AIDS Education and Prevention, 16(5), 405–414, 2004

THE SONAGACHI PROJECT: A SUSTAINABLE COMMUNITY INTERVENTION PROGRAM

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High rates of HIV infection among sex workers in India indicate the importance of understanding the process of establishing a sustainable community intervention program. The Sonagachi Project, based in Calcutta, India, has been associated with lower HIV rates among sex workers as compared to other urban centers in India. The program defined HIV as an occupational health problem and included multifaceted, multilevel interventions addressing community (having a high-status advocate; addressing environmental barriers and resources), group (changing social relationships), and individual factors (improving skills and competencies related to HIV prevention and treatment). The Sonagachi Project's core concepts and strategies evolved as community needs were expressed and defined. In particular, the program was not initially conceptualized as a community empowerment project but emerged over time, allowing for project sustainability. Project components appear to be replicable across settings within India and worldwide.

HIV is a serious threat to the health and welfare of India (Gellman, 2000; National Intelligence Council, 2002). The World Health Organization estimates that over 4 million people are living with HIV/AIDS in India (World Health Organization & UNAIDS, 2002); the seroprevalance rate among newborns in at least four of the country's major cities is at 2% to 3% (National AIDS Control Organization [NACO], 2001; UNAIDS, 2002). Among sex workers, HIV seroprevalence rates of 50% to 90% have been reported in Bombay, Delhi, and Chennai (Gangakhedkar et al., 1997; NACO, 1999, 2001; UNAIDS, 2002). Surprisingly, in Calcutta the rate of HIV infection among sex workers appears to be about 11%, even though Calcutta is directly on the drug route into the heart of India and one of the most impoverished urban centers in the world (UNAIDS, 2002). Condom use has been consistently rising among sex workers in Calcutta, from 3% in 1992 to 90% in 1999 (NACO, 1999, 2001), compared with steady rates of low condom use among sex workers in other

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Indian cities (UNAIDS, 2002). Furthermore, HIV infection remains low, despite the presence of tens of thousands of active sex workers in Calcutta.

What is responsible for this dramatic difference and can it be replicated? In 1991, the Sexually Transmitted Diseases (STD)/HIV Intervention Project (SHIP) began in Calcutta. Through many iterations and changes, this program became the Sonagachi Project. Although a randomized controlled trial has yet to demonstrate the efficacy of the intervention model, the clear difference in the rate of HIV infection among sex workers in Calcutta signals the importance of understanding the components and process of establishing a sustainable community intervention program such as the Sonagachi model.

BACKGROUND

There is growing recognition of the key role that community-level and structural factors play in the epidemiology of HIV/AIDS, both in developing countries as well as in the United States (Jana & Singh, 1995; Parker, 1996, 2002). However, perhaps due to the predominance of individual-level theories of behavior change and the predominance of medical discourse in HIV/AIDS research (Seidel, 1993), the significant role played by community factors in HIV transmission is frequently obscured (Kelly, 1999a, 1999b). Most HIV prevention models continue to rely on theories overwhelmingly focused on the individual level of change.

A few examples of effective HIV prevention efforts among sex workers that targeted change at the community and societal levels include programs in Brazil (Pegacao, 1991), Thailand (Panos Institute, 1992), and Zaire (Schoeof, 1993). Community participation among sex workers in HIV prevention, however, is neither automatic nor infallible, as in the demise of a community-based HIV prevention program among sex workers in southern India (Asthana & Oostvogels, 1996). Yet neither community empowerment nor other community-level theories of change have been systematically incorporated into theory-based HIV prevention interventions (Beeker, Guenther-Grey, & Raj, 1998).

Effective community-level HIV prevention programs have been implemented that did not emerge from well-articulated and accepted theoretical models. However, the programs are often framed as individual-level change in professional journals based on existing, validated theories. Accordingly, the aim of this article is to describe components of the Sonagachi Project, a multilevel HIV prevention intervention that appears to be effective and replicable. Rather than fitting the intervention into pre-existing theoretical frameworks or HIV prevention models, the goal is to articulate the various modes of intervention of the Sonagachi model, with a focus on factors that account for the sustainability of the intervention over the past 12 years. Key components of the Sonagachi model are described at the community, group, and individual levels.

THE SONAGACHI MODEL

FRAMING THE PROBLEM

A key characteristic of existing HIV intervention models and a prerequisite to substantial donor funding has been that the intervention be "theoretically based." In contrast, the Sonagachi Project was largely unplanned and atheoretical at its inception—it began as an STD clinic targeting sex workers. The Sonagachi Project and its

founders, Dr. Smarajit Jana and the All India Institute of Hygiene and Public Health (AIIHPH), framed the problem of HIV among prostitutes as one of improving occupational safety and occupational health.

As noted by Bandura (1981), many of the important paths in life are determined by luck. Dr. Jana was a young physician in Calcutta with a background in occupational safety and health. An Ethiopian public health worker who labeled prostitutes as "sex workers" recruited Dr. Jana to initiate an HIV prevention program. At the time, perhaps due to a strongly hierarchical system in India based on social class and gender, the concept of sex workers was alien to the public health system. This label helped reconceptualize the role of sex workers in the community's economy. Moreover, stereotypes of prostitutes were further challenged when most women attending a newly established STD clinic reported their primary issue in life was the problem of conceiving children. Rather than "fallen" women seeking personal gain, these women were surviving only because of their employment but largely aspired to the same goals as mainstream society—marriage and family. Thus the same cultural value that had been a source of sex worker marginalization was used to promote their individual and group self-esteem. Gathering and remaining receptive to information that broke stereotypical notions of the problem of prostitution was a first step in reframing the issue of HIV for the community. A significant aspect of this reframing, from prostitution to sex work, was in the use of language: a discourse of commerce gradually supplanted a discourse of morality or crime (Foucault, 1978; Newman, 1998).

COMMUNITY-LEVEL INTERVENTION

Sex Workers and Economic Stakeholders. Sex workers are both a labor force and an industry; it is common in business to eliminate hazards that threaten the means of generating income. Therefore, the economic future of various stakeholders of the sex work industry, including landowners (who rent rooms to sex workers), madams (who arrange for work), fixed clients (*babus* [an ongoing, regular partner], the source of primary support for some of the sex workers), local organized crime, police (who may benefit from pay offs to keep sex workers out of jail), and political parties (who may need votes in the next election), could be threatened if large numbers of sex workers became infected with HIV.

Advocating and arguing for condom use was not initially a motivation of sex workers; rather, implementing condom use for sex work was a means of continuing the status quo in maintaining the economic interests of important stakeholders in the sex trade. Women were initially complying with those who had power over them in protecting the best interests of the brothel.

Rearticulating the problem as the responsibility of the community was a novel approach to HIV prevention. By redefining sex work as employment, and increasingly engaging sex workers in roles of power and decision making within the program, a set of principles emerged that assisted in reframing the problem of HIV from an issue of individual motivation, will, or behavioral commitment to a problem of community disenfranchisement.

Political Advocacy. The following set of rights for sex workers was articulated:

- Sex work *is* work.
- Sex workers have the right to speak out.
- Sex workers and their children deserve an education.

- Sex workers deserve good health.
- Sex workers can have freedom of movement.
- Sex workers deserve fulfillment in a sexual relationship.

Rights for sex workers were not easily accepted in Indian society. If these ideas had been used to encourage sex workers to protect their personal health, those with vested interests in maintaining a compliant workforce would have defeated the program before it started. Furthermore, among the stakeholders and gatekeepers (i.e., the community power brokers), and among sex workers and their families themselves, these ideas were foreign concepts. As more positive experiences with personal expression and action by sex workers occurred, the problem of HIV within the community was again redefined.

GROUP-LEVEL INTERVENTION

Social Relationships. Three types of relationships were inherent in each intervention: the relationships of the target group (sex workers) among themselves, the relationship of the target group with the community power brokers, and the relationship of the target group with the agents of change. Simultaneous with the launching of the Sonagachi Project, two other projects had been initiated with sex workers. The projects were not implemented because the services were not acceptable to the sex workers in other sites. Both of these programs mandated STD testing and humiliated sex workers, treating them as mere vectors of infection. One program even used police to forcibly recruit sex workers to attend STD clinics. Sex workers, in turn, avoided rather than sought out these services, given stigmatization and fears about incarceration and physical violence.

Peer Outreach Workers. To enhance acceptability, the Sonagachi Project recruited sex workers as "peer outreach workers." In Calcutta, women who were older (i.e., adults rather than adolescents), articulate, and had good social skills were recruited. Workers were provided with a green or white coat that signified they were with the newly opened clinic, and each was assigned a caseload of sex workers to visit on a weekly basis. Outreach workers gave free medication for STD treatment as well as antibiotics for other infections, inquired about any health problems, and attempted to help with a broad range of problems. When medications were given, the peer outreach worker visited the family, following up on adherence to medical care and encouraging the sex worker to use the medication. In circumstances of economic hardship, sex workers at times sold their medications or otherwise discontinued them at the first sign of the abatement of symptoms. When sex workers came to the clinic, other outreach workers documented the presence of symptoms and treatments provided.

Substantial energy was invested in helping all staff develop respectful attitudes toward their clients through ongoing small group trainings and nonjudgmental attitudes that permeated the program at all levels. Rather than being perceived as self-indulgent, nonadherent adults or as victims, the sex workers were perceived as peers, struggling to cope with the same challenges as the peer outreach worker.

Although the outreach workers provided social and physical support to their peers, the workers were simultaneously building a strong sense of cohesion and trust among themselves. Feedback about the strengths and weaknesses of the program was obtained on an ongoing basis through informal daily meetings in the "red light" areas, as well as occasional forums such as holiday meals, group training, and educational events. The peer relationships formed a backbone to help organize the sex workers

over the long term, and through networking, the group began to mobilize collective power.

Children of sex workers had long been denied access to education and health care services (which required fees and involved stigmatization). Family members received free health care at the newly established STD clinics, including the provision of non-STD health care for sex workers and their children; services were provided with an attitude that caring for children was a high priority. Caring treatment led to shifts in the sex workers' expectations regarding care. Similarly, the outreach health worker became a "helper" in negotiating condom use or treatment of an STD between the sex worker and the *babu*. Having a third party who identified as a health worker to discuss these issues was a benefit of the program.

Sex Workers and Professional Advocates. Initially, Dr. Jana, the Ethiopian public health official, the AIIHPH, and a group of dedicated professional colleagues served as spokespersons for sex workers. As the public health official in charge of occupational health, Dr. Jana advocated with colleagues at AIIHPH to allow him to attempt a novel approach to HIV prevention. The social status of these program leaders, their access to government authorities, the presence of an international advocate, and their strategic thinking were critical to convincing government officials, local politicians, police, madams in charge of the brothels, and landlords of the brothels that preventing HIV among sex workers was in their long-term economic interest. If the red light area acquired the reputation for being highly infectious, other businesses would suffer the same stigma as sex trade shops.

Furthermore, the status of Dr. Jana and associates built a vital bridge between the sex workers and more enfranchised groups. As the SHIP program gained visibility, international donors (e.g., World Health Organization) and media (e.g., *The New York Times* [Dugger, 1999]) joined in providing recognition that the program was credible and accomplishing important work.

Over time, as new leaders emerged among the peer outreach workers and sex work community, the role of the initial professional leadership diminished. Sex workers were increasingly promoted to positions of authority within the program and worked in full partnership with professional staff. International visibility and funding followed, but if the leaders and higher-level staff had not been willing to share and then relinquish power, the ability of the organization to evolve would have been substantially limited. A variety of factors contributed to the ceding of power by the initial professional leaders: (a) Dr. Jana's intentions and aspirations were not to be the executive director of an HIV prevention program but to launch a successful intervention; (b) witnessing the success of Sonagachi over a decade, Dr. Jana traveled to Bangladesh to start a similar initiative (he did not remain in Calcutta, which might have encouraged continued reliance on him); (c) the Ethiopian official did not remain in India, nor was it his role or intention to assume leadership of the intervention; and (d) significantly, the sex workers internalized the messages of self-respect and self-reliance—they *demanded* power and authority.

Sex Workers and Stakeholders. Simultaneous with building within-group relationships, long-term maintenance of relationships between sex workers and stakeholders shifted as the metaphor of employee–employer became an accepted view among the sex workers. Although condom use and treatment of STDs were initially enacted to further the long-term power base of the landlords and madams, the perceptions of why these strategies were being adopted shifted: sex workers merited basic rights, health care, and self-respect.

INDIVIDUAL-LEVEL INTERVENTION

Skills and Competencies. Initially, getting rapid treatment for STDs and using condoms were the primary skills addressed in the Sonagachi Project. As time passed, outreach workers implemented didactic training using pictures in pocket-sized flip charts; HIV awareness and prevention techniques were stressed to the sex workers, who were largely illiterate. Significantly, outreach workers served as models for their sex worker peers that it was possible to gain literacy, respect, employment, and self-confidence.

Social Cognitive Perceptions. Although individual motivations, intentions, and beliefs are the foundation of HIV prevention programs in the developed world, the types of changes in the Sonagachi program were initially more about the community's power, status, and stigma. As an outcast group, there was little societal value of sex workers or acknowledgment of the important social role played by the women.

Outcome expectancies are a key aspect of U.S.-based programs, but a fundamental belief that had to be disseminated in India was that sex workers deserved regard and that there was a possibility of change. "Hope" and the healing value of hope is a key ingredient to shifting community and individual perceptions. When the program progressed to the point that a set of rights could be articulated, there was substantial disbelief that any stakeholder would honor these rights. However, as the workers met monthly with peer outreach workers, their perceptions of their rights to take care of themselves developed. The caring expressed by high status professionals also indicated a valuing of the worker. Finally, as they observed their peers acquiring skills and initiating economic moves to improve their situations (e.g., starting a side business selling a product), the belief in a future for themselves, and, more important, for their children, grew.

ENVIRONMENTAL BARRIERS AND RESOURCES

HIV prevention cannot be implemented if access to the means of implementing healthy behaviors is not present. For the four major outcomes linked to reductions in HIV transmission (increased condom use, decreased STD, increased HIV testing, and decreased number of sexual partners), the environment must provide easy access to condoms, treatment for STDs, and HIV testing. In the case of the Sonagachi Project, health clinics specifically for sex workers were created to dispense these services. The problem immediately emerged, however, that in order for these services to be useful, the sex workers had to be willing to access the services.

Literacy. As the program evolved, it identified and addressed issues raised by the target population. Illiteracy was recognized as a major barrier to the advancement of sex workers and their children. Professional volunteers initially staffed the literacy program, but as more and more sex workers learned to read, peer outreach workers were able to deliver the intervention. Education for the sex workers and their children also provided a possibility of a life outside sex work, in addition to instilling pride and motivation among the workers themselves.

Economic Programs. When sex workers had a crisis or sought an alternative lifestyle, banks or wealthy individuals would typically charge the workers 50% interest. Additionally, when a family emergency arose (e.g., a child was ill), sex workers would have no recourse other than to take a high-priced loan, and the temptation to forego condom use in an attempt to make more money would be greater. To combat this problem, over time a loan service was established for sex workers. Sonagachi professional staff negotiated with local credit unions to pilot the loan service, which

granted small loans at 15% interest with feasible payment arrangements. As the loan service demonstrated the ability to operate effectively, it grew and was able to provide funding to more sex workers.

Condom Sales. As the program gathered support and condom use became routine in the community, condoms began to be sold, at a subsidized rate, rather than distributed freely. If such a strategy had been tried initially, the use of condoms would never have been established. Once accepted as the routine way to engage in sexual encounters with clients, the value of condoms was confirmed by having sex workers pay a small fee for them. Condom sales also provided a business for sex workers within the program, income that helped to sustain the program and instilled a sense of efficacy and competence among the sellers.

Trade Unionization. Even as Sonagachi began with a vision of occupational health, it was not foreseen that over the course of a decade the sex workers would become a quasi–trade union. The Durbar Mahila Samnwaya Committee (DMSC) evolved out of Sonagachi by organizing sex workers in order to exercise collective power. The DMSC also furthered in-group recognition among sex workers and the articulation and demand for their rights as workers. Although starting locally within the red light district of Calcutta, the union has begun to spread to other red light areas within the state of West Bengal. Now linked with AIDS and sex worker conferences internationally, the group also engages with and helps sex workers throughout the world.

SUSTAINABILITY

In addition to incorporating key components that address community, group, and individual levels of change, the Sonagachi model suggests five basic components of sustainable interventions that we identify with the acronym CURES: (a) *cost effective*: economic vehicles must be identified to initiate and maintain support for the interventions over time; (b) *useful*: programs must be useful to the target population, the stakeholders, and practitioners who must implement the program; (c) *realistic*: programs must be feasible to implement with the existing skills of the practitioners; (d) *evolving*: programs must evolve over time; and (e) *sustainable*: programs must have an ongoing funding stream and constituency within the community to achieve long-term results (Rotheram-Borus & Duan, 2003).

Various economic components were implemented to foster the long-term success of Sonagachi. Economic vehicles included the sale of condoms by sex workers within the organization; the institutionalization of a local lending institution for sex workers; and continuous networking with donors, media, and other nongovernmental organizations worldwide. Incremental success in each of these areas served to promote the program's image and viability, thus increasing the ability to maintain and add funding sources.

The Sonagachi Project was initially framed so that it was useful in supporting the economic self-interests of madams, landlords, and other stakeholders as well as sex workers. The program was useful to sex workers in offering them free, accessible medical care and, initially, free condoms, all of which furthered their immediate economic interests; it was useful to stakeholders in promoting their economic self interest in maintaining a viable workforce and averting a major HIV epidemic among sex workers, which would have been a major setback to the sex trade.

The program was realistic in that goals were developed that reflected reasonable expectations for success at different stages of program implementation. Initially, the goal was to set up STD clinics, have sex workers use the clinics, and reduce rates of

STD among sex workers. Gradually, new goals were set in place: increasing literacy among sex workers, instituting a loan program, and building a trade union. The latter goals would have been unrealistic if put forth at the beginning of the program, and likely would have resulted in failure. Conversely, if the initial goals were not developed and augmented over time, or if the sex workers were not gradually given more power within the organization, the program may have lost its usefulness and appeal.

Perhaps the key success of the Sonagachi Project is that it continues to evolve. In Calcutta, HIV prevention was the original goal of the program, but over time a set of economic, political, and cultural innovations developed. The integral inclusion of the sex workers in the administration of the organization and the willingness of the professional staff to gradually relinquish their power and truly share decision making are among the program's most innovative elements.

DISCUSSION

Three HIV programs for sex workers were started in three major Indian cities in 1991. Only the Sonagachi Project has survived 12 years and is expanding daily. One of the failed programs defined the problem as a need to improve condom use and utilization of health care by sex workers; the other mobilized police to get women to attend the clinic sites. In contrast, the Sonagachi Project spent considerable effort to define the problem of HIV prevention as a community issue and to align the short- and long-term rewards for condom use as being in the economic best interests of stakeholders as well as the sex workers.

Stigma was reduced and social power was increased throughout the program; however, it was addressed in different ways at different times. Initially, the professional staff provided credibility and lent status to the issue of the health of sex workers. Over time, an articulated set of workers' rights resulted in an emerging sense of social power. Organizing as an occupational employment group became an empowering experience that reframed many of the HIV-related and other economic problems of the group from being the responsibility of deficient individuals to disenfranchised workers.

Economic, political, and occupational power were by-products of the program's effectiveness. These products were not planned initially but evolved as the HIV prevention program was implemented. For example, although it was critical to provide access to free condoms at the initiation of an HIV prevention program, after the establishment of the value of condoms, the program began to charge for condoms. Social status and social power of the target group, sex workers, resulted in the creation of programs for literacy and a loan program. These types of changes were not anticipated at the beginning of the program.

It has been argued that the Sonagachi Project is unique: Only those leaders could have established such a program, only in communities in which sex workers are organized into red light districts could the program grow, and only in a part of India that has a strong tradition of community-based organizations could such a program work. None of these arguments appear viable. The key components of the program are very similar to other successful HIV prevention programs. At the community level, this includes (a) redefining the problem in a way that does not stigmatize individuals, (b) helping the community assume responsibility by highlighting ways in which the short- and long-term benefits of implementing safer acts are apparent both for the individual and the community, (c) reducing environmental barriers to implemen-

tation, and (d) providing resources (Gutierrez, GlenMaye, & DeLois, 1995; Parsons, Gutierrez, & Cox, 1998). The group level of change involved building relationships among those in the target population, between sex workers and stakeholders, and between the initial change agents and sex workers, thus building a supportive network to sustain the program over time. At the individual level, the program provided information and education, built skills, and addressed social perceptions of the sex workers. Success in the long term occurs when the developmental nature of prevention programs is recognized and ongoing reexamination of the goals, strategies, and outcomes are implemented. These are principles that extend beyond the red light districts of India and provide a useful paradigm for sustainable interventions in the United States and abroad.

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