

Sex Workers, Stigma and Self-Belief: Evidence from a Psychological Training Program in India*

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Abstract

This paper examines whether psychological empowerment can mitigate non-cognitive mental constraints imposed by poverty and social exclusion. Using a randomized control trial, we study a training program specifically designed to raise self-esteem and build a stronger sense of “agency” among a poor and highly stigmatized group: sex workers in Kolkata, India. We find positive and significant impacts of the training on self-reported measures of agency, happiness and self-esteem in the treatment group, both relative to the control group as well as to baseline measures. We also find higher effort towards improving future outcomes as measured by the participants’ savings choices and health-seeking behaviour, relative to the control group. These findings highlight the need to account for psychological factors in the design of anti-poverty programmes.

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1 Introduction

The extensive economics literature on poverty and social exclusion has explored several alternative mechanisms through which constraints external to an individual can lead to its persistence, including the lack of access to credit and education (Loury, 1981; Galor and Zeira, 1993; Banerjee and Newman, 1991, 1993), malnutrition (Dasgupta and Ray, 1986) and neighborhood effects (Hoff and Sen, 2005).

However several puzzles about the behaviour of the poor, often self-defeating, remain: Why don't poor people always take advantage of programs meant to benefit them (Currie, Grogger, Burtless, and Schoeni, 2001), why do they ignore clear and demonstrated profitability of certain technologies, when they've been taught how to use them and have the means to do so (Duflo, Kremer, and Robinson, 2011), why do they take fewer active preventive health measures (Katz and Hofer, 1994) etc.

In this paper, we critically examine an alternative explanation that has received much less attention among economists: that such counter-productive behaviour could be a consequence of mental or psychological constraints (internal to an individual) that poverty and marginalization imposes. These may, in turn, lead to a lower propensity to invest in the future, hence perpetuating poverty. These constraints could be both cognitive and non-cognitive. In this paper, we focus on the latter type.

Specifically, we take seriously the idea that poverty and marginalization may negatively impact an individual's sense of "agency" - i.e. the belief in one's capacity to achieve a desired outcome through one's effort. As the pre-eminent psychologist Alberto Bandura puts it, "People's beliefs in their efficacy influence the choices they make, their aspirations, how much effort they mobilize in a given endeavor, how long they persevere in the face of difficulties and setbacks ... ". Therefore, individuals are less likely to put effort to achieve a task or desired outcome if they have a low sense of agency (or "efficacy") that may, in turn, lower their likelihood of escaping poverty. The psychology literature has studied multiple ways in which being poor and marginalized can diminish such beliefs: *self-affirmation* theory (Steele, 1988) implies that the stigma a poor person continually endures - from being disrespected, perceived as lazy, incompetent or lacking in will power - diminishes the mental resources he or she can apply to tasks; such stigma can then lead to *cognitive distancing* (Reutter, Stewart, Veenstra, Love, Raphael, and Makwarimba, 2009) and thereby worse

life outcomes (Croizet and Claire, 1998). Facing repeated life shocks and crises that one is unable to surmount can also lead to a feeling of *learned helplessness* (Abramson, Seligman, and Teasdale, 1978) - an inability to apply effort towards challenges that can realistically be overcome.

In this paper, we examine whether a training program focused on psychological empowerment can reduce mental constraints that impede efforts to overcome the effects of social exclusion. The program focuses on two aspects of such empowerment: reducing stigma (i.e. raising self-esteem) and exploring pathways to build greater agency. These two elements of the training program are particularly relevant to our target population: sex workers in Kolkata, India. As with other poor people, their association with this profession often means that they are denied access to commonly available services, such as banks and education for their children in the local schools. They also face considerable social stigma, having possibly the lowest status in society (Ashforth and Kreiner, 1999).

We collaborated with Durbar, an NGO that works to improve the welfare of sex workers in Kolkata, to implement a randomized control trial to evaluate their psychological training program. Based on a population census of sex workers in three “red-light” areas of the Kolkata, 467 program participants were randomly selected, out of which 264 were randomly assigned to the treatment group and 203 to the control group. Consistent with our focus on psychological dimensions of poverty and marginalization, we collected baseline and endline data on a range of (self-reported) psychological outcomes, including sense of agency, self-esteem, happiness, current aspirations, self-image, sense of shame etc. Following the basic tenet of “self-efficacy” theory (Bandura, 1982), we posit that having a greater belief in one’s capacity to achieve an outcome in the future would increase a person’s willingness to devote effort towards it. Therefore, we also tracked changes in participants’ orientation towards the future, as measured by their choices across savings products with different maturity periods and interest rates,¹ as well as health seeking behaviour.

The main findings are as follows. We find strong and significant positive effects of the training program on self-reported measures of agency, self-esteem and happiness. Relative to the control group, sex workers assigned to the treatment group score 0.43 standard deviations higher on a self-reported measure of “agency”, are 68 percentage points more likely to have higher self-esteem (rel-

¹As discussed in Section 3.2 later, control group participants, who were also offered the same savings products, were given access to all factual information related to these savings options so as to ensure that the treatment group had no informational advantage.

ative to a baseline mean of a mere 18%) and 12 percentage points more likely to report being happy (relative to a baseline mean of 50%). They are also, on average, 40 percentage point less likely to feel ashamed of their occupation compared to their counterparts in the control group (relative to a baseline mean of 0.63), which is consistent with the findings on self-esteem described above.

When compared to the baseline measures, too, the estimated effects of the training program with respect to these outcomes for the treatment group are of a similar order of magnitude.

Finally, we also find a strong positive impact in the degree of future-orientation of the participants, as measured by their savings choices relative to the control group. Specifically, sex workers assigned to the treatment group are 25-50% more likely to choose a future-oriented savings product than a present-biased one. Interestingly, we find that at the beginning of the training program, the choices of the treatment group look very similar on average to those of the control group, but over the course of the program, a distinct divergence emerges between the two groups that persists till the end of the program. We also observe a positive impact of the training program on health-seeking behaviour in that sex workers in the treatment group are on average 9 percentage points more likely to have visited a doctor since the program's commencement relative to the control group. Since sex work, by its very nature, puts a lot of stress on the physical condition of the sex worker, investment in physical health is very important for future sustainability and hence, a higher frequency of doctor visits may be interpreted as evidence of devoting higher effort towards securing one's future.

We attribute these observed change in future-orientation of sex-worker participants to the strengthening of their psychological faculties through the training program: specifically, higher self-esteem and a greater sense of agency, based on the self-reported data.² Further, the design of our savings products allows us to rule out greater self-control as being the reason for more future-oriented savings choices. This is because there was no costly commitment component to the high-return savings option: sex workers were free to liquidate the investment they made in the high-return financial product today at any time in the future before its maturity, to put those funds into the lower-return option.

In recent years, there have been several initiatives to empower the poor and

²Consistent with the channel described in our paper, Banerjee, Duflo, Chattopadhyay, and Shapiro (2011) find a positive correlation between improved mental health and greater work effort among their ultra-poor program participants.

marginalized sections of society through training programs.³ Typically, the content of these programs has focused on building business development skills, numeracy and literacy. Other programs targeted to the ultra-poor (Banerjee, Duflo, Chattopadhyay, and Shapiro, 2011; Bandiera, Burgess, Das, Gulesci, Rasul, and Sulaiman, 2013) have focused on providing both capital and skills required for better livelihood. While the Durbar training program also targets a specific marginalized group, its key difference relative to these others is its exclusive focus on psychological empowerment. It is also related to, but distinct from, other programs that study the effects of building aspirations among adults (Bernard, Dercon, and Taffesse, 2011) or children (Glewwe, Ross, and Wydick, 2013). Unlike these programs, our training program does not make a conscious attempt to orient the aspirations of sex workers in any specific direction. It simply emphasizes their right to have hopes and aspirations for their future, like any other person in mainstream society, and focuses explicitly on developing the psychological faculties to achieve those aspirations. To the best of our knowledge, we are the first to focus explicitly on the use of psychological empowerment as a tool to improve the welfare of the poor and marginalized. Our work is also related to interventions in the psychological literature that examine how self-affirmation of the poor can affect their inclination to seek benefits from anti-poverty programs (Hall, Zhao, and Shafir, 2013).

The rest of the paper is organized as follows. Section 2 gives a brief description of the setting of our study. Section 3 outlines context and experimental design while Section 4 describes the data and evaluation design. Section 5 presents our empirical findings and Section 6 discusses how potential alternative mechanisms are ruled out. Section 7 concludes.

2 The Setting

The brothel-based sex work industry in Kolkata is estimated to comprise of almost 18,000 women located in different “red-light” areas across the city (AI-IHPH, 1992). While the largest of these areas in terms of size is Sonagachi, with an estimated population of around 4000-6000 prostitutes (Rao, Gupta, Lokshin, and Jana, 2003; JISC, 2009), our three study localities of Bowbazar, Kalighat and Chetla are more medium range in this respect, with a mean of around

³See McKenzie and Woodruff (2013) for a review of these training programs for the poor.

500.⁴ A vast majority of the sex workers (approx. 80% in our sample) are migrants from impoverished rural parts of nearby districts in the state of West Bengal (of which Kolkata is the capital) or neighbouring countries like Nepal and Bangladesh. Extreme poverty has often been cited as being, directly or indirectly, one of the prime reasons for women ending up in this profession (Basu, Jana, Rotheram-Borus, Swendeman, Lee, Newman, and Weiss, 2004).

Sex work sites in these areas consist of a number of houses that serve as brothels, as well as small businesses (e.g. liquor shops, food stalls, teashops etc.) that have grown around them to support sex workers and their clients. Within these brothels, sex workers live and work under primarily three types of contracts. The first type is one in which the sex worker pays a fixed rent to the owner for a room in the brothel and works independently (*self-employed*). The second type is one in which the sex worker splits her daily earnings 50:50 with the owner in return for lodging and use of room (*adhiya*). The third is one where the sex worker (typically very young) effectively works as a bonded labourer to the owner who has paid a lumpsum amount in advance for her to her family or a trafficker (*chukri*). Due to the efforts of the NGO Durbar in the prevention of under-age prostitution, *chukri* contracts have almost disappeared.⁵ A fourth type of contract also exists, called a “flying” contract, in which the sex worker is not resident in the brothel but comes to work there from outside the “red-light” area. She typically hires a room from the owner of the brothel on a per-hour or per-act basis to carry out her services.

Sex workers in India are severely stigmatized owing to their profession. In addition, an ambiguous legal status effectively criminalizes the profession, leaving the workers vulnerable to exploitation by other stakeholders in the sex trade, e.g. brothel owners, pimps, local goons, police etc (Evans and Lambert, 2008). This reinforces their social ostracization and stigma to create a sense of helplessness, low self-esteem and an overall fragile state of mind, which is reflected in the following quote made by one of the sex workers we interviewed in our baseline survey: “I have lost everything...I was a burden to my own parents, suffered beating in my husband’s family...ended up in these blind alleys [only to] face torture and society’s contempt...”. Such a state of mind often results in a lack of interest and drive to move forward and develop a forward-looking attitude

⁴Bowbazar is the largest while Chetla is the smallest in terms of size. According to Durbar’s census of these 3 areas in 2012, the total number of sex workers in Bowbazar is 621, in Kalighat is 559 and in Chetla is 297.

⁵In our sample, the percentage of (*chukri*) contracts is less than 1%.

towards life and its betterment. To change such a “mind set” created by the sex worker’s social and occupational milieu requires a reinforcement of her sense of “agency” and motivation to act to change her future life outcomes. Our training program intervention was thus designed to constitute such a strengthening of psychological capacities.

3 Context and Experimental Design

3.1 The Training Program

The training program was carried out by our local partner Durbar, an NGO working with sex workers in Kolkata, India, in consultation with us. The program consisted of 8 sessions spread over 8 weeks, during which experienced trainers associated with Durbar attempted to “psychologically empower” participating sex-workers through novel methods of discussion and engagement. Given the social stigma attached to the sex trade, particularly in India, many workers in this profession suffer from a loss of hope and a sense of defeat that may have a potentially adverse impact on their life outcomes and overall welfare.⁶ The program specifically focused on reintroducing sex workers to the view that they too are entitled to have hopes and aspirations (just like any other person from mainstream society), and building their self-esteem and sense of “agency” to overcome hurdles and achieve these aspirations.

The psychology literature defines “agency” (or “self-efficacy”) as one’s belief regarding one’s capability to achieve a given task or goal (Bandura, 1982). Choices, effort, and perseverance in the face of setbacks are all influenced by one’s sense of agency (Bandura, 1991). If a person believes a certain outcome to be beyond their ability, he or she will not act, even if there is a perceived demand for that behaviour (Boyd and Vozikis, 1994). One of the ways in which agency may be strengthened is by verbal persuasion or exhortation. If people receive realistic encouragement directed at convincing them that they are capable of performing a task, they may be more likely to exert more effort (Wood and Bandura, 1989).

Our training program in Kolkata was designed with the key aim of providing such verbal persuasion or exhortation to our sample of sex workers in order to test its impact on relevant outcomes. In particular, the program focused on two

⁶For example, approximately 81% of the respondents in our baseline survey said they considered themselves as “bad” or “fallen” women, with little hope for the future.

key dimensions:

- (a) strengthening one's capacity to question or challenge existing status quo - especially with regard to existing stigmatized societal perceptions about sex workers which, in turn, feed into the sex workers' own perceptions of themselves, with direct implication for their sense of self-esteem and self-worth
- (b) rethinking one's capability to change one's status quo - i.e. strengthening the belief that one's goal can be achieved despite multiple hurdles, such that expending effort in this context will be rewarded

Each of the 8 sessions focused on psychological empowerment relating to a particular issue relevant to the lives of these sex workers, e.g. the importance of self-esteem especially in relation to their profession, the importance of saving to secure their as well as their children's future, striving for a violence-free environment, etc. The session would last for approximately one hour, during which trainers would exhort them to develop a positive and pro-active outlook towards their future.

The program emphasized the importance of both individual agency as well as collective agency in the realization of desired outcomes. For example, certain outcomes like cessation of violence, which is an ugly reality in the lives of these sex workers, is better achieved using collective agency of a number of sex workers who can protest together against violent clients, local goons, police etc.

It is to be noted that the training program was not designed to provide new information, e.g. new (alternative) employment opportunities etc. It focuses entirely on boosting psychological factors while keeping the external environment (or information thereof) unchanged.

3.2 Experimental Design

Sex workers are distributed over 98 houses in our 3 study areas of Kalighat, Bowbazar and Chetla.⁷ Houses in "red-light" areas of Kolkata are typically buildings with multiple rooms, where these women live and work. Firstly, we randomly selected two-thirds of the houses (66 out of 98) as follows. In each area, we first ranked the houses according to size, i.e. the number of eligible women, in the baseline. Then we formed groups of three houses by putting

⁷The distribution of houses by locality is: 30 in Kalighat, 45 in Bowbazar and 23 in Chetla.

three consecutive houses on these lists in the same triplet. Within each of these triplets, we randomly selected two houses to be part of the treatment group and one house to be part of the control group.

Secondly, eligible sex workers were selected from a list of sex workers compiled by Durbar in January 2012, with the eligibility criterion being that a sex worker had to be 35 years of age or less at the time of survey in order to be a participant in the study. This resulted in a sample frame of 855 sex workers across these 98 houses, of which 380 lived in Bowbazar, 277 in Kalighat and 198 in Chetla. Out of this, we randomly sampled 233 in Bowbazar (61%), 136 in Kalighat (49%) and 98 in Chetla (50%), giving us a final baseline sample of 467 surveyed sex workers living in 98 houses in 3 areas.

Finally, all surveyed eligible women in each of the treatment houses were invited to participate in the training program, while those in control houses were not.⁸ Thus the treatment group comprises of 264 sex workers, while the control group consists of 203 sex workers.

All sessions of the training program was held in in a pre-designated venue in each location, except the last one which was held in an offsite location. The conditions for the treatment and control groups were kept as similar as possible. In particular, we were careful to ensure that the control group participants, who were also offered the same savings products, were given access to all factual information related to these savings options so as to ensure that the treatment group had no informational advantage.

At the end of each of the 8 sessions of the training program, we provided a token payment of Rs. 100 (approx. 2 USD) to all program participants (treatment and control), and offered them three options regarding how they would like to receive this payment:

1. as an injection directly into their current account
2. as a contribution to a fixed deposit
3. as a contribution to a fixed deposit where the participant would match our payment with an equal amount provided by herself

The key difference across these three products is in the extent to which they require “future-oriented” commitment from the participants. Product 1 requires

⁸We also interviewed approximately 107 eligible women in the treatment houses in Bowbazar, who were not invited to the training workshops, in order to study spill-over effects of the training on untreated eligible sex workers living in treatment houses. However, in this study we do not focus on spill-over effects and hence we leave out these women from our analysis.

no future-orientation as all the benefits are immediately available. Product 2 requires some future-orientation since the returns from a fixed deposit are only available at maturity a year later. Product 3 requires even greater future-orientation given that the participant has to contribute her own funds over and above what is offered as part of the training, with the returns from this total investment being only available a year later. The interest rates offered differ across these three products: the interest rate is 8% for the first product, 12% for the second and 15% for the third.

In order to minimize the chances of “spillovers” among participants, whereby they observe and mimick each other’s choices, we asked each participant to reveal her choice to us in a separate room after the completion of the training session. We also ensured that she was not able to return to the training room after having declared her choice. Our aim is to examine the difference in the rate of take-up of each of these options between the treatment and the control groups and interpret these differences in light of the impact of the training program on the degree of “future-oriented” behaviour. Our framework predicts that, other things being equal, when individuals have a stronger belief that their efforts can favourably shape their (future) life outcomes, it should increase their willingness to make greater efforts to achieve those outcomes.

4 Data and Evaluation

4.1 Data

In Feb-April 2012, we conducted a baseline survey that collected detailed information on a number of psychological outcome measures, as well as socio-economic characteristics, past histories and occupational details of the sex workers. The training program was carried out Oct-Dec 2012, during which we collected data on choices our subjects made regarding the three savings products on offer. The follow-up survey, again focusing on the same questions as in baseline, was conducted in Jan-Feb 2013. As reported above, our baseline sample consisted of 467 sex workers in 98 houses in 3 “red-light” areas of Kolkata. Attrition in the endline was approx. 7%, leaving us with a sample of 437.⁹

⁹This attrition rate is significantly lower to those reported in other studies that evaluate the impact of various training programs for the poor: e.g. Bandiera, Burgess, Das, Gulesci, Rasul, and Sulaiman (2013) report an attrition rate of 13% for the Targeted Ultra- Poor program conducted by BRAC in rural Bangladesh over 4 years. Banerjee, Dufo, Chattopadhyay, and Shapiro (2011) find that 17% of their original baseline sample in West Bengal attrit over an

Construction of Psychological Outcome Variables

The first set of key outcome variables that we focus on in this paper include measures of agency, decision-making power, mobility, happiness and aspirations for own future. We also look at measures of self-esteem, self-perception, shame and health seeking behaviour, proxied by frequency of visits to nearby health facility and condom usage.

The measures of agency, self-perception, decision-making power and mobility are constructed on the basis of a multitude of questions asked in the surveys.

Agency: The agency measure is constructed on the basis of the following question: “Do you feel capable of: resolving a situation of conflict with the police; resolving problems with the landlord/lady; resolving problems with local youths; resolving problems with goons; resolving problems with your pimp; resolving problems with your madam; dealing with aggressive clients; dealing with emergencies like sudden illness; developing a new skill to engage in another occupation; making plans for a future business; determining your child’s future; buying property.” The answer options are: “1-Strongly agree”, “2-Agree”, “3-Neither agree nor disagree”, “4-Disagree”, “5-Strongly disagree. For each of the 12 scenarios described above, a binary variable is created that equals 1 if the answer is either 1 or 2, and 0 if the answer is 3, 4 or 5. These 12 binaries are added up to generate an agency score between 0-12, and then converted into a standardized z-score by subtracting the mean and dividing by the standard deviation.

Self-perception: The self-perception measure is constructed on the basis of the following question: “Are you comfortable about: speaking in meetings; participating in public processions; interacting with a police officer; talking about your profession with your children; talking about your profession with your neighbour; talking about your profession to the police; allowing your children to bring home their friends.” The answer options are same as above. For each of the 7 scenarios described above, a binary variable is created that equals 1 if the answer is either 1 or 2, and 0 if the answer is 3, 4 or 5. These 7 binaries are added up to generate a self-perception score between 0-7, and then converted into a standardized z-score by subtracting the mean and dividing by the standard deviation.

Decision-making power: The measure of decision-making power is constructed on the basis of the following question: “For each of the following, specify who

18-month period, while Morduch, Ravi, and Bauchet (2012) report an attrition rate of 12% over 3 years in Andhra Pradesh.

takes the decision: number/choice of customer; financial matters; children's future; purchase of clothes and jewellery; own medical treatment; condom usage with babu (fixed client); condom usage with other ordinary client." The answer options are "1-Self", "2-Husband/babu", "3-Other family member", "4-Madam", "5-Pimp", "6-Other sex workers", "7-Durbar official". For each of the 7 scenarios described above, a binary variable is created that equals 1 if the answer is 1, and 0 otherwise. These 7 binaries are added up to generate a decision-making score between 0-7, and then converted into a standardized z-score by subtracting the mean and dividing by the standard deviation.

Mobility: The mobility measure is constructed on the basis of the following question: "Have you attended or visited any: social function e.g. marriages back home; Women's Day celebration; Durga Puja (local religious festival) celebrations; Sex Worker Day celebrations; seminar or training workshops; local health clinic on your own; local cinema on your own; excursion on your own." The answer options are "1-Yes", "2-No". For each of the 8 scenarios described above, a binary variable is created that equals 1 if the answer is 1, and 0 otherwise. These 8 binaries are added up to generate a mobility score between 0-8, and then converted into a standardized z-score by subtracting the mean and dividing by the standard deviation.

The remaining psychological variables are constructed from single questions asked in the survey:

Happiness: The happiness measure is constructed on the basis of the question: "On a scale of 1-5, how happy would you classify yourself to be in life?" The answer options are "1-Very happy", "2-Somewhat happy", "3-Indifferent", "4-Somewhat unhappy", "5-Very unhappy". A binary variable for happiness is created that equals 1 if the answer is either 1 or 2 and zero otherwise.

Aspiration: The aspiration measure is constructed on the basis of the question: "Where do you see yourself five years from now?" The answer options are "1-Own a house", "2-Become a peer worker", "3-Become an organization member of Durbar", "4-Become a madam", "5-Leave this profession", "6-Same as now", "7-Don't know". A binary variable for aspiration is created that equals 0 if the answer is either 6 or 7 and 1 otherwise.

Self-esteem: The self-esteem measure is constructed on the basis of the question: "How do you view yourself?" The answer options are "1-Bad woman", "2-Fallen woman", "3-Woman with no future", "4-Service provider/entertainment worker", "5-Somehow managing life", "6-Criminal". A binary variable for self-

worth is created that equals 1 if the answer is 4 and zero otherwise.

Shame: The measure for shame is constructed on the basis of the question: “Are you ashamed of your occupation?” The answer options are “1-Yes”, “2-Sometimes”, “3-Never”. A binary variable for shame is constructed that equals 1 if the answer is 1 or 2 and zero otherwise.

Construction of Future-Orientation Variable

The other key outcome variable that we focus on is a proxy for “future-orientation”. The primary means of measuring this is through the choices made by the participants across the various savings product with differential maturity periods and interest rates as described above. If a participant chooses Product 2 or 3 then she is classified as displaying future-oriented behaviour. If she chooses Product 1, she is present-biased. A binary variable is constructed to measure present-bias which equals 1 if Product 1 is chosen and 0 otherwise.

An alternative approach of measuring “future-orientation” is by focusing on health-seeking behaviour. Since sex work, by its very nature, puts a lot of stress on the physical condition of the sex worker, investment in physical health is very important for future sustainability. We proxy health-seeking behaviour with the frequency of visits to the doctor. In particular, the measure is based on the question: “When was the last time you visited your doctor regarding your physical health?” The answer options are “1-A week or less ago”, “2-A month of less ago”, “3-A year or less ago”, “4-More than a year ago”, “5-More than 5 years ago”. A binary variable for health seeking behaviour is constructed that equals 1 if the answer is either 1 or 2 and zero otherwise.

4.2 Evaluation

In order to evaluate the impact of the training program on psychological outcomes of our subjects, we estimate the following regression specification:

$$Y_{ijl} = \alpha_l + \beta T_{jl} + \epsilon_{ijl}. \tag{1}$$

where Y_{ijl} indicates the outcome of interest for individual i living in house j in area l . T_{jl} is a binary variable equal to 1 if the individual lives in a treatment house (a house whose eligible residents were invited to participate in the training program). The coefficient β captures the average difference in outcomes of

individuals living in a treatment house relative to individuals living in a control house, and identifies the intent to treat parameter, which is close to the average treatment on treated effect, since less than 2% of those invited to the training program refused to attend. α_l denote area fixed effects and are included to improve efficiency since randomization was stratified by locality (Bruhn and McKenzie, 2009).

We also estimate the program impact by using a difference-in-difference strategy as follows:

$$Y_{ijlt} = \alpha_l + \beta T_{jl} + \gamma Post_t + \delta T_{jl} * Post_t + \epsilon_{ijlt}. \quad (2)$$

In this case, the program effect δ is identified by comparing changes in individual outcomes before and after the training program in treatment houses, to those in control houses, within the same area. This controls for time-varying factors common to individuals in treatment and control houses, as well as time-invariant heterogeneity with area. $Post_t$ is a binary variable which denotes the endline survey.

A key concern regarding the validity of the estimates of the program effect is that of contamination between the treatment and control houses. However, our baseline estimates indicate that interaction among sex workers within house is far more intense compared to across house. E.g. in a previous pilot exercise, more than 75% of a random sample of 50 sex workers reported that all their close friends live in the same house as them. Hence, using houses as the unit of randomization minimizes the risk of contamination. Standard errors are also clustered at the house level throughout to account for the fact that outcomes are likely to be correlated within house.

In order to evaluate the impact of the training program on “future orientation” of our subjects, as measured by their choices across saving products, we estimate the following regression specification:

$$S_{ijls} = \alpha_l^s + \rho T_{jl} + \epsilon_{ijls}. \quad (3)$$

where S_{ijls} is a binary variable which equals 1 if the individual chooses product 1 as opposed to products 2 or 3, and 0 otherwise. Since both products 2 and 3 entail some degree of “future-orientation”, we club them together. We estimate equation above separately for each session.

5 Results

Table 1 presents descriptive evidence on the individual characteristics of the sex workers in the “red-light” areas of Kolkata. The average sex worker is 32 years old, and a vast majority of them are Hindu, with very little formal education. Approximately 70% of them are married, and have been in this profession for an average of 9 years. Close to half of them are self-employed. Sex workers appear to suffer a loss of around 26% in prices they can charge for their service by using condoms.¹⁰ Average monthly earnings are approximately Rs. 9000 (approx. 180 USD), which is significantly higher than that of a female labourer with similar education in Kolkata e.g. female domestic maid. A vast majority of these sex workers are members of Durbar but fewer than half have bank accounts.

Sex workers in treatment and control houses also appear to be similar on most of these observable characteristics, with the exception of the proportion of “adhiya” sex workers that appears to be higher in the treatment group. However, it is important to point out here that we control for these baseline characteristics in our basic specification presented below, while our difference-in-difference specification also accounts for any level differences between the treatment and control group in terms of baseline characteristics.

5.1 Impact on Psychological Outcomes

Table 4 presents the ITT estimates of the training program from specification on various psychological outcome variables. Column 1 indicates that sex workers assigned to the treatment group score 0.43 standard deviations higher than the control group on the self-reported measure of “agency”. They are also 12 percentage points more likely to report that they are happy (column 4), which corresponds to an increase of 25% from the baseline mean.

On the other hand, no significant impact is observed on decision-making power, mobility or level of aspiration (columns 2, 3 and 5 respectively). However, Table 2 indicates that the baseline level of decision-making power was already quite high amongst this population, with 77% of sex workers in our sample report taking all their own decisions. This is a much larger proportion compared to say

¹⁰Though this is a sizeable loss, it is still significantly lower compared to the estimates of Rao, Gupta, Lokshin, and Jana (2003) who reported estimated losses of 66-79% in a similar population of sex workers in Kolkata. This could be potentially attributed to the fact that following Durbars sustained effort over the last decade in generating awareness regarding the practice of safe sex among sex workers in Kolkata, condom usage is much higher now which has in turn lowered the differential.

25% which is the level reported in Ashraf, Karlan, and Yin (2006) in the context of Philippines. Thus, with relatively less margin for improvement, it is much less of a surprise that the training program has very little additional impact on the decision-making power of the participants. In the context of aspiration levels, on the other hand, it is important to bear in mind that our training program did not purport to change *per se* the goal of an individual (e.g. by providing new skills that opens up new opportunities) but rather to strengthen her belief in her own capability of achieving the existing goal. In that sense, the finding that the training program does not shift aspiration levels is consistent. This finding is also consistent with the positive impact of the training program on happiness, since existing evidence indicates that a stronger sense of self-belief has been found to foster happiness (Caprara, Steca, Gerbino, Pacielloi, and Vecchio, 2006).

Table 5 confirms that all these findings are robust to the inclusion of controls for baseline individual characteristics.

Table 7 documents the impact of the training program on measures of self-esteem, self-perception and shame. Column 1 indicates that sex workers in the treatment group are 68 percentage points more likely to report higher self-esteem than those in the control, relative to a baseline mean of a mere 18%. They are also 29 percentage points more likely to report a positive self-image or self-perception, which represents an increase of approximately 72% from the baseline mean (Column 2). The treatment group are also 40 percentage point less likely to be ashamed of their occupation compared to their counterparts in the control group (column 3), which is consistent with the self-esteem results described above. Table 8 confirms the robustness of these results to the inclusion of baseline controls.

Tables 10 and 12 present results using specification i.e. a difference-in-difference strategy. All the findings are robust to this alternative specification and the estimated effects are of a similar order of magnitude, except for happiness and health-seeking behaviour. However, although the point estimate of the program's impact on happiness and frequency of health visits is not statistically significant, the magnitudes of the coefficients are still very comparable to their counterparts obtained using specification in Tables 4 and 7 respectively.

5.2 Impact on Future-Oriented Behaviour

The training program was designed to build agency and ultimately promote future-oriented behaviour among the participants. The core findings on future-

orientation are presented in Figure 1. Each bar represents the proportion of individuals opting for Product 1 (present-biased option) instead of either Product 2 or 3 (future-oriented options) in a particular session. For the control group, the proportion of individuals choosing the present-biased option remains unchanged across the sessions, even rising somewhat in the later sessions. On the other hand, the proportion of individuals in the treatment group choosing the present-biased remains similar to that in the control group up to session 3, but then declines dramatically session 4 onwards, indicating that the treatment group displayed a greater degree of future-orientation in their choices regarding these products. Regarding why there is no significant difference in the choices of the treatment and control group for the first few sessions, there could be several potential explanations e.g. time taken to absorb the content of training before applying it to choices, role of trust for the trainers, status-quo bias etc.

Table 14 presents the ITT impact estimates of the training program using specification on choices over savings products, and confirms the patterns observed in Figure 1. There is no statistically significant difference in the propensity to choose the present-biased option between the treatment and control groups up to session 3. But in session 4, the treatment group is 25 percentage points less likely to choose the present-biased option than the control (column 4), which increases to approximately 50 percentage points in session 5 (column 5) and remains more or less stable till the end. These results are robust to the inclusion of baseline individual characteristics as shown in Table 15.

Interestingly, we find that at the beginning of the training program, the choices of the treatment group look very similar on average to those of the control group, but over the course of the program, a distinct divergence emerges between the two groups that persists till the end of the program. We attribute this change to the strengthening of psychological faculties of sex workers in the treatment group as a result of the training program, which promotes future-oriented behaviour.

The regression results presented in Tables 14, 15 and 16 cluster standard errors at the house level. However, since the training was imparted to women in groups of size 15-17, there arises a possibility that outcomes could be correlated within these training groups. Hence, Tables A.1, A.2 and ?? in Appendix present regression results using the same specification but with standard errors clustered at the training group level. The results are found to be robust.

Finally, as described above, we also examine the impact on health-seeking be-

haviour (proxied by frequency of visits to the doctor) as an alternative measure of “future-oriented” behaviour. Table 7 column 4 indicates that the treatment group is 9 percentage points more likely to have visited a doctor in the recent past compared the control, which represents an improvement of 12% of the baseline mean of 0.71. Since sex work, by its very nature, puts a lot of stress on the physical condition of the sex worker, investment in physical health is very important for future sustainability and hence, a higher frequency of doctor visits may be interpreted as evidence of devoting higher effort towards securing one’s future.

6 Discussion

It may be contended that the amount of money offered to the participants (Rs. 100 approx. 1.60 USD per week for 8 week) was too small to reflect choices over the available savings options in any credible way. However, this amount is equal to 40% of their median daily earnings of approx. Rs. 250 (approx. 4.17 USD), and hence not entirely insignificant. Moreover, due to the nature of their trade, sex workers manage their finances on a day-to-day basis (Evans and Lambert, 2008), including savings decisions as borne out by the popularity of daily savings schemes in these red-light areas. Hence the decision regarding the choice of savings product offered as part of the experiment is a very real one.

This paper focuses on a particular channel through which psychological empowerment can affect future-oriented choices of program participants: by raising their sense of agency, i.e. the belief that they can achieve desirable life outcomes through their own effort. Below, we present two alternative mechanisms that could potentially be driving the results and discuss why that is unlikely to be the case.

6.1 Alternative mechanisms

Self-control

An alternative channel that is known to affect future-oriented choices is a person’s sense of self-control. Given that this channel is widely studied in economics (Gul and Pesendorfer, 2001; Fudenberg and Levine, 2006; Ashraf, Karlan, and Yin, 2006), it would be useful to clarify why this latter channel is unlikely to be operational in our setting. In principle, the psychological empowerment training

program could make a person more aware of her lack of self-control, which may have been leading to poor life outcomes. Such awareness could then make her more future-oriented in her choices.

In a standard framework, self-control problems arise due to dynamic inconsistency in preferences: there are two selves: the current self at $t = 0$ (who is making the decision to invest in the high-return-illiquid asset or the low-return-liquid asset) and the future self at $t = 1$ (who will face a temptation to consume early and so liquidate the high-return-illiquid asset early). A key element of investment products designed to tackle self-control issues is that the investment in a financial product made by the $t = 0$ self cannot be liquidated by the $t = 1$ self without cost, until the maturity date. This is not true in our setting. A participant could always liquidate the high return-illiquid asset at some intermediate stage and still get the return she would have had she invested in the low return-more liquid asset. Thus investment in the illiquid asset does not as a commitment device in our context, implying that self-control cannot be the explanation for participants' more future oriented choices.

If the psychological empowerment training raises an individual's perception that she can overcome temptation in the future, this is unlikely to increase the likelihood that a person initially lacking in self-control would make more future oriented choices. Furthermore, the content of the Durbar training program does not address self-control issues in any way. Our preferred explanation – that psychological training leads to more future-oriented choices by creating a greater sense of agency among the sex workers – is based both on the content of the training and self-reported measures obtained from our survey data.¹¹

Reciprocity

A second alternative mechanism could be that the participants choose the “right” options i.e. the future-oriented options as a reciprocity gesture to the trainers for spending time training them. This argument may be countered in the following three ways: First, the participants revealed their choices not to the trainers themselves but to members of our field staff. Second, such a reciprocity gesture is more likely to be observed for those participants who are members of Durbar since their relationship with the NGO is a repeated game. Participants who are

¹¹To the extent that a higher sense of agency (self-efficacy) can induce greater perseverance – as suggested by the Bandura quote in the introduction – it is possible that participants's behavior reflects greater self-control. We do not explicitly model this indirect channel in our framework.

non-members, on the other hand, should not exhibit a similar pattern of choices regarding these savings product over the course of the training. However, we find that there is no differential effect of Durbar-membership (measured at baseline) on participants' choice (results not reported). In other words, members and non-members of Durbar are equally likely to take up the future-oriented options over the course of the intervention. The rate of take-up if Durbar membership does increase in the treatment group relative to the control in the endline compared to baseline (0.7% points) but this is not statistically significant. Third, if reciprocity were to be the driving mechanism, then one would expect the participants in the training program to make the "right" choice from the first session itself. The divergence in the choice behaviour between treatment and control groups from the fourth session is less easy to explain using this mechanism.

7 Conclusion

In this paper, we take seriously the view that psychological constraints imposed by poverty and social exclusion may be one reason for low effort and apathy among those affected, hence contributing to poverty persistence. We therefore examine whether psychological empowerment training - specifically, reducing the sense of stigma (raising self-esteem) and exploring pathways to higher agency - can change self-perceptions and behaviour of a group that faces poverty and acute social exclusion: sex workers in Kolkata, India. Based on a randomized control trial, we find that participants who start off with very low measures of self-worth respond positively to such a program – both in terms of self-reported measures of agency, self-esteem and happiness, as well as in terms of their focus on a better future, as measured by their choice of savings products and health-seeking behaviour.

While the findings of our study pertain to a group that faces extreme negative social sanction, we believe that they are also relevant for other individuals who face social exclusion and stigma of some form, such as the poor and minorities. These findings suggest that the design of anti-poverty and anti-discrimination programs must factor in not just material deprivation, but also psychological barriers that impede such disadvantaged groups from achieving better outcomes.

References

- ABRAMSON, L. Y., M. E. SELIGMAN, AND J. D. TEASDALE (1978): “Learned Helplessness in Humans: Critique and Reformulation,” *Journal of Abnormal Psychology*, 87(1), 49–74.
- AIIHPH (1992): *Report on the Community-based Survey of Sexually Transmitted Diseases/HIV Infection and Sexual Behaviour among Sex Workers in Calcutta, India*. Department of Epidemiology, All India Institute of Hygiene and Public Health, Calcutta.
- ASHFORTH, B. E., AND G. E. KREINER (1999): “How Can You Do It? Dirty Work and the Challenge of Constructing a Positive Identity,” *Academy of Management Review*, 24, 413–434.
- ASHRAF, N., D. KARLAN, AND W. YIN (2006): “Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines,” *Quarterly Journal of Economics*, 121(2), 635–672.
- BANDIERA, O., R. BURGESS, N. DAS, S. GULESCI, I. RASUL, AND M. SULAIMAN (2013): “Can Basic Entrepreneurship Transform the Economic Lives of the Poor?,” IZA Discussion Papers No. 7386, May.
- BANDURA, A. (1982): “Self-efficacy Mechanism in Human Agency,” *American Psychologist*, 37(2), 122–147.
- (1991): “Social Cognitive Theory of Self-Regulation,” *Organizational Behavior and Human Decision Processes*, 50(2), 248–287.
- BANERJEE, A., E. DUFLO, R. CHATTOPADHYAY, AND J. SHAPIRO (2011): “Targeting the Hardcore Poor: An Impact Assessment,” Working Paper, Massachusetts Institute of Technology.
- BANERJEE, A. V., AND A. F. NEWMAN (1991): “Risk-Bearing and the Theory of Income Distribution,” *Review of Economic Studies*, 58(2), 211–35.
- (1993): “Occupational Choice and the Process of Development,” *Journal of Political Economy*, 101(2), 274–98.
- BASU, I., S. JANA, M. J. ROTHERAM-BORUS, D. SWENDEMAN, S. J. LEE, P. NEWMAN, AND R. WEISS (2004): “HIV Prevention among Sex Workers in India,” *Journal of Acquired Immune Deficiency Syndromes*, 36(3), 845–852.

- BERNARD, T., S. DERCON, AND A. S. TAFFESSE (2011): “Beyond Fatalism: An Empirical Exploration of Self-Efficacy and Aspirations Failure in Ethiopia,” Centre for the Study of African Economies (CSAE) Working Paper Series No. 2011-03, University of Oxford.
- BOYD, N. G., AND G. S. VOZIKIS (1994): “The Influence of Self-efficacy on the Development of Entrepreneurial Intentions and Actions,” *Entrepreneurship Theory and Practice*, 18(4), 63–77.
- BRUHN, M., AND D. MCKENZIE (2009): “In Pursuit of Balance: Randomization in Practice in Development Field Experiments,” *American Economic Journal: Applied Economics*, 1(4), 200–232.
- CAPRARA, G. V., P. STECA, M. GERBINO, M. PACIELLOI, AND G. M. VECCHIO (2006): “Looking for Adolescents’ Well-being: Self-efficacy Beliefs as Determinants of Positive Thinking and Happiness,” *Epidemiologia e Psichiatria Sociale*, 15(1), 30–43.
- CROIZET, J., AND T. CLAIRE (1998): “Extending the Concept of Stereotype Threat to Social Class: The Intellectual Underperformance of Students from Low Socioeconomic Backgrounds,” *Personality and Social Psychology Bulletin*, 24(6), 588–594.
- CURRIE, J., J. GROGGER, G. BURTLESS, AND R. F. SCHOENI (2001): “Explaining Recent Declines in Food Stamp Program Participation,” *Brookings-Wharton Papers on Urban Affairs*, pp. 203–244.
- DASGUPTA, P., AND D. RAY (1986): “Inequality as a Determinant of Malnutrition and Unemployment: Theory,” *Economic Journal*, 96(384), 1011–34.
- DUFLO, E., M. KREMER, AND J. ROBINSON (2011): “Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya,” *American Economic Review*, 101(6), 2350–90.
- EVANS, C., AND H. LAMBERT (2008): “The Limits of Behaviour Change Theory: Condom Use and Contexts of HIV Risk in the Kolkata Sex Industry,” *Culture, Health and Sexuality*, 10(1), 27–41.
- FUDENBERG, D., AND D. K. LEVINE (2006): “A Dual-Self Model of Impulse Control,” *American Economic Review*, 96(5), 1449–1476.

- GALOR, O., AND J. ZEIRA (1993): “Income Distribution and Macroeconomics,” *Review of Economic Studies*, 60(1), 35–52.
- GLEWWE, P., P. ROSS, AND B. WYDICK (2013): “Developing Aspirations: The Impact of Child Sponsorship on Self-Esteem and Life Expectations,” Working Paper, University of San Francisco.
- GUL, F., AND W. PESENDORFER (2001): “Temptation and Self-Control,” *Econometrica*, 69(6), 1403–1435.
- HALL, C. C., J. ZHAO, AND E. SHAFIR (2013): “Self-affirmation Among the Poor: Cognitive and Behavioural Implications,” *Psychological Science*, forthcoming.
- HOFF, K., AND A. SEN (2005): “The Kin System as a Poverty Trap?,” World Bank Policy Research Working Paper No. 3575.
- JISC (2009): *Impact of Support Services provided to Children of Resident Prostitutes in Kolkata Brothels*. Kolkata.
- KATZ, S. J., AND T. P. HOFER (1994): “Socioeconomic Disparities in Preventive Care Persist Despite Universal Coverage,” *JAMA*, 272(7), 530–534.
- LOURY, G. C. (1981): “Intergenerational Transfers and the Distribution of Earnings,” *Econometrica*, 49(4), 843–867.
- MCKENZIE, D., AND C. WOODRUFF (2013): “What are We Learning from Business Training and Entrepreneurship Evaluations around the Developing World?,” *World Bank Research Observer*, forthcoming.
- MORDUCH, J., S. RAVI, AND J. BAUCHET (2012): “Failure vs. Displacement: Why an Innovative Anti-Poverty Program Showed No Impact?,” CGAP mimeo.
- RAO, V., I. GUPTA, M. LOKSHIN, AND S. JANA (2003): “Sex Workers and the Cost of Safe Sex: The Compensating Differential for Condom Use Among Calcutta Prostitutes,” *Journal of Development Economics*, 71, 585–603.
- REUTTER, L. I., M. J. STEWART, G. VEENSTRA, R. LOVE, D. RAPHAEL, AND E. MAKWARIMBA (2009): “Who Do They Think We Are, Anyway? Perceptions of and Responses to Poverty Stigma,” *Qualitative Health Research*, 19(3), 297–311.

STEELE, C. M. (1988): "The Psychology of Self-affirmation: Sustaining the Integrity of the Self," in *Advances in Experimental Social Psychology*, ed. by L. Berkowitz, pp. 261–299.

WOOD, R., AND A. BANDURA (1989): "Social Cognitive Theory of Organizational Management," *Academy of Management Review*, 14(3), 361–364.

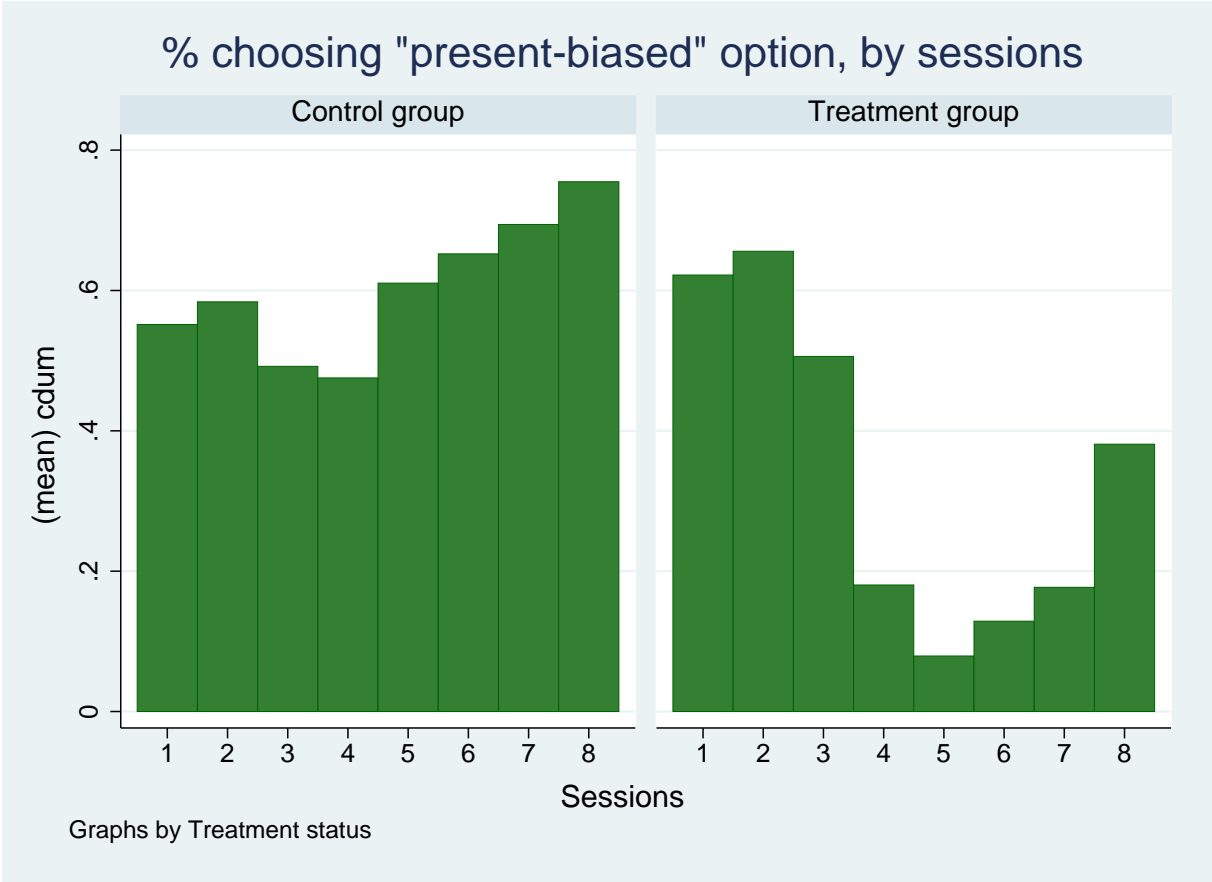


Figure 1: Percentage of sex workers choosing Product 1 (present-biased option) as opposed to Products 2 and 3 (future-oriented options), by session

Table 1: Summary Statistics - Individual Characteristics at Baseline

	Control	Treatment	Difference
Age (years)	32.47 (7.09)	32.08 (7.62)	0.38 (0.69)
Muslim (%)	0.13 (0.34)	0.22 (0.41)	-0.09 (0.04)
SC/ST (%)	0.42 (0.49)	0.35 (0.48)	0.06 (0.05)
Education (years)	2.11 (2.92)	1.73 (2.81)	0.38 (0.27)
Married (%)	0.67 (0.47)	0.75 (0.43)	-0.09 (0.04)
Age at marriage (years)	15.75 (3.33)	15.77 (3.01)	-0.02 (0.31)
Has fixed client (%)	0.26 (0.44)	0.31 (0.46)	-0.05 (0.04)
Years in profession	9.36 (8.06)	8.87 (7.57)	0.49 (0.73)
Adhiya contract (%)	0.06 (0.24)	0.18 (0.38)	-0.12 (0.03)
Self-employed contract (%)	0.57 (0.50)	0.47 (0.50)	0.10 (0.05)
Flying contract (%)	0.37 (0.48)	0.36 (0.48)	0.01 (0.05)
Rate per sex act (w/ condom, Rs.)	129.13 (128.54)	121.06 (54.90)	8.07 (8.90)
Rate per sex act (w/o condom, Rs.)	175.00 (91.57)	150.00 (50.00)	25.00 (56.05)
No. of customers	3.13 (1.24)	3.14 (1.16)	-0.01 (0.12)
Monthly income (Rs.)	8576.63 (5617.70)	9701.32 (19434.31)	-1124.69 (1431.87)
Uses condom (%)	0.99 (0.10)	1.00 (0.00)	-0.01 (0.01)
Member of Durbar (%)	0.81 (0.39)	0.77 (0.42)	0.04 (0.04)
Has bank a/c (%)	0.43 (0.50)	0.45 (0.50)	-0.02 (0.05)
Observations	203	264	.

Standard deviations/errors are in parentheses. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent. Default group for religion is Hindu. Bank account refers to account with USHA, Durbar's banking arm. Adhiya contract is a sharing contract where the sex worker splits her monthly earnings 50:50 with the owner of the brothel. Self-employed contract implies that the sex worker pays the owner a fixed rent from her monthly earnings and keeps the rest for herself. Flying contract implies that the sex worker does not reside in the brothel but comes to work there from outside the red-light area.

Table 2: Means of Psychological Outcomes at Baseline

	Control	Treatment	Difference
Agency raw score	0.43 (0.25)	0.41 (0.24)	0.02 (0.02)
Agency z-score	-0.02 (1.00)	-0.11 (0.99)	0.09 (0.09)
Decision-making raw score	0.77 (0.15)	0.78 (0.15)	-0.01 (0.01)
Decision-making z-score	-0.11 (0.98)	-0.06 (1.01)	-0.05 (0.09)
Mobility raw score	0.56 (0.24)	0.56 (0.24)	0.00 (0.02)
Mobility z-score	0.49 (1.02)	0.49 (1.03)	0.01 (0.10)
Happiness (0/1)	0.48 (0.50)	0.51 (0.50)	-0.02 (0.05)
Aspiration (0/1)	0.77 (0.42)	0.75 (0.43)	0.02 (0.04)
Self-esteem (0/1)	0.15 (0.36)	0.20 (0.40)	-0.04 (0.04)
Self-perception raw score	0.41 (0.27)	0.38 (0.28)	0.03 (0.03)
Self-perception z-score	0.01 (0.98)	-0.11 (1.04)	0.11 (0.10)
Ashamed (0/1)	0.66 (0.48)	0.61 (0.49)	0.05 (0.05)
Frequent health check (0/1)	0.76 (0.43)	0.77 (0.42)	-0.01 (0.04)
Observations	203	264	.

Standard deviations/errors are in parentheses. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 3: Means of Psychological Outcomes at Endline

	Control	Treatment	Difference
Agency raw score	0.39	0.50	-0.10
	(0.24)	(0.24)	(0.02)
Agency z-score	-0.16	0.26	-0.42
	(0.98)	(0.98)	(0.09)
Decision-making raw score	0.80	0.80	-0.01
	(0.15)	(0.15)	(0.01)
Decision-making z-score	0.06	0.10	-0.04
	(0.97)	(1.02)	(0.10)
Mobility raw score	0.33	0.32	0.01
	(0.14)	(0.16)	(0.01)
Mobility z-score	-0.49	-0.54	0.05
	(0.59)	(0.70)	(0.06)
Happiness (0/1)	0.48	0.61	-0.13
	(0.50)	(0.49)	(0.05)
Aspiration (0/1)	0.77	0.79	-0.02
	(0.42)	(0.41)	(0.04)
Self-esteem (0/1)	0.23	0.91	-0.68
	(0.42)	(0.29)	(0.03)
Self-perception raw score	0.38	0.47	-0.09
	(0.27)	(0.26)	(0.03)
Self-perception z-score	-0.13	0.21	-0.34
	(0.98)	(0.96)	(0.09)
Ashamed (0/1)	0.57	0.17	0.40
	(0.50)	(0.38)	(0.04)
Frequent health check (0/1)	0.79	0.87	-0.09
	(0.41)	(0.33)	(0.04)
Observations	192	245	.

Standard deviations/errors are in parentheses. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 4: Impact on Psychological Outcomes: Endline Results

	(1)	(2)	(3)	(4)	(5)
	Agency	Decision-making	Mobility	Happiness	Aspiration
Treatment	0.43*** (0.09)	0.04 (0.10)	-0.03 (0.07)	0.12** (0.05)	0.03 (0.04)
Area fixed effects	Yes	Yes	Yes	Yes	Yes
Mean for control group	-0.16	0.06	-0.49	0.48	0.77
Adj. R-sq	0.05	-0.01	0.01	0.02	0.01
N	437	437	437	437	434

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 5: Impact on Psychological Outcomes: Endline Results, with baseline controls

	(1)	(2)	(3)	(4)	(5)
	Agency	Decision-making	Mobility	Happiness	Aspiration
Treatment	0.39*** (0.10)	0.04 (0.11)	-0.07 (0.07)	0.10* (0.05)	0.01 (0.04)
Age	-0.00 (0.01)	0.01* (0.01)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Education	-0.01 (0.02)	-0.01 (0.02)	-0.02** (0.01)	0.01 (0.01)	-0.00 (0.01)
Muslim	-0.04 (0.13)	0.11 (0.11)	-0.02 (0.09)	0.12* (0.07)	0.03 (0.05)
Married	0.19* (0.11)	-0.08 (0.11)	-0.06 (0.08)	0.02 (0.06)	0.01 (0.05)
Has fixed client	-0.13 (0.11)	-0.07 (0.12)	0.05 (0.07)	0.02 (0.06)	0.07 (0.05)
Adhiya	0.22 (0.16)	0.20 (0.18)	0.28** (0.11)	0.01 (0.07)	-0.01 (0.07)
Flying	-0.24** (0.11)	0.01 (0.11)	0.14** (0.07)	-0.00 (0.06)	0.04 (0.05)
Durbar member	-0.17 (0.13)	0.12 (0.12)	0.16** (0.08)	0.03 (0.06)	0.02 (0.06)
Has bank a/c	-0.12 (0.11)	0.06 (0.12)	-0.06 (0.08)	-0.02 (0.05)	0.11** (0.05)
Log income	-0.01 (0.06)	0.05 (0.07)	-0.06 (0.05)	-0.01 (0.03)	-0.00 (0.03)
Area fixed effects	Yes	Yes	Yes	Yes	Yes
Adj. R-sq	0.05	-0.01	0.03	-0.00	0.01
N	412	412	412	412	409

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent. Default group for religion is Hindu and for contract is Self-employed. Education refers to years of completed education. Bank account refers to account with USHA, Durbar's banking arm. Income refers to monthly income. Adhiya contract is a sharing contract where the sex worker splits her monthly earnings 50:50 with the owner of the brothel. Self-employed contract, the omitted group here, implies that the sex worker pays the owner a fixed rent from her monthly earnings and keeps the rest for herself. Flying contract implies that the sex worker does not reside in the brothel but comes to work there from outside the red-light area.

Table 6: Impact on Psychological Outcomes: Endline Heterogeneous Treatment Effects, by location

	(1)	(2)	(3)	(4)	(5)
	Agency	Decision-making	Mobility	Happiness	Aspiration
Treatment*Kalighat	0.47*** (0.16)	0.10 (0.18)	-0.08 (0.13)	0.22** (0.08)	0.00 (0.10)
Treatment*Bowbazar	0.42*** (0.14)	-0.04 (0.16)	0.03 (0.08)	0.04 (0.07)	0.03 (0.05)
Treatment*Chetla	0.42** (0.17)	0.17 (0.20)	-0.12 (0.12)	0.17 (0.12)	0.05 (0.06)
Kalighat	-0.26* (0.15)	0.09 (0.23)	-0.17 (0.12)	0.03 (0.12)	-0.09 (0.08)
Bowbazar	-0.06 (0.14)	0.12 (0.21)	-0.06 (0.10)	0.04 (0.12)	0.00 (0.05)
Constant	-0.07 (0.10)	-0.03 (0.18)	-0.41*** (0.08)	0.45*** (0.11)	0.79*** (0.03)
Adj. R-sq	0.04	-0.01	0.00	0.02	0.00
N	437	437	437	437	434

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent. The constant term captures the level impact in Chetla

Table 7: Impact on Identity, Shame and Health: Endline Results

	(1)	(2)	(3)	(4)
	Self-esteem	Self-perception	Shame	Health check
Treatment	0.68*** (0.04)	0.29*** (0.09)	-0.40*** (0.04)	0.09** (0.04)
Area fixed effects	Yes	Yes	Yes	Yes
Mean for control group	0.23	-0.13	0.57	0.79
Adj. R-sq	0.47	0.04	0.17	0.01
N	435	437	429	424

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 8: Impact on Identity, Shame and Health: Endline Results, with baseline controls

	(1)	(2)	(3)	(4)
	Self-esteem	Self-perception	Shame	Health check
Treatment	0.68*** (0.04)	0.31*** (0.09)	-0.40*** (0.04)	0.09** (0.04)
Age	0.00 (0.00)	-0.01 (0.01)	-0.00 (0.00)	0.00 (0.00)
Education	0.00 (0.01)	-0.02 (0.01)	0.01 (0.01)	-0.01 (0.01)
Muslim	0.02 (0.04)	-0.03 (0.12)	-0.05 (0.05)	-0.01 (0.05)
Married	-0.03 (0.04)	-0.09 (0.10)	0.08* (0.04)	-0.02 (0.03)
Has fixed client	0.02 (0.03)	0.03 (0.12)	-0.07* (0.04)	-0.02 (0.04)
Adhiya	-0.04 (0.06)	-0.30** (0.14)	0.06 (0.07)	-0.01 (0.06)
Flying	0.00 (0.04)	0.02 (0.11)	-0.00 (0.05)	0.02 (0.04)
Durbar member	0.07 (0.05)	-0.00 (0.14)	-0.07 (0.06)	0.01 (0.06)
Has bank a/c	-0.06 (0.04)	0.08 (0.10)	-0.02 (0.05)	0.07* (0.04)
Log income	0.05** (0.03)	0.12* (0.07)	-0.05* (0.03)	0.04 (0.03)
Area fixed effects	Yes	Yes	Yes	Yes
Adj. R-sq	0.45	0.05	0.17	0.00
N	410	412	405	399

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent. Default group for religion is Hindu and for contract is Self-employed. Education refers to years of completed education. Bank account refers to account with USHA, Durbar's banking arm. Income refers to monthly income. Adhiya contract is a sharing contract where the sex worker splits her monthly earnings 50:50 with the owner of the brothel. Self-employed contract, the omitted group here, implies that the sex worker pays the owner a fixed rent from her monthly earnings and keeps the rest for herself. Flying contract implies that the sex worker does not reside in the brothel but comes to work there from outside the red-light area.

Table 9: Impact on Identity and Health: Endline Heterogeneous Treatment Effects, by location

	(1)	(2)	(3)	(4)
	Self-esteem	Self-perception	Shame	Health check
Treatment*Kalighat	0.74*** (0.05)	-0.10 (0.18)	-0.37*** (0.07)	-0.01 (0.10)
Treatment*Bowbazar	0.62*** (0.06)	0.47*** (0.13)	-0.42*** (0.06)	0.13*** (0.04)
Treatment*Chetla	0.74*** (0.07)	0.40** (0.18)	-0.40*** (0.11)	0.15** (0.07)
Kalighat	0.01 (0.08)	0.16 (0.21)	-0.11 (0.10)	0.11 (0.10)
Bowbazar	0.07 (0.08)	-0.37* (0.19)	-0.07 (0.10)	0.08 (0.07)
Constant	0.18*** (0.06)	0.04 (0.15)	0.64*** (0.08)	0.72*** (0.06)
Adj. R-sq	0.48	0.05	0.17	0.01
N	435	437	429	424

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. The constant term captures the level impact in Chetla. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 10: Impact on Psychological Outcomes: Difference-in-difference Results

	(1)	(2)	(3)	(4)	(5)
	Agency	Decision-making	Mobility	Happiness	Aspiration
Treatment	-0.05 (0.10)	0.05 (0.09)	0.02 (0.09)	0.03 (0.05)	-0.01 (0.04)
Post	-0.14 (0.09)	0.18* (0.10)	-0.98*** (0.06)	-0.00 (0.04)	0.00 (0.03)
Treatment*Post	0.51*** (0.13)	-0.01 (0.14)	-0.06 (0.10)	0.11 (0.07)	0.04 (0.05)
Area fixed effects	Yes	Yes	Yes	Yes	Yes
Adj. R-sq	0.04	0.00	0.26	0.01	0.03
N	890	890	891	891	887

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 11: Impact on Psychological Outcomes: Difference-in-difference Heterogeneous Treatment Effects, by location

	(1)	(2)	(3)	(4)	(5)
	Agency	Decision	Mobility	Happiness	Aspiration
Treatment*Kalighat	0.06 (0.17)	0.12 (0.15)	0.08 (0.19)	-0.07 (0.11)	-0.04 (0.10)
Treatment*Bowbazar	-0.04 (0.12)	-0.01 (0.13)	-0.00 (0.13)	0.09 (0.06)	0.01 (0.05)
Treatment*Chetla	-0.11 (0.18)	0.07 (0.20)	-0.02 (0.18)	0.06 (0.09)	0.02 (0.07)
Post*Kalighat	0.12 (0.22)	0.18 (0.22)	0.18 (0.17)	-0.05 (0.10)	0.08 (0.08)
Post*Bowbazar	-0.25 (0.21)	0.20 (0.15)	0.07 (0.15)	-0.05 (0.09)	-0.02 (0.07)
Post	-0.03 (0.15)	0.01 (0.07)	-1.06*** (0.11)	0.04 (0.07)	-0.01 (0.06)
Treatment*Post*Kalighat	0.42* (0.24)	-0.02 (0.25)	-0.16 (0.24)	0.29** (0.12)	0.04 (0.11)
Treatment*Post*Bowbazar	0.46** (0.18)	-0.03 (0.22)	0.03 (0.13)	-0.05 (0.09)	0.02 (0.06)
Treatment*Post*Chetla	0.54*** (0.20)	0.10 (0.14)	-0.10 (0.14)	0.12 (0.10)	0.03 (0.09)
Kalighat	-0.38** (0.18)	-0.09 (0.18)	-0.36** (0.17)	0.09 (0.11)	-0.17* (0.09)
Bowbazar	0.19 (0.15)	-0.09 (0.16)	-0.13 (0.18)	0.09 (0.07)	0.02 (0.06)
Constant	-0.04 (0.13)	-0.04 (0.14)	0.65*** (0.15)	0.41*** (0.06)	0.79*** (0.05)
Adj. R-sq	0.04	-0.00	0.25	0.01	0.02
N	890	890	891	891	887

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 12: Impact on Identity, Shame and Health: Difference-in-difference Results

	(1)	(2)	(3)	(4)
	Self-esteem	Self-perception	Shame	Health check
Treatment	0.05 (0.04)	-0.16* (0.08)	-0.05 (0.05)	0.00 (0.04)
Post	0.07 (0.04)	-0.14* (0.08)	-0.09 (0.06)	0.03 (0.05)
Treatment*Post	0.63*** (0.05)	0.46*** (0.11)	-0.34*** (0.06)	0.07 (0.07)
Area fixed effects	Yes	Yes	Yes	Yes
Adj. R-sq	0.43	0.03	0.16	0.01
N	889	889	885	876

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 13: Impact on Identity, Health and Shame: Difference-in-difference Heterogeneous Treatment Effects, by location

	(1)	(2)	(3)	(4)
	Self-esteem	Self-perception	Shame	Health check
Treatment*Kalighat	0.09 (0.06)	-0.02 (0.19)	-0.06 (0.10)	0.02 (0.06)
Treatment*Bowbazar	0.05 (0.05)	-0.25** (0.11)	0.01 (0.06)	-0.08 (0.06)
Treatment*Chetla	0.01 (0.06)	-0.06 (0.15)	-0.17** (0.07)	0.09 (0.06)
Post*Kalighat	0.00 (0.06)	0.24 (0.17)	0.13 (0.15)	0.07 (0.13)
Post*Bowbazar	0.01 (0.08)	-0.30** (0.15)	0.06 (0.10)	0.15* (0.08)
Post	0.06 (0.04)	-0.03 (0.12)	-0.16** (0.06)	-0.08 (0.06)
Treatment*Post*Kalighat	0.65*** (0.09)	-0.08 (0.18)	-0.31** (0.14)	-0.03 (0.13)
Treatment*Post*Bowbazar	0.57*** (0.09)	0.72*** (0.15)	-0.43*** (0.09)	0.21** (0.08)
Treatment*Post*Chetla	0.73*** (0.06)	0.46*** (0.15)	-0.23*** (0.09)	0.06 (0.10)
Kalighat	0.00 (0.06)	-0.08 (0.20)	-0.24*** (0.09)	0.04 (0.07)
Bowbazar	0.06 (0.06)	-0.07 (0.12)	-0.14* (0.07)	-0.08 (0.06)
Constant	0.12** (0.05)	0.07 (0.11)	0.79*** (0.05)	0.79*** (0.05)
Adj. R-sq	0.43	0.03	0.16	0.03
N	889	889	885	876

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 14: Impact on Payment Choices: Endline Results (cluster by house)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
Treatment	0.09 (0.07)	0.09 (0.06)	0.06 (0.06)	-0.25*** (0.05)	-0.51*** (0.06)	-0.50*** (0.05)	-0.48*** (0.06)	-0.36*** (0.06)
Area fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean for control group	0.55	0.58	0.49	0.48	0.61	0.65	0.69	0.75
Adj. R-sq	0.01	0.02	0.08	0.20	0.35	0.31	0.31	0.14
N	448	432	434	427	412	394	396	361

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table 15: Impact on Payment Choices: Endline Results, with baseline controls (cluster by house)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Present-bias							
Treatment	0.10 (0.07)	0.11* (0.06)	0.08 (0.06)	-0.24*** (0.05)	-0.51*** (0.06)	-0.50*** (0.06)	-0.50*** (0.06)	-0.39*** (0.06)
Age	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.01 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.01 (0.00)
Muslim	0.04 (0.07)	0.01 (0.07)	0.00 (0.06)	-0.04 (0.05)	0.06 (0.04)	0.04 (0.05)	0.09* (0.05)	0.07 (0.06)
Education	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)
Adhiya	0.04 (0.08)	0.05 (0.06)	0.04 (0.07)	0.03 (0.07)	0.01 (0.06)	0.09 (0.06)	0.09 (0.07)	0.04 (0.08)
Flying	-0.08 (0.05)	-0.04 (0.06)	-0.02 (0.06)	0.03 (0.05)	0.05 (0.05)	0.07 (0.05)	0.05 (0.04)	0.05 (0.06)
Durbar member	0.01 (0.06)	0.02 (0.07)	-0.02 (0.06)	0.01 (0.06)	0.04 (0.05)	0.01 (0.05)	-0.03 (0.06)	-0.01 (0.07)
Has bank a/c	0.01 (0.05)	0.05 (0.05)	-0.00 (0.06)	-0.00 (0.04)	0.03 (0.04)	0.03 (0.05)	0.02 (0.04)	-0.01 (0.06)
Log income	-0.02 (0.04)	-0.00 (0.03)	0.03 (0.04)	0.02 (0.03)	0.00 (0.04)	0.01 (0.03)	-0.03 (0.04)	-0.03 (0.04)
Area fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-sq	-0.00	0.01	0.06	0.18	0.34	0.30	0.31	0.13
N	423	407	409	401	388	371	374	340

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent. Default group for religion is Hindu and for contract is Self-employed. Education refers to years of completed education. Bank account refers to account with USHA, Durbar's banking arm. Income refers to monthly income. Adhiya contract is a sharing contract where the sex worker splits her monthly earnings 50:50 with the owner of the brothel. Self-employed contract, the omitted group here, implies that the sex worker pays the owner a fixed rent from her monthly earnings and keeps the rest for herself. Flying contract implies that the sex worker does not reside in the brothel but comes to work there from outside the red-light area.

Table 16: Impact on Payment Choices: Heterogeneous Treatment Effects, by location (cluster by house)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Present-bias							
	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
Treatment*Kalighat	0.05 (0.11)	0.11 (0.09)	0.29*** (0.08)	-0.13 (0.08)	-0.62*** (0.10)	-0.60*** (0.10)	-0.68*** (0.07)	-0.58*** (0.10)
Treatment*Bowbazar	0.06 (0.10)	0.10 (0.10)	-0.04 (0.10)	-0.35*** (0.09)	-0.52*** (0.09)	-0.54*** (0.08)	-0.48*** (0.09)	-0.26*** (0.08)
Treatment*Chetla	0.19 (0.12)	0.04 (0.10)	-0.02 (0.10)	-0.16** (0.08)	-0.32*** (0.10)	-0.19** (0.09)	-0.19 (0.12)	-0.44*** (0.16)
Kalighat	0.14 (0.13)	0.00 (0.09)	-0.26*** (0.09)	-0.02 (0.09)	0.30** (0.14)	0.31** (0.12)	0.36*** (0.12)	0.19 (0.14)
Bowbazar	0.19 (0.12)	0.11 (0.10)	0.25** (0.11)	0.41*** (0.09)	0.34*** (0.12)	0.40*** (0.10)	0.43*** (0.13)	-0.01 (0.16)
Constant	0.41*** (0.09)	0.52*** (0.06)	0.41*** (0.08)	0.24*** (0.06)	0.33*** (0.10)	0.33*** (0.08)	0.35*** (0.11)	0.73*** (0.14)
Adj. R-sq	0.00	0.01	0.09	0.21	0.36	0.33	0.34	0.15
N	448	432	434	427	412	394	396	361

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

A Appendix

A.1 Additional Tables

Table A.1: Impact on Payment Choices: Endline Results (cluster by training group)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Present-bias							
Treatment	0.09 (0.09)	0.09 (0.07)	0.06 (0.08)	-0.25*** (0.07)	-0.51*** (0.07)	-0.50*** (0.07)	-0.48*** (0.07)	-0.36*** (0.08)
Area fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean for control group	0.55	0.58	0.49	0.48	0.61	0.65	0.69	0.75
Adj. R-sq	0.01	0.02	0.08	0.20	0.35	0.31	0.31	0.14
N	448	432	434	427	412	394	396	361

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent.

Table A.2: Impact on Payment Choices: Endline Results, with baseline controls (cluster by training group)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Present-bias							
Treatment	0.10 (0.09)	0.11 (0.07)	0.08 (0.08)	-0.24*** (0.07)	-0.51*** (0.07)	-0.50*** (0.07)	-0.50*** (0.07)	-0.39*** (0.10)
Age	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.01 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.01 (0.00)
Muslim	0.04 (0.07)	0.01 (0.05)	0.00 (0.06)	-0.04 (0.05)	0.06 (0.05)	0.04 (0.05)	0.09 (0.05)	0.07 (0.07)
Education	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)
Adhiya	0.04 (0.09)	0.05 (0.08)	0.04 (0.06)	0.03 (0.06)	0.01 (0.06)	0.09 (0.07)	0.09 (0.06)	0.04 (0.08)
Flying	-0.08 (0.05)	-0.04 (0.06)	-0.02 (0.06)	0.03 (0.03)	0.05 (0.05)	0.07 (0.05)	0.05 (0.04)	0.05 (0.05)
Durbar member	0.01 (0.07)	0.02 (0.08)	-0.02 (0.06)	0.01 (0.05)	0.04 (0.04)	0.01 (0.04)	-0.03 (0.05)	-0.01 (0.06)
Has bank a/c	0.01 (0.05)	0.05 (0.04)	-0.00 (0.06)	-0.00 (0.04)	0.03 (0.03)	0.03 (0.03)	0.02 (0.04)	-0.01 (0.06)
Log income	-0.02 (0.04)	-0.00 (0.03)	0.03 (0.03)	0.02 (0.03)	0.00 (0.04)	0.01 (0.03)	-0.03 (0.04)	-0.03 (0.04)
Area fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-sq	-0.00	0.01	0.06	0.18	0.34	0.30	0.31	0.13
N	423	407	409	401	388	371	374	340

Treatment indicates if individual was invited to training workshop. Standard errors, in parentheses, are clustered at the house level. * significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent. Default group for religion is Hindu and for contract is Self-employed. Education refers to years of completed education. Bank account refers to account with USHA, Durbar's banking arm. Income refers to monthly income. Adhiya contract is a sharing contract where the sex worker splits her monthly earnings 50:50 with the owner of the brothel. Self-employed contract, the omitted group here, implies that the sex worker pays the owner a fixed rent from her monthly earnings and keeps the rest for herself. Flying contract implies that the sex worker does not reside in the brothel but comes to work there from outside the red-light area.