

Power Dynamics, Violence, and HIV risk among Female Sex Workers in Karnataka, south India

Learnings from repeated surveys

An Evaluation Report, Project Samvedana







© 2015, Karnataka Health Promotion Trust

Website: http://www.khpt.org

Suggested citation: Isac S, Javalkar P, Prakash R, Mohan HL et al. 2015. Power dynamics, violence, and HIV risk among female sex workers in Karnataka, south India: Learnings from repeated behavioural surveys. Karnataka Health Promotion Trust, Bangalore

Study Team

Shajy Isac Prakash Javalkar Ravi Prakash

HL Mohan

Parinita Bhattacharjee

Srinath Maddur

Sunitha BJ

BM Ramesh

Ethical Approval

This study was approved by the Institutional Ethical Review Board of the St. John's Medical College and Hospital, Bangalore, India and University of Manitoba, Winnipeg, Canada.

Disclaimer

The financial support to this study was provided by United Nations Trust Fund to End Violence against Women and Bill & Melinda Gates Foundation through *Avahan: The India AIDS Initiative* and. This study was directly commissioned by Karnataka Health Promotion Trust. The views expressed herein are those of the author(s) and do not necessarily reflect the official policy or position of the United Nations Trust Fund to End Violence against Women, Bill & Melinda Gates Foundation, University of Manitoba or Karnataka Health Promotion Trust.

Power Dynamics, Violence, and HIV risk among Female Sex Workers in Karnataka, south India

Learnings from repeated surveys

Shajy Isac Prakash Javalkar Ravi Prakash HL Mohan Parinita Bhattacharjee Srinath Maddur Sunitha BJ BM Ramesh

Acknowledgements

This study has been accomplished with the support of the United Nations Trust Fund (UNTF) and the Bill & Melinda Gates Foundation, whom we would like to thank for entrusting this work to us. We take this opportunity to extend our sincere thanks to all those who have contributed to the successful completion of this work.

We also thank the Karnataka State AIDS Prevention Society (KSAPS) for their support extended during the study period. NGOs/CBOs implementing the Targeted Interventions (TIs) in the study districts helped in successful completion of the study and we would like to acknowledge the support received from them. The support of local administration, including health and police departments is highly appreciated.

The difficult task of implementing the field work was successfully carried out by two KHPT project staffs, Mr. Sandeep H, and Mr. S Vedapurieswaran who played tremendous role in field supervision and monitoring the data quality. We would like to thank both of them for their hard work during the data collection process. We also acknowledge the support extended by the peer educators and outreach staff of the program during the field work and data collection. We would also like to acknowledge the survey team members including team supervisors and field interviewers who have carried out the field work round the clock. We also thank the KHPT administration, finance and regional team for giving their time and extending support in logistics and quality assurance during the survey work.

Last, but not the least, we thank all the participants of the survey for their cooperation without which the study would not have been completed.

Contents

ACKNOWledgements	
Tables	
Figures	
Acronyms	vii
I. Introduction	I
I.I Background	
1.2 Sex work scenario in Karnataka	
I.3 About the project 'Samvedana'	
1.3.1 Anticipated changes at various levels	
1.4 Purpose and scope of evaluation	
2. Methodology	7
2.1 Study design	7
2.2 Sampling strategy	7
2.3 Data collection tools	8
2.4 Training, fieldwork and data management	
2.5 Data analysis	
2.5.1 Exposure variable	
2.5.2 Outcome measures	
2.5.3 Background variables	
2.6 Ethical consideration	11
3. Results	12
3.1 Profile of the respondents	12
3.2 Exposure to intervention	14
3.3 Level of empowerment among FSWs	15
3.4.1 Differential in level of empowerment by selected characteristics	16
3.5 Recognition of perpetrators, causes and consequences of violence	18
3.6 Experience of violence among FSWs	
3.7 Experience of violence by empowerment level	
3.7.1 Experience of violence by level of empowerment (power within)	
3.7.2 Experience of violence by level of empowerment (power with)	
3.8 Acceptance of violence among FSWs	
3.9 Violence, condom use and prevalence of STIs	
3.9.1 Condom use and STIs by level of empowerment	
3.9.2 Condom use and STIs by experience of violence	
3.10 Access to legal and HIV prevention services	
3.11 Linkages to social entitlement schemes	34
4. Conclusion	36
5 Peferences	41

Tables

Table I	: Percentage of FSWs by their socio-demographic and sex work characteristics, Baseline and Endline Surveys, 2012-2015
Table 2:	Percentage of FSWs by their exposure to intervention and HIV related information, Baseline and Endline Surveys, 2012-2015
Table 3:	Percent distribution of FSWs by their level of empowerment according to selected background characteristics, Baseline and Endline Surveys, 2012-1517
Table 4:	Percentage of FSWs by their awareness on perpetrators of violence, Baseline and Endline surveys, 2012-2015
Table 5:	Percentage of FSWs by their awareness/ perception on reasons for violence, Baseline and Endline surveys, 2012-2015
Table 6:	Percentage of FSWs by their awareness on consequences of violence, Baseline and Endline surveys, 2012-2015
Table 7:	Percentage of FSWs by their experiences of different forms of violence, Baseline and Endline surveys, 2012-201521
Table 8:	Percentage of FSWs by their experiences of different forms of violence by level of power (within), Baseline and Endline surveys, 2012-201523
Table 9:	Percentage of FSWs by their experiences of different forms of violence by level of power (with), Baseline and Endline surveys, 2012-201525
Table 10	2: Percentage of FSWs by the extent of acceptance of violence, Baseline and Endline surveys, 2012-201526
Table I	I: Percentage of FSWs by the extent of acceptance of violence by level of empowerment, Baseline and Endline surveys, 2012-201528
Table 12	2: Percentage of FSWs by condom use behaviour and experience of STIs according to their levels of empowerment, Baseline and Endline surveys, 2012-201530
Table 13	3: Percentage of FSWs by condom use behaviour and experience of STIs according to their experiences of violence, Baseline and Endline surveys, 2012-201534
Table I4	4: Percentages of ever-married FSWs experienced any form violence from intimate partner/ husband in last 12 months and became aware of various services and utilized them in past six months, Baseline and Endline Surveys, 2012-15

Figures

Figure I:	Percent distribution of FSWs by their level of empowerment, Baseline and Endline surveys, 2012-2015
Figure 2:	Percentage of FSWs by their condom use behaviour and self-reported STI symptom Baseline and Endline surveys, 2012-2015
Figure 3:	Percentages of ever-married FSWs experienced any form of IPV in last 12 months and accessed various legal services, Baseline and Endline Surveys, 2012-1531
Figure 4:	Percentages of ever-married FSWs experienced physical violence from intimate partner in last 12 months and accessed various legal services, Baseline and Endline Surveys, 2012-15

Acronyms

AIDS Acquired Immune Deficiency Syndrome

CBO Community Based Organization

FSW Female sex worker

HIV Human Immuno-deficiency Virus HREB Health and Research Ethics Board IERB Institutional Ethical Review Board

IPV Intimate Partner Violence

ITPA Immoral Trafficking Prevention Act
KHPT Karnataka Health Promotion Trust
PPS Probability Proportionate to Size
STI Sexually Transmitted Infections

TLC Time Location Cluster
VAW Violence Against Women
WHO World Health Organization

1. Introduction

1.1 Background

Gender-based violence is perhaps the most widespread and socially tolerated human rights violations stemming from unequal power relations between men and women. Women's exclusion and vulnerability become both cause and consequence of violence against women. The Millennium Development Goals highlight the need to address gender inequality as a critical foundation for human development (1). Intimate partner violence (IPV)—violence perpetrated by a spouse or intimate partner—is the most common form of gender-based violence, and in addition to causing direct injury or loss of life, it increases vulnerability to a range of negative health outcomes, including HIV/AIDS.(2-4) Estimates suggest, at least one out of three women around the world have been beaten, coerced into sex, or otherwise abused in her lifetime (5). Between 10 percent and 27 percent of women and girls reported having been sexually abused, either as children or as adults (6)(7). In India, recent prevalence estimates of life-time experiences of forced sexual experiences within marriage, range from 10 percent to 32 percent in large-scale nationally representative survey (8).

In the Indian society, basic human rights, social justice, political, economic and social status are dined to the sex workers. Sex workers are still considered women with 'immoral' character living on the fringes of Indian society. Unlike the other settings, women in sex work experience two-folded facets of marginalization; due to social stigma and inequitable gender relations that perpetuate violence against them as sex workers as well as women. Going by the estimates of World Health Organization (WHO), in India, 70 percent of sex workers in a survey reported being beaten by the police and more than 80 percent had been arrested without evidence. (9)

Though the nature, frequency and severity of violence differ across the geographies; within the same geography it differs across population sub-groups of different characteristics. For instance, Raphael and Shapiro, found a difference in frequency and severity of violence among brothel-based and street-based sex workers. Brothel-based sex workers reported frequent encounters of physical violence; however street-based sex workers reported more severe incidences- sexual violence and weapon usage. The researchers concluded that sex workers in any setting are subjected to encounter violence and argued against the popular belief that brothel-based sex work is harm-free. (10) In a national sample of female sex workers (FSWs) in Thailand, 25 percent of those who under the age of 18 reported physical or sexual violence during the previous week compared to those aged 18–30 years and above. Similarly, 'trafficked' FSWs, of whom 90 percent

entered the sex trade before they attain 18 years, were significantly more likely to report sexual violence exposures as compared to their older and non-trafficked counterparts. (11) In a pan-Indian survey, 70 percent women reported entry into sex work of their own volition, while 22-25 percent of the women reported being forced/ sold/ cheated into sex work by husbands, lovers, friends and acquaintances and encountered different forms of violence. (10)

As elsewhere, sex workers in Karnataka, have been doubly marginalised as they routinely experience violence in their private and public lives as a manifestation of the stigma and discrimination attached to them as poor, uneducated, "low" caste women, and as "immoral" sex workers. Around 26 percent of sex workers had reported having been beaten or raped in the past one year in a state representative biological and behavioural survey conducted in year 2009.(12)

The experience of gender-based violence results in, physical, sexual or emotional harm. Even economic deprivation that violates their human rights, health, and health seeking behaviour, which in turn impacts their overall development and perpetuates poverty. It suppresses their 'power within' to change the power inequalities that perpetuate violence by intimate and non-intimate partners, thereby inhibiting action against violence.

Interventions to reduce the violence among sex workers, to support the livelihood of those experiencing violence through linkage with various entitlement schemes and building the greater sense of internal power to act against violence have been implemented by several NGOs in India. However, very few models have been rigorously implemented and evaluated for the effectiveness in enabling the violence-free environment. The Karnataka Health Promotion Trust (KHPT) implemented 'Samvedana' project is one of the few programs that has made concerted efforts to empower the sex workers to build the internal qualities (power within) and conducive environment (power with) to take steps against violence.

The program, targeting over 30,000 women in sex work in the rural and urban areas across 16 districts of Karnataka. This intervention was framed in such a way that it focuses to readdress the violence through empowering the sex workers and linking those with the HIV/violence/psychological and legal services. The violence against women, especially against the women in sex work, is caused by structural factors that perpetuate unequal power relationships through the expression of 'power over' and result in their exclusion by the practice of stigma and discrimination that is rooted in the society. Hence, the approach aims at the empowerment of victims of violence by recognizing their 'power within' and gaining solidarity by sharing 'power with' other social movements of civil society to challenge and address the 'power over'.

In order to evaluate the effectiveness of the intervention, in-terms of changing pattern of empowerment (aiming to increase internalized power "power within"), reduction in prevalence of violence, including intimate partner violence, and its relation with HIV-related risk behaviors, increased action towards violence, and increased linkages with various entitlement schemes. KHPT conducted repeated cross-sectional behavioural surveys, at the beginning and towards end of the intervention, among FSWs in selected states of Karnataka. This report addresses the first two outcomes of the project and focuses on evaluating the effect of the programme on sex worker's experiences through their improved knowledge, attitudes and behaviour on issues related to the intersection of Violence against Women (VAW) and HIV, and improved access, affordable quality services (health, legal, justice, protection, police, etc), an stigma and discrimination free environment for the survivors of VAW.

1.2 Sex work scenario in Karnataka

It is estimated that there are about 8,68,000 FSWs in the country, scattered in different States(13, 14). As per the recent estimate (2013-14), there are 1,00,310 women in sex work in Karnataka of which 19,938 were in the rural areas while 80,372 in urban areas. Of the total sex workers in the urban areas 53 percent sex workers were street-based, 36 percent sex workers were home based. There are about 10.5 FSWs per 1,000 adults (age group 15-59 years) in the urban areas with a corresponding ratio of 1.68 in rural areas. Of the sex workers in Karnataka, 30 percent were Devadasis, 17 percent below age 25 years, 66 percent illiterate, 33 percent were widowed/ divorced/ separated/ deserted. While 95 percent of the urban areas were covered through HIV-related interventions; just half of the rural areas had such intervention implemented. As stated before, of the total sex workers, 26 percent reported experience of violence. Thus, the data indicates that sex workers, in the state, largely belonged to the strata of society which are poor, uneducated, excluded and experience violence based on their gender, caste, class and occupation.

Findings from earlier surveys in the state revealed that, sex workers who reported being beaten or raped in the past one year were likely to be younger, to be either co-habiting or widowed/divorced/separated/deserted, and to have a regular partner. They were more likely to be non-local to the area, to have sold sex outside the district in the previous six months, and to have previously sold sex in Mumbai. They were also more likely to have started selling sex at a younger age of <25 years and to entertain a greater number of clients per week (10+). Women in sex work who entertained clients at home were less likely to report violence than those who entertained in public places or in brothels, lodges and *dhabas*. (12) The main perpetrators of the violence in the district included intimate partners at home (22%); those in the sex work structure, namely, clients (9%), law

enforcing agencies, namely, police (30%) and judiciary; and the larger society including the media. (12)

Most violence against sex workers is a manifestation of the gender inequality and discrimination towards women and it is associated with inconsistent condom use or lack of condom use and with increased risk of STI & HIV-infection. Addressing the violence against sex workers to protect their human rights as an integral part of HIV prevention, treatment and caring. Subsequently it improves the overall quality of life and well-being and enables them to practice safer sex, reproductive and other health behaviours, and increase their confidence and ability to seek and obtain services.

1.3 About the project 'Samvedana'

The project 'Samvedana' adopted multi-layered approach to safeguard women in sex work experiencing intensified violence and exploitation by the sex work structure through intervention at individual and community level, and advocacy at local and state level institutions and through civil societies. The intervention aimed at empowering community-led structures and strategies in responding to violence by educating the women, building community collectives/leadership and providing them linkages with state mechanisms and support services to address violence.

1.3.1 Anticipated changes at various levels

The main approach of the intervention aimed at the empowerment of victims of violence by recognizing their 'power within' and gaining solidarity by sharing 'power with' other social movements of civil society to challenge and address the 'power over'. However, the main approach was supported by activities at different levels with an anticipated result at each level.

The main anticipated changes at the individual level was to recognize violence not just as beating and sexual abuse experienced at the hands of law enforcement agencies (police), or the sex work structure (clients and pimps), but also experiences of abuse, in intimate partner relationships. An understanding of gender-based violence will enable women in sex work to move beyond their acceptance of violence as something that they "deserve", to a position of violence as violating their right to life with dignity, health and security, violence as an issue that affects the core of the woman's being.

At the community level, community based organizations (CBOs) were equipped to respond with sensitivity and appropriate support to women; to enable distinction between women who experience occasional violence from varied perpetrators or repeat instances of violence from the same perpetrator, such as, an intimate partner. The latter cases were dealt with different interventions such as relationship or group work, counseling support,

or relief as necessary and implemented in two districts of Karnataka, namely, Bijapur and Bagalkot.

At the institutional level, the changes were envisaged at the policy, attitudes and practices levels – the way state and society look at and treat sex work/women in sex work, understand the issue of violence against women in sex work, extend co-operation to ensure speedy redressal in cases of violence, and fulfill the state obligation to protect women from violence irrespective of their occupation, through the use of institutional mechanisms such as service providers and Protection Officers in the case of domestic violence, prevention of misuse of the law in the case of ITPA. (15)

The project's intensive intervention phase piloted in 15 districts of Karnataka. The effort was to steer the individuals, community, society, law-enforcement agencies and healthcare services towards a long term vision for "Questioning Violence" in all its varied forms – physical or sexual, emotional or verbal. Whoever the perpetrators – intimate partner/husband at home, clients, pimps, and madams when at work, and the police and judiciary as representatives of the state's law and order machinery – the message/response needs to be unequivocal, "Violence must not be tolerated", "Violence violates human rights". Eventually, raising critical consciousness will inform collective action, and form the basis for forging networks and alliances with women's organizations, Dalit organizations, and human rights organizations, and sensitizing law-enforcement agencies to reduce violence against women in sex work.

1.4 Purpose and scope of evaluation

Preventing and responding the violence emerged as a strong 'felt need' among the sex workers. The KHPT sensitized and advocated with the enforcement of law (police) and judiciary not to perpetrate or condone violence against the sex workers. Changing the social and cultural norms is therefore critical to address and prevent the violence against female sex workers and HIV infection. Thus the project evaluation was conducted to determine whether the overall goal of the project "inclusive society, free from violence against women in sex work" have been achieved or not? Two broad indicators were defined to measure this goal:

- Reduced stigma and discrimination by larger society to FSWs.
- Reducing risk and vulnerability of FSWs to violence and STI/HIV transmission

These indicators were further divided into two major outcomes and respective measureable indicators.

Outcome 1: Improve knowledge, attitudes and behavior amongst community members, their partners, and service providers on issues related to the intersection of Violence against Women (VAW) and HIV

- Increased awareness on causes and consequences of VAW and its linkage to HIV among women in sex work, their partners and service providers.
- Increased recognition and acceptance of 'power with' and 'power within' among sex workers to address VAW and HIV

Outcome 2: Survivors of VAW have improved access to stigma and discrimination free affordable quality services (health, legal, justice, protection, police, etc.)

- Increased initiation of action taken by sex workers/community based organizations to address VAW in sex work
- Increased access to counseling; legal aid services, supplementary income and linkage to social entitlements to cope/relieve with emotional trauma

As described before, since programs aimed to provide prevention and treatment of HIV/AIDS cannot succeed without challenging the structures of unequal power relations between women and men, the overall perspective of evaluation was framed in such a way that it focus to readdress the violence through empowering the sex workers and linking those with the services who have experienced any forms of violence in their lifetime.

This report utilizes the data from baseline and endline report and intends to answer some of the following key questions:

- To what extent FSWs in the intervention areas were exposed to different intervention activities?
- The extent of changes recorded in the levels of empowerment and prevalence of violence among FSWs in intervention areas over the time?
- What are the possible associations between level of empowerment, violence and HIV related risks and vulnerability; has the association been changed/ risk been reduced over the two time points?
- To what extent FSWs experienced violence in last one year accessed various legal, counseling services or were linked to various entitlement schemes?

2. Methodology

2.1 Study design

A pre-posttest design with cross-sectional surveys undertaken prior to the implementation of the intervention activities (baseline) and at its conclusion (endline) was used to evaluate the effects of intervention activities. The data collection for first round and second round was collected from four districts of Karnataka during September-November, 2012 and June-August, 2015, respectively, by KHPT with the help of an independent research team who were not part of the program implementation. The baseline and endline surveys purposively selected four districts to represent diverse socio-cultural regions of the Karnataka state. The selected four districts in Karnataka state were Belgaum, Gulbarga, Gadag and Dharwad.

The survey was designed to measure the prevalence of drivers and facilitators of violence, associated risks and vulnerabilities under the umbrella of community empowerment among sex workers during both the rounds of investigation. Demographic, occupational, and behavioural characteristics were measured to determine their association with drivers and the manifestations of violence. The survey investigated respondents' knowledge and attitude of sex work towards the violence and factors influencing the behaviours of sex workers' outcomes. Both the rounds collected necessary information to measure the level of individual and group collectivization to reduce the vulnerability among the female sex workers; correct and consistent condom use, exposure to behaviour-change communication programs, availability of condoms, and access to various services as well as address other concerns in their lives. In the second round of the survey, there was a separate section in the survey tool on exposure to the intervention or community-based organization.

2.2 Sampling strategy

Both the rounds a probability-based method of sampling was used for data collection. Conventional cluster sample was used for FSWs where the population was stable, i.e. FSWs selling sex at home, or in brothels, lodges and *dabhas* (roadside eating places) whereas two-stage time-location cluster (TLC) sampling design was used for data collection at public places. At the first stage of TLC sampling method, the required number of TLCs was selected by using Probability Proportionate to Size (PPS) sampling method while respondents were selected randomly (by chits of paper or by the color/type of outfit) in the pre-selected time location clusters at the second stage. The number of

clusters needs to be selected was decided in advance and was based on the sample size to cover and the average estimated size of cluster.

For first round survey an estimated sample size for each of the district was 385 interviews and for second round 400 interviews of FSWs aged 18-49 years. The sample size was estimated to detect at least 15 percent change in consistent condom use with clients from an expected value of 50 percent at the first round and 90 percent at second round. In the both the rounds, with a response rate of 95 percent, total 1464 FSWs and 1533 were interviewed. So the report is based on the information collected from 2997 FSWs. District-wise response rates varied between 90-98 percent in both the rounds.

2.3 Data collection tools

Data were collected using interviewer-administered culturally sensitive and context specific questionnaires, adapted from previous surveys and conducted in Kannada (the local language). Interviewees were trained researcher. To ensure confidentiality, Interviewees did not collect identifying information of the participants (Name, address and other identifying information). Informed consent was obtained from each participant. After witnessing verbal informed consent, a form was signed by the out research workers, Peer educators and counsellors and that their participation was voluntary.

Almost similar quantitative tools were used for data collection. The data collection tools included questions on their socio-demographic, economic and sex work profile, their sex work related movement pattern, sexual history and condom use, knowledge and awareness on HIV, STI, self-reported STI symptom and treatment seeking behavior. Detailed questions were asked on awareness on different types of violence, main perpetrators of violence, experience of violence, and action taken by the FSWs in case they faced any act of violence. A separate section of the questionnaire dealt with the community led structural intervention, advocacy and access to various entitlements. In the last section of the questionnaire, questions related to exposure of intervention, extent of uptake of different HIV prevention and violence addressable services, duration since when first time any of such services were sought, and information on some key fertility indicators were gathered. In addition, few added questions were posed to the sex workers in the endline survey to better understand their contact with the project, the quality of those contacts, the extent to which respondents attributed change/sources of new information/service, if any, to the project.

2.4 Training, fieldwork and data management

All interviewers underwent four days of training that included familiarisation with the *Samvedana* project and the behaviours it sought to influence, the components of the

survey instruments, how to ask questions, and how to probe; and the ethics of survey research. Female investigators were recruited to conduct the interviews with FSWs while male investigators acted as team supervisor to support the investigators in the field. Field supervisors were also responsible for random back-checking to ensure reliable interviewer performance. In addition, the KHPT research team members made periodic visits to each field team to monitor interviewing practices and quality of data. In both the rounds of survey, the field work took almost two months.

Interviews were conducted using paper-based questionnaire. All the data collected in the field were checked for internal consistency. Appropriate editing was done to code certain information for the ease of data entry purpose. The data entry was done in customized software developed in CSPro 4.1 version. In order to ensure accuracy of the data entry, a mechanism of double data entry was made in the software. All the questionnaires were entered by two separate data entry operators in two different computers. The data file of each clusters were matched, and inconsistencies in the data entry were rectified after looking into the hard copies of the questionnaire. The data sets were finalized only after correcting the inconsistencies in the data entry, if found any. Sample weights were calculated separately and were merged with the final data set before initiating the analysis. A single data file, combining baseline and endline information, was used for the analysis purpose.

2.5 Data analysis

As mentioned before, in both the rounds sample sites, the survey technique and the survey tools that were used were identical. The survey design of the first round survey was replicated in the second round survey to avoid statistical biasness in the methodology and to facilitate comparative analysis of each round. The present analysis focused on the estimates of all the key outcomes variables across two rounds of surveys and a significance of change observed during the baseline and endline surveys. It is important to note that significant change over time in outcomes of interest may not necessarily be attributed to the impact of the intervention, given that secular changes occurring also among the FSWs not exposed to the program. While most of the analysis was univariate in nature, bivariate analysis was conducted to cross-classify the outcomes by selected background and empowerment measures. Two-sample proportion test (Z-test) for categorical variables while t-test for continuous variables were used to detect significant differences between baseline and endline estimates. All the significance were tested at 5 percent and 1 percent level of significances. In order to adjust the district level variations in the response rate, sample weights were applied for all the analysis. STATA 12.0 was used for all the analytical purpose.

2.5.1 Exposure variable

For this analysis, empowerment measures – 'power within' and 'power with' were considered as exposure variables. Both the indicators were computed using similar methodology and set of variables as used during the baseline. While the indicator on power within reflected gaining internal skills and overcoming external barrier, power with mostly dealt with the communal dimensions such as group solidarity or collective action which acknowledge that positive change may often be affected through collective action rather than individual action.

The measure of power within was built upon three broad indicators, namely, self-confidence, individual agency and self-efficacy for service utilization; whereas the indicator of power with comprised of two broad domains- social cohesion and collective efficacy. Both the empowerment measures were divided into two groups (low and high). The categorization was done based on different cut-off points depending on the number of variables included and the distribution of combined scores. Measure on power within ranged from a minimum score of o to maximum 6 while power with ranged between o-9. (16)

2.5.2 Outcome measures

Both the rounds used experience of violence perpetrated by intimate partner/ husband in past 12 months and experience of physical violence in past 6 months and forced sex in past 12 months by client/ or other person was the first outcome of the study. The experience of IPV was examined as four different categorical variables: experienced physical violence; experienced sexual violence; experienced other forms of violence (mostly verbal); experienced any form of violence.

The second set of outcome variables relates to HIV related risk and vulnerability among FSWs measured in terms of condom use with partner/ husband and clients and the current prevalence of STI. More specifically, the second set of outcomes included in the analysis is use of condom in last sex with every client/partner; consistent use of condom in all sexual activities with every client/ partner; current prevalence of self-reported STIs.

Both the rounds measured physical violence by asking women whether their husband/ or partner ever, and in the last 12 months, pushed, shook, or threw something at her; slapped; twisted her arm or pulled her hair; punched to hurt her; kicked, dragged, beat her; tried to choke or burn her on purpose; or threatened or attacked her with a knife, gun or any other weapon. Sexual violence was measured by asking women whether the intimate partner/ husband physically forced her to have sex without her consent; or forced her to perform any other sexual acts without her consent. The other forms of violence is measured by combining the responses of variables such as partner/ husband ever, and in

the last 12 months, said or did something to humiliate her in front of others; threatened to hurt her or someone close to her; and insulted her repeatedly in front of others. As mentioned before, two forms of violence, i.e., physical violence in past 6 months and forced sex in past 12 months perpetrated by clients.

The third set of outcomes included in the analysis mostly dealt with the women's recognition of different forms of violence and violence addressable methods, action taken by sex workers experienced violence, their access to various legal services, and linkages with different social entitlement schemes.

2.5.3 Background variables

Several socio-demographic, sex work and program exposure related information were captured in the survey. This information was used as background variables as and when required. The socio-demographic variables used in the analysis included- age, literacy status (literate; non-literate), current marital status (never married; currently married; divorced/widowed/ separated), and migration status (localite; non-localite). The sex-work related characteristics included age at initiation of sex work, duration in sex work (< 2 years; otherwise), sex work typology (home/brothel/lodge based; street based; phone based; other), weekly client volume (<5 years; 5-9 years; 10+ years), and weekly sexual partners (<5; 5-9; 10+).

Program exposure related variables considered as background characteristics included duration since first time contacted by the program, registration with NGO/CBO, exposure to various violence related information, and participation in various meetings organized by CBOs/NGOs on violence reduction in past 6 months preceding the both rounds of survey.

2.6 Ethical consideration

Both the rounds of study received ethical clearance from the Institutional Ethical Review Board (IERB) at St. John's Medical College and Hospital, Bangalore, India, and the Health and Research Ethics Board (HREB), University of Manitoba, Winnipeg, Canada.

3. Results

3.1 Profile of the respondents

The background characteristics of the FSWs participated in the two rounds of cross-sectional surveys are presented in Table 1. The profile of the sex workers covers two broad domains of their characteristics, i.e., socio-demographic and sex work related characteristics. The overall findings suggest that the sex workers participated in two rounds of survey differed in terms of basic characteristics. However, the characteristics like current marital status were same across two groups- those participated in baseline and those in the endline.

Findings suggest that for all women in the sample, those interviewed in the endline were about one year older than the baseline (33 years vs 32 years, respectively). Most of the FSWs in both the rounds had no education as three-fourth of them belonged to the non-literate category. However, relatively lesser proportion of FSWs at the endline reported no education than those in baseline. As mentioned, the FSWs in the both the rounds of survey had similar distribution across marital status categories; about 41 percent were currently married at the time of survey while 46-47 percent were widowed/ divorced/ separated. About 11 percent in the baseline and 14 percent of the total FSWs at the endline were never married. At the overall level, more than 90 percent of the total FSWs were localities; about 91 percent in the baseline and 96 percent in the endline.

Similar to the socio-demographic characteristics, sex-work characteristics of the FSWs differed from the first round of the survey to the second round. FSWs in the endline survey had initiated sex work profession about one year before than those interviewed in the baseline. While overall age at first sex among FSWs was 25 years, it was 25.6 years for the baseline participants while 24.7 years for the endline participants. More than 90 percent of the sex workers were in this profession for more than two years at the time of surveys. However, sex workers in the endline survey were relatively new to the sex work than those in the baseline survey. There were significant decline in street based sex worker from 57 percent in the baseline to 38 percent in the endline. On the other hand, there has been a significant increase in who solicited their clients through phone (23% to 36%) and other modes such as place where they perform various socio-cultural activities, i.e., *Tamasha* theatre (2% to 7%) respectively from the baseline to endline.

Although, on an average, the sex workers participated in both the rounds of survey had about six clients per week, there distribution of FSWs across different weekly client volume categories was significantly different from the baseline to endline. There has been

a significant increase in the proportion of FSWs either had less than five weekly clients (37% to 46%) or those who had 10 or more weekly clients (12% to 17%) over the two time points. At the same time proportion of FSWs having 5-9 weekly clients per week declined from 52% to 37%). The similar pattern of differences was observed in case of weekly sex acts. For example, while proportion of FSWs having less than 5 weekly sex acts and 10 or more sex acts recorded and increase; FSWs having 5-9 weekly sex acts recorded a decline from baseline to endline survey. On an average, women in the baseline and endline had 8-9 weekly sex acts with their clients and regular partners.

Table I : Percentage of FSWs by their characteristics, Baseline and Er		•	
Characteristic	Baseline	Endline	Significance (BL vs EL)
A. Socio-demographic characteristic			
Mean age	32.0	33.4	**
Non-literate (%)	74.4	70.1	**
Current marital status			
Never married	11.0	13.7	NS
Currently married	41.2	40.8	NS
Other	47.9	45.5	NS
Non-localite (%)	8.5	3.8	**
B. Sex work characteristic			
Mean age at start of sex work	25.6	24.7	***
Duration in sex work since <2 years	7.0	4.7	**
Sex work typology	,		
Home/ Brothel/ Lodge based	19.4	19.0	NS
Street based	56.6	37.7	***
Phone based	22.5	36.2	**
Other (<i>Tamasha</i> theatre)	1.6	7.1	**
Weekly client volume			
<5	37.0	45.9	**
5-9	51.5	37.2	***
10+	11.6	16.8	**
Mean number of clients per week	6.o	6.4	**
Weekly sexual acts			
<5	23.1	27.2	**
5-9	60.6	47.5	***
10+	16.4	25.3	**
Mean number of sexual acts	7.6	8.9	**
N	1464	1533	
Differences in baseline and endline estimates are sign	ificant at ***p<0.0	001; **p<0.05; N	S: Not significant

3.2 Exposure to intervention

Table 2 illustrates the exposure levels of FSWs to intervention and HIV related information. In general, there has been a significant increase in the extent of exposure to intervention and violence related information among FSWs from baseline to endline surveys. A significantly higher proportion of FSWs at the endline (39%) from baseline (16%) contacted in last one year for the first time with program person working in their area on HIV prevention and violence reduction. There has not been any significant change in proportion of FSWs registered with NGO or CBOs.

Comparison of findings across two rounds of survey revealed that, despite the fact that at the overall level proportion of women received information on domestic violence did not vary much across the two rounds, there has been a significant increase in the proportion of FSWs who either reported source information on domestic violence through training workshop organized by the NGOs through the project (11% to 35%) or had heard of the domestic violence act (69% vs 91%) between baseline to endline.

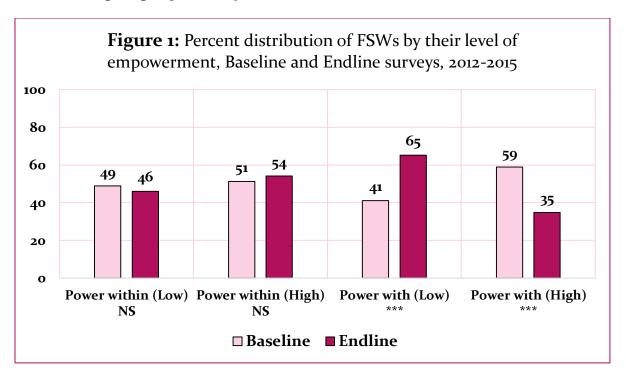
Table 2: Percentage of FSWs by their	exposure to intervention and HIV related information	١,
Baseline and Endline Surveys	, 2012-2015	

Characteristic	Baseline	Endline	Significance (BL vs EL)
			(DL VS EL)
First contact with program person in last one year	16.4	39.4	
Registered with NGO/CBO	97.3	94.1	NS
Exposure to violence related information			
Ever heard/seen any information on domestic violence	87.o	86.2	NS
Heard about domestic violence through NGO	36.6	39.3	NS
Heard about domestic violence through training workshop	11.3	34.5	***
Heard of domestic violence act	68.6	91.1	***
Heard of domestic violence act through NGO	NA	34.7	NS
Heard of information related to violence and HIV risk	74.1	81.9	**
Heard of information related to violence and HIV risk	47.2	33.6	**
through NGO			
Heard of information related to violence and HIV risk	30.0	66.3	***
through training program			
N	1065	1223	
Attended any meeting conducted by CBO in last 6 months	75.7	85.8	***
Attended training on violence organized by CBO/NGO	51.3	86.3	***
Attended campaign on violence/HIV issues in last 12 months	44.5	73.9	***
Member of a CBO	69.0	96.8	***
N	1447	1470	
Differences in baseline and endline estimates are significant at ***p<0.001; **p<	0.05; NS: Not sig	nificant	

In addition, significantly higher proportion of FSWs at the endline (82%) heard about information on linkages between violence and HIV related risks and vulnerabilities from baseline (74%) and majority of them again heard so from the training workshop organized by the NGO. Significantly higher proportion of FSWs at the endline, as compared to baseline, attended meetings conducted in last 6 months (76% vs 86%), trainings on violence (51% vs 86%), campaigns on HIV/violence issues (44% vs 74%) organized by the CBOs/NGOs and there has been a tremendous increase in the CBO membership from 69% to 97% from baseline period to endline.

3.3 Level of empowerment among FSWs

Figure 1 shows the distribution of respondents according to the level of empowerment – measured in terms of 'power within' and 'power with' across two rounds of surveys. There has not been any significant change in the extent of internal power (power within) among the sex workers over two time points. Though there has been a marginal increase in proportion of FSWs in 'high' category of index (power within) from baseline to endline (51% to 54%), the extent of increase was not statistically significant. Contrary to this, sex workers in the 'low' category of empowerment- revealing the social cohesion and collective efficacy (power with)- have shown some increase over the time, whereas, there has been a significant decline in the proportion of FSWs belonged to the 'high' category of index revealing the group solidarity or collective action.



3.4.1 Differential in level of empowerment by selected characteristics

The differential in level of empowerment by background characteristics of the FSWs across two surveys is presented in Table 3. Results suggest that while most of the young FSWs (below 25 years) in first round had shown high level (50%) of internal qualities such as self-confidence, individual agency and self-efficacy in service utilizations, in the second round, the percentages have increased (56%) for older FSWs (35 years and above). The results were completely opposite for power with when compared with power within for specific ages of the FSWs. In the first round the older FSWs (25 years and above) were having high levels of empowerment (60%) when compared with the second round (32%). Literate FSWs were having high levels of empowerment power within (52%) and power with (61%) at the first round, but both have reduced in the second round to 50 percent and 32 percent respectively, indicating the fact that lot of non-literate FSWs were also able to gain self-confidence after being the part of intervention.

The differentials in level of empowerment by marital status are also presented in Table 3. Finding suggests that, during the baseline, never married (53%) and currently married (48%) FSWs had shown relatively higher level of self-confidence; and, by the end of the project too, FSWs in both the categories showed a high level of internal power (power within). The level of self-efficacy, self-confidence and internal power to use prevention services remained almost similar among the widowed/divorced/separated FSWs across two rounds of survey. So far as the differential in level of empowerment in terms of social cohesion and group solidarity (power with) is concerned, irrespective of the marital status, all FSWs reported a significant decline in high levels of power with (others). While localite FSWs in baseline survey had shown high level of "internal power" and "social cohesion", a shift has been observed at the endline survey as slightly higher proportion of non-localite FSWs were found in the "high" group of both the empowerment indices.

Those FSWs who are in sex work profession for less than two years, there was a increase of power within from 52 percent to 54 percent and there was a significant decrease in power with from 60 percent to 35 percent, from base-to-endline surveys. The differential in level of empowerment by sex work typology suggests that while home based FSWs have shown significant reduction in high levels of power within (55% vs 47%) and power with (73% vs 42%), the street based and phone based FSWs, on the other hand, have shown increased high levels of power within (53% vs 57% and 42% vs 53%) during two points of time. Irrespective of the cliental volume, those FSWs who entertain more than 10 clients per week have shown high levels of power within and power with during the baseline survey, however, FSWs at the endline with 10 or more weekly have shown relatively low level of empowerment compared to those having less weekly client volume.

Table 3: Percent distribution of FSWs by their level of empowerment according to selected background characteristics, Baseline and Endline Surveys, 2012-15

	Baseli	ne				Endl	ine			
Characteristics	Power	within	Power	r with	NT.	Powe	r within	Powe	r with	N.T
	Low	High	Low	High	$-N = \frac{10W}{Low}$	Low	High	Low	High	N
Age										
<25	49.6	50.4	46.6	53.4	157	52.2	47.8	62.9	37.1	113
25-34	51.3	48.7	39.9	60.1	729	47.3	52.7	67.6	32.4	663
35 and above	45.4	54.6	41.1	58.9	578	43.8	56.2	63.2	36.8	756
Literacy status										
Literate	48.2	51.8	38.5	61.5	1086	49.6	50.4	68.o	32.0	443
Non-literate	50.6	49.4	41.9	58.1	378	44.4	55.6	64.0	36.o	1090
Current marital status	-								_	-
Never married	46.8	53.2	37.4	62.6	163	36.8	63.2	56.8	43.2	214
Currently married	51.5	48.5	44.5	55.5	601	45.1	54.9	67.8	32.2	627
Other	47.0	53.0	38.9	61.1	700	49.5	50.5	65.3	34.7	692
Migration status	.,				,	.,,			<i>.</i>	
Non-localite	57.6	42.4	55.5	44.5	99	44.9	55.1	57.8	42.2	59
Localite	48.o	52.0	39.7	60.3	1365	46.0	54.0	65.4	34.6	1474
Duration in sex work	,								,	
<2 years	48.2	51.8	40.1	59.9	1365	45.9	54.1	64.5	35.5	72
2 or more years	56.8	43.2	54.1	45.9	99	46.6	53.4	65.2	34.8	1461
Sex work typology		.,	,	.,,		•	,		,	·
Home/ Brothel/ Lodge based	45.2	54.8	38.o	62.0	336	52.5	47.5	64.4	35.6	285
Street based	47.0	53.0	37.1	62.9	772	43.0	57.0	60.7	39.3	58o
Phone based	58.1	41.9	53.2	46.8	337	46.5	53.5	71.5	28.5	557
Weekly client volume				•	,	. ,				,,,
<5	50.2	49.8	51.5	48.5	565	40.7	59.3	62.4	37.6	697
5-9	51.6	48.4	36.6	63.4	729	47.1	52.9	62.5	37·5	573
10+	32.0	68.o	27.4	72.6	170	57·7	42.3	78.7	21.3	261
Time since first contacted by program			, ,	<i>'</i>						
Contacted within last 2 year	59.7	40.3	61.1	38.9	232	30.9	69.1	55.6	44.4	937
Contacted before last 2 years	46.8	53.2	36.7	63.3	1215	69.2	30.8	79.8	20.2	596
Member of a CBO	•	,,	<i>,</i>	,,	,	,	-	• -		<i></i>
No	58.2	41.8	43.9	56.1	447	67.9	32.1	83.4	16.6	45
Yes	44.8	55.2	39.8	60.2	996	44.1	55.9	64.0	3 6.0	1414
Attended training on violence		,,	22		,,		,,,	•		
No	49.0	51.0	42.3	57.7	714	46.5	53.5	73.7	26.3	195
Yes	48.9	51.1	39.4	60.6	733	44.3	55·7	62.7	37.3	1275

Analysis presented in Table 3 also revealed the differential in level of empowerment by key program exposure variables. Findings clearly suggested a significant increase in proportion of FSWs in the "high" categories of empowerment indices (power within as well as power with) from baseline to endline. About 40 percent FSWs in the baseline belonged to the high category of empowerment indices, contrary to this, respectively 69 percent and 44 percent FSWs were found in the high category of power within and power with indices at the endline. Across both the rounds of survey, relatively higher proportion of FSWs who were part of CBO had shown higher levels of empowerment compared to those who were not part of survey. Similar was the result for FSWs those who attended the violence related training versus those who did not.

3.5 Recognition of perpetrators, causes and consequences of violence

Both the rounds of survey contained few question to assess the awareness of FSWs about perpetrators of violence, its causes, and multi-dimensional consequences caused by violence. One the aims of the project *Samvedana* was to increase the recognition of different type of perpetrators of violence, reasons why it takes place and further what are the harmful consequences of violence among FSWs in the intervention areas. It was anticipated that with the increased awareness on causes and consequences of violence, there will reduction in experience of violence as many of the times violence are being not reported because it is taken as granted, and women don't know what to do if any violence happen to them so that they can avoid the same to happen it in the future. Findings presented in Table 4, 5, and 6 throws some light on these issues.

Table 4 : Percentage of FSWs by their awaren Endline surveys, 2012-2015	ess on perpetr	ators of violer	nce, Baseline and
Awareness on perpetrators of violence	Baseline	Endline	Significance (BL vs EL)
Clients	63.8	53.3	***

			(BL vs EL)
Clients	63.8	53.3	***
Regular partner/ husband	36.7	50.2	***
Co-sex workers/ brothel madam	4.5	18.1	***
General community	17.7	22.8	***
Family members	7.6	20.9	***
Local gundas	53.8	35.5	***
Police	30.2	29.0	NS
Other ¹	19.1	29.5	***
N	1464	1533	

¹Includes health care provider, government officials, strangers etc.

Differences in baseline and endline estimates are significant at ***p<0.001; **p<0.05; NS: Not significant

Table 4 presents differential in the awareness of different perpetrators of violence across the surveys. Findings suggest FSWs in study area were well aware about different types of violence perpetrators and awareness levels have increased in the endline survey. Majority of the FSWs, irrespective of the time periods, reported that most of the violence being perpetrated by clients, regular/husbands, local *gundas*, family members and police. Less than 20 percent of the FSWs mentioned that brothel madam and general community also perpetrate violence. The perception levels among FSWs have gone up significantly from baseline to endline for regular partner (37% vs 50%), brothel madam (4% vs 18%), and family members (8% vs 21%). This clearly implies that now the sex workers in the intervention areas have started the recognizing the physical or sexual abuse done by their regular partners, brothel madams and family members as an act of violence which was not the case earlier.

Table 5 summarizes the women's awareness/ perception reasons for violence and results suggested that a larger proportion of FSWs in the endline started recognizing alcohol use and other reasons such as confidentiality, property and caste related issues as reasons for violence which was not the case before beginning of the intervention. While in the baseline just 17 percent -19 percent reported alcohol consumption and other matters as possible reasons for violence, the same was reported by almost 30 percent-50 percent respondents at the endline. Findings also suggest that there has been reduction in proportion of FSWs, from baseline to endline, who perceived that violence may happen only due to indulgence in sex work practice or due to financial constraints.

Table 5: Percentage of FSWs by the Baseline and Endline surv		on on reasons fo	or violence,
Reasons for violence	Baseline	Endline	Significance (BL vs EL)
Sex work practice	90.4	83.4	***
Financial constraints	66.2	52.8	***
Alcohol use	18.8	49.4	***
Other¹	16.6	30.1	***
N	1464	1533	
¹ Includes confidentiality, property and caste re	lated reasons		
Differences in baseline and endline estimates a	re significant at ***p<0.001; **p<	0.05; NS: Not signific	cant

All the FSWs interviewed were aware of one or other consequences that may arise as a result of violence. Some of the consequences were at the individual level (FSWs), while few other were related to the children. Findings on perception of FSWs on various consequence of violence are presented in Table 6. Results shown in the below table suggest that, more than 94 percent FSWs reported mental stress along with loss of self-esteem and confidence as the most two important consequences of violence. Around 85

percent of FSWs mentioned that fear among children, poor school performance among children, low self-esteem among children, isolation from social network, and effect of family relationship are also the consequences of violence. There has been a significant increase in recognition on consequences of violence among FSWs from baseline period to endline. For instance, harmful substance use (63% vs 72%), increased risky sexual behaviour (59% vs 70%), fear among children (80% vs 86%), isolation from social network (71% vs 82%) and loss of self-esteem and confidence (87% vs 94%) were some of the important consequences mentioned by FSWs participated in the study during the endline.

Table 6: Percentage of FSWs by their awareness on consequences of violence, Baseline and Endline surveys, 2012-2015

Consequences of violence	Baseline	Endline	Significance (BL vs EL)
Mental stress	96.8	94.4	**
Loss of self-esteem and confidence	87.o	94.3	***
Effect of family relationship	89.5	88.6	NS
Restricted access to services	74.8	73.1	NS
Isolation from social network	70.9	82.0	***
Increased risky sexual behavior	59.4	70.2	***
Harmful substance use	62.7	71.7	***
Fear/ anxiety/ depression/ among children	80.7	86.o	***
Low self-esteem among children	83.2	86.o	**
Poor school performance among children	78.1	82.3	**
Children become violent	77·9	77.4	NS
N	1464	1533	

3.6 Experience of violence among FSWs

This report focuses on three different types of violence experienced by FSWs in the intervention area. This includes life-time experience of violence and violence experienced in 12 months period preceding the survey by intimate partner/husbands (IPV) and physical and sexual violence (forced sex) by clients and other individuals in six and 12 months preceding the surveys respectively. Table 7 shows the women's experience of violence across baseline and endline surveys.

Findings suggest an overall decline in reported violence among FSWs in the intervention areas. As compared to 48 percent FSWs in the baseline, about 41 percent of FSWs reported they have ever experienced any form of violence in their lifetime perpetrated by intimate partner/husband. FSWs reporting experience of physical violence declined substantially from 43 percent to 38 percent between two time points. However, there has been an increase in reporting of sexual violence (14% vs 26%) perpetrated by intimate partner

among the FSWs. There has not been any significant change in reporting of other forms of violence during the base-and-end line period.

Contrary to expectation, there has been an increase in reporting of any form of violence (physical, sexual and other) perpetrated by intimate partners in past 12 months preceding the survey from baseline to endline. While FSWs experience physical violence at the hands of intimate partner increased from 30 percent to 34 percent, the extent of sexual violence have shown an increase of 12 percentage points from baseline to endline. Similar to the findings of intimate partners, there has been a significant reduction in proportion of FSWs ever experienced physical violence (48% vs 38%) while increase in sexual violence in last 12 months (14% vs 19%) by those perpetrated through clients.

Considering the fact that there has been a tremendous increase in the proportion of FSWs at the endline recognizing regular partners as one of the most important perpetrators of violence, the observed increase in reporting of physical and sexual violence through intimate partner in last 12 months might be result of more reporting of the act of violence which might have not been either reported or neglected by the FSWs interviewed in the baseline survey. Again the increased sexual violence perpetrated through clients in last six months might be the result of better reporting of violence from baseline to endline.

Forms of violence	Baseline	Endline	Significance (BL vs EL)
A. Violence perpetrated by intimate partn	er/ husband		
<u>i. Experience of violence (ever)</u>			
Any	47.8	41.4	**
Physical	42.9	38.4	*
Sexual	13.6	25.8	***
Other¹	37.4	36.7	NS
ii. Experience of violence (last 12 months)			
Any	34.6	37.3	**
Physical	29.9	34.1	**
Sexual	9.6	21.7	***
Other ¹	25.5	32.8	***
B. Violence perpetrated by clients/ other in	ndividuals		
Physical violence (ever)	47.6	37.7	***
Physical violence (past 6 months)	33·4	32.5	NS
Sexual violence (last 12 months)	13.6	19.2	***
N	1464	1533	

3.7 Experience of violence by empowerment level

Results presented in above section demonstrated an increase in the experience of violence in last 12 months preceding the survey. In order to substantiate the result that the above findings are mostly attributed to better reporting of violence rather the real increase in act of violence, an attempt was made to analyze that has there been a reduction in experience of violence, from baseline to endline, among the group of FSWs who belong to 'high' categories of 'power within' and 'power with' indices or it has actually increased/remained unchanged. In order to do so, a comparison was made among the FSWs belonging to 'low' and 'high' levels of empowerment reported experience of different forms of violence between the baseline and endline period.

Since the characteristics of women participated in the baseline and endline surveys differed from each other, we did not compare the results on experience of violence among the FSWs between 'low-low' and 'high-high' categories of violence as the positive results might be attributed to the differences in characteristics of the FSWs rather due to the effort of intervention. In order to overcome this hurdle, we compared the results within each rounds of survey and between the respondents falling in two categories of empowerment index. The results of this analysis are presented in Tables 8 and 9 respectively.

3.7.1 Experience of violence by level of empowerment (power within)

Experiences of any form of violence (including physical, sexual, and other violence) perpetrated by intimate partner or clients and by empowerment (power within) level are shown in the Table 7. Findings depict that, at the baseline, high level of empowerment was not consistently leading to low level of experience of violence. For example, FSWs reporting any form of IPV and physical violence perpetrated through regular partner (ever) at the baseline was almost same across women in low and high level of internal power (any violence 47% vs 48%; physical violence 43%) groups. Similarly, the experience of other forms of violence in last 12 months perpetuated by regular partners and any form of violence by clients was almost same among the women falling into two groups of power within index (other form of IPV in 12 months- 25% vs 26%; any violence by client 46% vs 50%).

While the experience of any violence and physical violence in last 12 months happened by intimate partner was significantly lower among the FSWs interviewed at baseline and belonged to the 'high' category of empowerment (power within) index; a significantly higher proportion of FSWs in the same group of empowerment index reported sexual violence (ever and in last 12 months) and other forms of violence (ever) at the time of baseline survey. The physical violence in last 6 months and sexual violence in last 12

months by clients was also reported by significantly lesser number of FSWs showed high level of individual agency and self-efficacy than their counterparts at the baseline.

Table 8: Percentage of FSWs by their experiences of different forms of violence by level of power (within), Baseline and Endline surveys, 2012-2015

	Baseline				Endline		
Forms of violence		r within	Significance	Power within		Significance	
	Low	High	(Low vs High)	Low	High	(Low vs High)	
A. Violence perpetrated by intimate partner/ husband i. Experience of violence (Ever)							
Any	47.4	48.2	NS	45.5	37.8	**	
Physical	43.2	42.6	NS	41.3	35.8	**	
Sexual	10.6	16.4	**	31.3	20.8	***	
Other¹	31.4	43.0	***	41.9	32.0	**	
ii. Experience of violence (last 12 months)							
Any	39.7	29.8	**	43.1	32.2	**	
Physical	36.6	23.6	**	38.9	29.8	***	
Sexual	8.3	10.7	**	28.8	15.4	***	
Other¹	24.5	26.4	NS	39.7	26.7	***	
B. Violence perpetrated by clients/ other individuals							
Physical violence (ever)	45.6	49.5	NS	41.0	34.8	**	
Physical violence (past 6 months)	39.2	28.0	**	39.2	26.9	**	
Sexual violence (last 12 months)	16.6	10.7	**	25.5	13.9	**	
N	714	750		705	829		

¹Use of abusive language, threatening, humiliation in front of others

Differences in estimates within power (low vs high) are significant at ***p<0.001; **p<0.05; NS: Not significant

Contrary to the erratic relationship observed between empowerment (power within) and experience of violence reported by FSWs participated in baseline survey, findings shows consistently lower level of violence by intimate partners and clients among the FSWs interviewed at the endline and had 'high' level of internal power and self-efficacy than the FSWs having 'low' internal power at the endline. For instance, while 45 percent FSWs at the endline belonging to 'low' category of empowerment index reported ever experience of any violence the same was reported by 38 percent FSWs belonging to the 'high' category of the index. Corresponding figures for physical, sexual and other forms of violence were (41% vs 36%), (31% vs 21%) and (42% vs 32%) respectively.

Similar to the ever experience of violence, FSWs reporting various forms of IPV in past 12 months preceding the survey and experience of violence at the hands of clients were significantly lower among those who belonged to 'high' category of empowerment index than their counterparts with 'low' level of empowerment and interviewed at the endline survey.

3.7.2 Experience of violence by level of empowerment (power with)

Experience of any form of intimate partner violence or physical violence perpetrated by intimate partners/husband/clients and empowerment (power with) levels shown by the FSWs are illustrated in the Table 9.

Despite the fact the lower proportion of FSWs interviewed in the endline were belonging to the 'high' categories of empowerment index representing the social cohesion and collective efficacy; significantly lower proportion of FSWs with 'high' level of collective power reported experience of different forms of violence in their life-time and 12 months preceding the survey. Results were relatively more consistent while analyzing the relationship between power with 'others' and experience of violence in comparison to analysis of power within and women's experience of violence.

Across both the rounds of survey, i.e., baseline and endline, FSWs belonging to 'high' category of empowerment index (power with) reported lower level of violence (lifetime or current) from their intimate partners or clients than their respective counterparts who fell into the 'low' category of empowerment index.

During the baseline about 42 percent FSWs having 'high' level of empowerment reported life-time experience of violence by intimate partner, whereas the same was reported by 34 percent FSWs at the endline. The corresponding figures for IPV in last 12 months and any form of violence at the hands of clients were (29% vs 30%) and (42% vs 36%) among the FSWs at the baseline and endline.

Table 9: Percentage of FSWs by their experiences of different forms of violence by level of power (with), Baseline and Endline surveys, 2012-2015 Baseline **Endline** Forms of violence Power with **Significance Power with Significance** (Low vs High) (Low vs High) Low High Low High A. Violence perpetrated by intimate partner/husband i. Experience of violence (ever) Any *** *** 56.7 41.8 45.5 33.7 Physical 29.6 *** 51.3 37.2 43.0 31.8 *** Sexual 16.2 11.9 14.4 Other1 *** 36.o NS 27.8 39.5 41.3 ii. Experience of violence (last 12 months) Any *** 42.9 28.9 41.2 30.0 Physical *** 38.1 24.3 38.7 25.5 Sexual 8.7 NS 26.7 *** 10.9 12.2 Other1 24.8 NS *** 24.6 26.6 37.2 B. Violence perpetrated by clients/ other individuals ** 36.0 NS Physical violence (ever) 38.6 55.4 42.2 28.1 *** *** 36.7 24.7 Physical violence (past 6 months) 41.1 *** *** 22.8 8.5 12.5 Sexual violence (last 12 months) 20.9 N 602 862 1000 533 ¹Use of abusive language, threatening, humiliation in front of others Differences in estimates with power (low vs high) are significant at ***p<0.001; **p<0.005; NS: Not significant

3.8 Acceptance of violence among FSWs

In addition to the analysis on changing pattern of experience of violence among FSWs interviewed at two points of time in the intervention areas, attempt was also made to analyze the extent of acceptance of violence among FSWs interviewed at the initial phase of intervention and at the end of intervention. Four statements depicting the acceptance of violence were asked to the FSWs during both the rounds of surveys. These statements were "wife deserves to be beaten", "wife always need to be obedient to husband/ regular partner", "violence is expected if women consume alcohol", and "alcoholic client perpetrate more violence". Responses to these questions among all the participants and those experienced violence in the last 12 months preceding the survey are presented in Table 10.

Of all the respondents, 93 percent of the FSWs interviewed at the baseline felt that wife deserves to be beaten and wife always need to be obedient of their husband/regular partner. There has been a significant decline in the proportion of FSWs who perceived so at the endline survey. The corresponding figures at the endline were 72 percent and 85 percent. Similarly, almost all the FSWs in the baseline perceived accepted that violence is expected if the women or their client consume alcohol, however, about 91 percent of FSWs perceived so during the endline.

Table 10: Percentage of FSWs by the extent of acceptance of violence, Baseline and Endline surveys, 2012-2015

				Among those experienced			
Statement on acceptance	Among all women			violence in last 12 months			
of violence	Baseline	Endline	Significance (BL vs EL)	Baseline	Endline	Significance (BL vs EL)	
Wife deserves to be beaten	92.9	71.9	***	96.1	73.6	***	
Wife always need to be							
obedient to husband ¹	93.0	85.3	***	95.1	81.9	***	
Violence is expected if							
women consume alcohol	99.0	91.1	***	98.9	90.0	***	
Alcoholic client perpetrate							
more violence	99.3	90.8	***	99.7	89.0	***	
N	1464	1533		466	550		

¹ including regular partner other than husband

Differences in estimates with power (low vs high) are significant at ***p<0.001; **p<0.05; NS: Not significant

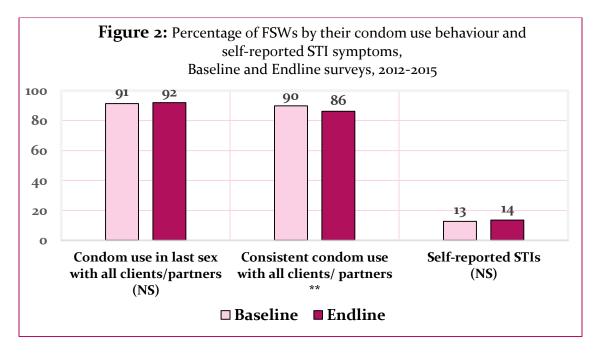
Trends were almost similar among the women who experienced violence in the last 12 months preceding the baseline and endline surveys. Among the women who experience violence, during the baseline, more than 95 percent of them agreed to all the four statements on acceptance of violence whereas significantly lower percentages of FSWs did so who got interviewed at the later point of time.

The acceptance of violence by the level of empowerment depicted almost similar results, i.e., FSWs belonging to the lower categories of empowerment index (both power with and power within) had shown greater acceptance of all the four statements than those belonged to the 'high' category of the index (results not shown here). These results hold good for both baseline and endline participants as shown in Table 9.

3.9 Violence, condom use and prevalence of STIs

This section of the report presents findings on the inter-play between violence, condom use and self-reported STIs. The section also deals with the level of empowerment, condom use and the current prevalence of reported STIs. The differential in condom use and STI prevalence across the baseline and endline surveys are also presented here. The indicator on condom use deals with two parameters, condom use in last sex with all partners/clients; and consistent condom use with all partners/clients in the reference period of last 12 months.

As seen in Figure 2, condom use in last sex and consistent condom use with all clients/partners in last 12 months preceding the respective surveys were considerably high among FSWs participated in both the rounds of survey. The condom use in last sex did not vary considerably from baseline to endline (91% to 92%), however, there was a notable difference in the behavior of FSWs while using condoms consistently with clients or regular partners (90% vs 86%). In addition, there was a slight increase in self-reported STIs from baseline to endline, i.e. from 12.6 percent to 13.6 percent; however this difference was not statistically significant.



3.9.1 Condom use and STIs by level of empowerment

Analysis presented in Table II reveals the differential in condom use behaviour and self-reported STIs of FSWs according to their level of empowerment across baseline and endline surveys. The level of empowerment, especially power within, did not show any greater impact on condom use behaviour and current prevalence of STIs among the FSWs participated in the baseline. However, at the endline, FSWs belonging to the 'high' categories of empowerment indices (power within and power with) reported significantly higher condom use in last sex and consistently at every time while having sex with their clients/ partners than their counterparts with 'low' level of empowerment. For example, at the endline, the consistent condom use with all partners/clients ranged between 81 percent to 90 percent and 85 percent to 89 percent among FSWs who belonged to 'low' and 'high' categories of 'power within' and 'power with' indices. Moreover, FSWs belonging to 'high' category of 'power with' index were significantly less likely to experience any STI compared to their counterparts at the endline who were falling in the 'low' category of the index (power with). All these results were statistically significant at one percent and five percent levels of significance.

Table 11: Percentage of FSWs by condom use behaviour and experience of STIs according to their levels of empowerment, Baseline and Endline surveys, 2012-2015								
	Condom used in	Consistent condom	Self-					
Level of empowerment	last sex with all	use with all clients/	reported	N				
	clients/ partner	partners	STI					
Baseline								
Power within								
Low	93.0	90.2	12.7	697				
High	90.7	90.1	12.4	767				
Significance (low vs high)	NS	NS	NS					
Power with								
Low	91.9	88.8	13.9	573				
High	91.8	91.1	11.7	891				
Significance (low vs high)	NS	NS	NS					
Endline								
Power within								
Low	91.8	81.2	13.2	691				
High	92.2	90.4	13.8	842				
Significance (low vs high)	NS	***	NS					
Power with								
Low	92.3	84.5	16.3	992				
High	91.6	89.2	8.4	541				
Significance (low vs high)	NS	**	**					

3.9.2 Condom use and STIs by experience of violence

Findings presented in Table 12 revealed several associations between experience of violence, condom use behaviour, and prevalence of STIs. Findings suggest that condom use at last sex and consistent condom use was significantly lower (around 80%) while prevalence of STIs was significantly higher (about 23%) among FSWs who have experienced any forms of violence.

In comparison between baseline and end line, condom use at last sex with all clients/partners varied between 81% to 91% and 84% to 87% among FSWs those who experience any form of violence- physical, sexual or other- perpetuated by intimate partners/husbands during the last 12 months period preceding the survey. While consistent condom use with all the clients/partners have dropped from 80 percent to 75 percent, an increase in self-reported STI (20% vs 23%) and condom use at last sex with all clients/partners (84% vs 87%) was observed among FSWs those who experience any form of violence during baseline and endline surveys.

Results revealed that condom use at last sex with all clients/partners has increased (84% vs 87%), consistent condom use with all the clients/partners has dropped (80% vs 74%) and there is an increase in self-reported STI (21% vs 23%) among FSWs those who experienced physical violence. Similarly condom use at last sex with all clients/partners has reduced (90% vs 85%), consistent condom use with all the clients/partners has dropped (82% vs 68%) and there is an increase in self-reported STI (29% vs 31%) among FSWs those who experienced sexual violence. FSWs those who experience physical violence in past 6 months has not impacted condom use behaviour, but there is a significant decrease in consistent condom use (82% vs 71%) with all clients/partners and increased self-reported STIs (20% vs 25%).

Similar to the association between violence perpetrated by regular partner and condom use behaviour, findings on physical and sexual violence by clients and condom use among FSWs suggests that, in both baseline and endline, women experienced violence were less likely to use condom while more likely to report STIs. Over the two rounds of survey, women reported violence from clients at the endline were significantly less likely to use condom at last sex (87% vs 84%) with all clients/partners and consistent condom use (79% vs 65%) behavior with all clients/partners compared to those in the baseline.

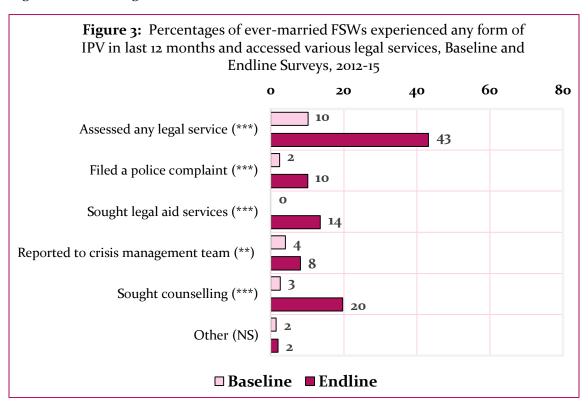
Similarly, FSWs experiencing physical and sexual violence from clients reported higher STI symptom at the endline compared to their counterparts at the baseline. The prevalence of STI ranged between 20-25% among the women interviewed at baseline and experienced violence from clients; the corresponding percentages at the endline were 25 percent and 34 percent, respectively.

Table 12: Percentage of FSWs by condom use behaviour and experience of STIs according to their experiences of violence, Baseline and Endline surveys, 2012-2015 Condom used Consistent Condom used **Consistent** Self-Self-reported in last sex with condom use in last sex with condom use N **Experience of violence** reported N all clients/ all clients/ with all clients/ STI with all clients/ STI partner partners partner partners A. Violence perpetrated by intimate partner/husband in last 12 months Any No 8.5 8.2 94.1 930 94.7 92.1 925 94.7 Yes 87.0 84.0 80.0 20.1 466 75.2 23.3 550 ** *** ** *** ** *** Significance **Physical** No 988 8.5 91.8 94.0 93.4 9.0 94.5 970 408 Yes 86.7 84.0 79.6 20.9 74.3 24.1 505 *** Significance *** ** *** *** Sexual No 10.8 1265 1160 91.1 90.0 93.7 90.7 9.0 Yes 28.8 84.9 68.1 82.7 90.1 131 31.2 315 *** ** *** Significance NS Other1 No 92.6 8.2 94.2 10.3 1054 94.2 91.7 993 86.9 Yes 81.7 19.2 342 25.2 482 79.4 73.7 *** ** ** *** *** Significance B. Violence perpetrated by clients/other individuals Physical violence (past 6 months) No 8.7 7.8 94.4 93.7 992 95.4 93.2 1034 Yes 85.5 81.9 85.0 20.2 472 71.5 25.4 499 *** ** *** *** Significance Sexual violence (past 12 months) No 1281 93.8 8.8 91.4 10.7 91.3 1240 84.5 Yes 87.0 183 64.6 79.2 24.6 33.6 292 *** *** ** *** *** Significance NS ¹Use of abusive language, threatening, humiliation in front of others; Differences in the estimates are significant at ***p<0.001; **p<0.05; NS: Not significant

3.10 Access to legal and HIV prevention services

In view of the fact that, one of the aims of the intervention was to provide support mechanism to deal with the violence through appropriate counseling and legal aid services, it was important to understand that to what extent FSWs who have experienced violence in the recent past had utilized these services. Information was also obtained through sex workers about their awareness on different HIV prevention and services related to protect the violence are available to them and whether they have used such services in the six months period prior to the survey. This Information was gathered both during the baseline and end line survey about the action taken by the FSWs who had experienced any forms of violence 12 months period preceding the survey.

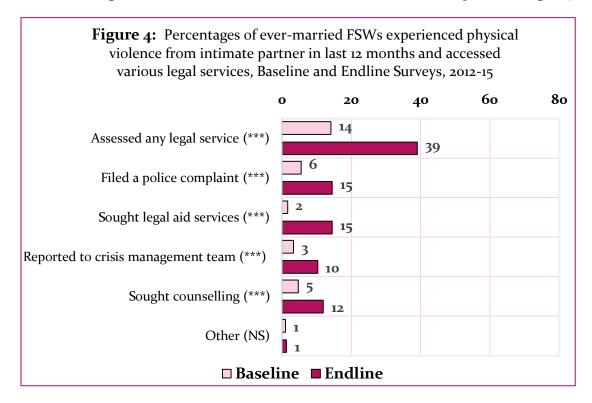
Figure 3 illustrates ever-married FSWs who have experienced any form of violence from their intimate partners/ husband in 12 months period prior to the survey had access to any legal aid/counseling services after the incident of violence.



Results indicate a precipitous increase of linkages with legal aid services among FSWs experiencing any form of IPV in last 12 preceding the survey. At the overall level, about 33 percent or more FSWs who ever experience violence by clients had access to any legal aid services; 10 percent at the baseline and 43 percent at the endline. There has been a significant increase in the proportion of FSWs sought some form of counseling (3% to

20%), sought legal aid services (0% to 14%), and filed a police complaint (2% to 10%) during the baseline to endline periods. A small proportion of FSWs also reported the act of violence to the crisis management team in their district for the necessary and immediate action.

Figure 4 illustrates ever-married FSWs who have experienced physical violence from their intimate partners/ husband in 12 months period prior to the survey had access to any legal aid/counseling services after the incident of violence similar to one reported in Figure 3.



Results indicate a reasonable increase of linkages with legal aid services among FSWs experiencing physical violence from their intimate partner/husband. FSWs experienced physical violence from intimate partner/husband has significantly increased access to any legal services from 14 percent to 39 percent during the base-and-end line period. While just two percent to six percent FSWs in the baseline sought legal AID services, sought counselling, reported the incident of violence to the crisis management team, and filed a police complaints; significantly higher proportion of FSWs at the endline (about 10%-15%) sought these services when they experienced any form of physical violence from the their intimate partners in 12 months preceding the survey.

Attempt was also made to understand FSW's knowledge on various HIV prevention, psycho-social and legal aid services available to them and their access to these services in the recent past (6 months period preceding the survey) among the FSWs who have

experienced IPV in last 12 month period prior to the survey. Questions were first asked to the FSWs that whether they have heard about each service or not? Among those who were aware of these services, a further question was posed whether they have accessed those services in past six months.

Results indicate a significant increase in awareness of FSWs on various prevention and psycho-social services available to them among those who experienced any form of IPV from intimate partner/husband in last 12 months period preceding the survey. For instance, substantially higher proportion of FSWs participated in the endline and who reported experience of IPV in last 12 month prior to survey became aware about the HIV/violence related services (68% vs 92%), HIV/STI services (81% vs 91%), psychological services (51% vs 78%), social entitlement (32% vs 74%) and legal aid cell (21% vs 66%) than their counterparts interviewed during the baseline.

Results not only indicted the significant increase in the awareness, but also gave a clear indication on higher level of services utilization in past 6 months among the FSWs who have experienced any form of IPV from intimate partner/husband in last 12 months period preceding the survey. Of those FSWs who have experienced IPV and heard about various services, 76 percent of them utilized services related to HIV prevention/violence redressal and 31 percent received any social entitlement in six month period preceding the endline survey. The corresponding percentages at the baseline were 57 percent and eight percent. Contrary to this, the psychological and HIV/STI related services were utilized by relatively lower proportion of FSWs at the endline than those interviewed at the baseline. Access to services from legal aid cell hovered around four to six percent around two time points and did not witness any significant change.

3.11 Linkages to social entitlement schemes

The last section of this report discuss about the linkages of ever-married FSWs with various social entitlements (especially those who got the same in past 12 months preceding the survey). Table 14 presents the findings on possession of social entitlements and receipt of the same in past 12 months preceding the survey among the FSWs who have experienced IPV in last 12 month period prior to the survey. Findings show that 86 percent of FSWs possess Ration Card, 73 percent possess Bank Account and 85 percent possess Voter ID Card at the time of endline survey. These were significantly higher than the reported figures at the baseline. Important fact to note here is that, a large proportion of FSWs received these entitlements in 12 months preceding the survey, i.e., after being part of the program. Lot many sex workers also reported to have Aadhaar card, Jan Dhan Bank account and received financial assistance in terms of housing loan and benefits through widow pension scheme.

Table 13: Percentages of ever-married FSWs experienced any form violence from intimate partner/ husband in last 12 months and became aware of various services and utilized them in past six months, Baseline and Endline Surveys, 2012-15

	Aware of th	Aware of the services			Utilized services in past 6 months ¹		
Services	Baseline	Endline	Significance (BL vs EL)	Baseline	Endline	Significance (BL vs EL)	
HIV/Violence related services	67.6	91.9	***	57.3	76.3	***	
Psychological services	50.9	78.3	***	55-3	28.2	***	
Social entitlement	32.2	73.9	***	7.9	31.1	***	
Legal AID cell	20.6	66.2	***	4.3	5.7	NS	
HIV/STI services	81.3	90.9	***	88.3	83.3	**	
N	466	550					

¹Among those who were aware/heard of various services

Differences in baseline and endline estimates are significant at ***p<0.001; **p<0.05; NS: Not significant

Table 14: Percentages of ever-married FSWs experienced any form violence from intimate partner/ husband in last 12 months and became aware of various services and utilized them in past six months, Baseline and Endline Surveys, 2012-15

	Possess social entitlements		Received entitlements in past 12 months ¹			
Social entitlements	Baseline	Endline	Significance (BL vs EL)	Baseline	Endline	Significance (BL vs EL)
Ration card	72.7	85.9	***	7.3	24.5	***
Bank account	48.4	73.1	***	27.6	36.9	**
Voter ID	82.2	84.8	NS	5.4	18.8	***
Aadhaar card	-	17.4	NA	-	88.6	NA
Jan Dhan Bank Account	-	37.2	NA	-	37.5	NA
Received Government housing scheme	-	2.4	NA	-	35.2	NA
Widow pension scheme	-	16.2	NA	-	37.2	NA
Health insurance	-	12.6	NA	-	-	NA
N	1464	1533				

¹Among those who experienced any form of violence in last 12 months and possess different social entitlements

 $Differences\ in\ baseline\ and\ end line\ estimates\ are\ significant\ at\ ***p<0.001;\ **p<0.005;\ NS:\ Not\ significant;\ NA:\ Not\ Applicable$

4. Summary and conclusion

Using the data collected from a representative sample of sex workers in the sociodemographically and geographically representative districts of the Karnataka State, this report is an attempt to showcase the effect of a multi-layered intervention. Project 'Samvendana', aimed at reducing the violence and HIV related risks and vulnerabilities among sex workers in Karnataka state. The linkages between intimate and non-intimate partner violence and HIV related risks and vulnerabilities are studied from the perspective of sex worker empowerment defined in terms of internal qualities (power within) and social cohesion (power with). Data was collected from almost 1500 FSWs before initiation of the intervention (baseline) and towards its conclusion (endline) using almost similar quantitative questionnaire to maintain the comparability of information. This section presents summary of the overall findings and discuss some of the key results in detail.

The present study begins with defining the extent of empowerment among the FSWs in terms of power relations with others (social cohesion) and extent of power within themselves (internal qualities and self-efficacy). Although a wide range of literatures are available that focus on empowerment, its correlates and relationship with empowerment and health related outcomes, most of them are focused on women in general community and not specific to those engaged in sex work trade. Another issue with these kinds of studies is defining a concrete measure of empowerment which could suite to maximum audiences. Due to its multidimensional nature, measuring empowerment has always been a challenge, and therefore, different studies have used different indicators and developed models to measure women's empowerment and none of these can be considered as a universal model. For the purpose of this study the dimensions of empowerment includes, (i) gaining internal skills and overcoming external barrier (power within), and (ii) communal dimensions, such as group solidarity or collective action, which acknowledge that positive change may often be effected through individuals acting together, rather than alone (power with).

The analysis started with comparing the basic socio-demographic and sex work related characteristics of FSWs participated in two rounds of survey. The overall findings of this comparison revealed the fact that sex workers in two surveys were different from each other in terms of basic characteristics like their age, literacy, migration status, and client volume. However, the marital status of FSWs and the sex work typology, especially those solicited clients at home/brothel and lodge remained same. Findings also revealed that the

project could cover many new sex workers as relatively larger proportion of FSWs at the endline reported that their first contact with the HIV/violence prevention program implementers was in last one year. Moreover, many FSWs came to know about the domestic violence act and the possible linkages with the violence and HIV risk only through the training workshops organized by NGO/CBO working in the intervention area.

Findings of this study suggested that half of the sex workers in the intervention districts had high level of empowerment (power within). From baseline to endline, the impact of the intervention has shown a slight increase in the level of empowerment, i.e. in comparison to 51 percent FSWs in the baseline 54 percent in the endline belonged to the 'high' category of index measured the internal power (defined as power within), on the other hand, there was a steep decline in the extent of social cohesion (defined as power with) among FSWs from 60 percent to 35 percent. Despite the fact that there has not been very significant increase in the level of internal power over the two points of time, there were population subgroups who recorded an improvement in internal power from baseline to endline. For example, the adult FSWs (25 years and above) had shown high levels of empowerment (power within) and there was a gradual increase from a range of 49 percent to 56 percent. The extent of empowerment (power within) has improved in the endline, as compared to baseline, among non-literate FSWs, never married FSWs, nonlocalite FSWs, FSWs who are in sex work profession for two or more years, phone based sex workers, FSWs who cliental volume less than five per week. FSWs who were contacted by the program first time within the last two years and FSWs who attended training on violence organized by CBOs in their districts also recorded better internal power from baseline to endline.

The findings of the study that there is a very marginal role of project in increasing the internal power and activity that led to reduction in the social cohesion can be attributed to the fact that 'power with' is all about working in groups, taking collaborative community level action, and supporting each other during the need. Since, it all depends on community involvement (including those who were not part of the program), they may not always give a positive feedback after each intervention. In addition, changing the community behaviour time-consuming, and again expecting the intended results in a short span of time may not always be practically feasible. Despite all these, the important findings on the empowerment part was that, as compared to baseline, comparatively larger proportion of young FSWs, non-literate, never married, migrant FSWs, and those recently joined the sex work trade could demonstrate better internal qualities at the endline. Thus the results suggest that it is important to focus on the group of sex worker who have largely been neglected so far, e.g., the illiterate, young, and non-localite sex workers, to attain the expected results. Moreover, in order to visualize positive impact of

the intervention at the larger level, it is important to have long term project for better sustainability of the outcomes.

Second positive outcome of the project was increased recognition about the perpetrators of violence, reasons of violence and consequences of violence among the FSWs participated in second round of survey and belonging to the selected intervention district. Relatively larger proportion of FSWs at the endline recognized the dual consequence of experiencing violence which not only affects their own wellbeing but also the wellbeing of their children; which was again a good program achievement.

At the overall level, findings suggested reduction in the prevalence of lifetime experience of violence, both physical and sexual violence, perpetrated by intimate partner or their husband from baseline to endline. However, there has been slight increase in the acts of violence taken place by the intimate partners/ husband in the 12 months period preceding the survey. We attributed this increase to the increase in better reporting of the act of violence. Since by the endline many of the FSWs have started recognizing partner's harassment/verbal abuse as a form of violence, they might have started reporting all such incidents which might have been under reported during previous rounds of surveys; mostly due to their ignorance or non-awareness.

In order to gauge the fact that the recent increase in physical and sexual violence is factual or due to more reporting of violence cases, we analyzed the experience of violence by the level of empowerment. Analysis found some degree of association between level of empowerment and experience of violence. Findings clearly suggested that in comparison to the women having 'low' level of empowerment, those belonging to the 'high' group of empowerment indices (power within and power with) were significantly less likely to report any form of violence (lifetime or in last 12 months) perpetrated either through their partner/husband or their regular clients. The result was more consistent at the endline than baseline. This result clearly demonstrated the fact that 'high' level of internal power and social cohesion results in reduction of violence.

Another aspect of this report was to examine the relationships among empowerment, violence and condom use behaviour. The HIV related risks and vulnerabilities, in this project, is measured in terms of condom use behaviour (condom use at last sex with all clients/ partners and consistent condom use with all clients/ partners) and prevalence of self-reported STIs. The relationship between violence and condom use behaviour is linked in HIV context because with the ongoing experiences of intimate partner violence it becomes almost impossible for FSWs to negotiate safer sex with her partner. The ability to negotiate safer sex is critical to women's ability to exercise their sexual and reproductive rights and is of crucial importance for the prevention of HIV/AIDS, especially when a woman's partner has multiple sexual relationships, pays for sex, or has sex with men.

Univariate analysis conducted to measure the extent of condom use at last sex and consistent condom use with all sexual partners suggests that, in comparison to the women not experienced violence, many of the sexual activities taken place among women experiencing violence were not protective. However, there has been an improvement from the baseline to endline and there has been an increase in the use of condom during the sexual activities among women who experienced violence. This change was significant among FSWs who have high level of empowerment (for both power within and power with).

Last but not the least, findings also provided a clear evidence on increased awareness and access to various legal aid, counselling, and support services among the FSWs who have experience any form or physical violence from their regular partners in past 12 months preceding the survey. The increased awareness and access to services was consistent and significant for almost all the indicators over the two rounds of survey. A larger proportion of FSWs experienced violence could obtain various entitlements like ratio card, bank account and voter ID with the support of CBO/NGO implementing the program in the district. Even many of the sex workers, especially those experiencing violence" could be linked to the recently launched "Jan Dhan Yojana" and "Widow Pension Scheme" in last 12 months preceding the survey.

The results of this study are not free from some limitations. Before ascertaining the effect of program on the key behavioural outcomes, it is important to adjust the differential in the characteristics of the respondents over the two rounds of survey. The obtained result might be attributed to the differences in characteristics rather solely as the effort of intervention. Another important issue is that the analysis does not talk about the sustained effect of the intervention, as the endline data collection took place immediately after the end of the intervention. A repeated survey, of similar type, at relatively later point of time may reveal that to what extent the intervention activities could be sustained even when the program is not in place. Third, it is important to conduct the analysis with some specific parameters on exposure to intervention, specifically those activities aimed at violence reduction.

Despite all these limitation, findings of this study provide some clear insight that the violence reduction at the individual and community levels can take place with the concrete efforts, especially through building the internal power, self-efficacy at the individual level and by promoting the sense of social cohesion and collective efficacy at the community level. In order to get more concrete results at the wider community level, it is important to implement key elements of such program for relatively longer period of time. Such programs will not only empower the individual or community to protect them from experiencing the act of violence but will definitely strengthen the capacity of

program implementers (CBOs/NGOs) to implement a quality program in future. Such efforts will also bring sustainable results and will build an environment of collective aptitude to help fellow sex workers to respond to both the HIV risk and vulnerabilities of its members.

5. References

- 1. United Nations. The UN Millennium Goals and Beyond 2015. : United Nations; 2007 [27 September 2015]. Available from: http://www.un.org/millenniumgoals/gender.shtml.
- 2. Dunkle K, Jewkes RK, Brown HC, Gray GE, McIntyre JA, Harlow SD. Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. The Lancet. 2004;363(9419):1415–21.
- 3. Campbell JC. Health consequences of intimate partner violence. The Lancet. 2002;359:1331–6.
- 4. Violence by intimate partners. Geneva, Switzerland: 2002.
- 5. World Health Organization. World report on violence and health. Geneva: 2002.
- 6. World Report on Violence and Health [Internet]. World Health Organization. 2002 [cited 26 September 2015]. Available from:

 http://www.who.int/violence_injury_prevention/violence/world_report/en/introduction.pdf.
- 7. Heise L, Ellsberg M, Gottemoeller M. Ending Violence Against Women. Baltimore: 1999.
- 8. National Family Health Survey (NFHS-3) 2005–06: India [Internet]. 2007 [cited 28 September 2015]. Available from: http://rchiips.org/nfhs/nfhs3 national report.shtml.
- 9. Violence against women and HIV/AIDS: Critical Intersections [Internet]. World Health Organization. 2005 [cited 26 September 2015]. Available from: http://www.who.int/gender/documents/sexworkers.pdf.
- 10. Raphael J, Shapiro DL Violence in indoor and outdoor prostitution venues. Violence Against Women. 2004;10(2):126-39.
- 11. Decker MR, McCauley HL, Phuengsamran D, Janyam S, Silverman JG. Sex trafficking, sexual risk, sexually transmitted infection and reproductive health among female sex workers in Thailand. J Epidemiology Community Health 2011;65(4):334-9.
- 12. Beattie TS, Bhattacharjee P, Ramesh BM, Gurnani V, Anthony J, Isac S, Mohan HL, Ramakrishnan A, Wheeler T, Bradley J, Blanchard JF, Moses S. Violence against female sex workers in Karnataka state, south India: impact on health, and reductions in violence following an intervention program. BMC Public Health 2010;10:476.
- 13. Annual Report 2013-14 [Internet]. National AIDS Control Organization, Ministry of Health and Family Welfare, Government of India. 2014 [cited o8 April 2015]. Available from: http://www.naco.gov.in/upload/Publication/Annual%20Report/Annual%20report%202 012-13 English.pdf.
- 14. National Institute of Medical Statistics, National AIDS Control Organization. Technical report India: HIV Estimates -2012. In: Department of AIDS Control, editor.:

- Department of AIDS Control, NACO, Ministry of Health and Family Welfare, Government of India; 2012.
- 15. International Labour office. Workplace violence: a new global problem World of work: The magazine of the ILO. 1998:10-4.
- 16. Isac S, Prakash J, Prakash R, Mohan HL et al. Experience of violence and HIV related risks and vulnerability among women in sex work in Karnataka. 2013.