

The practical and symbolic purpose of dental dams in lesbian safer sex promotion

Juliet Richters^{A,C} and Stevie Clayton^B

^AUniversity of New South Wales, School of Public Health and Community Medicine, Sydney, NSW 2052, Australia.

^BFormerly AIDS Council of NSW, PO Box 350, Darlinghurst, NSW 1300, Australia.

^CCorresponding author. Email: j.richters@unsw.edu.au

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The paper in this issue on safer sex practices by Sydney women having sex with women¹ reports that few women used dental dams, and that there was no evidence of those women doing so out of a rational perception that they were at higher risk of acquiring a sexually transmissible infection (STI). These findings raise several questions. Should dental dams be recommended for STI prevention in sex between women? Are they effective? Are they necessary? If not, why are they distributed at all? What needs are being met by this activity?

What are dams for?

Are dental dams intended to prevent HIV transmission? Or to prevent transmission of other STIs or blood-borne viruses?

Only a handful of cases of woman-to-woman sexual transmission of HIV have been reported worldwide,^{2–5} although transmission is theoretically possible from infected vaginal or menstrual fluids or damaged mucous membrane,^{6,7} especially when viral load is high, for example during seroconversion or late AIDS. Nonetheless, a case of HIV infection in a woman who has sex with women is more likely to be due to sex with men or to injecting drug use than to woman-to-woman sexual transmission.⁸ No cases of woman-to-woman sexual transmission of HIV have been reported in Australia.

The low rates of transmission of HIV between men during fellatio^{9–11} suggest that transmission during cunnilingus would be unlikely unless the mucous membrane of mouth or vulva were damaged. Fellatio is of course not entirely risk free, but AIDS organisations in Australia (although not necessarily elsewhere) have promoted it as considerably safer than anal intercourse, and not insisted that condoms were essential for oral sex. This is a judgment call for health promotion authorities, who need to balance the risk of alienating the target audience if they insist on an unrealistic 'belt and braces' approach to HIV prevention against the risk of being responsible for sporadic cases of oral transmission. The result in practice is that gay men in Sydney, despite higher HIV prevalence, hardly ever use condoms for fellatio^{12,13} – indeed it is considered so little as

a risk practice that most surveys of sexual behaviour do not even ask about it.¹⁴ In this context it is not clear that it is reasonable to exhort women to use dams for cunnilingus, especially given the very low prevalence of HIV among women, although some barrier for oral sex might be desired by a known serodiscordant couple.

Oral herpes can be transmitted from a cold sore (herpes simplex virus type 1) to the genitals,^{15–18} and a dental dam or other barrier would help to prevent transmission. There is little evidence on oral sex transmission of hepatitis B or hepatitis C virus.¹⁶ Likewise although bacterial STIs are sometimes transmitted by fellatio, there is little evidence for transmission via cunnilingus, although there is some doubt about its role in candidiasis and bacterial vaginosis.¹⁹

Evidence for the effectiveness of dams in preventing HIV transmission

It is widely believed by health educators that dental dams meet safety standards for STI prevention and that alternatives such as cling wrap (plastic film) cannot be recommended. However, dental dams are not manufactured, registered or tested for STI prevention purposes. No studies exist on their permeability to STI pathogens, although it is likely that they are at least as impermeable as condoms, which are also made of latex but thinner. Condoms have been tested *in vitro* for permeability to *Chlamydia trachomatis*, viruses and virus-sized particles^{20–24} and except for one large study of aged condoms,²⁵ show very little or no leakage. As stated by the (US) Centers for Disease Control and Prevention:²⁶

No barrier methods for use during oral sex have been evaluated as effective by the [US] Food and Drug Administration. However, natural rubber latex sheets, dental dams, condoms that have been cut and spread open, or plastic wrap may offer some protection from contact with body fluids during oral sex.

Cling wrap is likely to be effective simply because it is waterproof, although less robust than latex film. Cling wrap is cheap, readily available, odourless and thinner than latex

dams. If a piece tears during use it can easily be replaced. It is thus likely to be more acceptable to women for regular use than dental dams, but because of uncertainty about its possible permeability, many authorities remain reluctant to encourage its use. Laboratory evidence for the performance of cling wrap as a barrier to pathogens would be very useful.

Although it is plausible that dental dams would be impermeable to STI pathogens *in vitro*, it would be difficult or impossible to establish the effectiveness of dental dams in preventing HIV transmission *in vivo* at population level, as the risk is so low, even in countries with a higher overall prevalence of HIV than Australia. Any study to evaluate this would require a cohort of discordant couples having cunnilingus but no vaginal intercourse. Even condom-protected intercourse would probably be more risky than cunnilingus, thus swamping the ability of a study to detect infection via oral sex.²⁷ Assembling a cohort of serodiscordant lesbian couples would be well nigh impossible. No studies have been done for other viruses. It is likely that dams help prevent transmission of enteric pathogens during rimming (oral–anal contact), but there is no population research evidence.

Reasons for dam distribution

The AIDS Council of New South Wales (ACON), a partly government-funded community-based organisation, is the main HIV prevention and service organisation at state level. ACON distributes ‘safe sex’ packs at lesbian community events such as dances, and also has them available for collection free at ACON offices. Until 2005 these packs contained dams, gloves, lubricant and condoms. However, more of the dams were apparently used by gay men (for rimming) than by women. Outreach workers reported that women receiving safe sex packs at community events often took out the condom, glove and lubricant for use and discarded the dental dam. After a dance there were hundreds of unused dams on the floor. Since 2006 dental dams have no longer been included in the packs, although they are available on request from ACON offices and information stalls, and included alongside condoms and gloves in self-serve bins in the toilets at functions. About 30 boxes are distributed per year, representing 3000 dams costing A\$1200.

Given the weakness of the evidence for the need for barriers to prevent HIV/STI transmission between women during cunnilingus, and the lack of evidence for the effectiveness of dental dams even where the need for a barrier is felt, it is puzzling why some health authorities and non-governmental organisations in the HIV field felt it necessary to recommend and distribute dental dams.

It has been argued that the promotion of dams reveals a desire to ‘contain’ homosexual sex.²⁸ In parallel with condom promotion for gay men, dental dams were promoted by and for women who had sex with women, but not for men having cunnilingus. Sara MacBride-Stewart argued that dominant understandings of ‘healthy’ sex do not include sex between women, and that the dental dam represents a sealing of the lesbian body.

This argument would be more plausible if it were mainstream authorities recommending dam use to lesbians, but it was the

gay- and lesbian-run AIDS service organisations that provided dams. Perhaps, therefore, it was not a desire to seal off lesbian sex, but a sense of need and risk that originated elsewhere. In the 1990s, many lesbian, bisexual and queer women were surrounded by HIV – among their gay male friends, in their work as nurses or carers, in queer circles, as sexual adventurers on the leather or fetish scenes, or through drug-using networks. Many of them knew HIV-positive women and may have been unconvinced that lesbians were at low risk of acquiring HIV through sex. They saw resources being spent on HIV prevention among gay men, and women being largely ignored.

AIDS service organisations were in a sense ‘damned if they did and damned if they didn’t’ do something about HIV prevention among women who have sex with women. If they did nothing, even where there was minimal evidence of need, they were seen as ignoring and marginalising women. If they did something, despite minimal evidence of risk, they were seen to be stigmatising and stereotyping lesbians, or to be misdirecting resources.

Despite the fact that dams would in theory reduce STI transmission via oral sex, the question has to be asked whether they would be used in situations of risk. Given the practices and values of the subculture of sex between women, it is likely that alternatives such as explicit agreements about sex outside the relationship, greater awareness of mouth hygiene and lesions (in relation to HIV), or avoidance of oral sex if one partner has herpes would all be more acceptable to women concerned about STIs. Some of these strategies and others are promoted by a safer sex promotion website for women developed and evaluated in Australia.²⁹

Cox and McNair remark that most safer sex resources for women who have sex with women focus on latex products, yet few of their participants had ever used any latex products.²⁹ Cox and McNair refer to women’s ‘consistent aversion to latex’ and interpret support for the safer sex project as a way of affirming sex between women. Thus it appears that the provision of dental dams is a knee-jerk reaction to the theoretical risk of STI transmission between women, based on an assumption that they are equivalent to condoms for sex between men. This, rather than any evidence of need, appears to have been the reason for supplying them in women’s prisons in New South Wales.³⁰

Meeting real rather than symbolic needs

Given that most women who have sex with women do not use dental dams, and there is no strong reason why they should, we need to consider how support and attention can usefully be given to the sexual health needs of lesbians and other women who have sex with women. HIV/STI prevention materials should stress the risk of sex with men and injecting drug use as potential sources of infection. AIDS service organisations and gay/lesbian/bisexual/transgender (GLBT) community organisations can have dental dams available on request and can promote the use of dams or other barriers such as cling wrap when a barrier is needed for oral sex, e.g. when one partner has herpes. Awareness of herpes risk should also be promoted – our surveys have shown that ~30% of lesbians are not aware that a person with a cold sore

can give their partner genital herpes via oral sex.^{31,32} Where resources allow it, safer sex packs containing lubricant, condoms and gloves can be given out at community events.

Finally, it is important to promote the health of carers of people with HIV/AIDS. We suspect that part of the sense of vulnerability and need for HIV prevention that has prevailed in the GLBT community in the AIDS era might be related to women in contact with the gay community – whether themselves lesbian or not – having contact with HIV-positive gay men as their carers, whether while working in health care services or through community programs such as the Ankali Project (see www.sesiahs.health.nsw.gov.au/albionstcentre/ankali/index.asp; verified March 2010). If this is so, it is important that the needs of carers be addressed directly rather than by investing scarce resources in an unnecessary STI-prevention technology for a low-risk population.

Conflict of interests

None declared.

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