

BIDIRECTIONAL INTERACTIONS BETWEEN HIV/AIDS AND INDIAN CULTURE

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Abstract

Health interventions and research initiatives focused on the Indian HIV/AIDS epidemic have often neglected the critical relationship between disease and its cultural contexts. This study synthesises and builds upon current understandings of how cultures and HIV/AIDS interact in India, whilst highlighting significant gaps in knowledge. Cultural dynamics shape the trajectory of the epidemic, community responses to it and individual experiences of HIV-positivity. Importantly, the relationship is not unidirectional: HIV/AIDS has also been a catalyst for cultural changes. Viewing the epidemic as a concurrently biological and cultural process will facilitate appropriate responses to the challenges posed by HIV/AIDS.

Introduction

The response to HIV/AIDS in India has largely been grounded in an understanding of the epidemic as a medical concern - a challenge posed by a vagrant microbe, giving rise to a biologically explicable disease, requiring clinical and health-care solutions (Jain 2002). This evaluation is not incorrect, but it provides an incomplete view of a multidimensional issue. The causes and consequences of HIV/AIDS are not confined to biology, but are also social, economic, political and cultural. The subject of HIV/AIDS calls for interdisciplinary research, yet relatively little has been undertaken, especially with a focus on India.

This review draws together a range of anthropological and epidemiological research streams focused on the Indian HIV/AIDS epidemic in order to consider how cultural factors affect transmission risks and responses to the spread of HIV/AIDS in India. It also identifies ways in which HIV/AIDS may have brought about changes to cultural contexts in India. The principal focus is on factors linked to the sexual transmission of HIV/AIDS, as this mode of transmission is estimated to account for 86% of HIV infections in India (Correa and Gisselquist 2006). For the purposes of this article, the term 'culture' will be used to refer to the range of attitudes, beliefs, values, behaviours and practices that emerge in Indian contexts, bearing in mind their great diversity.

These discussions do not provide exhaustive coverage of how HIV/AIDS and Indian cultures affect one another – they cannot, given the complexity of disease patterns in India and the diversity of human lifestyles and experiences. However, by focusing on a selection of

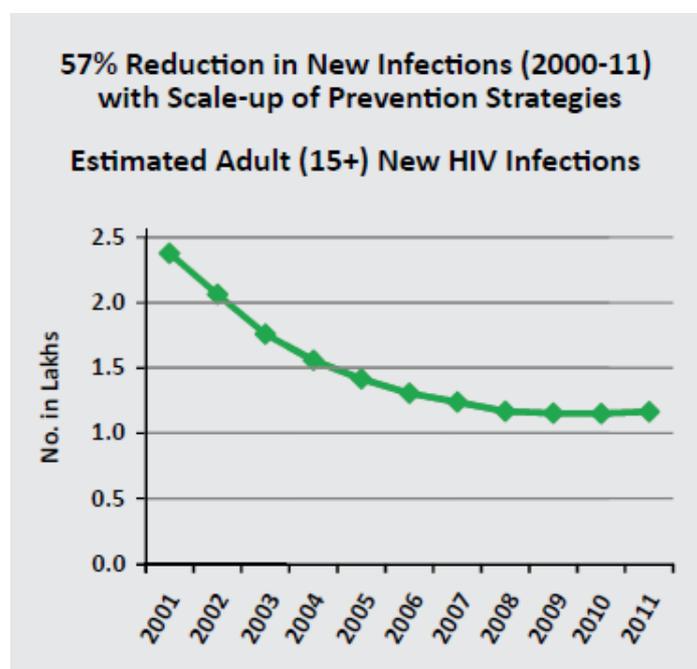
relevant aspects of how HIV/AIDS and Indian cultures interact, a broad sketch of their relationship can be formed. This relationship can be conceptualised as a system of bidirectional feedbacks, whereby cultural dynamics shape the course of the epidemic and in turn the spread of HIV/AIDS shapes Indian cultures.

Overview of HIV/AIDS trends in India

In 2012 the prevalence of HIV/AIDS in India stood at 0.27% (NACO 2011). This is significantly lower than in some other countries, such as Swaziland, where the estimated prevalence was 26.5% in 2012 (UNAIDS website, retrieved: 2013). Yet when this prevalence figure is projected on to India's large net population size, it becomes apparent that India houses a huge portion of the global population of people living with HIV/AIDS, ranking third in the world behind South Africa and Nigeria, with as many as 2.09 million infected individuals (UNAIDS website, retrieved: 2013).

Fig.1: Declining HIV/AIDS incidence in India, 2001-2011

(Source: NACO Report, 2012-13). 'Lakh' = 100,000



Temporal fluctuations in the incidence of HIV/AIDS have shown promising trends in recent years, with marked declines from 2001 (see Fig. 1). However, there are significant interstate variations. In some areas, including New Delhi and Assam, HIV infection rates are still rising (NACO 2013) and just four states – Andhra Pradesh, Karnataka, Maharashtra and Tamil

Nadu – account for 53% of people living with HIV/AIDS in India (ibid.). Just as the patterning of the epidemic varies between states, certain social groups exhibit elevated incidence and prevalence levels. The transgender community, intravenous drug-users, men who have sex with men (MSM) and female sex workers (FSW) have all been identified as ‘high-risk groups,’ while others such as truckers and migrants have been identified as ‘emerging risk groups’ (ibid.).

These incidence and prevalence figures must be treated with a degree of caution, for it is not a given that the officially quoted statistics reflect reliable numerical processing by all of India’s states (Jain 2002). In fact, as many as 118 Indian districts had to be omitted from the 2012 NACP report on HIV/AIDS (2012: 6) due to having ‘no/poor data.’ Critics such as Mahajan (2008) also express scepticism as to the viability of relying on the conventionally used risk-group categories. These categories were drawn up in relation to African and American disease ecologies and some argue that they have been applied to Indian populations without much consideration of other variables that modulate risk in India, such as poverty. The groups in question do indeed exhibit HIV/AIDS prevalence significantly above the population average, so the categories are clearly not redundant. However, Mahajan’s comments draw attention to the important point that cultural contexts surrounding policy decisions may profoundly affect how the HIV/AIDS epidemic is dealt with. Policy-making and research cultures will not be a focus of the following discussions, but we should nonetheless be conscious of their influence.

1. TABOO, KNOWLEDGE AND JUDGEMENT

Sexual taboos and HIV/AIDS awareness

Within many Indian social discourses, sex is semantically associated with negativity, embarrassment and obligatory silence. The use of the Hindi phrase *gupt-rog*, ‘secret illness’ to denote a sexually transmitted infection (STI) attests to this and may reflect extensive muting of sexual health concerns in India (Verma and Schensul 2004: 243). A widespread reluctance to talk about matters related to sex has frequently confronted researchers collecting data on reproductive health in India. For instance, Ghosh et al. (2009) found that between eight and ten participants had to be asked for an interview for every one that would agree to even speak about sex. Chandrakantha, a 49-year-old woman they approached in Hyderabad, succinctly summed up the presiding attitude in the area with her rebuke: ‘We must not think

about these things. God is there to look after everything. If we say anything, people will shout at and censure us' (Ghosh et al. 2009: 639).

Despite these observations, sex is not a universally repressed subject within the Indian population. Srivastava (2007: 331) asserts that the topic is very much present in the media, in politics and in everyday dialogues within communities. For instance, 2005 saw an explosion of 'sex talk' in Indian newspapers, including a criminal case about pornographic material and a petition for the closure of 'dance bars' in Maharashtra, which were deemed to be 'corrupting' the public. Such examples reveal that there may be greater openness about sexual issues in India than is often imagined. The somewhat stereotyped portrayal of Indian sexuality as a forbidden subject is reminiscent of Foucault's (1978) postulation, conceived in relation to the global West, that excessive preoccupation with the notion of sexual repression overlooks widespread proliferations of discourse about sex in the modern world. It should be recognised that quintessential presentations of Indian culture may sometimes exaggerate the salience of sexual taboos today. Nevertheless, there is considerable support for the proposition that sexual taboos often impede access to information about HIV/AIDS for people in India.

Recent discourses have raised particular concerns about the widespread inadequacy of adolescent sex education, a reality emphatically brought home in a series of anecdotes collected by Bharat and Aggleton (2002) in the deprived suburb of Chembur, Mumbai. One young girl, describing her first menstruation, confided that: 'I thought that I had contracted some horrible disease, that I was dying' (Bharat and Aggleton 2002: 97). These ethnographic findings accord well with the results of more quantitative approaches, such as an investigation conducted in 2006-2007 by the International Institute for Population Sciences (2010). This study found that just 10% of young people had received information on sexual matters from teachers and only 0-2% of young men and 1-6% of young women had discussed either romantic relationships or reproductive processes with their parents. Most adolescents identified friends or the media as their principal sources of information on sexual matters. According to Verma et al. (2004: 389), reliance on these sources puts adolescents at risk of acquiring 'fragmented and distorted information' about sexual health.

In some sectors of the Indian population, HIV/AIDS awareness has remained low because information has been communicated in an inappropriate way. Ghosh et al. (2009) stress in their review of HIV/AIDS awareness campaigns that a lot of advertising material is insensitive to the educational level of much of its target audience, overlooking the fact that those who are illiterate will, by definition, be unable to read the text. Furthermore, the

language used in these campaigns needs simplification, for even literate individuals are not necessarily able to understand the clinical terminology used on some posters.

To people with limited or no knowledge of HIV/AIDS, equivocal messages in prevention campaigns can be confusing and misleading. A particularly relevant example was a recent advertisement featuring the popular Indian film star Shabana Azmi hugging a child in a hospital while speaking about HIV/AIDS. The campaign had the potential to be very effective, since the involvement of a celebrity did help to capture people's attention, but a high proportion of observers misinterpreted the advertisement, thinking that HIV/AIDS must be a disease that only affects children (Bharat and Aggleton 2002). A number of other widespread misconceptions were identified among members of the public, including assertions that:

'[AIDS] may spread through mosquito bites and flies.'

'Upon contact with our body [the virus] can immediately cause AIDS'

'Micro-organisms [of AIDS] fall through air.'

(Bharat and Aggleton, 2002: 100)

The cultural status of HIV/AIDS as a disease associated with stigma and taboo impedes public access to comprehensible and unambiguous information about HIV/AIDS. These cultural dynamics, along with socioeconomic factors such as low literacy levels, may consequently promote the spread of HIV/AIDS. However, this interaction between culture and the HIV/AIDS epidemic is not unidirectional. The problem of HIV/AIDS in India has prompted policy discussions, awareness campaigns and educational drives, enabling increased dialogue about sexual health issues within various communities. As such, HIV/AIDS may be accelerating the breakdown of cultural taboos about sex.

HIV/AIDS stigma

Although there are many diseases that elicit discrimination against sufferers, few are implicated as profoundly as HIV/AIDS in the generation of stigma. The interpretive distinction between HIV/AIDS and most other life-threatening diseases becomes poignantly visible in Jain's account of the diagnosis of Ashok, a naval worker who discovered his HIV status in 1989:

For Ashok, March 1989 was the beginning of living not just with a fatal infection, but of coping with stigma, loneliness, isolation, ridicule, hopelessness and the daily fear of death...it was the beginning of a life where dignity itself was only accorded to him grudgingly as if it

were charity.... Had it been another terminal illness, things would have been so different. He could have reached out to his family. His mother, his sisters, would consult the best doctors to extend their support. In this, he was alone. This was his shame, and he had to hide it. (Jain 2002: 8)

The negative labelling of HIV/AIDS stems chiefly from its identification as an STI (Panda et al. 2002). To many audiences HIV/AIDS connotes promiscuity, which is normatively unacceptable in many Indian social groups (Das and Leibowitz 2011). This semantic link constructs HIV/AIDS as a source of shame. Verma et al. (2004: 34) also postulate that 'scare campaigns' presenting AIDS as a lethal illness characterised by slow, surreptitious symptomatic progression have intensified the fear and discrimination people attach to HIV/AIDS.

Stigma, discrimination and the personal trauma that accompanies them are among the most poignant and most harrowing of HIV/AIDS's effect on Indian society. Newspapers have reported HIV-positive people being driven from their homes and communities to be beaten, burned or pelted with stones by neighbours, colleagues or former friends (Ramasubban 1999). In some cases AIDS victims are denied last rites (Pradhan et al. 2006) or left to die in isolation owing to widespread myths about the risks of HIV transmission around the time of death. Jain's records (2002) feature an example of a man left lying alone for three days in a dumping ground waiting to die. His distraught wife was unable to persuade the community to relent from his ostracism. The generation of stigma, fed by both acquired biomedical knowledge of HIV/AIDS transmission modes and attitudes towards sexuality within communities, is a prime example of a bidirectional interaction between HIV/AIDS and culture. Culturally informed value systems shape how people living with HIV/AIDS are regarded and treated, while the spread of HIV/AIDS gives rise to new social categorisations and new criteria for marginalisation.

There is also extensive qualitative evidence of discrimination against HIV-positive people in health-care settings. There has been no nationwide quantification of this problem, though a study by Hawkes and Santhya (2002) found that hospital and care settings were the main sites in which people living with HIV/AIDS reported experiences of stigmatisation. The ways in which discrimination is experienced vary, of course, ranging from subtle hostility or rudeness to pointed maltreatment. Bharat et al. (2001) cite frequent instances of HIV-positive people being refused health care outright in both private practices and government hospitals. According to Nambiar and Rimal (2012), other common forms of discrimination from health-care professionals include the stereotyping of HIV-positive women as sex workers, the

segregation of service delivery and disclosure of HIV status to other parties without patient consent. This evidence implies that in some instances a diagnosis of HIV/AIDS can modify the usual dynamics of doctor–patient relationships. It may be that, because social interpretations of HIV/AIDS impute a moral dimension to it, the sympathy and duty of care that health professionals should usually feel towards their patients are suspended. The ways in which HIV/AIDS has influenced cultures of health-care would be a compelling area for further research.

Stigma from health-care professionals is a grave issue not only because of its emotional impact on patients, but also because the alienation of people living with HIV/AIDS is a very serious barrier to effective treatment and prevention. If HIV-positive people are discriminated against within health-care environments, or even refused treatment, they may be disinclined to seek health-care advice in the future, or may keep their HIV status secret when visiting medical centres (van Hollen 2011). Where this is the case, the progression of the disease may be faster due to poor management of the infection. Equally, if people are not made aware of how to minimise transmission risks, there is a greater chance that the disease will be passed on. It is clear that discrimination against HIV/AIDS sufferers within health-care settings is counter-productive.

Morality and judgement in relation to HIV-positivity

The phenomenon of stigma can be better understood when seen within broader cultural contexts, including a consideration of the factors that shape people’s judgements and moral valuations. Nambiar and Rimal (2012) argue that a central component of the moral codes of many Indian communities is based on the concepts of *dharma* (duty in relation to social position) and *karma* (one’s destiny, as determined by one’s conduct in past lives). *Dharma* and *karma* are core principles within a number of Indian religions, including Hinduism, Sikhism and Jainism. According to their study of stigma among NGO youth practitioners, which used questionnaire responses to measure ‘*dharma*-related stigma’ and ‘*karma*-related stigma,’ then conducted psychometric assessments of the participants, very high proportions of participants understood HIV status in terms of either *karma*, seeing infection as a punishment from God for prior misdeeds, or else *dharma*, seeing infection as the result of failures by HIV-positive people to fulfil their duties. The study fails to clarify the terms ‘*dharma*-related’ and ‘*karma*-related’ stigma explicitly and I am sceptical of how appropriate it is to assume that complex ethical evaluations can be reduced to a *dharma-karma*

dichotomy. Nevertheless, it may still be valid to deduce that specific cultural principles and attitudes can play a part in the genesis of stigma and in how people assess the causes and consequences of HIV/AIDS.

A possible ramification of applying concepts of *dharma* and *karma* to understandings of HIV/AIDS is that, as Nambiar and Rimal (2012) point out, a perception of HIV-positivity as 'destiny' implies that infection is beyond individual control. From this standpoint, people may feel there is little point in paying attention to prevention campaigns, adhering to risk reduction strategies, or even utilising treatment services. Individual agency has no role in a comprehension of HIV/AIDS that dictates that 'one who is fated to get it, will get it, others won't get' (Bharat and Aggleton 2002: 98). I would infer from this that the application of the *karma* principle to HIV/AIDS could sometimes have detrimental effects for the spread of the disease. On the other hand, Nambiar and Rimal (2012) also note that some youth workers identified caring for people living with HIV/AIDS as an imperative part of their personal *dharma*, suggesting that these principles could also contribute to community responses to HIV/AIDS in beneficial ways.

Religion may also play a role in how some people living with HIV/AIDS rationalise and cope with their HIV status. An example of this is offered in Jain's account (2002) of individual experiences of this disease. One HIV-positive individual stated that, during the weeks of despair and depression that followed his diagnosis and the difficult period after the disclosure of his HIV status to his family, he fell back on teaching given by Krishna to Arjuna, which declares that 'the man... who remains the same in pain and pleasure, who is wise makes himself fit for eternal life' (*The Bhagavad Gita*, translated by S. Radhakrishnan, 1993). For this individual, religion played a functional role in providing comfort and perspective at a challenging time. It seems clear that religiously orientated interpretive frameworks can influence attitudes and behaviours in ways that have implications for how communities and individuals respond to the HIV/AIDS epidemic. Viewing the situation in reverse, it could equally be said that the circumstances of HIV/AIDS impact on how religion is invoked and utilised in daily life in India. This demonstrates the capacity for HIV/AIDS not only to be impacted by cultural contexts, but also to induce changes in them.

2. MEN WHO HAVE SEX WITH MEN (MSM) AND FEMALE SEX WORKERS (FSW)

MSM and FSW have been a principal focus of studies of HIV/AIDS epidemiology in India, firstly because of their categorisation as ‘high-risk’ populations (NACO 2013), and secondly because MSM and FSW play important roles in the bridging of HIV/AIDS from high-risk groups to the general population (Verma et al. 2004). Other groups subject to high rates of HIV/AIDS, such as the transgender community, would also yield relevant examples of interactions between cultural contexts and HIV/AIDS. However, these discussions will concentrate on MSM and FSW, since these groups have been studied more extensively.

The legal and cultural status of MSM

HIV/AIDS-related vulnerabilities among MSM can only be adequately understood in the context of the legal and cultural status assigned to this group in Indian society. In relation to this, it is important to note that the MSM category is not synonymous with homosexuality: MSM are grouped according to a form of sexual behaviour, not a sexual identity (Thomas et al. 2011). Labelling MSM as ‘homosexual’ (or with terms such as bisexual, transexual, or pansexual) may not appropriately capture the meanings attached to MSM behaviours in Indian social environments. For instance, in many parts of India eroticism between men is regarded as *maasti*, or ‘fun,’ without being explicitly classed as sexual (Boyce et al. 2007).

MSM in India are often subject to intense stigmatisation and sex between men remains illegal under Article 337-B of the Indian Penal Code. This declaration was overturned by a landmark ruling in 2009, but subsequently restored in December 2013, following protests that called for the prohibition of ‘unnatural’ sexual acts (*The Economic Times*, 2013). The social and legal castigation of homosexuality means that MSM activities largely remain a matter of imperative secrecy. This makes it very difficult to acquire accurate and complete information about MSM. As a rough guide, the UN (2010) estimates that there may be in the region of 3.1 million MSM in India, among whom the HIV/AIDS prevalence rate is around 4.43% (NACO 2013). This group exhibits much higher HIV/AIDS rates than the general population, partly because the risk of HIV transmission for anal sex is much higher than for vaginal sex (Kulkarni et al. 2004) and partly due to a variety of behavioural factors.

Risks and prevention of HIV/AIDS among MSM

A number of HIV-risk behaviours have been documented among MSM in India, and as already noted, it has been observed that this group often plays a 'bridging' role in the spread of HIV from high-risk groups to the general public (Thomas et al. 2011). The chief reasons for this include the fact that a large proportion of Indian MSM have sexual relations with both men and women (strong cultural pressures on men to conceal their MSM status and marry promote this) and the fact that condom use by married couples is extremely low in India. As a result, female partners of MSM tend to be at a high risk (Lakhani et al. 2004). Kulkarni et al. (2004) note that various widely held ideas about condoms discourage men from using them: for example, many men in this study stated that condoms reduce pleasure, or that the function of condoms was to prevent unwanted pregnancies, meaning they would not be necessary during sex with other men. Challenging misconceptions and other barriers to the use of condoms needs to be a more central component of prevention drives.

Thomas et al. (2011) discuss a range of other dynamics that promote high-risk sexual behaviour among MSM, highlighting two critical issues that contribute to the vulnerability of Indian MSM to HIV/AIDS. Firstly, the erroneous belief that HIV is transmitted exclusively through vaginal sex or via sex workers ironically prompts some individuals to turn to anal or oral sex with men as a strategy for avoiding HIV/AIDS. Secondly, the stigmatisation of same-sex behaviour sometimes encourages MSM to engage in anonymous, one-off sexual encounters. This is particularly significant in light of Kulkarni et al.'s observation (2004) that impulsiveness in sexual relations decreases the chances that condoms will be used. In addition, Thomas et al. note (2011: 921) that Indian MSM generally identify themselves as either *panthis* (penetrators) or *kothis* (penetrates). Some also chose to alternate between these roles and are described in the vernacular as 'double-deckers.' According to Thomas et al., (2011) effeminate *kothis* are particularly at risk of discrimination and exploitation due to the unequal power dynamics that commonly arise among these groups. Interventions targeting MSM in India should take into account these local sub-categories and identities, since they are likely to be linked to variations in behavioural risk factors.

Although some prevention efforts targeting MSM have achieved great successes, the unacceptability of being an MSM in the eyes of much of Indian society creates barriers to attempts at intervention. The social and legal persecution of MSM means that the support and access to resources needed to implement effective programs is often lacking. There is limited political backing for such projects (van Hollen 2011) and in fact, the actions of state institutions frequently confound prevention efforts. For instance, the classification of

homosexuality as a criminal offence in India means that HIV/AIDS outreach workers, who play critical roles in facilitating the spread of information through MSM networks, are often targeted by the police. Fear of being exposed as an MSM also discourages people from seeking help from HIV/AIDS prevention and support programs. Behavioural models of health-care, which theorise that individuals will not seek care when the costs and barriers associated with doing so exceed the potential benefits, suggest that this could be a grave issue (Thomas et al. 2011). It is likely that, for some MSM, the social costs of stigma and legal persecution that could result from exposure are perceived as exceeding the benefits of HIV testing and/or treatment, particularly among groups that have not been educated about the risks of this disease. It is also worth noting that some sub-groups of MSM are more easily identifiable to those running intervention schemes than others: for instance, many *kothis* and transgender MSM exhibit effeminate behaviour, which may make them easier to target than *panthis* and ‘double-deckers’ (Thomas et al. 2011).

Cultural contexts of sex work

The NACO estimate that 2.67% of female sex workers (FSW) in India are HIV-positive, compared with 0.4% of women visiting ante-natal clinics (NACO 2011). This clearly indicates that FSW are at exceptionally high risk of HIV infection relative to most other Indian women. Admittedly, the underground nature of the sex industry means that estimating numbers of sex workers in India is extremely difficult. In fact, the very definition of a ‘sex worker’ is far from clear cut. There are many people who exchange sexual services for resources, but there is enormous diversity in the terms under which this occurs, what sex workers obtain from the exchange, what motivations and pressures influence their decisions, and to which specific groups of individuals sexual services are offered. To take one example, Verma et al. (2004) note that in some Indian villages women provide sexual services to landlords in exchange for necessities such as firewood. Whether or not this should be described as prostitution is debateable. The NACO does not provide any elaboration on how its researchers defined FSW.

The cultural contextualisation of sex work is important to consider when examining FSW in India, for although sex work is thought of by much of the population as a shameful or immoral profession (Verma et al. 2004), there are some communities in which it is sanctioned. For example, among the Nat ethnic group in Rajasthan, women who work as entertainers, performing dances and acrobatics as well as providing sexual services, are given

special status as part of their community's cultural heritage (Swarankar 2001). Similarly, among the Banchhara and Bedia people of Madhya Pradesh, religious sex workers (*devadasis*) play important roles as performers of *muzra*, a religious dance that dates back to AD 300 (Nag1993). Today these practices are technically illegal, but according to Nag significant numbers of girls are still put forward by their families to become *devadasis*. Family traditions of involvement in the sex trade also persist in many areas of India, such as the village of Bandarsinderi, near Jaipur, where in many households several generations of females have worked from home as prostitutes (Jain 2002). The perpetuation of *devadasi* customs demonstrate that there is great cultural variation in attitudes towards sex work in India, which may give rise to differentiated patterns of HIV risk within communities.

A key aim of HIV/AIDS prevention schemes targeted at FSW and their clients has been to promote the use of condoms. To an extent these efforts have been successful, since condom use and understanding of the role of condoms seems to have increased among many groups of FSW around the country (NACO 2013). However, cultural attitudes related to condom use continue to hinder these schemes in some circumstances. It has been observed that, while condom use has risen significantly among FSW with non-regular clients, condom use with regular clients remains low (Bhattacharya 2004). To explain this trend we must examine the cultural significance attached to condoms by FSW and their clients.

To many sex workers, relationships with regular clients become a personal matter rather than just a professional one, and a degree of mutual trust is often established (Bhattacharya 2004). This has implications for HIV prevention because condoms, generally understood as a means of protecting against contamination, disease and pregnancy, may be semantically associated with a lack of trust. For this reason, Jain (2002) suggests that many FSW and clients feel it would be insulting to propose use of a condom, or simply presume it is unnecessary to take such precautions when with an established sexual partner – some clients may even jump to the conclusion that a FSW insisting on condom use must be ill. As a result of these assumptions, FSW must weigh up the costs and benefits of suggesting condom use, knowing that doing so could jeopardise business. The belief that condoms reduce sexual pleasure may also discourage condom use, and in some areas sex without condoms has even become a way for sex workers to earn extra commission (Kulkarni et al. 2004).

Targeting FSW and their clients

The illegality of prostitution and its stigmatisation generate problems for FSW interventions similar to those that arise in relation to MSM interventions. FSW are often reluctant to seek medical advice or social support for fear of exposure, and there have been numerous cases of peer educators from sex worker communities being arrested (Jain, 2002). In fact, peer educators are exceptionally vulnerable to arrest because carrying flip charts, pamphlets or supplies of condoms signals their affiliation with the sex trade to policemen. Jain comments that ‘if it had not been serious the situation could have been comical. One wing of the government, trying to work with sex workers and giving several *lakh* [hundred thousand] rupees to NGOs for doing so, and another busy ruining this entire effort by arresting them’ (2002: 167).

Although several examples of such conflicts of action could be cited, there have been some significant successes in attempts to prevent HIV/AIDS among FSW. Sgaier et al. (2012) claim that, at the national level, the incidence of HIV/AIDS among sex workers declined by 50% from 2003 to 2008 – though I would reiterate my reservation that we cannot be overly confident about the data used to back these impressive statements, especially given that some other sources provide seemingly contradictory evidence. For example, Lawrence and Brunn (2011) argue that the issue of HIV/AIDS within the sex industry has become an increasingly serious concern in recent years due to the ‘sex-worker explosion’ that has occurred within the last decade, with a 50% rise in the estimated number of prostitutes in the Indian sub-continent. Lawrence and Brunn (ibid.) hypothesise that this phenomenon can be explained in relation to the globalisation of attitudes towards sex, which has catalysed a sexual revolution resulting in increased demand for FSW. The growth of the hospitality sector in response to the international business presence in India has added to this rising demand. The sex industry may be just one mechanism through which cultural changes such as globalisation and modernisation may have implications for the HIV/AIDS epidemic.

The lack of transparency associated with the sex industry in India means that attempts to estimate the numbers of people visiting sex workers are crude approximations at best. Nevertheless, multiple studies based in India have concluded that a significant proportion of men visit sex workers throughout much of the nation, especially in population-dense urban areas. For instance, Bharat and Aggleton (2002) found that 50% of males aged over fourteen in Mumbai visit sex workers. In one slum community the rate was 80-90%. However, the average for India as a whole may be much lower than this. Collumbien and Das (2004) found that 2-3% of a random sample of 2,087 men from the state of Orissa reported having visited

sex workers within the last year, implying that sexual practices in Mumbai slums may not be typical.

Long-distance truck drivers have been identified as an emerging high-risk group in the Indian HIV/AIDS epidemic, a key reason for this being the high frequency of interaction with FSW among this occupational group (Collumbien and Das 2004). The challenging nature of life as a long-distance truck driver may make this group especially likely to establish interactions with the sex industry – most are away from their homes and families for large portions of the year, spend significant amounts of time alone on the road, must regularly stay overnight in unfamiliar places and put up with long waiting periods when collecting freight or crossing borders. In interviews conducted by Singh and Malaviya (1994), 78% of truck drivers in Delhi reported extramarital sex, and the majority stated this had been with FSW. A study in West Bengal obtained an even higher figure, concluding that 97% of truck drivers have contacts with FSW (Collumbien and Das 2004). 63% also stated that they never used condoms. This finding is particularly worrying in relation to the role truck drivers could play in transmitting HIV/AIDS around the country, potentially contracting the virus in one community, then introducing it to others as they engage with sexual partners in different parts of the country. NACO (2011) puts the prevalence of HIV/AIDS among truck drivers at 2.59% – not far off the 2.67% estimated for FSW. It is highly possible that the cultural and psychosocial conditions that long-distance truck drivers are subject to in the course of their work could be the key to this trend.

3. MARRIAGE AND GENDER IN THE CONTEXT OF HIV/AIDS

It has recently been noted that the female proportion of HIV/AIDS incidence in India seems to be steadily rising (Pradhan and Sundar 2006: v). This is partly explained by physiological factors affecting viral transmission, for in general, women are twice as susceptible as men to contracting HIV from sex with an infected partner of the opposite sex (see Kidd et al. 2007). However, sociocultural variables also play critical roles in modulating disease risk by gender. In the wake of the epidemic's 'feminisation' (Pradhan and Sundar, *ibid.*), there has been a surge of interest in how masculinity and femininity influence vulnerability to infection and experiences of HIV/AIDS. Given the close intertwining of gender norms with the dynamics of marriages, it is helpful to consider these two topics in tandem. Sexual transmission is the primary mode of HIV infection in India (Dietrich et al. 1995), and a large proportion of

heterosexual sex takes place within marriage. As such, the marital relationship is a crucial target for HIV/AIDS prevention.

Female vulnerabilities to HIV/AIDS

Sivram et al. (2004) argue that a central element in the increasing female vulnerability to HIV/AIDS is the imbalance of power between women and men, which limits the ability of women to influence the sexual behaviour of their husbands/partners, to refuse unwanted sex and to have a say in whether or not condoms are used. Kidd et al. (2007: 206) feel that within many communities in India asymmetrical power dynamics emerge because 'men have been socialized to dominate and control women; and women have been socialized to submit to men and not question male behaviour.' The political and economic status of women is also likely to contribute to this, since the dependence of many women on male family members may restrict their agency in domestic matters (Johnson 2008), or reinforce perceptions of women as inferior.

Women in violent marriages are substantially less likely than women in non-violent marriages to use contraception (Maitra and Schensul 2004), possibly because fear of violence inhibits women from negotiating safer sex (Kidd et al. 2007). This observation accords with Johnson's (2008) analysis of sample data from 142 developing countries, which identified a positive correlation between gender-based violence and HIV/AIDS-risk. In addition, sexual violence and rape (both within and outside of marriage) are associated with an elevated probability of HIV transmission during sex, firstly because condoms are less likely to be used, and secondly because the dryness of the vagina in non-consensual sex makes tissue damage more probable, meaning the chance of viral transmission to the blood stream is higher (Maitra and Schensul, *ibid.*).

Norms of early marriage in India also impact on vulnerability to HIV/AIDS, especially for women. 19% of females are married before the age of 15, and 67% before 20. In contrast, only 16% of males are married before 20 (IIPS 2010). The early marriage of girls is of concern in the context of HIV/AIDS because when the female reproductive tract is immature, the chances of vaginal tissue damage during sex are higher, meaning there is a greater risk of HIV transmission (Verma et al. 2004). Furthermore, the limited scope of sex education in many schools means that young girls are often 'ill-informed about, and ill-prepared for, sex when entering into matrimony,' and may not know how to minimise risks to their health (Maitra and Schensul 2004: 152). A related implication of early marriage is that young brides

are frequently withdrawn from school (Ghosh et al. 2009), which exacerbates these issues of educational disadvantage.

Although neither males nor females are normally afforded comprehensive access to information about sexual health, cultural notions of appropriate gendered behaviour make it especially hard for females to learn about sexual matters. As Bharat and Aggleton note (2002: 97), there is a cultural expectation in some Indian communities that ‘good’ girls should remain naïve about sex and reproduction. As such some regard it as improper, even morally objectionable, for women to be exposed to much information about sex. Furthermore, when information is available, women themselves may feel that it would be inappropriate for them to attend to it. This emerged as a significant obstacle in Ghosh et al.’s (2009) analysis of HIV/AIDS awareness materials, for even when posters and leaflets were displayed in strategically-chosen locations where people were likely to pass them, their effectiveness was quite limited because women did not want to be seen reading them. As Nina, an 18 year old from Delhi, told her interviewers, ‘[a poster on AIDS] was hung outside [the hospital] but neither did I read it nor did I look at it. I just take the medicines and come straight home with my mother’ (Ghosh et al., 2009:639).

It was also found that male relatives or neighbours often intervened to forbid women from accessing information or discussing topics linked to sex (Ghosh et al., 2009). Women were frequently prohibited from participating in events on reproductive health, and outreach workers and interviewers were accused by local men of trying to “lead their women astray” – as Ghosh et al. surmise (2009:640), ‘men often encroached upon the physical and expressive space of the women, curtailing their autonomy and access to information and exchanges of ideas.’ Since many women are routinely chaperoned, the roles of male kin in curtailing women’s knowledge about HIV/AIDS risks, prevention and treatment are highly influential. On the other hand, restrictions on female sexual activity could also sometimes act as a brake against the spread of HIV/AIDS. These observations suggest that prevention schemes need to recognise barriers preventing some females from being exposed to HIV/AIDS awareness materials, and formulate strategies to overcome these issues.

Marital and extramarital relationships

Among the most significant HIV/AIDS-prevention challenge arising within marriage is the very low level of condom use in much of India (Kulkarni et al. 2004). This trend arises for a variety of interrelated reasons, including poor communication about sexual issues within

marriage, inadequate sex education, and cultural pressure on couples to have children, especially sons (Ghosh et al. 2009). The fact that many people see condoms as a contraceptive tool without taking into account their concurrent function in helping to prevent STI transmission (Kulkarni et al. 2004) may be another central factor. Failure to use condoms can be a significant risk factor if either partner has had premarital or extramarital relationships, yet cultural norms within many Indian families may not be conducive to open discussion of such matters (Maitra and Schensul, 2004).

Sobo (1995) claims that it is rare for husbands and wives to acknowledge the occurrence of extramarital sex to one another, stating that while most women are aware other men in their communities have relationships outside of marriage, it is rare for women to admit that their own husbands may be implicated. According to Sobo (1995:113) women routinely fabricate 'monogamy narratives' to present an ideal of their husband that slots into the cultural archetype of married fidelity. Maitra and Schensul (2004:149) may be correct in stating that for many women, 'the psychological benefit of risk denial far outweighs the cost of confronting partner infidelity, thereby risking loss of face, status and self-esteem.'

Yet this culture of silence and denial with respect to extramarital relationships poses challenges for HIV prevention efforts. According to Sobo (1995), couples often fail to (or chose not to) perceive risks associated with unprotected marital sex, supposing their risk of contracting HIV/AIDS and other STIs to be negligibly low. Maitra and Schensul (2004) found that these delusions were often maintained even when women's medical histories were starkly contradictory to their self-reported risk. The majority of women in the study, including seven with STI symptoms, claimed not to perceive any health risks from their husbands at all. Similarly, none of the males in the study seemed aware of any connection between their extramarital relationships and their wives' risk of infection. Combating these issues will require greatly improved education about sexual risks within marriage, and better communication between married couples about sexual issues.

Wife-blaming, widowhood and marginalisation

It is relatively common to hear of HIV-positive individuals cast out or disinherited by relatives angered and ashamed to have HIV/AIDS in the family. Married women are especially likely to fall victim to this kind of stigma due to conventions for young brides to live with in-laws rather than their own kin, and due to sexist attitudes that prevail in some social groups (van Hollen, 2011). In the 'patriarchal, patrilineal, and patrilocal contexts' of

these family structures (van Hollen, 2011: 477), in which there is often a stark gender-based power asymmetry between spouses, wives often get the blame for the discovery of HIV/AIDS in the family. This is despite the fact that multi-partner sexual histories are more common among Indian males (Ghosh et al. 2009), meaning that transmission more commonly occurs from husband to wife than the other way around. It is estimated that 95% of HIV-infected Indian women have not had any sexual partners apart from their husbands (Kidd et al. 2007). This personal account, provided to the Citizen News Service (2011) by a woman who contracted HIV from her husband, is an example of the marginalisation and prejudice some wives of HIV-positive men experience:

My in laws called me an empty barren woman and blamed me for their son's death. I was subjected to a lot of abusive violence, which really scared me. I was a widow with no family and no income. There was no one to help me. (Padmavati, Chennai)

Van Hollen (2011: 467) also adds that HIV-positive widows commonly face a double burden of discrimination owing to the fact that in much of Indian society 'not only AIDS, but widowhood itself carries stigma.' If expelled from their in-laws' home, widows may also be denied their husband's inheritance, leaving them both socially and economically excluded from the family. These observations demonstrate that the HIV/AIDS epidemic is very much interwoven with underlying issues of gender inequality and sexism in India. HIV/AIDS gives rise to novel manifestations of these cultural issues.

In some cases it can even be whole communities, rather than just individuals, who become ostracised as a result of HIV/AIDS. For instance, people from surrounding settlements now refuse to marry into families from Kamathipura, Mumbai, due to its reputation as an HIV/AIDS hotspot (Jain 2002). As such the rise of HIV/AIDS and growing awareness of it may have produced interesting modifications to marriage patterns in some areas. This is an apt example of how HIV/AIDS can alter local cultural dynamics.

Masculinity and religious circumcision

There sometimes seems to be a bias in the academic literature on gender in India towards a focus on females, even though norms associated with masculinity also influence the HIV/AIDS epidemic in important ways. According to Maitra and Scensul (2004), conceptions of masculinity in Indian contexts often emphasise male sexual appetites and portray the conquest of women as a part of what it is to be a man. Equally, some communities tacitly sanction male extramarital relations, or regard them as a man's right at times when his wife decreases sexual activity due to childbearing (Kidd et al. 2007). Cultural ideas about

masculinity and pressures to conform to ideals of manliness may promote risky sexual behaviours and increase the vulnerability of some men to HIV/AIDS.

Furthermore, there is evidence that some cultural customs specific to segments of the male population may impact on HIV/AIDS risks. An apt example is offered by Talukdar et al.'s (2007) research in Kolkata, which suggests that male circumcision protects against HIV infection. Significantly, male circumcision is chiefly practised by Muslims in India, meaning that differences in male HIV risk may arise in relation to religion. Talukdar et al. found that circumcised Muslims were substantially less likely than non-circumcised Hindus to have contracted HIV/AIDS, despite the fact that Muslim participants reported more sexual partners and a greater frequency of visits to commercial sex workers than Hindu participants. This example demonstrates that culturally specific stipulations of masculinity may affect susceptibility to HIV/AIDS, whilst also highlighting the fact that faith-based practices can have important implications for public health. The impacts of religious variations would be an important focus for future HIV/AIDS research.

4. Discussion and conclusions

The risks of HIV transmission, the consequences of infection and the ways in which communities respond to these issues are shaped by a range of cultural dynamics, which in turn are influenced by the spread of this disease. HIV/AIDS has changed cultural contexts in India in a host of different ways. The rise of HIV/AIDS awareness campaigns and educational drives has promoted discourse about sexual health, which may help to deflate sexual taboos. HIV/AIDS has provided new cultural categories for stigmatisation, along with new applications for frameworks of morality, judgment and religion. Gender inequalities have been manifested in novel forms, such as in the phenomenon of wife-blaming as a reaction to male HIV-infection. Furthermore, it has been noted that the ostracism of individuals or whole communities due to HIV-positivity could affect marriage patterns in some localities.

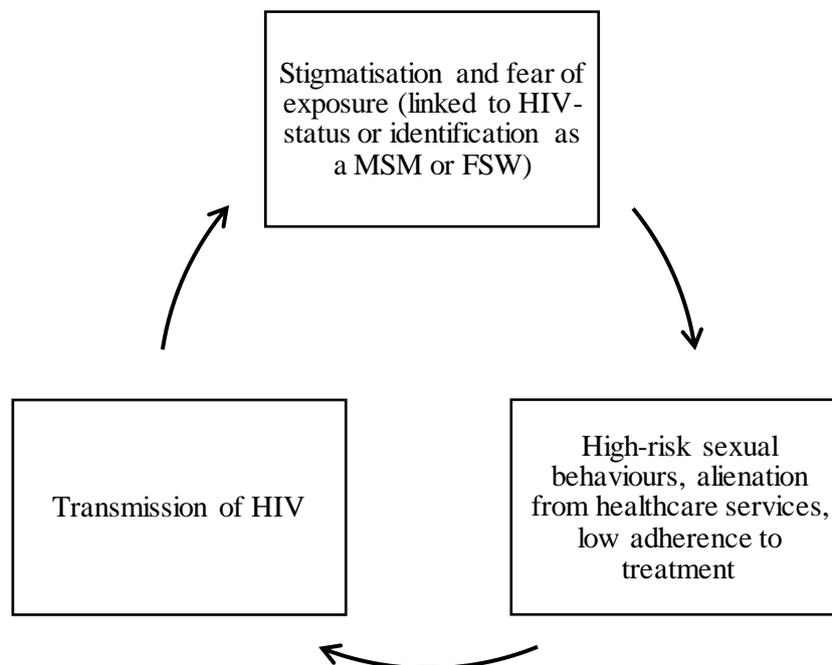
It is clear that HIV/AIDS has influenced Indian culture. Equally, cultural contexts have implications for the transmission of HIV and subsequent responses to it. Attitudes to sex, including sexual taboos, help to determine the extent and quality of HIV/AIDS awareness. Misconceptions about HIV/AIDS are relatively common, in part because of insufficiencies in adolescent sex education and also because prevention campaigns have sometimes been insensitive to the cultures, attitudes and educational levels of their target audiences. The

cultural significance attached to sex work, to the use or non-use of condoms and to eroticism between men also complicates efforts to combat the spread of HIV/AIDS. The discussions of marriage and gender in this article also emphasise that early marriage norms, limited communication about sexual issues between spouses and cultural ideas about masculine and feminine behaviour can modulate HIV risks. The limited social, economic and political agency of many females in India is an especially instrumental factor in this respect.

Considering these interactions holistically, the relationship between cultural contexts and HIV/AIDS can be conceptualised as a system of dynamic, bidirectional feedbacks. In one direction, various aspects of Indian cultures impact on HIV/AIDS outcomes, influencing transmission of the virus and how individuals, communities, and health systems respond to it. In the opposite direction, HIV/AIDS generates contextual changes in Indian society and cultures. This idea can be exemplified through the example of how sexual taboos relate to HIV/AIDS. Taboos sometimes restrict discussion of sexual health issues and may consequently facilitate HIV transmission. Yet on the other hand, increases in HIV incidence have contributed to increasing dialogue about sex in India. This suggests a feedback relationship, whereby taboos may promote HIV/AIDS, yet the presence of HIV/AIDS in the country discourages taboos.

Feedback is also identifiable in the interaction of stigma with HIV/AIDS. The culturally informed generation of stigma, arising in relation to HIV status or to being identified as a man who has sex with men (MSM) or as a female sex worker (FSW), influences sexual and health-seeking behaviours in ways that affect HIV transmission. For instance, fear of exposure as an MSM has been linked to limited engagement with health-care services, increased propensity to engage in high-risk sexual behaviour and the establishment of concurrent relationships with women, which promotes the bridging of the epidemic to the general population (Thomas et al. 2011). Admittedly, it would also be plausible for stigma to act as a brake against HIV transmission, if fear of exposure (as HIV-positive, an MSM or a FSW) isolates individuals or limits their sexual activity. However, no clear evidence of this has been observed (see Fig. 2).

Fig. 2: Proposed mechanism for how stigmatisation may relate to HIV transmission



Several critical research gaps have been revealed by these discussions. Policy-making cultures, their effects on the conceptualisation of disease and their possible limitations in culturally specific contexts have received little consideration in studies of HIV/AIDS. Similarly, it was noted that the cultures of health-care institutions, including the impacts of discriminatory attitudes towards HIV-positive people, have been under-researched. Explorations of how gender interacts with HIV/AIDS also need to be expanded to improve coverage of historically neglected subjects, notably female extramarital sex and normative masculinity. Finally, there has been almost no research into the relationship between the various Indian religions and HIV/AIDS. Yet commentaries here on the roles of *dharma* and *karma*, religion as a source of solace or rationalisation, *Devadasi* sex work customs and Islamic circumcision indicate that variables linked to religion can powerfully shape HIV/AIDS outcomes and the treatment of HIV-positive people. The exclusion of religion from HIV/AIDS research in India is a significant oversight.

HIV/AIDS and cultural contexts in India are inextricably interlinked and develop concurrently through continuous interaction. For this reason, it is imperative that the Indian HIV/AIDS epidemic is recognised not just as a biomedical issue, but also as a cultural issue.

A greater appreciation of disease–culture interactions is needed in research streams informing the Indian response to HIV/AIDS.

REFERENCES

- Bharat, S., and P. Aggleton 2002. Community responses to HIV/AIDS in Mumbai City, in Panda, S. et al. *Living with the AIDS virus*, New Delhi: Sage.
- Bharat, S. et al. 2001. *India: HIV and AIDS-related discrimination stigmatization and denial*, Geneva: UNAIDS.
- Bhattacharya, G. 2004. Sociocultural and behavioral contexts of condom use in heterosexual married couples in India: challenges to the HIV prevention program, *Health Education & Behavior* 31 (1), 101–117.
- Boyce, P. et al. 2007. Putting sexuality (back) into HIV/AIDS: issues, theory and practice, *Global Public Health* 2 (1), 1–34.
- Citizen News Service 2011. Story of three positive doughty women: down but not out, *Citizen News Service*, <http://www.citizen-news.org/2011/05/story-of-three-positive-doughty-women.html>
- Collumbien, M., and B. Das 2004. Sexual risk behaviour and condom use in Orissa, in Verma, R. et al. (eds.), *Sexuality in the time of AIDS*, New Delhi: Sage.
- Correa, M., and D. Gisselquist 2006. Routes of HIV transmission in India: assessing the reliability of information from AIDS case surveillance *International journal of STD & AIDS*, 17 (11), 731–5.
- Das, S. and G. Leibowitz 2011. Mental health needs of people living with HIV/AIDS in India: a literature review, *AIDS Care* 23 (4), 417–25.
- Dietrich, U. et al. 1995. The epidemiology of HIV in India, *Trends in Microbiology* 3 (1), 17–21.
- Economic Times* 2013. Homosexuality is criminal offence: Supreme Court, *The Economic Times*, 11th December, http://articles.economictimes.indiatimes.com/2013-12-11/news/45080584_1_apostolic-churches-alliance-decriminalisaion-utkal-christian-council
- Foucault, M. 1978. *The history of sexuality*, New York: Pantheon Books.
- Ghosh, J. et al. 2009. Vulnerability to HIV/AIDS among women of reproductive age in the slums of Delhi and Hyderabad, India, *Social Science & Medicine* 68 (4), 638–42.

- Hawkes, S. and K. Santhya 2002. Diverse realities: sexually transmitted infections and HIV in India, *Sexually Transmitted Infections* 78 (1), 31–9.
- International Institute for Population Sciences 2010. *Youth in India: situation and needs 2006–200*, Mumbai: IIPS.
- Jain, K. 2002. *Positive lives*, New Delhi: Penguin Books.
- Johnson, L. 2008. The relationship between reproductive rights and prevalence of HIV among women in developing countries, *Journal of Comparative Social Welfare* 24 (2), 143–52.
- Kidd, R. et al. 2007. *Reducing HIV stigma and gender based violence: toolkit for healthcare providers in India*, New Delhi: International Center for Research on Women (ICRW).
- Kulkarni, V. et al. 2004. Men Who Have Sex with Men: a study in urban western Maharashtra, in Verma, R. et al. (eds.), *Sexuality in the time of AIDS*, New Delhi: Sage.
- Lakhani, A. et al. 2004. Married women in extramarital relationships in a rural area of Gujarat, in Verma, R. et al. (eds.), *Sexuality in the time of AIDS*, New Delhi: Sage.
- Lawrence, P., and M. Brun 2011. NGOs and HIV/AIDS advocacy in India: identifying the challenges, *South Asia: Journal of South Asian Studies* 34 (1), 65–88.
- Mahajan, M. 2008. Designing epidemics: models, policy-making, and global foreknowledge in India's AIDS epidemic, *Science and Public Policy* 35 (8), 585–96.
- Maitra, S., and S. Schensul 2004. The evolution of marital relationships and sexual risk in an urban slum community in Mumbai, in Verma, R. et al. (eds.), *Sexuality in the time of AIDS*, New Delhi: Sage.
- NACO 2011. *Annual Report, 2010-11*, National AIDS Control Organisation, Ministry of Health and Family Welfare, Government of India. <http://www.nacoonline.org>
- NACO 2013. *Annual Report, 2012-13*, National AIDS Control Organisation, Ministry of Health and Family Welfare, Government of India. <http://www.nacoonline.org>
- NACP 2012. *NACP Phase III, State Fact Sheets*, National AIDS Control Organisation, Ministry of Health and Family Welfare, Government of India. <http://www.nacoonline.org>
- Nag, M. 1993. *Paradox of eroticism and sexual abstinence in Hindu culture*, New York: Population Council.
- Nambiar, D., and R. Rimal 2012. Duty and destiny: psychometric properties and correlates of HIV-related stigma among youth NGO workers in Delhi, India, *AIDS Care* 24 (11), 1384–91.
- Panda, S. et al. 2002. *Living with the AIDS virus*, New Delhi: Sage.

- Pradhan, B., and R. Sundar 2006. *Gender impact of HIV and AIDS in India*, New Delhi: United Nations Development Programme.
- Pradhan, B. et al. 2006. *The socio-economic impact of HIV/AIDS in India*, New Delhi: United Nations Development Programme.
- Radhakrishnan, S. 1993. *The Bhagavadgītā*, Harper Collins. New York.
- Ramakrishna, J. et al. 2004. Sexual behaviours of street boys and male sex workers in Bangalore, in Verma, R. et al. (eds.), *Sexuality in the time of AIDS*, New Delhi: Sage.
- Ramasubban, R. 1999. HIV/AIDS in India: gulf between rhetoric and reality, in S. Pachauri (ed.), *Implementing a reproductive health agenda in India: the beginning*, New Delhi: Population Council.
- Sgaier, S. et al. 2012. Knowing your HIV/AIDS epidemic and tailoring an effective response: how did India do it? *Sexually transmitted infections* 88 (4), 240–9.
- Singh, Y., and A. Malaviya 1994. Long distance truck drivers in India: HIV infection and their possible role in disseminating HIV into rural areas, *International Journal of STD & AIDS* 5 (2), 137–8.
- Sivram, S. et al. 2004. Telling stories: narrative scenarios to assess sexual norms for an HIV prevention study in Chennai, India, in Verma, R. et al. (eds.), *Sexuality in the time of AIDS*, New Delhi: Sage.
- Sobo, E. 1995. *Choosing unsafe sex: AIDS-risk denial among disadvantaged women*, Philadelphia, PA: University of Pennsylvania Press.
- Srivastava, S. 2007. *Passionate modernity: sexuality, class and consumption in India*, New Delhi: Routledge.
- Swarankar, R. 2001. From nomadism to prostitution: an ethnographic study of Nat community in Rajasthan, in M. Bhasin and S. Malik (eds.), *The science of man in the service of man*, New Delhi: University of New Delhi.
- Talukdar, A. et al. 2007. Risk of HIV infection but not other sexually transmitted diseases is lower among homeless Muslim men in Kolkata, *Aids* 21 (16), 2231–5.
- Thomas, B. et al. 2011. HIV in Indian MSM: reasons for a concentrated epidemic and strategies for prevention, *Indian Journal of Medical Research* 134 (6), 920-9.
- UN 2010. *United Nations General Assembly Special Session on HIV/AIDS, India*, New Delhi: National AIDS Control Organization.
- UNAIDS 2013. <http://www.unaids.org/en/dataanalysis/> (retrieved October 2013).
- Van Hollen, C. 2011. Breast or bottle? HIV-positive women's responses to global health policy on infant feeding in India, *Medical Anthropology Quarterly* 25 (4), 499–518.

Verma, R., and S. Schensul 2004. Male sexual health problems in Mumbai: cultural constructs that present opportunities for HIV/AIDS risk education, in R. Verma et al. (eds.), *Sexuality in the time of AIDS*, New Delhi: Sage.

Verma, R. et al. (eds.) 2004. *Sexuality in the time of AIDS*, New Delhi: Sage.

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