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Empowering sex workers in India to reduce vulnerability to HIV and sexually transmitted diseases☆

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ABSTRACT

The Sonagachi Project was initiated in Kolkata, India in 1992 as a STD/HIV intervention for sex workers. The project evolved to adopt strategies common to women's empowerment programs globally (i.e., community mobilization, rights-based framing, advocacy, micro-finance) to address common factors that support effective, evidence-based HIV/STD prevention. The Sonagachi model is now a broadly diffused evidence-based empowerment program.

We previously demonstrated significant condom use increases among female sex workers in a 16 month replication trial of the Sonagachi empowerment intervention ($n = 110$) compared to a control community ($n = 106$) receiving standard care of STD clinic, condom promotion, and peer education in two randomly assigned rural towns in West Bengal, India (Basu et al., 2004). This article examines the intervention's impacts on 21 measured variables reflecting five common factors of effective HIV/STD prevention programs to estimate the impact of empowerment strategies on HIV/STD prevention program goals. The intervention which was conducted in 2000–2001 significantly: 1) improved knowledge of STDs and condom protection from STD and HIV, and maintained STD/HIV risk perceptions despite treatment; 2) provided a frame to motivate change based on reframing sex work as valid work, increasing disclosure of profession, and instilling a hopeful future orientation reflected in desire for more education or training; 3) improved skills in sexual and workplace negotiations reflected in increased refusal, condom decision-making, and ability to change work contract, but not ability to take leave; 4) built social support by increasing social interactions outside work, social function participation, and helping other sex workers; and 5) addressed environmental barriers of economic vulnerabilities by increasing savings and alternative income, but not working in other locations, nor reduced loan taking, and did not increase voting to build social capital. This study's results demonstrate that, compared to narrowcast clinical and prevention services alone, empowerment strategies can significantly impact a broader range of factors to reduce vulnerability to HIV/STDs.

Introduction

The Sonagachi Project was conceived in 1992 to address vulnerability for sexually transmitted diseases (STD) and HIV infection among sex workers in red-light areas of Kolkata, India (Jana & Singh, 1995). It has since evolved to become a widely diffused model labeled an "empowerment approach" to STD/HIV prevention (Blankenship, Friedman, Dworkin, & Mantell, 2006; UNAIDS, 2000; Wallerstein, 2006), by successfully mobilizing diverse financial resources (e.g., WHO, DFID, Gates Foundation, government), and building a social movement of more than 60,000 sex workers to sustain and expand the program to over 60 communities in West Bengal (Jana, Basu, Rotheram-Borus, & Newman, 2004). The Sonagachi Project was also a model for (and its leadership advisors to) the recent Bill and Melinda Gates Foundation funded scale-up of HIV prevention targeting high-risk groups in India (i.e., Project Avahan).

This model program intervenes at multiple levels (structural or environmental, community, social network, individual) using core strategies common to women's empowerment programs globally to address five common factors of effective, evidence-based HIV

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prevention programs. The common factors framework resulted from content analyses of manuals for evidence-based interventions for HIV/STD prevention (Rotheram-Borus, Swendeman, Flannery, Rice, et al., 2009). Common factors represent what every HIV/STD prevention program does, or should do, to be effective and provides a framework for multiple intermediate prevention program goals: 1) provide a frame to motivate change; 2) increase knowledge of risk and protective factors; 3) build cognitive, affective, and behavioral skills; 4) reduce environmental barriers to change; and 5) build ongoing social support to sustain change over time.

To achieve HIV/STD prevention goals, the Sonagachi project has adopted empowerment strategies common across women's empowerment programs and organizations globally, identified in Kar, Pascual, and Chickering's (1999) "EMPOWER" review and synthesis: Education and leadership development, Media use and advocacy, Public education and participation, Organizing associations and unions, Work training and micro-enterprise, Enabling services and assistance, and Rights protection and promotion (see Jana et al., 2004 and methods below for Sonagachi specific details). Together, these strategies restructure risk environments to enable or "empower" sex workers to protect their health and families' well-being (Jana et al., 1998).

Due to Sonagachi's notoriety as a model program for replication, a large body of qualitative and descriptive research has emerged to elaborate Sonagachi's underlying *processes*, including: program development and intervention components (Jana et al., 1998, 2004); community participation (Basu & Dutta, 2008; Cornish, 2006a; Evans & Lambert, 2008a); advocacy and community leadership (Cornish & Ghosh, 2007; Pardasani, 2005); challenges to stigma and oppression (Cornish, 2006b); the role of agency and contextual contingencies in sexual practices (Evans & Lambert, 2008b); and sex worker collective identity in mobilizing condom use (Ghose, Swendeman, George, & Chowdhury, 2008). However, program *impacts* have only been reported quantitatively for increased condom use (Basu et al., 2004) and STD treatment seeking (Gangopadhyay et al., 2005) when compared to a standard care of STD clinics, peer education, and condom promotion.

We previously reported improved condom use rates over 16 months in a Songachi intervention replication community (39%) compared to standard care control (11%), and a 25% increase in consistent (i.e., 100%) condom users compared to a 16% decrease in control; STD incidence (<10%) was too low to detect intervention effects (Basu et al., 2004). Yet, these results do not elucidate the empowerment intervention's processes and proximal impacts on other HIV/STD prevention related outcomes. This paper presents quantitative results of the Sonagachi empowerment intervention's impacts on 21 measured variables reflecting five common factors of effective, evidence-based, HIV/STD prevention programs as intermediate program outcomes. Broadening focus from condom use and STD infection to common factors of effective prevention programs enables elaboration of the ecologically driven empowerment processes, impacts, and limitations, and contributes to the practice-based evidence needed to support researchers and prevention planners to better understand ecologically oriented, multi-component, empowerment programs (Green, 2006).

Operationalizing and measuring empowerment intervention impacts

Empowerment is a multi-level construct describing both *processes* and *outcomes* that aim to enhance agency with explicit attention to structure or context (Schulz, Israel, Zimmerman, & Checkoway, 1995). Empowerment has been elaborated at psychological, organizational, and community levels, and links individual self-efficacy (i.e., person-level empowerment) to participation in organizations that can influence structural factors or contexts (e.g., policies, risk environments) (Laverack & Wallerstein, 2001). Measuring "empowerment" is challenging due to the multi-level and ecological nature of the construct, and thus requires examining multiple, context dependent, outcome variables simultaneously (Alsop & Heinsohn, 2005; Israel, Checkoway, Schulz, & Zimmerman, 1994; Kabeer, 1999; Laverack & Wallerstein, 2001). While an empowerment program's stated priority targets may be specific (e.g., reducing SDT or HIV infection), a program's multiple intervention strategies are intended to impact a web of proximal and distal causal factors, which can translate across a broader range of challenges and result in a generalized reduction in structural vulnerabilities and enhancement of individual agency (i.e., empowerment as an outcome). However, generalized empowerment is difficult to assess reliably and meaningfully unless grounded in measured variables in specific domains (Alsop & Heinsohn, 2005), for example, safe-sex negotiation versus general or non-specific negotiation skills. Therefore, in this paper, we conceptualize empowerment as intervention strategies and processes, and examine their impacts on measured variables of multiple outcomes linked to program goals to reduce vulnerability to HIV/STDs, using a common factors of effective HIV/STD prevention framework.

The challenges to operationalizing and measuring empowerment have also inhibited generating a strong evidence-base for empowerment program impacts, particularly quantitative results prioritized by many researchers, policy makers, and funders. In the Sonagachi example, the lack of evidence on empowerment component impacts has led to questions about whether STD/HIV services, peer education, and condom promotion are sufficient and whether empowerment intervention strategies are necessary or what value they add (Gangopadhyay et al., 2005). This paper specifically compares the impact of Sonagachi's empowerment intervention strategies (advocacy, community organizing and mobilization, rights-based framing, and micro-finance) to a standard care of STD/HIV services, peer education, and condom promotion.

Empowerment literature supporting the Sonagachi intervention and study hypotheses

Empowerment theory and practice focused on enhancing the status and agency of women is commonly addressed in development economics (Kabeer, 1999; Sen, 1990). Gender-based marginalization, exacerbated by poverty and caste/class/ethnicity-based discrimination, is evident in low levels of education and limited economic opportunities for women outside the home globally (Krieger, 2003; Sen, 1990). These factors reinforce perceptions that girls are burdens in poor households, driving the "missing women" phenomena evident in sex-ratio demographic data suggesting that girls are aborted, victims of infanticide, or otherwise neglected to result in early mortality (Krieger, 2003). These issues are particularly salient in contemporary India (Bhaskar & Gupta, 2007). Low education and lack of economic opportunities drive some women in India to sex work when abandoned by husbands, widowed, orphaned, or facing abject poverty (Gangopadhyay et al., 2005). Countervailing these trends are observations that economic opportunities for women outside the home increase negotiating power in household decision-making (Sen, 1990). Micro-finance addresses economic exclusion and vulnerability by making credit available to poor women and families (Yunus, 2005).

Household economic instability has also been found to increase HIV risk behaviors, with disproportionate impact on women (Aidala, Cross, Stall, Harre, & Sumartojo, 2005). In the sex work context, negotiating consistent condom use has economic consequences; sex workers surveyed in Kolkata who consistently use