

Aspects of working with female sex workers: Perspectives of NGOs implementing targeted intervention projects in HIV/AIDS

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ABSTRACT

Context: HIV continues to be a major global public health issue. Links between sex work and HIV vulnerability have been recognized since the earliest days of the epidemic. Targeted Interventions (TIs) are aimed at offering prevention and care services to high risk populations within communities. Present research is an endeavor to grasp the different aspects indigenous to NGOs implementing TI projects. **Aim:** To understand the perspectives of NGOs implementing TIs projects for prevention of HIV/AIDS in Female Sex Workers. **Settings and Design:** A cross sectional qualitative study. **Methods and Materials:** Six NGOs registered with District AIDS Control Society, working for implementation of TIs projects for FSWs in a Metropolitan City were studied. **Statistical Analysis:** Data was analysed with SPSS version 20. **Results:** Rapid turnover of ORWs is major constraint faced by project managers in recruitment of ORWs. In PEs' recruitment, availability of candidates is major constraint. Stigma related to STI clinic and interference of key stakeholders are the major barriers preventing service utilization by FSWs. Client's dislike for using condom is one of the major barriers in condom utilization by FSWs. **Conclusion:** The realistic problems, constraints experienced by the programme managers became evident during the study. Integration of programs into the existing system and interventions should be tailor-made to local needs. Here lies the opportunity of 'Operational Research' for the institute like NACO to have the practical insights from TI projects.

Keywords: High risk population, HIV/AIDS, Non-Profit Organizations, Sex worker, targeted interventions

Introduction

HIV continues to be a major global public health issue, having claimed millions of lives so far. The latest global statistics in 2019 reported that more than 38 million people were living with HIV/AIDS, and 770 thousand people died due to AIDS-related diseases.^[1] A female sex worker (FSW) is an adult woman, who engages in consensual sex for money or payment in kind, as her principal

means of livelihood.^[2] Fulltime FSWs generally have at least one client per day, or at least 30 clients a month, and approximately 400 per year. Some FSWs have more clients than others, having several clients per day and 100 or more clients in a month.^[3] The higher risk among FSWs is reflected in a substantially higher prevalence of HIV in them than in the general population.

Vulnerability to HIV infection as a result of sex work extends to women, men, and transgender people. Although recognized as the vulnerable population for acquiring HIV infection, surveys indicate that sex workers have inadequate access to HIV prevention services. Further their access to appropriate treatment, care and support is even more restricted.^[3,4]

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Targeted Interventions (TIs) are aimed towards extending prevention and care services to high risk populations within the communities by providing them with the knowledge, resources and skills they need to minimize HIV transmission and improving their access to care, support and treatment services.^[3] The TI projects are implemented by various NGOs as per the National AIDS Control Organization (NACO) guidelines.

The present research is an endeavor to grasp the different aspects indigenous to NGOs implementing TI projects. It is necessary to conduct research activities that describe and validate the specific strategies, social and political landscape, prevailing conditions, specific activities that contribute to the successful interventions.

The realistic problems and constraints experienced by the project managers need to be understood. It is essential to capture the replicable aspects of the interventions and strategies, which may serve as reference point for emerging NGOs. It will provide invaluable inputs to the NGOs for planning need based training programs & facilitate inclusion of appropriate interventions for effective implementation of TI activities. Hence, the present study was undertaken to understand the implementation of the Targeted Intervention Projects and to explore innovative managerial strategies in programme management.

Methods

This is a cross-sectional qualitative study involving six NGOs, implementing Targeted Interventions projects in various areas of a Metropolitan City. Total seven NGOs were working for implementation of programme for FSWs & they were divided into 12 Targeted Intervention (TI) units according to the norms of NACO. Out of them, one NGO was excluded from the main study as it was part of pilot testing.

Selection criteria

Only the NGOs working with female sex workers, registered with District AIDS Control Society were included in the study.

Exclusion criteria

- a. NGO not working with FSWs.
- b. NGOs working outside the study area of the Metropolitan city.

Data collection

Institutional Ethical Committee approval was obtained before initiating the study. The questionnaire was validated by doing a pilot study on one NGO. Thereafter, the questionnaire was modified and utilised for the assessment of the objectives of the study.

Statistical analysis

All data was entered and analyzed in Microsoft excel 2020 and SPSS 20.00, respectively. Qualitative variables were expressed in terms of percentages.

Results

Background of 6 NGOs included in the study is presented in Table 1. Every NGO had 2 TI units, except one NGO which had only one. Three of the NGOs were working for brothel-based FSWs, 4 of them were working for bar girls, and 2 of them were working for street-based FSWs.

Various staff members of NGOs were interviewed including 11 Project Managers (PMs), 38 Outreach Workers (ORWs), and 100 Peer Educators (PEs).

Table 2 depicts the major constraints faced by project managers in recruitment of the ORWs. Rapid turnover of ORWs was found to be the major constraint with 75% of project managers from TI units working with brothel based FSWs, 50% project managers working with bar girls and, 66.67% of project managers from TI Units for street based FSWs reporting it. 50% of project managers of TI units working with the bar girls reported that availability of candidates for the post of ORWs was a problem.

In PEs' recruitment, availability of candidates for the post was one of the major constraints reported. Rapid turnover of the PEs was reported by all the project managers of TI units working with brothel and street based FSWs as compared to those working with TI units for bar girls (66.67%).

Table 3 presents constraints in training PEs where language and communication barriers were reported as a major problem by all the project managers in case of TI units for brothel-based FSWs, whereas consistency and regularity of PEs in training sessions was found to be the major barrier in case of TI unit for street-based FSWs.

Problems faced by Project Managers in confirmation of baseline data are presented in Table 4. All the project managers reported that interference of concerned key stakeholders (Gharwalis – madams of brothels and Bar Owners) was the major problem in confirmation of baseline data. Wrong information by key population members (KP – NACP guidelines use Key Population term for FSWs) and frequent migration of KPs across the areas were the other major problems identified.^[3]

Table 5 depicts barriers in utilization of standard health services (as per NACP) by FSWs. Stigma related to STI clinic among KPs was found to be the major barrier in preventing them from utilizing services.

75% of ORWs and 80% of PEs sited this as the barrier among brothel based and 80% of the ORWs and 76% of the PEs working with street based reported this to be the barrier. Majority of the bar girls preferred going to the private practitioners for seeking health services as reported by 88% of the ORWs and 91% of the PEs. 33% of the ORWs and 34% of the PEs working with brothel based FSWs mentioned that long distance of the Distance of STI clinics from hotspots was the reason behind non utilization of health services.

Table 1: Baseline information about NGOs

Sr no	NGOs	No of TIs units	Working for typology of FSWs	FSWs population covered
1	NGO 1	2	Brothel based	2000
2	NGO 2	2	Brothel based & Bar Girls	2200
3	NGO 3	2	Brothel based & Street based	1800
4	NGO 4	2	Bar Girls	2500
5	NGO 5	1	Bar Girls	600
6	NGO 6	2	Street based & Bar Girls	3000
Total	-	11	-	9400

Table 2: Constraints faced by Project Managers (PMs) pertaining to recruitment of ORWs and PEs.*

Typology	Availability of Candidates (%)	Rapid turnover of recruited staf (%)	Tracking of peers (%)	Total no of respondents [†]	
For ORWs	Brothel based	1 (25)	3 (75)	Not applicable	4
	Bar girls	3 (50)	3 (50)	Not applicable	6
	Street based	1 (33.33)	2 (66.67)	Not applicable	3
For PEs	Brothel based	4 (100)	4 (100)	3 (75)	4
	Bar girls	6 (100)	4 (66.67)	4 (66.67)	6
	Street based	3 (100)	3 (100)	2 (66.67)	3

* Total percentage may add to more than 100% because of multiple responses. † Though the total number of project managers interviewed was 11, total number of respondents in the analysis is 13. This is because some TI units work across the typologies. For example: One TI unit may be working for brothel based as well as street based. Hence, while interviewing the PM of that unit same questions were asked separately for respective typologies. Therefore, analysis was also done separately

Table 3: Constraints faced by PMs in trainings of PEs

Typology	Language and communication barriers (%)	Consistency and regularity for training (%)	Availability for training sessions (%)	Total no of respondents
Brothel based	4 (100)	1 (25)	2 (50)	4
Bar girls	2 (33.33)	4 (66.67)	1 (16.67)	6
Street based	2 (66.67)	3 (100)	2 (66.67)	3

Table 4: Problem faced by PMs in confirmation of baseline data

Typology	Interference by key stakeholders (Gharwali, Bar owner) (%)	Wrong information by key populat ion (%)	Frequent migration of key population members across the areas (%)	Total No of respondents	
Project Manager	Brothel based	4 (100)	2 (50)	4 (100)	4
	Bar girls	6 (100)	4 (66.67)	2 (33.33)	6
	Street based	3 (100)	3 (100)	3 (100)	3

Table 5: Barriers in utilization of standard health services by female sex workers[‡]

Typology	Key stakeholders (Gharwali, Bar owner) act as barrier (%)	Stigma related to STI clinic in KPs (%)	Preference for Private Practitioners (%)	STI clinic is far from the Hotspot (%)	Duplication of services by private NGOs (%)	Total	
ORWs	Brothel based	8 (66.67)	9 (75)	3 (25)	4 (33.33)	10 (83.33)	12
	Bar girls	0	4 (25)	14 (87.5)	2 (12.5)	4 (25)	16
	Street based	0	8 (80)	5 (50)	2 (20)	4 (40)	10
PEs	Brothel based	24 (68.57)	28 (80)	10 (28.57)	12 (34.29)	10 (28.57)	35
	Bar girls	0	14 (31.81)	40 (90.90)	8 (18.18)	12 (27.27)	44
	Street based	0	16 (76.19)	10 (47.62)	5 (23.81)	3 (14.29)	21

[‡] ORWs and PEs are the leading staff involved in outreach; therefore, this information is collected from them

Table 6: Barriers in condom utilization by Key Population[§]

Typology	Client's dislike for condom (%)	Client not willing to use condom provided to KPs (%)	Myths pertaining to condom use (%)	Non-availability of condom (%)	Regular Client's desire (%)	Total respondents	
PEs	Brothel based	35 (100)	14 (40)	26 (74.28)	9 (25.71)	35 (100)	35
	Bar girls	44 (100)	35 (79.54)	11 (25)	0	44 (100)	44
	Street based	21 (100)	7 (33.33)	15 (71.42)	6 (28.57)	21 (100)	21

[§] PEs are the leading staff involved in condom outreach; therefore, the factual insights are collected from them

Table 6 shows barriers in condom utilization by FSWs. Free condoms are supplied to FSWs in condom programming and it's the integral part of Targeted Interventions. The insights for this question were intentionally collected only from PEs because they being a part of the community were best to inform about the actual situation. Client's dislike to use condom and regular clients' desire for not using the condom during intercourse were reported by all the PEs from all TI units. 79% of PEs from TI units for bar girls reported non-willingness of a client to use the condoms provided to bar girls. Among brothel based and street based, myths pertaining to condom use were also reported as significant barriers.

Discussion

According to NACO guidelines for the selection of NGOs, intervention sites are divided into high, middle, and low density zones and allocation of TI units is done accordingly.^[5] NGOs involved in the current study were also allocated the TI units as per these guidelines. One of the NGOs did not fit in any of the criteria because it catered to only 600 bar girls. But it was selected as a TI unit as it was necessary to cover this key population.

Recruitment of staff

In the present study, various constraints were found to be faced by NGOs in recruitment of the ORWs and PEs. Rapid turnover of the staff was the major challenge experienced by the project managers of all the TI units. Availability of the candidates was another major problem.

Serving FSWs' population is really a challenging task. General population has stigma and discrimination about this population and hence availability of candidates for working with this population is a tough task. Moreover, parents or guardians do not allow the willing candidates to accept jobs with such profiles. Due to stigma towards this marginalized population, candidates from general population hesitate to opt for such jobs.^[6,7]

For many candidates who accept the job, they initially are not well accustomed with the type of population they are dealing with, makes them uncomfortable and they happen to leave the job. Dealing with the key stakeholders, crisis management, community mobilization and hot-spot meetings demand the good communication skills and a lot of motivation to work, which may not be strengths of all the candidates.^[6] Additional burden of work on ORWs due to incompetent PEs, less amount of salary are the other factors responsible for the non-compliance of ORWs to NGOs. NACO suggests to recruit the ORWs from the beneficiaries to dilute this constraint.^[3,6,7]

In recruitment of PEs, availability of the candidates is a major issue. PEs are the part of FSW community.^[3] They are the one who are having factual insights regarding the dynamics of sex work and the basic needs of FSWs, which TI unit is supposed to provide. There are certain work demands in TI units, which have to be complied by PEs. But this person is constantly engaged in solicitation of professional commitment. Apart from the

above reason illiteracy, lack of confidence in self, target oriented approach of programme lands this population in non-willingness to become peer educator.^[8]

Rapid turnover of PEs is other major issue in recruitment. TI units for Brothel and street base typology face this problem the most. Bar girl is a typology that may or may not be engaged in sex work. Moreover, they are not engaged in work round the clock, that's why the turnover rate is relatively less in PEs working with TI units for bar girls. Again, target oriented approach of the programme, frequent meetings, documentation of records, maintenance of records, very less remuneration are the spectrum of reasons behind non-compliance of peer educators.^[8,9]

To ensure compliance by ORWs and PEs, project managers have adopted distinct strategies. Provision of regular salaries to the staff is the universal strategy adopted by project managers, which inspires them to have compliance with NGOs.^[8]

Training of peer educators

Language and communication barriers, consistency and regularity for trainings are the different constraints faced by project managers in case of training of the PEs. PEs from brothel-based population are mostly illiterate and hence communication barriers are more with them.^[10] On the other hand, the proportion of literacy among bar girls and street-based populations is relatively more than brothel-based population. Consistency and regularity for training sessions are mostly the challenges faced with PEs from bar girl and street-based typology, as this is a floating population.^[3,5]

Mapping and confirmation of baseline data

Confirmation of baseline data in our study is referred to as validation of estimated size of female sex workers and confirmation of their location, gaining details on vulnerability by typology for the purpose of initiating interventions. This process facilitates establishment of rapport with the community and generates interest of female sex workers in project. The assessment is conducted by trained members of the local key population members under the guidance of TI unit.^[3,11]

Mapping of beneficiaries and establishment of basic services does not serve the purpose; their abundant use by community is a necessity.^[4,12] Varied responses from ORWs and PEs were obtained and similarity in proportions was observed except in case of interference regarding duplication of services where ORWs reported relatively more interference as compared to PEs.^[7]

Utilization of standard Health services provided by TI units

Among brothel and street based FSWs, stigma related to STI clinics and among bar girls, preference towards private practitioners were the major demotivating factors towards non-utilization of standard health services provided by TI units. In brothel-based typology, key stakeholder (Gharwali) was also identified as one of the important deterring factors.

Ines Daurado *et al.* explained that more than 72% of the female sex workers used the private clinic services, 21% respondents emphasized on stigma related to formal healthcare was reason for not seeking services.^[7,13] Distance of the STI clinic from the hotspot was also recognized as one of the factors responsible for non-utilization of health services. Tasnuva Wahed *et al.* reported that stigma related to healthcare and distality of clinic were the major hurdles for non-utilization of the services.^[14] Paul R *et al.* also concluded that improving healthcare access of FSWs would help in improving their health status and ultimately, the reduction in the transmission of various diseases like Sexually Transmitted Infections (STI).^[7,15]

Condom programming

In order to have better insights on the issue of condom utilization by Key Population members, we specifically asked this question to PEs as they belonged to the community and were best to have factual opinions on the issue.^[3,8]

Client's dislike for condom was a problem reported by all PEs. Sexual intercourse with condoms was perceived by clients to reduce sexual pleasure and FSWs were often offered more money for unprotected sex.^[16-18] A study in Mexico found that FSWs could boost their income by 23% (or up to 46% if the FSW was considered very attractive) by agreeing to unprotected sex.^[19] The authors, Gertler *et al.* suggested that if clients were willing to pay substantially larger sums for unprotected sex, supply-side interventions alone were less likely to sufficiently reduce unprotected commercial sex; even knowledgeable sex workers with condoms, who were free to turn down clients, might be willing to supply unprotected sex if the price was right.^[20] FSWs might also be reluctant to insist on condom use if they feared they might lose client or face violence.^[21] Experience has shown that consistent condom uses and behavior change, particularly in brothel settings and where pimps are involved, also depends on the support and motivation of external gatekeepers within the sex work industry.^[22] Madams and pimps sometimes support non-use of condoms in order to boost their own income.^[23]

Conclusion

The Targeted Interventions under NACP provide an excellent tool through its Operational Guidelines for management of projects for communities who live under shadows of stigma, discrimination, and the resulting disempowerment in their everyday lives. This program allows a space to be created for the marginalized communities to empower themselves.

In recruitment of staff, rapid turnover is a major constraint faced by TI units. Availability of candidates for the position of PEs is a major problem. Language and communication barriers, consistency and regularity for training and availability for training sessions are the significant constraints faced in case of training the PEs. Consistency and regularity for training sessions are mostly the issues with PEs from bar girl and street-based typology, as this is a floating population.

Interference by concerned stakeholders (Gharwali in case of brothel and bar owners in case of bar girls) is an important barrier in case of confirmation of baseline data. It is due to the fear pertaining to TI units. In utilization of standard health services, Gharwalis seem to be a major hinderance. Stigma related to STI clinics among the key population is another significant factor preventing them from utilizing the health services. Clients' dislike for the condoms is a problem reported by all the PEs.

Timely release of funds and salaries should be done to address the rapid turnover of the ORWs and PEs. Special attention should be paid to the beneficiaries suffering from HIV infection (PLWHA) in which certain proportion of positions in the TI units should be reserved for them. At community level, frequent advocacy meetings and periodic sensitization sessions with the key stakeholders regarding welfare and health issues of the key population should be conducted.

Sensitization about healthy behavior and condom use by the key population should be understood as an important area of interest while addressing the key stakeholders. Concerned TI units should conduct studies periodically to know the trends of popularity of condoms amongst female sex workers and clients to bridge the gap in condom demand and condom utilization. Integration of programs into the existing system and interventions should be tailor-made to the local needs. Here lies the opportunity of 'Operational Research' to have the realistic view on the implementation strategies to make them integral with needs of community and facilitate in timely achieving goals of NACP.

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Conflicts of interest

There are no conflicts of interest.

References

1. Global HIV & AIDS statistics — 2019 fact sheet. Available from: <https://www.unaids.org/en/resources/fact-sheet>. [Last accessed on 2020 May 7].
2. UNAIDS (2012) 'UNAIDS Guidance Note on HIV and Sex Work'. [Last accessed on 2020 May 7].
3. National AIDS Control Organisation (NACO), Ministry of Health and Family Welfare, Government of India. Targeted Interventions under NACP III, Operational Guidelines, Volume I, Core high risk groups. Available from: <http://naco.gov.in/sites/default/files/NACP-III.pdf>. [Last accessed on 2020 May 7].
4. Azhar S, Dasgupta S, Sinha S. *et al.* Diversity in sex work in India: Challenging stereotypes regarding sex workers. Aspects of working with Female Sex Workers: Perspectives of NGOs implementing Targeted Intervention Projects

- in HIV/AIDS. *Sexuality Culture* 2020. doi: 10.1007/s12119-020-09719-3.
5. Operational guidelines for NGOs/CBOs, Part 1, selection of NGOs/CBOs, NACO. 2007. [Last accessed on 2020 May 7].
 6. Nambiar D, Rimal RN. Duty and destiny: Psychometric properties and correlates of HIV-related stigma among youth NGO workers in Delhi, India. *AIDS Care* 2012;24:1384-91.
 7. Nambiar D. HIV-related stigma and NGO-isation in India: A historico-empirical analysis. *Social Health Illn* 2012;34:714-29.
 8. George A, Blankenship KM. Peer outreach work as economic activity: Implications for HIV prevention interventions among female sex workers. *PLoS One* 2015;10:e0119729.
 9. <https://www.ihat.in/wp-content/uploads/2020/04/10-Implementing-TI-Program-through-Group-Approach.pdf>. [Last accessed on 2020 Jun 14].
 10. https://www.unaids.org/en/resources/presscentre/featurestories/2020/april/20200424_sex-work. [Last accessed on 2020 May 7].
 11. Billong SC, Nguefack-Tsague G, Fokam J, Emmanuel F, Isac S, Fodjo RAT, *et al*. Mapping and size estimates of female sex workers in Cameroon: Toward informed policy for design and implementation in the national HIV program. *PLoS One* 2019;14:e0212315.
 12. Grittner AL, Walsh CA. The role of social stigma in the lives of female-identified sex workers: A scoping review. *Sexuality Culture* 2020. doi: 10.1007/s12119-020-09707-7.
 13. Dourado I, Guimarães MDC, Damacena GN, Magno L, de Souza Júnior PRB, Szwarcwald CL, *et al*. Sex work stigma and non-disclosure to health care providers: Data from a large RDS study among FSW in Brazil. *BMC Int Health Hum Rights* 2019;19:8.
 14. Wahed T, Alam A, Sultana S, Rahman M, Alam N, Martens M, *et al*. Barriers to sexual and reproductive healthcare services as experienced by female sex workers and service providers in Dhaka city, Bangladesh. *PLoS One* 2017;12:e0182249.
 15. Paul R, Suresh M, Mondal J. Factors influencing health-care access of female commercial sex workers in India: An in-depth review. *Int J Community Med Public Health* 2017;4:886-90.
 16. Fehrenbacher AE, Chowdhury D, Ghose T, Swendeman D. Consistent condom use by female sex workers in Kolkata, India: Testing theories of economic insecurity, behavior change, life course vulnerability and empowerment. *AIDS Behav* 2016;20:2332-45.
 17. Bhattacharjee P, Campbell L, Thalinja R, Nair S, Doddamane M, Ramanaiik S, *et al*. Understanding the relationship between female sex workers and their intimate partners: Lessons and initial findings from participatory research in North Karnataka, South India. *Health Educ Behav* 2018;45:824-35.
 18. Brody C, Reno R, Chhoun P, Kaplan K, Tuot S, Yi S. Female entertainment workers and condom use negotiation in post-100% condom use era Cambodia. *Arch Sex Behav* 2020. doi: 10.1007/s10508-020-01649-3.
 19. Basuki E, Wolffers I, Deville W, Erlaini N, Luhpuri D, Hargono R, *et al*. Reasons for not using condoms among female sex workers in Indonesia. *AIDS Educ Prev* 2002;14:102-16.
 20. Gertler P, Shah S, Bertozzi SM. Risky Business: The Market for Unprotected Commercial Sex. *J Polit Econ* 2005;113:518-50. doi:10.1086/429700.
 21. Beksinska A, Prakash R, Isac S, Mohan HL, Platt L, Blanchard J, *et al*. Violence experience by perpetrator and associations with HIV/STI risk and infection: A cross-sectional study among female sex workers in Karnataka, south India. *BMJ Open* 2018;8:e021389.
 22. Evans C, Lambert H. The limits of behaviour change theory: condom use and contexts of HIV risk in the Kolkata sex industry. *Culture Health Sexuality* 2008;10:27-41.
 23. Logie CH, Wang Y, Marcus N, Lalor P, Williams D, Levermore K. Pathways from police, intimate partner, and client violence to condom use outcomes among sex workers in Jamaica. *Int J Behav Med* 2020. doi: 10.1007/s12529-020-09860-1.