the ability of Stepping Stones to impact on so many areas of young people's lives that was the key to its success.

Implications for policy

Stepping Stones is the first HIV prevention behavioural intervention to have been subject to the most rigorous level of evaluation in Africa and to have provided some evidence of success in reducing sexually transmitted infections in women and in changing men's sexual risk taking behaviour and reduced their use of violence. If we are to effectively turn the tide of the HIV epidemic in Africa we have to have confidence that we are implementing interventions that are effective. Our findings provide considerable evidence that Stepping Stones is a useful HIV prevention intervention and is successful in changing a range of different men's behaviours, and thus is deserving of further development and investigation.

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