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The limits of behaviour change theory: Condom use and contexts of HIV risk in the Kolkata sex industry

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Abstract
This paper uses ethnographic data from a sex workers' HIV project in India to consider the appropriateness of individual, social/group and structural theories of health behaviour when applied to HIV-prevention initiatives. Existing theories are critiqued for their modernist representation of behaviour as determined by individual rational decision-making processes or by external structural forces, with inadequate recognition being given to the roles that human agency, subjective meaning and local context play in everyday actions. Analysis of sex workers' accounts of their sexual practices suggests that existing theories of health behaviour can only partially account for sexual behaviour change retrospectively and that they have limited predictive value with respect to the outcomes of individual sexual encounters. Our data show that these outcomes were, in fact, highly context dependent, while possibilities for action were ultimately strongly constrained by structural forces. Findings suggest that interventions need to adopt an integrated, structurally-oriented approach for promoting safer sexual practices in sex work settings. Recognising that no one model of health behaviour is likely to be adequate in explaining or predicting behaviour change encourages responsiveness to local people's agency, recognises the different (health- and non-health-related) registers of risk with which people operate and encourages flexibility according to local contingencies and contexts.

Keywords: *Sex work, behaviour change, risk, HIV/AIDS, India, Kolkata*

Introduction

In the last two decades of HIV, much has been learned about how to facilitate behavioural change. In sex work settings, many interventions have led to significant increases in safer sexual practices. However, for HIV prevention to be effective on a large scale it is important for sex workers to achieve high and consistent levels of condom use. Very few programmes and interventions have succeeded in facilitating this. There is a need to explore the factors that influence safer sex practice in sex work settings and to examine the pathways through which interventions achieve behavioural change (Rekart 2005). It is often assumed that, to be effective, health interventions need to be theory driven, basing their strategies upon established models of behavioural change, but this has rarely been evaluated empirically (Fishbein 2000). Instead, most sex-work intervention research has consisted either of formative situation assessments or outcome evaluations that provide rather generic global

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assessments of the prospective or actual success of projects respectively. Very few studies have directly explored how specific contexts of vulnerability interface with different intervention strategies and thus affect safer sex outcomes (but see: Asthana & Oostvogels 1996, Campbell 2003, Busza 2004). Such process-oriented studies can provide important insights. First, they may show how sex workers themselves translate project inputs into action. Second, they may explain post-intervention variations in safer sex practices, both between sex workers and for the same sex worker at different times. Thirdly, they may illuminate how well academic theories of behaviour change 'fit' with the reality of sex workers' life worlds. Insights into these issues can help to account for why interventions do or do not produce behavioural change.

This paper examines these three issues by drawing upon material from an ethnographic study of sex workers' lives and sexual health in Kolkata, India where a globally renowned HIV intervention, the Sonagachi Project, has brought about significant social and behavioural change (Jana *et al.* 1998, Evans 2000, Jana *et al.* 2004). The paper begins with a brief overview and critique of theories of behaviour change. Sex workers' narratives of health, risk and sexual negotiations are then examined and used to re-visit theories of behaviour change, highlighting the parameters of their applicability but also their limits.

Paradigms of behaviour change and health promotion in relation to HIV

In the health promotion arena, different health behaviour change models tend to focus either on individual, group or structural/environmental processes (though they all acknowledge to varying degrees the inter-relationship between these elements). The most well-developed models focus on the individual. At this level, deficits of motivation, knowledge, skills, self-efficacy, self esteem or a lack of feeling in control over one's life are all said to impede behaviour change (cf. the Health Belief Model: Becker 1974, Rosenstock *et al.* 1988, the Locus of Control Theory: Wallson 1978, the AIDS Risk Reduction Model: Catania *et al.* 1990, the Theory of Reasoned Action: Ajzen & Fishbein 1980, and the Social Learning Theory: Bandura 1986). Interventions based on these primarily psychological models aim to bring about change by correcting these deficits with a wide range of motivating inputs.

Less attention has been given to the group level in accounting for behavioural change, although some authors recognise that social and cultural norms in various contexts (e.g. peer group, family or community) have a strong influence on social identity and associated behaviours (Rogers 1983, Campbell & Cornish 2003). The challenge for programmes and interventions is to change knowledge, consciousness and norms at group level and this is usually attempted through the use of multi-media communication, social marketing and peer education strategies.

Increasingly, there are calls to shift the focus away from targeting risky individual behaviour in isolation, in favour of explicitly recognising and addressing the environmental and societal factors that create vulnerability to HIV (Tawil *et al.* 1995, Blankenship *et al.* 2000, Rekart 2005). Structural factors such as poverty, gender and lack of access to and control over resources are seen as key obstacles to sexual health. Interventions aim to tackle these factors by changing laws or policies or by mobilising communities to identify 'obstacles' and collectively create solutions (Tawil *et al.* 1995). It is assumed that once obstacles are removed, individuals will change their behaviour in accordance with medical advice.

Though differing in focus and grounded in diverse academic disciplines and assumptions, the various approaches to behaviour change described above have been

criticised for sharing a somewhat modernist and mechanistic view of human action. Individuals are represented either as autonomous isolates acting rationally on the basis of objective knowledge about the world or as being passively manipulated by socioeconomic, group or cultural structures. Behaviour change is often represented as the consequence of *external* forces acting deterministically upon the individual, with rather minimal acknowledgement of the role of human agency or social meaning (Aggleton, Davies & Hart 1995). The difficulty of achieving sustained and consistent sexual behaviour change however has led numerous authors to argue that it is theoretically inadequate and practically insufficient to base analyses of social change solely upon an assumption of external determination and that responses to new knowledge or skills imparted from 'outside' can only be understood when the meanings they take on for individuals and groups in their own life worlds are considered (Long & Long 1992, Bloor *et al.* 1993).

There is a need, therefore, to integrate structure, context and actor (agent) in thinking about safer sex and behavioural change (Brummelhuis & Herdt 1995) and it has been suggested that sexual behaviour needs to be recast as a form of *social action* — that is as a set of practices that is endowed with meaning and negotiated within particular social environments (Aggleton, Davies & Hart 1989, 1992, Aggleton *et al.* 1995). Such a perspective recognises that local practices are shaped by distant time/space arenas and that macro-phenomena are only intelligible in situated contexts, grounded in the meanings accorded them through the on-going life experiences of individual men and women (Giddens 1979, Bourdieu 1990). This study aims to present a more integrated analysis by revealing the complex ways in which safer sex in the Calcutta sex-work setting was shaped by human agency, context and structure.

Methods

The data presented in this paper formed part of an ethnographic study of sexual health and sex work in Kolkata, India that was conducted in collaboration with the Sonagachi sex workers' project (SHIP) in three sex-work sites in the city from 1995 to 1997 (Evans 2000). The first author has subsequently kept up-to-date with the intervention project, visiting it on numerous occasions, most recently in 2005. The research included informal contacts and opportunistic discussions during the course of participant observation with a wide range of sex industry stakeholders (sex workers, madams, landlords, boyfriends, customers, local gang members and pimps). Data were also gathered through semi-structured narrative interviews with 61 sex workers, four focus group discussions with peer educators (PEs), three focus group discussions with SHIP project supervisors and interviews with senior project managers. In interviews, sex workers were asked about their views on HIV, risk and their ability to protect their health. They were also encouraged to relate stories about specific times (usually the previous day) where they had been successful and unsuccessful in negotiating safer sex with a client. The research material was analysed thematically. The researcher accessed sex-work sites with the help of project workers, hence it is possible that narratives were subject to a social desirability bias regarding safer sexual practices or were in other ways modified to present a 'public account' to an 'outsider'. The extended period of data collection and immersion in the field however allowed the researcher to build close relationships with informants and to gain a sense of the many complex issues women faced in negotiating their sexual health. In addition, methodological and respondent triangulation enabled the topics to be explored in a number of different ways. Finally, the interpretations presented here have been discussed with sex workers and project workers in subsequent visits to the sex-work sites.

Ethical approval was gained from the London School of Hygiene and Tropical Medicine Ethics Committee. Large community meetings were held in the sex-work sites to inform local people of the project and informed consent was obtained prior to any formal research activity.

Research setting: Contexts of vulnerability

Kolkata's brothel-based sex industry comprises almost 18,000 female sex workers located in different sites across the city, the largest of which is called Sonagachi (All India Institute of Hygiene and Public Health [AIIHPH] 1992). Most women working there are first generation migrants from impoverished rural areas who share a common history of family problems, poor educational backgrounds and/or limited opportunities for employment in the villages. Sex work in India is severely socially stigmatised and an ambiguous legal status effectively criminalises the profession leaving women vulnerable to police raids.

Sex-work sites consist of a number of houses and small businesses (e.g. liquor shops, food stalls etc.). Within these areas, different sex-work arrangements exist. Some women rent their own rooms and work independently, others work as an *adhiya* for a madam (*malkin*) to whom rent and half their daily earnings must be paid. Other women work as 'high class' *adhiyas* as their custom is brought to them by pimps (*dalals*) rather than having to solicit work on the street. *Chukris* are younger women for whom a madam pays an advance lump sum (either to her family or to a trafficker/procurer). The *chukri* is then bonded to the madam who retains all her earnings until the debt (and often more) is paid off.

Research by SHIP has classified women economically into different tiers (A, B or C) depending upon their earning capacity (how much they charge a client) and average income. 'C' category women tend to include older women and those working independently. 'A' and 'B' category tend to be *adhiyas* and almost all women in *dalal-baris* (houses served by pimps) are 'A' category. Within each neighbourhood (*para*), a large number of third parties have a vested interest in the sex trade, including madams, landlords, pimps, money lenders, local business men, police and customs and excise officials. The political parties in West Bengal had adopted a laissez faire approach to the sex industry *per se*, though each *para* is associated with various political parties through a network of clubs, party offices and local henchmen. Sex workers are primarily seen as a vote bank and were often persuaded to vote in accordance with instructions from local gangs in return for 'protection'. Many sex workers have boyfriends (*babus*) who are referred to locally (somewhat humorously) as *khane wala* or *dhene wala* — one who eats or one who gives. These names subtly express women's common experience that whilst *babus* can be an important source of love, intimacy and social security, they can also be abusive and financially demanding. In sum, prior to the work of the project, sex workers lived in a highly exploitative environment in which their lives, health and occupational autonomy were shaped by the need to maintain complex relationships with third party trade controllers and in which they lacked individual or collective power.

Prior to the setting up of SHIP, very few NGOs were associated with the sex-work sites and were primarily oriented to rescue and rehabilitation or to children's welfare activities. Medical treatment was primarily sought from the private sector (Evans & Lambert 1997).

The SHIP intervention

With support from WHO, SHIP was started in 1992 as a fairly conventional targeted behaviour-change intervention, comprising three main elements: health education about

AIDS, STDs and condoms (delivered using a visual flip chart by teams of PEs led by project social workers); condom promotion (again using the teams of PEs who distributed free condoms to sex workers); and free healthcare services (STI treatment, screening and other healthcare, delivered via clinics which were set up in local club premises in most of the city's red light areas) (Jana *et al.* 2002).

Sex work sites were divided into project 'fields', each of which was served by a team of PEs. The PEs, who were paid a monthly stipend and given a uniform to wear at work, were encouraged to establish close and friendly relationships with sex workers and were on duty every day except Sundays. Most sex workers would be visited by groups of PEs from 1–6 times per week, depending on the size of the field. Sex workers reporting reluctance or difficulties with condom use were targeted for additional inputs from groups of PEs. The PE's role also involved encouraging sex workers to come for regular check-ups at the clinics and carrying out follow-up work to encourage adherence to medication and follow up STI screening visits. The project's health promotion activities were thus conducted very intensively through group-based interactions that included an element of surveillance and peer pressure.

Another key part of the PE and supervisors' role was local level advocacy to build support for the intervention and for safer sex practice. They were encouraged to get to know the madams, pimps and other stakeholders in their field and undertook intensive advocacy with these actors as well as with local politicians, councillors, doctors and police in order to facilitate their co-operation with the project.

As the project developed, PEs took on an increasingly central role in service development and delivery and their participation resulted in an explicit shift in the project's focus from medical intervention to 'empowerment' based upon dialogical analyses of sex workers' social exclusion (Jana & Singh 1995, Gooptu 2002). Peer educators were helped to network with each other and eventually in 1995 formed their own sex workers' organisation, the Durbar Mahila Samanwaya Committee (DMSC), whose aim is to fight for sex workers' rights (Pardasani 2005). Since this time, the project's sexual health activities have expanded to cover the entire state of West Bengal. At the same time, the DMSC has initiated a wide range of political campaigning, policy advocacy and social and economic development activities.

Table I shows results from cross-sectional surveys (n=350 to n=600) of sex workers' sexual health practices covering women from different red light areas. The Table shows that the project intervention yielded dramatic results, even before its activities broadened from 1995 onwards. In 1993, after just one year, the percentage of sex workers who reported 'always' using condoms with paying customers rose from 1% to 47% and 71.4% of those sampled said they had engaged in protected sex with all customers on the previous day[1].

Table I. Changes in AIDS-related knowledge and safer sex practices.

	1992 (AIIHPH 1992) (%)	1993 (AIIHPH 1993) (%)	1998 (AIIHPH 1998) (%)	2001 (NACO 2001b) (%)
Always use condoms (defined as consistent condom use)	1	47	50.4	39
Condom use with all paying customers on previous day	N/A	71.4	78.5	86.5

Clearly, considerable behaviour change occurred at an early stage of the intervention but then plateaued. For example, there is only a relatively small change in condom use figures in the five years from 1993 to 1998. During fieldwork, it was very obvious that there was still considerable variation in women's condom use that is masked by 'average' percentages — with some sex workers reporting 100% use and others none at all — and other women reporting fairly consistent use but with occasional risky lapses. The material below explores possible reasons for this variation and illustrates the ways in which safer sex practice is mediated by influences operating at interpersonal, group and sociostructural levels.

Negotiating safer sex: Interpersonal dimensions

Most women were acutely aware that their work and the red light area environment posed numerous threats to their health:

> 'From the very beginning we had felt that that *adhikar* [right] over our own body we don't have that — that I will think that after having my bath I should have a good *tiffin* [snack/breakfast] in the morning to remain healthy — all this was not within our rights — why? Because in the morning after waking up, normally one has tea but for us we are forced to hold the drinking glass [consume alcohol].' (Podda, PE)

Prior to the project commencing its work, sex workers already engaged in various health-promoting practices such as eating a healthy diet, maintaining personal cleanliness and checking the client for signs of sexually transmitted infections. Many women seemed to have been relatively quick to accept that HIV was another risk and appeared to have internalised the need to take preventive action:

> 'If I want to keep this life I must use condoms so that this new AIDS disease doesn't enter me. I have children and if something happens to me, who will look after them?' (Komola, sex worker)

Sex workers described a range of strategies that they used to try to gain control of their sexual encounters in order to give them a better chance of enforcing condom use. These included taking the customers' money first (if the customer refused condoms and left, the sex worker would still keep half the money for her time), gaining the customers' favour by 'good' or highly erotic behaviour, and cajoling, teasing or teaching customers about HIV and AIDS. Some sex workers indicated that they had developed confidence and had learned negotiation skills from the project staff:

> 'Before, when customers used to come they would get angry if we talked about condoms — even now they say why should we use? But I just tell them, wear it and see, why do you want to buy this disease by paying money? Before, I couldn't talk about it — I didn't know anything. Now because of this project, I can discuss with the customer.' (Razia, sex worker)

Some sex workers described how, with experience, they tried to adopt a highly assertive, managerial stance to retain control:

> 'Basically I say "yes" to whatever the customer says at the gate — what to do? Otherwise I wouldn't get anyone. Then once they are in my room I try and explain — if they don't like it I tell them to get out — One man had given me Rs.250 — he wanted to do it without a condom but I drove him out — he wanted the money back but I said no way.' (Maya, sex worker)

However, many sex workers described how fear of violence was a key factor that prevented them from being assertive with customers. Shanti (sex worker) explained:

> 'Some days before a customer came...In the room he wanted to drink so...he had a bottle. Then he was ready to *sit* [have sex] and I got out the *cap* [condom]. He said to me I have never used one of these and I will not use. Many customers say this so I started to explain but then I saw he had put a razor blade into his mouth — I saw it glinting in the corner of his cheek. I said nothing more, just lay there and let him finish the work. Like this, our lives are in God's hands.'

Unsurprisingly, many sex workers noted how their decision making around safer sex was also heavily influenced by their need for income. There was not always, however, a straightforward connection between poverty and lack of condom use. In common with many poor people, sex workers often managed their money on a short-term day-to-day basis. At the beginning of each day, they knew how much they needed to make to cover immediate expenses. Accordingly, adjustments in their safer sex practices were made according to the state of their finances on the particular day and could even depend upon the time of day, as explained by Rekha (sex worker):

> 'Yesterday I had four customers. I *sat* [had sex] with three of them and fourth I sent away. With the first man I did not use a condom. I had been waiting at the gate the whole day and he came and we fixed a price for Rs.30. He didn't say anything so it was only in the room that I said about using a condom. This man said "no, I won't have any pleasure", so I started explaining — I explained for half an hour but he still refused. I got really angry and I would have thrown him out — but he was my first customer. I had no money in my house. I thought I don't know if any other men will come today and if they don't then how will I feed my children? So I sat him without a condom. After that, another two customers came and they did not make any trouble. I had another customer much later and he also did not want to use a cap so I kept half the money and sent him off. I could send him away because I had already had three customers so I had a little money in my hand.'

For other sex workers, however, even for those who worked for the project, poverty was chronic and crushing and sapped their ability and motivation to insist on safer sex:

> 'Usually, I use (condoms) with everyone but business has been so bad lately. School is starting next week and my son keeps pestering me for books and uniform. Yesterday, I got so mad at him...then two customers came and I did them without condoms — what to do? I am so tired. With my children and household, all these expenses on my head. It will be better if I get AIDS and die.' (Asha, PE)

Safer sex became much more difficult for sex workers with their regular customers. In keeping with findings from studies all over the world, women viewed such customers as an important source of reliable income and also as people who could be turned to for financial help or other assistance in an emergency (DeZalduondo 1999). Whereas sex workers usually expressed a keen awareness that such regulars could still present a risk to their sexual health, clients often drew upon a rhetoric of trust to refuse condom use. Over time, some sex workers succeeded in convincing them but others remained caught in a bind, like Anjali, having constantly to weigh up 'relative risks':

> 'I have one customer who has been coming to me for years but he won't use condoms. My other regular customers I have convinced but they still come to me because of my good behaviour. Recently, I told him all about my daughter who has all these health problems. I am trying to make her study so that she can find a job in the future. He must have felt *maya* [pity] for me because he

said OK, what you must do is find some land and build a small house where your daughter can live safely — I will see to it...Then, when I talked to him about condoms his face went all sad and he hung his head like this. If I insist I will lose this man — he won't come any more. So what could I do?'

Sex workers described a similar problem with *babus* (boyfriends) with whom non-use of condoms was regarded as an expression of intimacy (cf. Day 1988). Some women regarded the relationship as special, characterised by trust and intimacy, whereas others such as Sangeeta, below, were resigned to accepting infidelity but felt unable to address the issue:

'My *ghor-er lok* [man of the house] will never use condoms, even if it causes AIDS and death. Just last month my blood test was bad and it is because of him. He tells me a man can't eat daal and rice every day — some variety is required. What to do? I am getting old and hardly have customers these days. If this man goes who will be there to look out for me?'

Safer sex as collective action: The development of group solidarity

Peer educators noted that prior to the setting up of the project, there had been very little sense of common identity or solidarity amongst sex workers within and between different localities. This made collective action to promote sexual health very difficult and also contributed to a highly competitive milieu in which sex workers were reluctant to lose clients by insisting on condom use, knowing that other sex workers would not back them up:

'If the customer doesn't want to use then I look [visual examination] and sit him. What can I do? If I don't sit him he will go to another girl and it will be a big loss for me. We are not one in this place.' (Rupa, sex worker)

The PEs noted how the SHIP had enabled them to meet and engage in discussions on a range of issues in a safe and non-threatening environment. Eventually, a strong network and sense of solidarity developed among them that led to the formation of the sex workers' collective (DMSC) (Gooptu 2002). In the 1990s, involvement in the DMSC among sex workers who were not PEs was still fairly limited (though growing) but the PEs noted that their work was bringing about slow and subtle changes in social cohesion amongst sex workers:

'We girls used to know each other by face but we did not mix and we never bothered to find out how others are keeping. After the project has come, not only in our area but in all the localities, we have come closer together. We meet regularly, we ask each other how they are, we feel more united. Even if the girls don't accept our condoms we still talk to them, find out their problems and they ask our advice. There is more unity among us, the fights and squabbles are reducing.' (Indrani, PE)

During their work, PEs actively promoted a sense of collective identity and responsibility amongst sex workers, stressing that unity would be in everyone's interests. Peer education sessions often reflected these themes:

'It's OK — if you want to die then do so — but if in doing so you spread this disease around the "line" [the sex work business], then other girls will die. People will say there is AIDS in Sonagachi and our business will get cut...See, this you must understand, unless we all become one we cannot

solve our problems. All of us living in our own little rooms, can we do anything? No, but if five girls come together we will be strong. We have to fight this disease together, only then can it be overcome.' (Maya, PE talking to an *adhiya*).

Social structural influences on practising safer sex

Sex workers' descriptions of their sexual encounters clearly revealed how the occupational structures of sex work influenced their ability to protect their health. This was most evident in the case of *adhiyas*. For example, safer sex negotiations with reluctant customers often took a lot of time. *Adhiyas* who were sharing rooms were under a lot of time pressure — both to finish rapidly so that they could take another customer but also in order to free the room quickly so that another girl could use it (queues were not uncommon). Sex workers who took too long were reprimanded by madams, who were also suspicious that their *adhiya* may actually have had sex twice and was not paying her full dues.

In addition, many *adhiyas* were in debt to their madams. This put them in a very weak position to be assertive around safer sex — both with madams [*malkin*] and customers:

'It is like this...if I have a Rs.2,000 loan from my *malkin* and if I cannot even earn Rs.200 per day then I cannot give Rs.100. From the Rs.100 that is left I have to deduct Rs.40 as boarding charges, then Rs.60 will go towards loan repayment. So, naturally this is a kind of pressure which will compel me to allow people to do the job without a condom...Some girls like that are indebted for Rs. 20,000–30,000. These girls cannot force the *malkin* to do anything. They always have to listen to their *malkin*.' (Dipti, PE)

In some cases, sex workers would meet PEs secretly and would hide stocks of condoms out of their madam's sight. Thus, even where madams were unsupportive, some sex workers still did their best to protect themselves. Below, Shipra, an 'A' category (high-earning) *adhiya* in Sonagachi with a very controlling madam, describes circumstances in which she had been able to protect herself with some customers but not with others:

'I had five customers yesterday. Three came to the room and I used [condoms] with all of them. Two of them didn't make any trouble. The other one did not want to use. He said I will not be able to "discharge". I was worried my madam might hear him protesting so very quietly I spoke to him and rubbed him and showed that see, just try it and you will definitely discharge. I thought he would make trouble. Usually, if a man is taking too long my madam starts to blame me and says that I have sat twice so if he takes a long time I take the condom off. With this customer I convinced him and he discharged quickly so there was no trouble...Then in the night I was called to another house in this area and those customers didn't want to use. There were two of them and another girl was there as well. They were quite drunk and we didn't want any trouble so we did it without. I was afraid to go back to my *malkin* without any money.'

Women who worked from *dalal-baris* (houses where pimps would bring customers) were also constrained in their safer sex actions. First, their exclusivity meant that their charges were much higher and a lost customer represented a correspondingly greater financial loss. Second, procuring business was not under women's own control and pimps could not be relied upon to support condom use. As pimps earn 25% of each sex act, lost customers also meant a loss of earnings for them. So if an unhappy customer complained to the pimp, the pimp would be more likely next time to take men to a different sex worker. *Dalal-bari* sex workers who did not comply with customers' demands therefore put their business at

considerable risk and, ironically, seemed to have less autonomy than the economically worse off but more 'independent' 'C' category workers:

> 'Girls from the *dalal bari* rarely misbehave. If I sit in a room I know that if I behave badly nobody would come to me. The girls there are bound to do all kinds of sex...They rarely can protest or behave badly. For us it is different. If I bring a customer I can make him use a condom or drive him away — I can do that — they cannot do that.' (Malini, PE)

A number of the quotes above reveal how women's economic status and need for income affected their safer sex decision making, although not always in straightforward correlation between lower earnings and reduced condom use (cf. De Zalduondo 1999). Women's economic insecurity was exacerbated by several other features of the wider milieu. Prior to the project, banks would refuse to open accounts for women who gave addresses in sex work sites. In addition, few sex workers were able to negotiate the red tape involved in the formal banking sector. Sex workers were thus forced to rely on *babus*, madams or money lenders for financial matters and were frequently cheated. Indebtedness was exacerbated by police raids, which would result in loss of business for many days or, worse, court fines. Women were clear that ultimately economic security was their bottom line:

> 'When I have not had a customer for two days and a man comes but will not use a condom, what should I do? If I tell him to go how will I run my household? Who will pay for my expenses?' (Gauri, sex worker)

In discussions about the wider societal influences on women's lives, sex workers involved in the project were aware of the gender inequities, social stigma and discrimination that surrounded the sex trade and that had led to their targeting in an HIV/AIDS programme:

> 'Why do you think the project was opened here? Because it is the men of the *grihastha para* [respectable' neighbourhoods] who come here...It is spreading mainly because of men — we the line girls are not going out into society spreading it — they are coming here and then they are taking it from one girl to another...You know, we are not thieves, we do not murder, it is to kill the hunger in our own stomachs that we have come into this profession. Everyday we endure torture upon our bodies so that our mothers and sisters can walk the streets in safety — yet in spite of this, we are called bad.' (Shanti, PE)

Revisiting behaviour change

The material presented above illustrates how sexual practices in the red light areas held different meanings for different individuals with different sexual partners and were influenced by a complex and interlinked range of interpersonal, group, occupational and structural factors. How far do theories of behaviour change explain these findings?

Both the Health Belief Model and Theory of Reasoned Action place primary importance upon an individual's knowledge, intention and motivation to enact a particular behaviour and the Sonagachi project's PE strategy was designed to inform and motivate (Ajzen & Fishbein 1980, Becker 1974). However, these theories are inadequate in explaining condom use in a context where safer sex is the result of negotiations between at least two and sometimes up to four actors (if madams and pimps are included). Some of the quotes above do make explicit sex workers' 'intentions' to practise safe sex (cf. Theory of Reasoned Action) and also seem to confirm that sex workers do sometimes engage in cost-benefit

evaluations of risks in specific situations (cf. Health Belief Model). However, sex workers' unequal relationships of power with madams, with particular customers or with *babus* often created situations where the intentions of the latter were the more potent determinants of safer sex outcomes.

Seen in this light, sex workers' practices with regard to condom use can be differently characterised by co-opting the epidemiological concept of 'relative risk' into a social vocabulary (Gifford 1986). Discussions of health-promoting behaviours tend to consider health-related practices solely in terms of a universe of health-related considerations without bringing them into conjunction with the other non-health-related dimensions of people's lives. For sex workers in Kolkata, however, the risk of HIV or other sexually transmitted infections incurred by non-use of condoms may have to be weighed up not only against the likely benefits of self-protection also but against the concurrent risks of failing to provide food for a child (through losing a customer), of jeopardising a valued sexual relationship (by alienating a boyfriend) or, perhaps, of being exposed to physical violence (from an angry customer). Thus, different registers of risk need to be brought together in order to understand the true constraints and incentives that these women are evaluating on a daily basis.

Personality theories in turn suggest that, for example, a self-confident extrovert may find it easier to be assertive with customers than a timid introvert and some of the quotes above indicate that this is to some extent the case (Wallson 1978). Self-efficacy theories, by contrast, focus not upon inherent but upon learned aspects of human behaviour. Sex workers' descriptions of enhanced confidence and sexual negotiation skills as a result of intensive peer education are a good example of enhanced self efficacy (Bandura 1986). However, personality and self-efficacy theories cannot adequately explain variations in individual safer sex practices that are not related to personal volition but to the wider occupational context.

Other social-psychological theories of behaviour change similarly resonate with some but not all of our material. For example, social expectation models that state that individual practices are substantially the result of conformity to expectations of others, especially the peer group, may help to explain peer educators' apparent success in changing attitudes towards, and norms around, condom use within the red light areas, especially since key trade controllers were included in this effort (Rogers 1983, Hornik 1991, Turner & Shepherd 1999). These models would suggest that condom use increased because the PEs/SHIP had created an environment where conformity to the expectations of the social network required it. Such models place less emphasis on the role of 'correct' individual knowledge/intentions or risk perception, suggesting that these will only be translated into practice when social norms are consistent with and encourage it (e.g. sex workers being willing to enforce condom use with customers but generally not with *babus* even when they knew they might be at risk). However, these models fail to take account of the wider context of practice, so that even though condom use may have become a normative social expectation among sex workers in their everyday work, whether or not their actual practice could reflect this norm still often remained contingent upon structural factors (such as occupational autonomy or financial hardship).

Our material appears to support theoretical arguments that health behaviours are most strongly influenced by structural forces. Sex workers' ability to practice safer sex is clearly shaped by the social-power relations inherent in the organisation of the Kolkata brothel-based sex industry, whose structure in turn is shaped by aspects of macro-level political economy and relations of class and, in particular, gender. Although these structural constraints are powerful, the single most important determinant being women's

impoverished economic circumstances, our data show that women's safer sex practices were not entirely determined by their structural location and that the relationship between socio-occupational position and safer sex was not entirely linear or predictable. Sex workers were not passive victims of social forces. Most had substantial insight into the nature of their vulnerability and actively strategised within the spaces available to them to protect their well being, to find security and intimacy and to do their best for their families.

In sum, findings demonstrate that a range of inter-connected interpersonal, group and structural characteristics influence safer sex practice. Possibilities for change however are ultimately delimited by structural forces that play themselves out within the occupational milieu as well as through broader societal norms. The implication for future programming and intervention is that an integrated approach is required in which multiple strategies are employed to address individual, group and structural influences. For condom use to be consistently achieved and sustained, the structural constraints on individual behavioural change require serious attention.

Conclusion

We have argued that all of the aforementioned theories of behaviour change can partially but not wholly account retrospectively for sexual behaviour change within a delimited social arena. It is much more difficult for these theories however to *predict* the outcomes of individual sexual encounters. These outcomes were, in fact, highly context-dependent. Behaviour was shaped by sex workers' agency as individuals and as members of a group and constrained by structural forces. The interactions between agency and structure, however, were mediated at the micro-contextual level by a range of contingent circumstances that influenced women's actions on a situational basis. Potential gains in health protection from condom use were weighed up against other, non-health-related risks in deciding whether to insist on condom use or to turn away a non-compliant customer. Thus, taking the example of Rekha's need for a minimum daily income (previously mentioned in this paper), to search for general psychosocial or structural 'determinants' to explain her condom use practices would be to falsely seek a cognitive/structural logic, where what mattered to Rekha was a sequential adjustment to unpredictable conditions on a particular day. The same applies to Shanti's example (previously mentioned in this paper) of non-condom use with a potentially violent customer. Here, clearly, non-condom use was an appropriate, rational and indeed essential survival strategy to avoid violent confrontation. The recognition that behavioural outcomes are the result of complex negotiations between social actors in particular contexts that, of necessity, include other considerations not related to sexual health suggests that sexual 'behaviour' is more accurately characterised as 'social action'.

It is this contextual variation (as well as over-determination), producing the need to evaluate and act in recognition of different types and levels of risk (economic, personal and emotional as well as health-related) that tends to confound attempts to formulate universally applicable models of health behaviour change (UNAIDS 1999). Our data show that an integrated, structurally-oriented approach is most suitable for promoting safer sexual practices in sex work settings. They do not, however, suggest that it is possible or even desirable to develop a new synthetic *model* of behaviour change that can thereafter be applied to all settings in a top-down manner since, by definition, such models must perforce represent health-related change as artificially occurring in isolation from other behaviourally determining circumstances. Rather, as the SHIP intervention demonstrates, the sequence, pace and exact strategies employed by an intervention will need to be

grounded in an understanding of the local context and developed from the 'bottom up'. In some sex work settings, the occupational milieu has been addressed through the enforcement of work-place based policies mandating 100% condom use, with considerable success. The project and the DMSC however took a different approach, working together to address many of the structural challenges by community mobilisation, socioeconomic interventions and political advocacy based on an ideology that promotes sex workers' human rights. The impacts of these broader activities on women's sexual health have yet to be formally evaluated but the DMSC has come to be recognised globally as a model of structural intervention that is based upon respect for sex workers' agency, participation and the development of context-appropriate interventions (UNAIDS 2000, Gooptu 2002).

Recognising that no one model of health behaviour is likely to be adequate in explaining or predicting behaviour change leaves an explicit space open for responsiveness to local people's agency, recognises the different (health- and non-health-related) registers of risk with which people operate and encourages flexibility according to local contingencies and contexts. Such acknowledgement would also support a greater emphasis on process-oriented intervention evaluations so that an understanding of what works can be developed by researching the complex pathways through which intervention inputs operate, rather than simplistically (and deterministically) trying to relate inputs to outcomes with little consideration of context.

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Notes

1. Recent national population surveys amongst Indian men show substantial variability in reported condom use in the last sexual encounter with a non-regular partner of between 16–80%, depending upon the State (NACO 2001a). However, at the time when this fieldwork was conducted condoms in India were almost exclusively associated with contraception among the general public due to their prominence in family planning campaigns, so their use in the general population at that time is likely to have been lower than this.

References

Aggleton, P., Davies, P. and Hart, G. (1989) *AIDS: Social Representations, Social Practices* (London: Falmer Press).

Aggleton, P., Davies, P. and Hart, G. (1992) *AIDS: Rights, Risk and Reason* (London: Falmer Press).

Aggleton, P., Davies, P. and Hart, G. (1995) *AIDS: Safety, Sexuality and Risk* (London: Taylor & Francis).

All India Institute of Hygiene and Public Health (AIIHPH) (1992) *Report on the community-based survey of sexually transmitted diseases/HIV infection and sexual behaviour among sex workers in Calcutta, India* (Calcutta: Department of Epidemiology, All India Institute of Hygiene and Public Health).

AIIHPH (1993) *Report of follow-up Sonagachi re-survey* (Calcutta: Department of Epidemiology, All India Institute of Hygiene and Public Health).

AIIHPH (1998) *Report of third follow-up re-survey* (Calcutta: Department of Epidemiology, All India Institute of Hygiene and Public Health).

Ajzen, J. and Fishbein, M. (1980) *Understanding attitudes and predicting social behaviour* (New York: Prentice Hall).

Asthana, S. and Oostvogels, R. (1996) Community participation in HIV prevention: Problems and prospects for community based strategies among female sex workers in Madras. *Social Science and Medicine*, 43, 133–148.

Bandura, M. (1986) *Social foundations of thought and action: A social cognitive theory* (Englewood Cliffs, NJ: Prentice Hall).

Becker, M. (1974) *The health belief model and personal health behaviour* (Thorofare, NJ: Charles B. Slack).

Blankenship, K., Bray, S. and Merson, M. (2000) Structural interventions in public health. *AIDS*, 14(Suppl. 1), S11–S21.

Bloor, M., Barnard, M., Finlay, A. and McKeganey, N. (1993) HIV-related risk practices among Glasgow male prostitutes: Reframing concepts of risk behaviour. *Medical Anthropology Quarterly*, 7, 152–169.

Bourdieu, P. (1990) *The logic of practice* (Cambridge: Polity Press).

Brummelhuis, H. and Herdt, G. (1995) *Culture and sexual risk: Anthropological perspectives on AIDS* (Amsterdam: Gordon and Breach Publishers).

Busza, J. (2004) Participatory research in constrained settings: Sharing challenges from Cambodia. *Action Research*, 2, 191–208.

Campbell, C. (2003) *Letting them die: Why HIV/AIDS prevention programmes fail* (Oxford: Bloomington and Indianopolis: The International African Institute in association with James Currey and Indiana University Press).

Campbell, C. and Cornish, F. (2003) How has the HIV/AIDS pandemic contributed to our understanding of behaviour change and health promotion? In G. Ellison, M. Parker and C. Campbell (eds) *Learning from HIV/AIDS* (Cambridge: Cambridge University Press), pp. 148–178.

Catania, J. A., Kegeles, S. M. and Coates, T. J. (1990) Towards an understanding of risk behavior: An AIDS risk reduction model (ARRM). *Health Education Quarterly*, 17(1), 53–72.

Day, S. (1988) Prostitute Women and AIDS: Anthropology. *AIDS*, 2, 421–428.

De Zalduondo, B. (1999) Prostitution viewed cross-culturally: Toward recontextualizing sex work in AIDS intervention research. In R. Parker and P. Aggleton (eds) *Culture, society and sexuality: A reader* (London: UCL Press), pp. 307–324.

Evans, C. and Lambert, H. (1997) Sexual health and health seeking strategies among female sex workers in urban India: Implications for research and service provision. *Social Science and Medicine*, 44, 1791–1803.

Evans, C. (2000) Commercial sex work and sexual health: An ethnographic study of HIV prevention in Calcutta. Unpublished Ph.D. Thesis, London School of Hygiene and Tropical Medicine.

Fishbein, M. (2000) The role of theory in HIV prevention. *AIDS Care*, 12, 273–278.

Giddens, A. (1979) *Central problems in social theory: Action, structure and contradiction in social analysis* (London: MacMillan).

Gifford, S. (1986) The meaning of lumps: A case study in the ambiguities of risk. In C. Janes, J. Stall and S. Gifford (eds) *Anthropology and epidemiology* (Philadelphia: Springer), pp. 213–246.

Gooptu, N. (2002) Sex workers in Calcutta and the dynamics of collective action: Political activism, community identity and group behaviour. In J. Heyer, F. Stewart and R. Thorp (eds) *Group behaviour and development: Is the market destroying cooperation?* (Oxford: Oxford University Press), pp. 227–251.

Hornik, R. (1991) Alternative models of behaviour change. In J. Wasserheit, S. Aral, K. Holmes and P. Hitchcock (eds) *Research issues in human behaviour and sexually transmitted diseases in the AIDS era* (Washington: American Society for Microbiology), pp. 201–219.

Jana, S. and Singh, S. (1995) Beyond the medical model of STD intervention: Lessons from Sonagachi. *Indian Journal of Public Health*, XXXIX, 125–131.

Jana, S., Bandyopadhyay, N., Mukherjee, S., Datta, N. and Saha, A. (1998) STD/HIV intervention with sex workers in West Bengal, India. *AIDS*, 12(Suppl. B), S101–S108.

Jana, S., Gjosh, S., Bose, D., Chowdhury, S. and Mukherjee, K. (2002) Female commercial sex workers: An innovative intervention from West Bengal. In S. Panda, A. Chatterjee and A. Abdul-Quader (eds) *Living with the AIDS virus: The epidemic and the response in India* (New Delhi: Sage Publications), pp. 150–166.

Jana, S., Basu, I., Rotheram-Borus, M. and Newman, P. (2004) The Sonagachi Project: A sustainable community intervention program. *AIDS Education and Prevention*, 16, 405–414.

Long, N. and Long, A. (1992) *Battlefields of knowledge: The interlocking of theory and practice in social research and development* (London: Routledge).

National AIDS Control Organisation of India (NACO) (2001a) *National baseline general population behavioural surveillance survey* (New Delhi: National AIDS Control Organisation of India).

NACO (2001b) *National baseline high-risk and bridge population behavioural surveillance survey: Part 1: female sex workers and their clients* (New Delhi: National AIDS Control Organisation of India).

Pardasani, M. (2005) HIV prevention and sex workers: An international lesson in empowerment. *International Journal of Social Welfare*, 14, 116–126.

Rekart, R. (2005) Sex work harm reduction. *Lancet*, 366, 2123–2134.

Rogers, E. (1983) *Diffusion of innovations* (New York: The Free Press).

Rosenstock, I., Strecher, V. and Becker, M. (1988) Social learning theory and the health belief model. *Health Education Quarterly*, 15, 175–183.

Tawil, O., Verster, A. and O'Reilly, K. (1995) Enabling approaches for HIV/AIDS prevention: Can we modify the environment and minimise the risk? *AIDS*, 9, 1299–1306.

Turner, G. and Shepherd, J. (1999) A method in search of a theory: Peer education and health promotion. *Health Education Research and Practice*, 14, 235–247.

UNAIDS (1999) *Sexual behavioural change for HIV: Where have theories taken us?* (Geneva: UNAIDS).

UNAIDS (2000) Female sex worker HIV prevention projects: Lessons learnt from Papua New Guinea, India and Bangladesh (Geneva: WHO).

Wallson, B. (1978) Development of the Multi-Dimensional Health Locus of Control Scales. *Health Education Monographs*, 6, 160–170.

Résumé

Cet article utilise des données ethnographiques provenant d'un programme sur le VIH destiné à des professionnelles du sexe en Inde pour examiner la pertinence des théories sur les comportements de santé, individuelles, sociales/collectives et structurelles, quand elles sont appliquées aux interventions en prévention du VIH. Les théories existantes sont critiquées en raison de leur représentation moderniste du comportement, déterminé par des processus individuels et rationnels de prise de décision ou par des forces structurelles externes, et de leur reconnaissance inadéquate du rôle joué par la capacité humaine à agir, la signification subjective et le contexte local, dans les actions de tous les jours. L'analyse de récits de professionnelles du sexe sur leurs pratiques sexuelles suggère que les théories actuelles sur les comportements de santé ne peuvent, rétrospectivement, expliquer qu'en partie les changements de comportements ; et que leur capacité à prévoir les conséquences des rencontres sexuelles individuelles est limitée. Nos données révèlent qu'en fait, ces conséquences sont très dépendantes du contexte, alors que les possibilités d'action sont en fin de compte fortement entravées par des forces structurelles. Les résultats suggèrent que les interventions doivent adopter une approche intégrée, structurellement orientée, pour promouvoir le sexe sans risque dans les milieux des professionnels du sexe. Reconnaître qu'il n'y a pas qu'un seul modèle de comportement de santé à pouvoir expliquer ou prédire les modifications des comportements encourage à une meilleure prise en compte de la capacité locale d'agir des individus, reconnaît les différents registres du risque (en rapport avec la santé ou non) selon lesquels les individus agissent, et encourage l'adaptabilité aux contingences et aux contextes locaux.

Resumen

En este ensayo utilizamos datos etnográficos a partir de un proyecto del VIH entre trabajadoras sexuales de la India para analizar en qué medida son apropiadas las teorías individuales, sociales/de grupo y estructurales en la salud cuando se tratan de poner en práctica iniciativas para prevenir el sida. Se critican las teorías existentes porque tienen una representación modernista del comportamiento y lo describen como un comportamiento determinado por procesos de decisiones racionales e individuales o por fuerzas estructurales externas de modo que no se reconoce adecuadamente el papel que los medios humanos, el significado subjetivo y el contexto local desempeñan en las acciones diarias. Los análisis de los relatos de los trabajadores sexuales sobre sus prácticas sexuales indican que las teorías existentes de la conducta sexual sólo sirven parcialmente para explicar un cambio de comportamiento sexual desde un punto de vista retrospectivo, mientras que son poco útiles para predecir los resultados de los encuentros sexuales individuales. Nuestros datos indican que estos resultados dependían mucho del contexto

mientras que las posibilidades de aplicar medidas estaban en última instancia muy limitadas por fuerzas estructurales. Los resultados indican que las intervenciones deberían adoptar un planteamiento integrado y estructuralmente orientado para fomentar prácticas sexuales seguras en los entornos de trabajo sexual. Si reconocemos que es poco probable que un solo modelo de conducta sexual sea adecuado para explicar o predecir los cambios de comportamiento, estimularemos una receptividad a las acciones de la gente, reconociendo los diferentes registros (relacionados con la salud o no) de los riesgos que corren los individuos y estimulando una flexibilidad según las eventualidades y los contextos locales.