Community mobilisation programme for female sex workers in coastal Andhra Pradesh, India: processes and their effects

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ABSTRACT

Background This paper describes the process of setting up community-based organisations (CBOs) of sex workers during the 5-year community mobilisation initiative of the Swagati project, an HIV prevention programme in nine coastal districts of Andhra Pradesh.

Method The Swagati project facilitated the formation of 11 CBOs through partnerships with local non-governmental organisations and meetings with groups of sex workers. Activities included peer-led outreach, information campaigns, institution building through community committees and capacity building for organisational development.

Results In 2010, a Community Ownership and Preparedness Index tool assessed the CBOs in terms of leadership, democratic governance, decision making and others qualities. All except two CBOs scored in the 'promising' category. One of these CBOs moved to promising stage by the year 2011 indicating good progress, considering how recently they were established. The Community Ownership and Preparedness Index assessments of organisational strengths showed wide variations among the CBOs, despite the essentially similar organisational steps taken by the Swagati programme. A Behavioural Tracking Survey (2010) of individual CBO members also showed district-level differences in sex workers' expressions of confidence in collective action, participation in organisational activities and other indicators.

Conclusion Mobilising marginalised populations such as sex workers to form CBOs is a complex process and can be affected by many influences, including the qualities of CBO leadership. Although the CBOs have not yet reached full 'maturity', they have made significant improvements in terms of collectivisation and its translation into collective action as reported by individual sex workers.

INTRODUCTION

Community-based programmes using participatory techniques, if scaled up, can provide a cost-effective and sustainable approach to HIV prevention.[1] Several studies document diverse community mobilisation strategies and models to prevent HIV and sexually transmitted infection (STI) in developing countries, for example, involving local community groups in designing and implementing programmes for improved STI prevention, community-based condom distribution and peer education,[2] enhancing the 'AIDS competence' of marginalised communities by building their HIV-related skills and knowledge and supporting partnerships between marginalised communities and outside agencies[3] and promoting community ownership, reliance on group consensus and the use of 'gatekeepers' to access communities to reduce the risk of HIV transmission.[4]

Different models of community participation have resulted in notable examples of HIV risk reduction and sustainability, as well as instances of disorganisation and failure. Asthana and Oostvogels describe an early HIV/AIDS programme in the state of Tamil Nadu (India), which attempted to develop a system of community participation among female sex workers (FSWs) in Chennai (formerly Madras).[5] Although the intervention did succeed in increasing condom use in the targeted area, there was very little innovation of any new features to develop sustainability: 'Having already lost its momentum, the programme was irreparably damaged in October 1993, when a police crackdown on prostitution in the intervention area caused most of the brothels in the area either to close or relocate to other areas of the city'.[5]

Instead of re-organising the 7-month-old intervention effort, the programme abandoned the community participation component and re-focused on awareness raising in the general population. The authors presented a number of probable 'causes' for programme failure; two key factors were the complexity of the sex work system in Chennai and high stigma about sex work and programmers' lack of knowledge about community-based organising.[5]

Many different environmental and organisational problems can undermine well-intentioned efforts to develop sustained community participation. Cornish and Campbell[6] have described another example of a failed community participation effort in a South African mining town and made systematic comparisons between this unsuccessful programme and the contrasting success story of the project in Kolkata in India. The programme environment in the mining town was far worse than the situation in Chennai described by Asthana and Oostvogels.[5] As in the Chennai example, the sex worker networks in the mining town constituted a disorganised semi-lawless environment, with few supportive features.

These failed programmes stand out in sharp contrast to the highly successful and widely publicised Sonagachi project in Kolkata, also initiated in the early 1990s. The Sonagachi intervention became the 'model to be emulated,' and community mobilisation programmes in Andhra Pradesh and elsewhere in India owe much to the exemplary features of that programme. Unlike the failed Chennai project, the Sonagachi intervention began

to develop innovative organisational features at the same time that a system of 'peer educators' was started. One important component of the programme was the introduction of a system of committees, including mechanisms for resolving disputes with brothel madams, problems with the police and dealing with violent clients. Cornish and Ghosh[7] described the central philosophy of the programme, quoting from Sonagachi programme materials: 'Project documentation describes its philosophy in terms of 3 R's: Respect, Recognition and Reliance. That is respect of sex workers and their profession; recognising their profession, and their rights; and reliance on their understanding and capability'.

The phrase 'recognising their profession' may appear to be a relatively innocuous idea, but it is a powerful declaration and runs counter to the beliefs of many social service-oriented people in India, as considerable numbers of NGO leaders and workers take the view that sex work is not 'legitimate work', as most FSWs are 'trafficked' or coerced into this activity.[8]

Another significant component in the Sonagachi approach has been the development of systematic communications with important stakeholders in the Kolkata brothel area. Particularly central are the brothel madams, who have the power to bar Sonagachi programme people from entering the places of sex work, explaining that the programme is in no way intended to undermine their powers and roles.[7 8]

The Sonagachi sex workers established the Durban Mahjila Samanwaya Committee, an organisation 'which organises weekly and monthly problem-solving meetings, and promotes sex workers' social and political awareness through critical discussions of the stigma attached to sex work, and the value of collective action'.[7]

Cornish and Ghosh[7] noted that many theoretical writings about 'community participation' have presented a 'Utopian discourse' about how involving the sex workers (or other marginalised groups) directly in the organisation of health interventions will bring about remarkable results, thus creating unrealistic optimistic expectations. The studies of the Sonagachi programme show that successful community participation is a complex slow-moving process in which many obstacles can block the progress towards 'sex worker empowerment' and weaken the effects of community-based organisation (CBOs).

This paper is intended to present a detailed description of a full-fledged programme of community mobilisation in an HIV/AIDS intervention programme in Andhra Pradesh. In India, the model for this kind of community mobilisation is largely derived from the widely cited Sonagachi project in brothel-based sex work settings in the city of Kolkata. Literature towards understanding the formation and functioning of community mobilisation and assessing its strength from an upscaled intervention within different typologies of sex work is scarce.

The HIV prevention programme in Andhra Pradesh (known as the Swagati project), which we describe in this paper, has drawn heavily on the lessons learnt in the Sonagachi project. The Sonagachi project designers and organisers made several recommendations on community mobilisation, which was largely unplanned and atheoretical at its inception.[9] However, the description of programme activities and structures by several researchers over time show that a framework of community mobilisation and supporting structures gradually evolved, from which a coherent theoretical system could be formulated. This includes changes that take place at individual levels of behaviours, to FSWs' engagement as peer educators, to systems of capacity building, the gradual incorporation of the community into intervention operations and the formation of an association, supported with problem-solving structures and committees.[7 9 10] The Swagati programme, which we describe in this paper, adopted this framework to up-scale community mobilisation intervention activities through principles accustomed to local contexts and implemented among FSWs belonging to different cultural and contextual backgrounds. This paper fills the gap in the literature on strategies for scaling up strong community mobilisation initiatives that can evolve into manageable CBOs.[11] The specific objectives of the paper are to describe the step-by-step development of the community mobilisation process in Andhra Pradesh, in order to show how the key features of the Sonagachi model were adapted to the different social and economic environments of the sex workers and to examine the evidence concerning the progress of the programme in developing the CBOs and empowering FSWs to play an active role in their local and district-wide organisations.

STUDY SETTING

Community mobilisation and structural intervention strategies have been an integral component of the Avahan initiative for HIV prevention efforts in four southern states of India.[12] These initiatives have incorporated the main lessons from the Sonagachi experience, so that these programmes, including our project, can be looked on as further testing of the applicability of the Sonagachi model. The Swagati project was initiated in 2004 in nine districts of coastal Andhra Pradesh state in southern India (see figure 1). Most of the sex worker areas in these districts are quite different from the Kolkata environment, as there are very few concentrated brothel areas, so some of the distinctive environmental challenges to community mobilisation exist in coastal Andhra Pradesh. In most of the sex work locations, home-based and street-based sex workers are far more numerous than brothel-based FSWs.

Seven of the nine project districts have been categorised by the National AIDS Control Organisation as high HIV prevalence districts, as HIV prevalence among antenatal clinic attendees is more than 1% and among FSWs, it is more than 15 times that of the general population.[13] These coastal districts have flourishing agricultural, industrial and business sectors that have also attracted large numbers of FSWs to both urban and rural areas. The main focus of the Swagati project was in rural and tribal locations with an estimated 25 500 FSWs and 10 000 men who have sex with men/transgenders.

THE SWAGATI PROJECT

To implement large-scale community mobilisation activities, the following teams were set up: a Project Monitoring team and a Technical Support team. Details of the overall Avahan strategy for the development and evaluation of the community mobilisation programme are discussed in the paper by Galavotti *et al*[14] in this volume. The implementation strategy that Swagati adopted is presented in detail in this paper.

Involving NGOs: participatory site assessment

At the start of the project, eight local non-governmental organisation (NGO) partners were selected in the districts (one NGO worked in two districts). These NGOs were provided funds and given training on HIV prevention activities.

The first task in the partnership between Swagati and the identified NGOs was to conduct participatory site assessments in all the intended project locations. The study identified the 'hotspots' of sex work activity and made an inventory of types of FSWs, clients and other key persons in the sex work networks. In each district, FSWs who were familiar with local

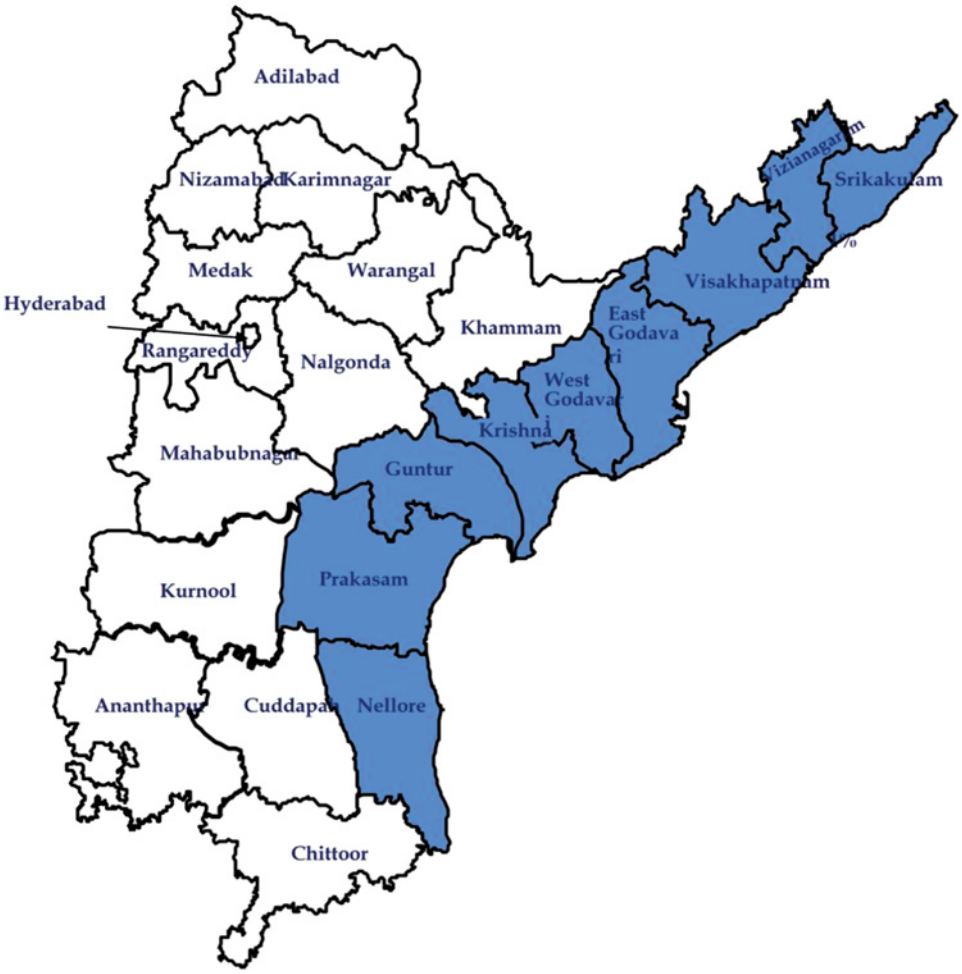

Figure 1 Swagati project districts (highlighted) in the state of Andhra Pradesh, India.

conditions were identified and trained to carry out mapping of the project areas, in order to initiate the participatory engagement of the community. The findings of the site assessments indicated that although the majority of FSWs and their clients were aware of the importance of condom use, most did not use condoms during sexual encounters.

Implementation of the upscaled community mobilisation programme

Recruiting and training community guides

One of the first tasks of the partner NGOs was to identify and recruit FSWs to be trained as community guides (peer educators) to do the outreach activities in the programme. These community guides were active sex workers, selected because of their knowledge of the hotspots in their local areas and their understanding of sex workers' problems. Additionally, they were well connected in their community and well accepted by fellow FSWs. Community guides received a monthly honorarium of Indian rupees 1500 (approximately US$35) for outreach activities and informational contacts with their peers. Each community guide was required to work with at least 50 FSWs. By March 2006, the NGOs under the Swagati project had recruited 443 community guides and later (2008) increased to 584.

The NGOs, in partnership with the Swagati project of HLFPPT, trained the community guides on project objectives, their roles and responsibilities, social network analysis and basic communication skills. As part of their responsibilities, community guides encouraged FSWs to seek health check-ups at least once every 2–3 months as well as to seek follow-up services at project-operated clinics. They also conducted demonstration sessions on condom use, monitored condom use among their peers and planned community activities at drop-in centres (DICs).

NGO staff used the DICs to conduct awareness building and training sessions for community guides on health-seeking behaviour and behaviour change communication. Many events such as Sex Workers Day, World AIDS Day and Women's Day were celebrated at these centres, which helped to create a sense of community among the sex workers and enhanced their self-esteem.

Small group formation (hotspot groups)

In April 2006, as a first step towards developing CBOs, sex workers at the hotspot level were formed into small groups. In the same year, three types of community committees were formed in all 11 project sites in the districts. The committees were Community Mobilisation Committees, Community Resource Persons and Community Cultural Groups. Community Mobilisation Committees were responsible for forming the hotspot groups. Community Resource Persons conducted trainings for group members on the objectives and functioning of hotspot groups. Cultural groups, known as Jagruti Kala Brundams, conducted awareness building programmes for group members. Each of these three committees consisted of FSWs (7–10 members) at each targeted intervention level. Each member of the committee worked for 6 days in a month and received an incentive of Indian rupees 750 per month.

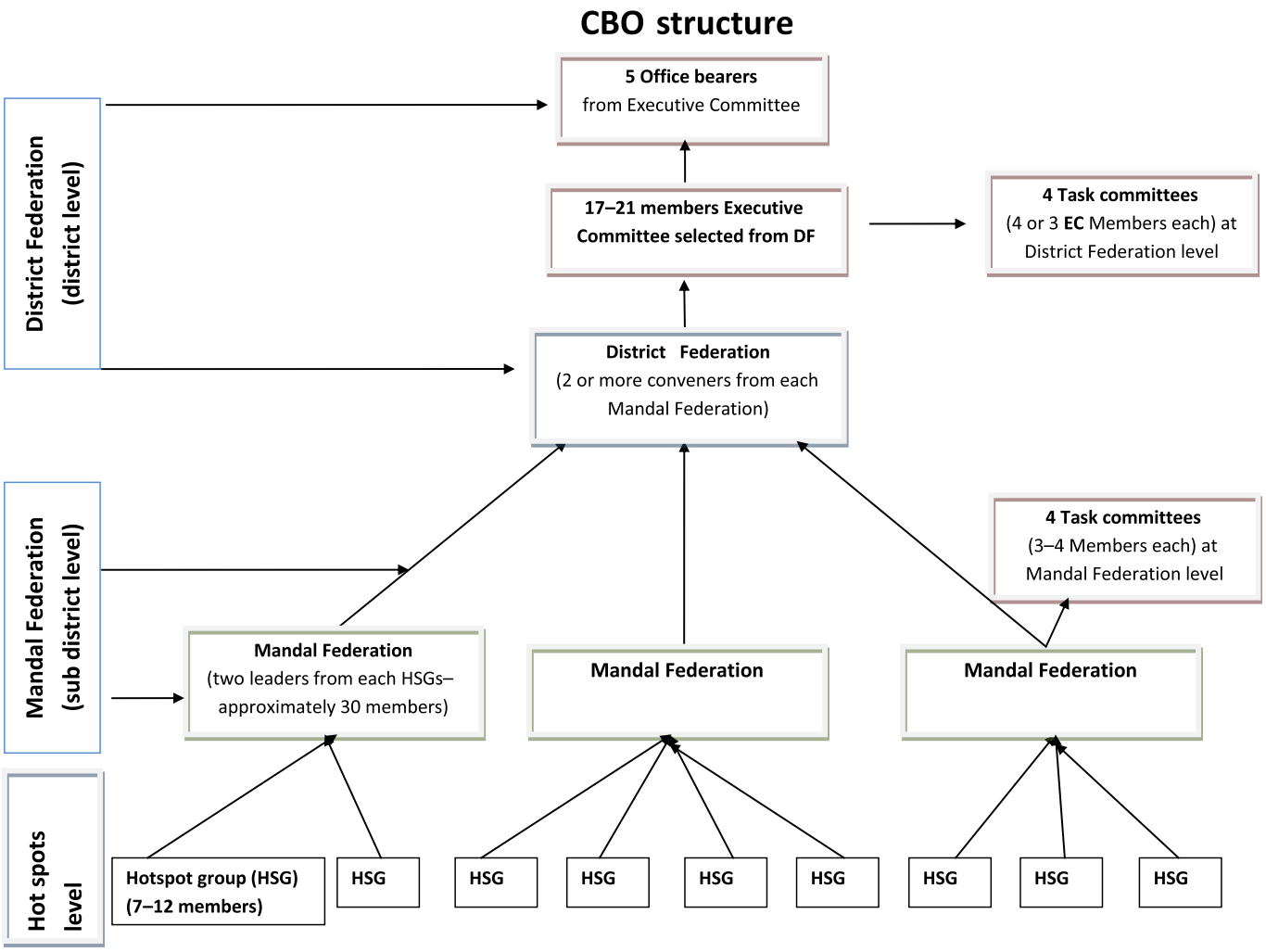

Figure 2 Structure of community mobilisation in Swagati Project, Andhra Pradesh, India.

Mandal (subdistrict) Federations

Community Mobilisation Committees in the 11 intervention areas formed Mandal Federations during 2007 (see figure 2). Mandal Federations are composed of 15 or more hotspot groups, each of which is represented by two group leaders. These federations have members from either a single mandal or a cluster of mandals. Each Mandal Federation elects or nominates two or more of its representatives, called Conveners, to the District Federation. From the remaining members, four task committees are formed. These committees are Outreach Committee, Condom Promotion and Social Marketing Committee, Clinic Services Committee and the Advocacy Committee. Monthly Mandal Federation meetings are held to discuss the hotspot group members' problems brought by their leaders. Those that are within the purview of the mandal are addressed at the Mandal Federation level through regular interactions with government officials. Issues that are not resolved at the mandal level are referred to the District Federation for further representation and action. The proceedings of all meetings are recorded in written minutes.

District Federations

Conveners nominated from the Mandal Federations comprise the District Federations. District Federation members elect an Executive Committee, including five office bearers (President, Vice-President, Secretary, Joint Secretary and Treasurer). These federations meet once a month to discuss the issues forwarded by the Mandal Federations and take decisions on solving the problems of the members and obstructive matters.

Eleven CBOs had been formed by 2007–2008, and all the CBOs were registered under the Societies Registration Act in the nine intervention districts (two CBOs each in Prakasam and West Godavari). Through these activities, 17 724 FSWs were organised into 1821 hotspot groups and 93 Mandal Federations, as integral subgroups of the 11 CBOs. Seven CBOs were organised for men who have sex with men, but they are not included in this discussion.

Capacity building activities

After the formation of all the CBOs during 2007–2008, community leaders at all levels were provided training in community participatory procedures, effective CBO functioning, leadership skills, conducting meetings and aspects of legal compliance. Orientation workshops were conducted for NGO staff on the conceptualisation, functioning and development of CBOs, so that NGO staff could provide mentoring to CBOs. Resource persons carried out training on the CBO structure and democratic functioning for CBO leaders at each of the levels.

CBO mentoring by NGOs

Since 2008, partner NGOs have provided day-to-day mentoring to CBOs on regular meeting practices at the hotspots

(fortnightly) and the Mandal Federation, District Federation and Executive Committee levels (monthly). NGOs have ensured that the CBOs have sound administrative and financial systems and democratic decision-making processes.

Transition preparedness

The ultimate goal of the Swagati project is to prepare CBOs for transition to autonomous status, when CBOs will independently function and implement the HIV prevention programme. Over a period of time (approximately 4–5 years after the formation of the groups), the CBOs will function independently without the help of programmes like Swagati and mentoring by NGOs. Each CBO has entered into a Memorandum of Understanding to implement selected project activities in their respective districts. The activities implemented by CBOs will include trainings and reviews, organising events and campaigns, DIC maintenance, social marketing of condoms and monitoring and documentation of project activities.

DATA AND METHODS

A Community Ownership and Preparedness Index (COPI) tool-based study and a Behavioural Tracking Survey (BTS) were carried out to assess the levels of preparedness of the CBOs and their members.[15]

The COPI study is an in-depth assessment of the strength of CBOs in terms of demonstrated leadership capacity, degree of community participation in project planning, decision making and other organisational features. The COPI study is conducted annually, and this paper reports data from the first round obtained during May to June 2010. In each district, interviews were held with Executive Committee members, selected FSWs and representatives of partner NGOs using tools that included questions on all aspects of measuring the strength and programme management preparedness by the CBO. From those data, an index was developed to indicate the organisations' strength and readiness for transition. The overall index scores calculated determined the strength of community mobilisation, and the scores were grouped into a series of 'bands' labelled Basic (0–14), Foundation (15–29), Promising I (30–43), Promising II (44–57), Promising III (58–72), Vibrant I (73–87) and Vibrant II (88–100). Details of the interview tools, calculation of index scores and interpretation of the series of bands are discussed in the article by Thomas *et al*[15] in this volume.

This paper also presents data from the BTS, which surveyed individual sex workers' behaviours and perceptions concerning participation in group activities, beliefs about collective action, safe sex practices and STI treatment seeking. The survey was conducted in four selected districts. At the time of survey in 2011, only two (Krishna and Vijayanagaram districts) of the four districts where BTS was conducted were under the administrative control of the Swagati project. In the remaining two districts, the programme had been transitioned to the government. For this reason and because the aim of this paper is to present the perception of beneficiaries about collective action as a result of community mobilisation, the data related to only these two districts are presented in this paper.

A sample size of 400 FSWs was calculated for each district. FSWs in each area of the district were recruited through a two-stage sampling procedure. For FSWs based in non-public places (brothels, hotels, lodges, roadside eating establishments and homes), the conventional cluster sampling approach was used by selecting hotspots. For FSWs based in public places (streets, market areas, highways and cinema halls), time-location cluster sampling was used.[16 17] In the second stage, within each selected hotspot, respondents were randomly selected. The procedures in BTS sampling and recruitment of participants are discussed in detail in the paper by Swarup *et al*[18] in this volume.

Key measures

The key output anticipated with community mobilisation was the evidence on collectivisation of the community in case of need for services. We measured three distinct dimensions of collectivisation using BTS: collective efficacy, collective agency and collective action. Table 3 shows the key items in these measures and their coding.

Collective efficacy is the belief of the affected community in its power to work together to effect change. Among FSWs, it was measured based on responses to the question: how confident are you that in your community can work together to achieve the following goals: (1) keep each other safe from harm, (2) increase condom use with clients, (3) speak up for your rights and (4) improve your lives? Responses to these questions included not at all (coded as 1), somewhat (coded as 2), very (coded as 3) and completely confident (coded as 4).

Collective agency is the choice, control and power that poor or marginalised groups have to act for themselves to claim their rights (whether civil, political, economic, social or cultural) and to hold others accountable for these rights.

Collective action refers to the strategic and organised activities by mobilised community members to increase the community's visibility in wider society and present or enact its agenda for

Table 1 Overall strength (score) of nine female sex worker CBOs for transition readiness in Andhra Pradesh, India: assessed using the COPI tool, 2010–2011

District	Name of CBO	Date intervention started in the area	Date CBO registered	Score in	
				Round 1 (2010)	Round 2 (2011)
Srikakulam	Swagati Mahila Sangham	May 2004	19 February 2007	20.83	27.23
Visakhapatnam	Swagati Sneha Sangham	September 2004	19 February 2008	28.57	39.17
East Godavari	Nari Saksham	April 2006	17 May 2006	35.23	40.41
West Godavari	Swetcha Mahila Sangham	September 2004	20 February 2008	42.11	44.28
West Godavari	Sneha Mahila Abhyudaya Sangham	September 2004	18 March 2008	33.80	43.47
Guntur	Siri Mahila Sadhikaratha Society	May 2004	18 March 2008	35.19	–
Prakasam	Swetha Mahila Sangham	September 2004	5 May 2008	27.43	35.86
Prakasam	Vennela Mahila Abhyudaya Sangham	September 2004	7 June 2009	37.43	43.75
Nellore	Simhapuri Swagati Mahila Abhyudaya Sangham	April 2006	27 December 2007	46.76	53.51
Krishna	Krishna Vennela Mahila Sangham	September 2004	31 December 2007	40.35	50.58
Vizianagaram	Kiranam Mahila Samakhya Sangham	September 2004	27 March 2008	40.59	48.92

Interpretation of overall CBO score using series of bands: Basic (0–14), Foundation (15–29), Promising I (30–43), Promising II (44–57), Promising III (58–72), Vibrant I (73–87) and Vibrant II (88–100). A detailed description of the procedures in weighting and the determination of bands is given in the article by Thomas *et al*[15] in this issue.

Table 2 Strength (score) of female sex worker CBOs in Krishna and Vizianagaram districts, Andhra Pradesh, India: assessed using the COPI tool, 2010

		Krishna district				Vijayanagaram district			
		Round 1 (2010)		Round 2 (2011)		Round 1 (2010)		Round 2 (2011)	
Parameters and Indicators	Maximum score	Individual indicator score	Mean score	Individual indicator score	Mean score	Individual indicator score	Mean score	Individual indicator score	Mean score
Leadership	12		7.45		9.11		6.06		8.05
Leadership has demonstrated capacity to adopt a solidarity role during crises faced by FSWs	4	3.00		2.50		2.00		2.00	
Leadership has demonstrated the ability to mobilise FSWs to assert their identity and to engage with issues through collective action	4	1.45		3.27		0.73		2.55	
Leadership team is capable of setting its own agenda	4	3.00		3.33		3.33		3.50	
Governance	20		7.34		9.75		8.63		8.73
Selection process of the leadership is participatory	7	1.58		4.72		2.30		3.61	
System of accountability of leaders to community members in place	10	3.96		3.83		5.10		3.92	
FSWs included in the leadership	3	1.80		1.20		1.20		1.20	
Decision making	9		4.39		4.86		5.29		6.29
A well-defined decision-making system for operational matters in place, with the CBO being the decision maker	3	1.64		2.79		1.93		2.71	
System in place to promote community involvement in strategic decision making	3	0.71		0.57		1.00		0.57	
Committees for crisis response and advocacy have been formed and are meeting regularly	3	2.04		1.50		2.36		3.00	
Resource mobilisation	10	1.91	1.91	2.34	2.34	3.62	3.62	0.00	0.00
Community collective network	11		1.56		3.02		1.90		5.15
Increasing engagement of FSWs with CBOs from other locations	5	1.00		1.83		1.33		3.17	
Networking with State AIDS Control Societies and government bodies	3	0.56		0.19		0.56		1.31	
Networking, collaboration with other solidarity groups and advocacy initiatives	3	0.00		1.00		0.00		0.67	
Project, financial and legal risk management	10		3.68		5.03		4.55		3.78
Leadership has demonstrated the capacity to manage strong financial, accounting and administrative systems	5	1.80		1.40		2.30		4.00	1.40
Leadership is competent and confident of contributing to project processes	5	1.88		3.63		2.55		3.27	2.38
FSWs' engagement with the state	16		8.80		11.56		8.36		10.00
Awareness of rights and entitlements, especially with respect to dealing with arrests and violence	4	2.91		3.27		2.91		4.00	
Demonstrated collective action in utilising and creating spaces for negotiation with state bodies	6	2.07		4.47		1.09		3.27	
Demonstrated capability in successfully claiming and realising FSWs' rights and entitlements	6	3.82		3.82		4.36		2.73	
Engagement with key influencers	12		5.21		4.92		2.19		6.94
Able to make itself visible to diverse influential stakeholders as collective agency of FSWs	5	2.71		2.60		1.25		3.13	
Demonstrated collective action in engaging with diverse non-state stakeholders in asserting the identity of FSWs	7	2.50		2.31		0.94		3.81	
Overall CBO score (based on all the above indicators)			40.35		50.58		40.59		48.92

Leadership includes CBO executive committee members, which consists of 17–21 members, of which five are office bearers and 12–16 task committee members. Resource mobilisation includes both internal (fee or voluntary contributions from members) and external resources (funds, donations and contributions from individuals, government agencies and NGOs) mobilised by the CBO. Key influencers includes (1) rowdies, pimps, lodge/brothel owners, drivers, husbands/regular partners; (2) advocates, doctors and solidarity group members and (3) faith leaders, members of the neighbourhood community, local clubs and the media. Interpretation of overall CBO score using series of bands: Basic (0–14), Foundation (15–29), Promising I (30–43), Promising II (44–57), Promising III (58–72), Vibrant I (73–87) and Vibrant II (88–100). A detailed description of the procedures in weighting and the determination of bands is given in the article by Thomas *et al* in this issue.[15]
FSW, female sex workers.

change (eg, through rallies, demonstrations or meetings with stakeholders). This was measured based on responses to seven questions, asking whether community members come together to demand/ask help for the following: (1) ration card, (2) voter card, (3) bank account, (4) free education for children, (5) health insurance, (6) representation in government forums and (7) better health services from the government. A separate question was asked for each of the above social entitlements and services with the possible binary response categories 'Yes' (coded as 1) and 'No' (coded as 0).

Statistical analysis

The COPI study was analysed, and the index scores were calculated using the analytical tool developed by Praxis and published in this volume.[15] The percentage distributions from an independent FSWs survey conducted in the select districts were calculated

Table 3 Perceptions and experiences of collectivisation reported by female sex workers in Krishna and Vizianagaram districts, Andhra Pradesh, India: results from the behavioural tracking survey, 2010–2011

Indictors (%)	Krishna district (N=400)	Vizianagaram district (N=395)	p Value*
Index of collective efficacy			
Low	18.2	4.6	<0.001
Moderate	55.2	34.9	
High	26.7	60.5	
Collective efficacy			
Perceive that FSWs would come together in case of a problem that may affect the community	57.2 (N=400)	48.6 (N=395)	0.015
Collective agency			
Negotiated with key stakeholders to help fellow sex workers in the past 6 months	37.7 (N=400)	28.8 (N=395)	0.008
Collective action			
Perceive that the community comes together to demand social entitlements/services	5.5 (N=400)	21.5 (N=395)	<0.001
Sex workers helped when respondent was last arrested by the police†	22.1 (N=182)	53.5 (N=82)	<0.001
Sex workers helped when respondent was last blackmailed/threatened by stringers (the media)‡	20.1 (N=174)	50.1 (N=76)	<0.001
Sex workers helped when respondent last had a violent client/partner§	5.1 (N=222)	24.4 (N=77)	<0.001

Collective efficacy is the belief of the affected community in its power to work together to effect change. Among both FSWs, it was measured based on responses to the question: how confident are you that in your community can work together to achieve the following goals: (1) keep each other safe from harm, (2) increase condom use with clients, (3) speak up for your rights and (4) improve your lives? Responses to these questions included not at all (coded as 1), somewhat (coded as 2), very (coded as 3) and completely confident (coded as 4). These responses were combined to calculate an index with values ranging from 1 to 4 (Cronbach's α =0.928). The index values were divided into three categories: low (scale range: 1–1.999), medium (scale range: 2.0–2.999) and high (3.0–4). Additionally, the direct question assessing whether FSWs in the community would come together in case of a problem that may affect the community (Yes=1, No=0) was presented as a measure of collective efficacy.

Collective agency is the choice, control and power that poor or marginalised groups have to act for themselves to claim their rights (whether civil, political, economic, social or cultural) and to hold others accountable for these rights. It was measured based on responses to the question: in the past 6 months, have you negotiated with or stood up against the following stakeholders (police, madam/broker, local goon (gang member), clients or any other sexual partner) in order to help a fellow sex worker or to help fellow sex workers? FSWs who responded that they negotiated with any of the key stakeholders to help fellow sex workers were categorised as 'Yes' (coded as 1) else categorised as 'No' (coded as 0), and this measure is named collective agency.

Collective action is the strategic and organised activity by mobilised community members to increase the community's visibility in wider society and present or enact its agenda for change (eg, through rallies, demonstrations or meetings with stakeholders). It was measured based on responses to seven questions, asking whether the community members come together to demand/ask help for the following: (1) ration card, (2) voter card, (3) bank account, (4) free education for children, (5) health insurance, (6) representation in government forums and (7) better health services from the government. A separate question was asked for each of the above social entitlements and services with the possible binary response categories 'Yes' (coded as 1) and 'No' (coded as 0). A composite dichotomous index (Yes=1, No=0) was constructed that represented FSWs' ability to come together to demand at least one of the above-mentioned social entitlements and services (Cronbach's α =0.899). The second indicator was derived from a direct question asking whether the FSW received help from other FSWs in the community when she was last arrested by the police (Yes=1, No=0). The third indicator was derived from a question asking whether the FSW had received help from other community members when she was last blackmailed/threatened by the media (Yes=1, No=0). Similarly, the fourth indicator was derived from a direct question asked to assess whether the FSW had received help from the community when a client or partner was violent (Yes=1, No=0).

*Differences between the districts were tested using χ^2 test.

†Among those who were ever arrested by police.

‡Among those who were ever blackmailed/threatened by stringers (media).

§Among those who ever had a violent client/partner.

FSW, female sex workers.

for each measure of collective efficacy, collective agency and collective action. Tests for association and significance of differences in the percentages across districts were done using the χ^2 statistic. The BTS data were analysed using STATA (V.11.1).

RESULTS

The COPI information presented in table 1 shows the scores of all 11 CBOs assessed in the years 2010 and 2011. Although community mobilisation started around the same time in all the districts, results on the strength of CBOs (overall score) show considerable variations among the districts. Of the total 11 CBOs assessed from nine districts in 2010, three CBOs were in the foundation stage, seven were in the first phase of the promising stage and one was in the second phase of the promising stage. By 2011, two CBOs that were in the Foundation stage in 2010 had moved into Promising I stage and five CBOs that were in the Promising I stage in 2010 moved into the Promising II stage showing progress towards becoming stronger as organisations.

Table 2 presents the scores on different indicators that measured the strength of CBOs in two of the nine districts, Krishna and Vizianagaram. The overall scores of both these CBOs were in the Promising I stage in 2010 and moved into Promising II stage by 2011. Although the overall score is similar in both districts, the CBO in Krishna district scored far higher in terms of leadership, governance and FSWs' engagement with the state and other key influencers, while the CBO in Vizianagaram district scored far higher in terms of decision making, community collective network, resource mobilisation and financial, project, legal and risk management.

Community collectivisation

In order to understand the perceptions of FSWs about community mobilisation, data from the BTS on key dimensions of collectivisation are presented in table 3. The data show that despite the overall similarities in the COPI scores of the CBOs in the Krishna and Vizianagaram districts, individual FSWs perceive collectivisation differently in the two districts. Overall, women in Vizianagaram district reported significantly higher levels of collective efficacy and collective action than their counterparts in Krishna district.

DISCUSSION

The step-by-step process of community mobilisation, leading to the formation of CBOs of sex workers in the districts of the Swagati programme, has closely followed the theoretical model for structural intervention that emerged from the Sonagachi project in Kolkata. By the time, the Swagati programme was launched (2004), and other programmes of the Avahan initiative were developed in four states in southern India, several studies of the Sonagachi project had been carried out[19–21] and the

lessons learnt in that intervention were explicitly adopted by the Avahan initiative planners.[22]

Taking these lessons, the Swagati project facilitated community mobilisation initiatives through its NGO partners, from the local hotspot level to the subdistrict and district levels in the nine districts. The key objective of the Swagati programme was to ensure that through the formation and strengthening of CBOs, sex workers would be capable of carrying out HIV prevention activities. At the same time, CBOs were intended to provide a framework within which FSWs can acquire the knowledge and skills to empower themselves and improve their lives.

Although the sex workers in the CBO structures have made impressive progress in learning the complexities of governance, the monitoring results suggest that these recently developed structures still need to work towards better resource management, democratic functioning and other components of collective action. It is evident from the data that some CBOs do better in leadership, governance and advocacy with key influencers; others are good in programme management, resource mobilisation and risk management. These variations from one district to another point to the need for further research to understand the varied environmental factors that influence the development of successful sex worker organisations.

The differences noted in the results among the districts—at both organisational (CBO) and individual levels—could be attributed to several factors: differences in types of sex work structures (street based, home based and brothel based, etc), differences in the social and political environments of the districts (including the extent to which local governmental offices and other organisations support the community mobilisation programme) and differences in implementation by the NGOs. Several studies in India support our findings on the differences in terms of social cohesion, social capital and other aspects of empowerment that are largely explained by the nature and typology of sex work.[23 24] Research indicates that street-based sex workers' perceptions of social support and group cohesion are much lower than those of home-based sex workers in Andhra Pradesh.[24] Our study also indicates that Krishna district, unlike Vizianagaram, has high percentages of street-based sex workers, and this pattern alone could account for a large part of the differences between the two districts in selected outcome indicators.

Despite the evident variations, these community mobilisation interventions have resulted in increased empowerment of FSWs in terms of accessing services from government and non-government sources. Within the CBOs, the social cohesion among the sex workers has been enhanced, and their capacity increased to address local barriers to safe sex practices. There is increasing evidence from other areas of India that the collectivisation of sex workers contributes to improvements in HIV prevention. Halli *et al*[25] found positive correlations between individual 'collectivisation scores' and safer sex practices among FSWs in HIV programmes in the state of Karnataka. 'The results indicate that a higher degree of collectivization was associated with increased knowledge and higher reported condom use…Collectivization seems to have a positive impact in increasing knowledge and in empowering FSWs in Karnataka to adopt safer sex practices, particularly with commercial clients'.

Another study in Andhra Pradesh reports the positive effects of 'social capital' on sex workers' safe sex practices. According to Samuels and colleagues,[24] '76 % of FSWs who had the greatest belief in the benefits of group cohesion had used condoms with their last three clients, compared to only 33 %t of those who had the lowest belief in the benefits of groups'. The experiences of the Swagati community mobilisation programme in Andhra Pradesh show that the Sonagachi model of structural intervention, through building up of sex worker organisations and gradually involving them in all aspects of HIV/AIDS prevention activities, is an effective approach to combating the spread of HIV and STI infections. The data also indicate that this model of community mobilisation can be effective in varied social and political environments.

What is already known on this subject

- FSWs in brothel-based and/or concentrated areas can be mobilised into formal organisations, as demonstrated by the Sonagachi programme in Kolkata in India.
- Continuous efforts and institutional mechanisms can build the capacity of FSWs to manage their organisations.
- Empowering FSWs will lead to successful HIV prevention intervention initiatives and build self-esteem among women in accessing other services and entitlements.

What this study adds

- Upscaling interventions such as CBO development is a complex process given the wide geographies, multiple sites and multiple typologies of FSWs; however, it is possible following the basic principles of community mobilisation and interventions accustomed to local contexts.
- Although the mentoring of FSWs may be more or less standard, responses of leadership and the successful management of CBOs may vary across geographical areas.
- Given an ideal situation of effective and motivated FSWs groups, CBOs can independently function without the support of promoting agencies and are capable of networking, converging and forging relations with government and NGO stakeholders at the district and state level.

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