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Discrimination experienced by HIV/AIDS infected persons and its associations with mental health in an Indian sample.

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# Discrimination Experienced by HIV/AIDS Infected Persons and its Associations with Mental Health in an Indian Sample

## Abstract

**Purpose:** The purpose of this study was to investigate the nature and prevalence of discrimination against people living with HIV/AIDS in West Bengal, India, and how discrimination is associated with depression, suicidal ideation and suicidal attempts.

**Method:** Semi-structured interviews and the Beck Depression Inventory were administered to 105 HIV infected persons recruited by incidental sampling, at an Integrated Counseling and Testing Center (ICTC) and through Networks of People Living with HIV/AIDS, in the West Bengal area.

**Results:** Findings showed that 40.8% of the sample has experienced discrimination at least in one social setting – such as family (29.1%), health centers (18.4%), community (17.5%) and workplace (6.8%). About two-fifths (40.8%) reported experiencing discrimination in multiple social settings. Demographic factors associated with discrimination were gender, age, occupation, education, and current residence. More than half of the sample was suffering from severe depression while 8.7% had attempted suicide. Discrimination in most areas was significantly associated with suicidal ideation and suicidal attempts.

**Conclusions:** Prevalence of discrimination associated with HIV/AIDS is high in our sample from West Bengal. While discrimination was not associated with depressive symptomatology, discrimination was associated with suicidal ideation and attempts. These findings suggest that there is an urgent need for interventions to reduce discrimination of HIV/AIDS in the West Bengal region.

*Keywords:* discrimination, HIV, AIDS, mental health, depression

## Introduction

India, second only to China in terms of population, has the third highest prevalence of HIV/AIDS in the world (National AIDS Control Organization, 2010). While good epidemiological data is difficult due to high-risk groups being reluctant to undergo HIV/AIDS testing and disclosing their diagnosis, previous research suggests that the primary mode of transmission has been heterosexual contact, while intravenous drug use has been etiologically connected with the epidemic in northeast India (Shaukat & Panakadan, 2004). Given the current high prevalence, the potential high transmission rate through heterosexual contact and the low literacy rates in India, the impact of HIV/AIDS upon Indians is a national and international priority.

In addition to the physical health consequences of HIV/AIDS, there are also significant psychological consequences. Individuals infected with HIV/AIDS typically undergo severe psychological stress and experiences loss of hope regarding the future – employment, family life, health, and self-esteem (Hedge *et al.*, 1992). This distress, however, can also be compounded

by the experience of stigma, especially in the developing countries (Bharat, 1999; Blendon & Donelan, 1988; Crandall & Coleman, 1992; Gilmore & Somerville, 1994).

In the early years of the HIV epidemic in India – in the early 1980s – and even today, HIV infected persons have experienced considerable harassment, stigma and discrimination in their social lives and in the health centers (Bharat & Aggleton, 1999; Bharat, Aggleton & Tyrer, 2001; Mahendra *et al.*, 2007; Steward *et al.*, 2008). For example, pregnant women in India often bear the burdens of being HIV infected, mothering potentially infected infants, and being caregivers for infected husbands or other family members (Thomas, Nyamathi & Swaminathan, 2009). Unfortunately, after the death of their husbands, HIV-infected women are often ostracized by their community as well as their family members (Bharat *et al.*, 2001; Pallikadavath, Garda, Apte, Freedman & Stones, 2005). This is in contrast with the support available to ill people in many other cultures (Ankrah, 1993).

This phenomenon of stigma understandably affects the mental health of those with HIV/AIDS. Depression

is the most common psychiatric disorder in HIV/AIDS, with an prevalence two to three times higher than that in the general population (Akena, Musisi & Kinyanda, 2001). In Tanzania, depression was found in 21% of HIV positive outpatients in the northern town of Moshi (Ramadhani *et al.*, 2007). A recent review of the research into the association between HIV and mental health in India highlighted the paucity of the research in this area (Jayarajan & Chandra, 2010). There is, however, emerging evidence of high prevalence of depression in Indian HIV/AIDS populations with a recent study finding approximately 55% of a sample of 68 rural women living with AIDS having depression according to the CES-D (Nyamathi *et al.*, 2011). Other older studies have suggested rates of depression between 5 and 25% in HIV affected individuals in India (Chandra, Ravi & Desai, 1998; Perkins *et al.*, 1994; Summers *et al.*, 1995).

A review article of HIV and psychiatric disorders in India by Chandra, Desai and Ranjan (2005) concluded that the research into suicide has been sparse to date yet it appears to be a major mental health concern. The authors also called for more research into the role of stigma in mental health morbidity. There are some emerging yet conflicting findings into the role of stigma and depression. For example, the study by Nyamathi *et al.* (2009) found that depression was associated with disclosure avoidance and making at least six health care visits in the last 6 months, and that living with a spouse was associated with lower depressive symptom scores. However, interestingly, stigma was not associated with depression. In contrast another new study found an association between stigma, disclosure avoidance, and depression in 198 adults with HIV in the southern part of India (Steward *et al.*, 2010).

Sayce (1998) highlighted that while there is overlap in the constructs of stigma and discrimination, there may be advantages to also investigating the construct of discrimination as a model for social change. For this study we conceptualized discrimination according to the multi-component framework proposed by Steward *et al.* (2008) in working with stigma-related experiences among HIV-infected individuals in India. According to this framework, discrimination is considered enacted stigma involving personally experienced instances of hostility or prejudice because of his or her stigmatized status. This is in contrast to other forms of stigma such as vicarious stigma (knowledge of others being mistreated), felt normative stigma (beliefs about the prevalence of prejudicial attitudes in the local community) and internalized stigma (the degree to which HIV-infected individuals personally endorse stigmatized beliefs) (Steward *et al.*, 2008). While there is a need to clarify the role of stigma in the mental health experiences of those with HIV in India, there is also a need to explore the role of discrimination in mental health and

suicide ideation/attempts. This study therefore aimed to help address the relative paucity of research into this area. In particular we investigated the prevalence of depression, suicidal ideation/attempts and experiences of discrimination in an Indian sample. We were also interested in investigating the association between demographic variables and the experience of discrimination in various settings.

## Methods

### Participants

Out of the 116 people living with HIV/AIDS initially approached for this study, 105 participated in the study (60% males). Participants were sought from either a hospital setting or a support network. That is, the study participants were contacted either in the Integrated Counseling and Testing Center (ICTC) of the Medical College, Kolkata, or through Networks of People Living with HIV/AIDS (NPLWHA) in Kolkata. There was no significant difference between the participants recruited from the ICTC and the PLWHA on any of the demographic variables and as such the two data from the two groups were collated into a single sample to increase the sample size.

Nearly 60% (58.1%) of the respondents were between 25 and 36 years of age. Approximately 18% of the sample comprised casual workers or daily laborers, followed by commercial sex workers (CSW, 17%) and people in government or private service (15%). Most of the participants (63.8%) had received only primary education or had never been to school, while 36.2% had received secondary education. With regard to marital status, 61% were married, 16.2% were unmarried, and 22.9% were separated/divorced or widowed. The majority (80%) had a monthly income of Rs. 5,000 or less (approximately US\$100 or less). Most of the participants (79.0%) were living with family members.

### Design

This study employed mixed methods design that involved both a cross sectional survey as well as semi-structured interviews that were then analyzed using a thematic analysis.

### Measures

A specially designed Semi-structured Questionnaire (Deb, 2008) – having both closed and open-ended items – was developed to generate qualitative as well as quantitative data. This instrument is available upon request from the author. It consists of five sub-sections:

Table 1: Demographic Characters of the Sample (n=105)

Variables	Frequency	%	Variables	Frequency	%
Gender			Education		
Male	63	60.0	Illiterate	38	36.2
Female	42	40.0	Primary	29	27.6
Age			Secondary	30	28.6
≤24	15	14.3	Tertiary	8	7.6
25–30	35	33.3	Marital status		
31–36	26	24.8	Married	64	61.0
≥37	29	27.6	Unmarried	17	16.2
Occupation			Separated/divorced/widowed	24	22.9
Unemployed	12	11.4	Monthly income		
Labor	19	18.1	<5000	84	80.0
Transport	12	11.4	5001-25K	12	11.4
CSW	18	17.1	No income	9	8.6
Service	16	15.2	Current address		
Business	6	5.7	Living with family members	83	79.0
Student	3	2.9	Living alone or in other places	22	21.0
Housewife	8	7.6			
Others	11	10.5			

Notes: CSW=Commercial sex worker.

- Section I: Demographic and Socio-economic Information
- Section II: Knowledge and Perception about the Disease
- Section III: Experience with HIV Testing and Participating Detection Program
- Section IV: Treatment, Care and Support
- Section V: Experience of Living with HIV/AIDS, Suicidal Tendencies, Coping Capacity, Interpersonal Relationship and Discrimination.

Discrimination was defined by the 'Yes' answer to the question: 'Did you experience any discrimination within and outside the family?' Four types of discrimination based on the place where the discrimination occurred (within the family, in the office, in the health center and in the community) were identified based on valid answers to the question: 'if yes, where did you experience any discrimination?' Some respondents may have experienced more than one type of discrimination. Respondents who reported having experienced discrimination within family were asked to describe the nature of the discrimination. Those who had encountered discrimination in a health center were further asked to provide information about the time of discrimination, responsible staff and their reactions to the discrimination received (e.g., 'If you have experienced any discrimination or negative experience in the health center, exactly when did you experience the same?').

Depression was measured using the Beck Depression Inventory – Second Edition (BDI-II) (Beck, Steer & Brown, 1996) after local adaptation was made (Roy,

2010). This is a 21-item self-report instrument for measuring the severity of depression in adults and adolescents, and is based on the criteria for diagnosing a major depressive disorder as listed in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV, 1994). The items provide multiple choices for response. Score ranges indicative of specific levels of depression are as follows: minimal (score range: 0–13), mild (score range: 14–19), moderate (score range: 20–28), and severe (score range: 29–63).

Suicidal thoughts were assessed using the question 'Did you ever feel like you wanted to commit suicide?' with a 'yes/no' response format. Suicidal attempts were defined if one had ever made at least one attempt to kill himself/herself.

### Procedure

Ethical approval was granted by the Institutional Ethics Committee, Calcutta University, India. Recruitment for the study included approaching visitors to the Integrated Counseling and Testing Center (ICTC) of the Medical College using an incidental sampling technique. The incidental sampling technique is a process to select whoever is available during clinic hour and/or field visit after obtaining information about their HIV status and voluntary consent. The HIV/AIDS affected persons visiting the ICTC were briefed about the study and its objectives, nature of the data sought and approximate time required for data collection, and confidentiality for the data collected. On obtaining an informed and voluntary consent in writing, data were

collected by using a face-to-face interview in a quiet environment. In the case of the sample selected from the NPLWHA, permission and cooperation was sought through a formal letter assuring compliance with all the ethical regulations for research. The qualitative data generated through semi-structured questionnaire was subjected to content analysis.

## Results

### Prevalence of Discrimination

Data concerning discrimination was obtained from 103 participants (presented in Table 2) as two participants declined to share any information about the discrimination they faced. Of this sample, 40.8% (42) reported having experienced any type of discrimination. It

appears that the family was the most likely setting for this discrimination (29.1%), followed by health care settings (18.4 %) the broader community (17.5%), and finally workplace discrimination being the least common setting for discrimination (6.8%).

A number of participants reported multiple types of discrimination. Among these 16 (38.1%) reported two types and 8 (19.0%) reported three types of discrimination, while 18 (42.9) reported only one type of discrimination.

### Discrimination in the Family

As shown in Table 2, family was the most common setting where discrimination occurred against the people living with HIV/AIDS. Analysis of qualitative data

Table 2: Prevalence of Various Types of Discrimination by Demographic Variables Among HIV Infected Persons in an Indian Sample (n=103)

Variables	Discrimination experienced by the HIV infected persons				
	Any	Family	Health center	Community	Work place
Total	42 (40.8)	30 (29.1)	19 (18.4)	18 (17.5)	7 (6.8)
Gender					
Male	21 (34.4)	15 (24.6)	9 (14.8)	5 (8.2)**	6 (9.8)
Female	21 (50.0)	15 (35.7)	10 (23.8)	13 (31.0)	1 (2.4)
Age					
≤24	2 (13.3)	0 (0.0)*	0 (0.0)**	2 (13.3)	0 (0.0)*
25–30	14 (40.0)	13 (37.1)	4 (11.4)	8 (22.9)	0 (0.0)
31–36	11 (45.8)	7 (29.2)	4 (16.7)	4 (16.7)	4 (16.7)
≥37	15 (51.7)	10 (34.5)	11 (37.9)	4 (13.8)	3 (10.3)
Occupation					
Labor/transport/service	14 (30.4)**	9 (19.6)**	6 (13.0)	2 (4.3)**	2 (4.3)
CSW	14 (77.8)	11 (61.1)	6 (33.3)	10 (55.6)	1 (5.6)
Unemployed	6 (50.0)	5 (41.7)	3 (25.0)	1 (8.3)	2 (16.7)
Others	8 (29.6)	5 (18.5)	4 (14.8)	5 (18.5)	2 (7.4)
Education					
Illiterate	20 (54.1)	14 (37.8)	12 (32.4)*	10 (27.0)	3 (8.1)
Primary	10 (34.5)	6 (20.7)	4 (13.8)	5 (17.2)	2 (6.9)
Secondary/Tertiary	12 (32.4)	10 (27.0)	3 (8.1)	3 (8.1)	2 (5.4)
Marital status					
Married	24 (38.1)	18 (28.6)	11 (17.5)	7 (11.1)	5 (7.9)
Unmarried	7 (43.8)	5 (31.3)	1 (6.3)	5 (31.3)	0 (0.0)
Marriage disrupted <sup>‡</sup>	11 (45.8)	7 (29.2)	7 (29.2)	6 (25.0)	2 (8.3)
Monthly income					
No income – 5,000	38 (41.8)	27 (29.7)	17 (18.7)	18 (19.8)	5 (5.5)
5001–25K	4 (33.3)	3 (25.0)	2 (16.7)	0 (0.0)	2 (16.7)
Residence					
With family	27 (32.9)**	19 (23.2)**	11 (13.4)*	8 (9.8)**	5 (6.1)
Live alone/other places	15 (71.4)	11 (52.4)	8 (38.1)	10 (47.6)	2 (9.5)

Notes: CSW=Commercial sex worker. Comparisons between groups were made using either chi-square test or Fisher's exact method as appropriate.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

<sup>‡</sup>Frequency (numbers out of brackets) and prevalence (% , values in brackets) for each type of discrimination in different demographical groups.

<sup>‡</sup>Disrupted marriage include those who are separated, divorced or widowed.



with respect to nature of discrimination experienced within the family revealed behaviors such as expressing hatred towards the infected person, using abusive language, being non-caring and non-supportive, breaking relationships with a life-partner, instigating the infected person to leave the house or to commit suicide and in-laws blaming the daughter-in-law for bringing the infection in to the family. Quotes from some of the participants, given below, provide glaring examples of different forms of discrimination experienced within the family:

*Relatives suggested that I should die. So suicide was an option. I was afraid. Did not disclose to neighbors about the correct test results to avoid social discrimination – Participant (male).*

*Disclosed the result to everybody. They behaved very badly. The family members along with neighbors motivated the landlord and drove them away from the house – Participant (male).*

*Annoyed parent, suggested for a divorce – Participant (male).*

*Mother-in-law is not a good person. Used abusive words after hearing the news. Asked to test child and refused to help. Others were also not supportive – Participant (female).*

*She is a dirty woman. She got the virus (poka). In-laws used to blame her for this virus – Participant (female).*

*Some hatred was shown from neighbors' family member – Participant (female).*

*It was a disease, family advised not to say to anyone – Participant (male).*

*Discrimination from father compelled me to leave home – Participant (male).*

### Discrimination at Health Centers

Health centers were the second most popular setting for discrimination. Discrimination occurred most often at the time of admission to the hospital and while staying in the ward – both reported by 36.8% (7/19) of the participants. Other situations where discriminatory treatment was reported included dealing with the confidentiality of the report, as reported by three out of 19 (15.8%), and testing the blood for HIV (5.3%, 1/19). Two (10.5%) did not provide any information about the occasions when they encountered discrimination in a health center. Many (36.8%, 7/19) reported more than one occasion.

Nurses, ward boys, attendants, and doctors were named as the responsible persons who displayed

discriminatory behavior, as reported by 13 (81.3%), 10 (62.5%), 10 (62.5%) and 9 (56.3%) respondents, respectively, out of the 16 respondents who provided answers. Only a small number of people viewed lab assistants (18.8%) and general duty assistants (31.3%) as the people practicing discrimination. Most respondents (87.5%, 14/16) reported two or more kinds of staff.

Nearly 80% (78.9%, 15/19) of those who experienced health center discrimination considered the medical services they received were different from the services received by other patients. A same proportion (78.9%, 15/19) of victims of discrimination believed that the discriminatory attitude of health personnel affected the medical care they provided. Approximately half (47.4%, 9/19) and 60% (63.2%, 12/19) of the discriminated stated that the medical staff who were aware of their seropositive status did not attend to them properly or did not behave properly during their visit.

The discriminated patients showed negative attitudes towards health care. Among 16 respondents with available data, half (50.0%, 8/16) reported that they withdrew from receiving treatment and care after being discriminated, 5 (31.3%) left the hospital and 3 (18.8%) refused to see doctors in the future.

### Risk Factors

Table 2 presents the prevalence of various types of discrimination across demographic factors. Although females reported facing a higher prevalence of discrimination (50.0%) than males (34.4%), the difference was not statistically significant [ $\chi^2_{(1,103)}=2.50$ ,  $p=0.114$ ]. For women, the threat for discrimination was significantly large from the community [ $\chi^2(1,103)=8.93$ ,  $p=0.003$ , Table 2]. Age was found to have a significant relationship with discrimination in the family, health center, and workplace (Fisher's exact test,  $p<0.05$ ) – with older persons generally reporting higher rates of discrimination (Table 2).

Occupation had a significant effect on the prevalence of discrimination of any type [ $\chi^2_{(3,103)}=14.05$ ,  $p=0.003$ ], discrimination in the family [ $\chi^2_{(3,103)}=13.34$ ,  $p=0.004$ ] and discrimination in the community [ $\chi^2_{(3,103)}=24.31$ ,  $p<0.001$ ], with commercial sex workers reporting substantially more experiences of discrimination than people in other occupations (Table 2). Educational level of the infected was significantly associated only with discrimination in the health center [ $\chi^2_{(2,103)}=7.86$ ,  $p=0.020$ ] with people with lower levels of education reporting higher rates of discrimination (Table 2).

There were some variations in the frequency of discrimination across marital status and income levels

(Table 2). However, the differences were not statistically significant possibly due to the small sample size.

Current residence had a significant association with all types of discrimination except discrimination at the workplace (Table 2). Participants who lived within the family consistently reported less discrimination of any kind [ $\chi^2_{(1,103)}=10.26, p=0.001$ ], family discrimination [ $\chi^2_{(1,103)}=6.91, p=0.009$ ], discrimination in the health center [ $\chi^2_{(1,103)}=6.77, p=0.009$ ] and in the community [ $\chi^2_{(1,103)}=16.62, p<0.001$ ].

### Associations of Discrimination with Depression

Depression was common in this sample. According to Beck's criteria (Beck *et al.*, 1996), 54 (52.4%) of the infected persons studied were classified as suffering from severe depression (BDI  $\geq$  29). Females reported

a slightly higher prevalence (59.5%) of depression as compared to males (47.5%), but the difference was not significant [ $\chi^2_{(1,103)}=1.43, p=0.231$ ].

Suicidal thoughts were reported by 17 (16.5%) respondents and more than half (52.9%, 9/17) of these had attempted suicide. The prevalence of suicidal attempts in the entire sample was 8.7%. Again, there were no significant differences in the prevalence of suicidal thoughts and attempts between males (18.0% and 8.2%) and females (14.3% and 9.5%).

As shown in Table 3, there were no significant associations between types of discrimination and severe depression. However, most types of discrimination were significantly associated with suicidal ideations and attempts. Despite the relatively large odds ratios (OR) many were not significant (with the value 1 in the 95% CI), especially for the adjusted OR (Table 3). The strongest associations were between discrimination in health center and suicidal attempts (adjusted OR=45.9,

Table 3: Prevalence †of Severe Depression, Suicidal Thoughts and Suicidal Attempts and Associations (OR and 95%CI) ‡with Various Types of Discrimination among HIV Infected Persons in an Indian Sample (n=103)

Variables	Severe depression	Suicidal ideation	Suicidal attempts
Total	54 (52.4)	17 (16.5)	9 (8.7)
Any discrimination			
No	29 (47.5)	6 (9.8)*	1 (1.6)**
Yes	25 (59.5)	11 (26.2)	8 (19.0)
OR (95% CI)	1.6 (0.7–3.6)	3.3 (1.1–9.7)	14.1 (1.7–117.7)
Adjusted OR (95% CI)	1.7 (0.7–4.1)	3.5 (0.8–15.0)	9.1 (0.8–109.9)
Discrimination within family			
No	36 (49.3)	8 (11.0)*	3 (4.1)*
Yes	18 (60.0)	9 (30.0)	6 (20.0)
OR (95% CI)	1.5 (0.7–3.7)	3.5 (1.2–10.2)	5.8 (1.4–25.2)
Adjusted OR (95% CI)	1.6 (0.6–4.0)	4.6 (1.1–20.4)	3.5 (0.6–20.7)
Discrimination in Health Center			
No	42 (50.0)	10 (11.9)**	3 (3.6)**
Yes	12 (63.2)	7 (36.8)	6 (31.6)
OR (95% CI)	1.7 (0.6–4.8)	4.3 (1.4–13.5)	12.5 (2.8–56.1)
Adjusted OR (95% CI)	1.9 (0.6–6.5)	8.0 (1.4–44.3)	45.9 (2.7–778.8)
Discrimination in community			
No	44 (51.8)	12 (14.1)	5 (5.9)*
Yes	10 (55.6)	5 (27.8)	4 (22.2)
OR (95% CI)	1.2 (0.4–3.2)	2.3 (0.7–7.8)	4.6 (1.1–19.1)
Adjusted OR (95% CI)	0.8 (0.2–2.8)	3.2 (0.4–27.0)	2.1 (0.2–20.0)
Discrimination at Workplace			
No	51 (53.1)	16 (16.7)	8 (8.3)
Yes	3 (42.9)	1 (14.3)	1 (14.3)
OR (95% CI)	0.6 (0.01–3.1)	0.8 (0.1–7.4)	1.8 (0.2–17.2)
Adjusted OR (95% CI)	0.9 (0.2–4.6)	0.8 (0.1–10.0)	1.9 (0.1–32.3)

Notes: OR=Odd ratio; CI=Confidence interval.

Comparisons between groups were made using either chi-square test or Fisher's exact method as appropriate. \*  $p<0.05$ ; \*\*  $p<0.01$ .

†Frequency (integer numbers out of brackets) and prevalence (%), single values in brackets) for each mental health problem among the discriminated and non-discriminated HIV infected persons.

‡OR and 95% CI were calculated using logistic regressions with individuals who have not experienced discrimination as reference group. Adjusted OR and 95% CI were controlled for gender, age, occupation, education, family income and residence type.

95% CI: 2.7–778.8) and suicidal ideation (adjusted OR=8.0, 95% CI: 1.4–44.3, Table 3).

The results of multiple logistic regressions for three mental health outcomes with four types of discrimination and dummy coded demographics as independent variables are shown in Table 4. Again, no significant association was found for any independent variable and severe depression. For suicidal ideation, discrimination within family (OR=6.3, 95% CI: 1.0–40.5), discrimination in the health center (OR=7.4, 95% CI: 1.2–46.3), occupation being labor, transportation worker or service (OR=65.3, 95% CI: 2.7–1595.9) and live alone or in places other than family (OR=13.4, 95% CI: 1.4–125.2) were significant. For suicidal attempts, only discrimination in the health center, occupation being labor, transportation worker or service (OR=140.7, 95% CI: 2.9–6939.1) and live alone or in places other than family (OR=486.1, 95% CI: 3.8–62014.8) were significant.

The data also indicated a clear dose–response relationship between the number of discriminatory experiences and suicidal thoughts and attempts (Fig. 1). Compared to those who did not experience any discrimination, the OR (95% CI) for 1–3 types of discrimination for suicidal thoughts were 1.8 (0.4 – 8.2), 4.2 (1.1 – 16.1) and 5.5 (1.1–29.0), respectively; and for suicidal attempts were 7.5 (0.6 – 88.0), 13.8 (1.3–143.9) and 36.0 (3.1–413.1), respectively. When all demographics were controlled, the OR (95% CI) for 1–3 types of discrimination for suicidal ideation were 1.5 (0.2 – 10.9), 6.6 (1.0 – 43.6) and 29.1 (1.4 – 603.7), and for suicidal attempts were 5.0 (0.3 – 87.4), 11.9 (0.7 – 200.2) and 37.1 (1.0 – 1325.1), respectively. No significant relationship

was observed between either the number of discriminatory experiences faced or the types of discrimination and severe depression.

## Discussion

The findings reveal that two-fifths of the HIV infected persons studied from the West Bengal area experienced discrimination in either one or multiple social settings: the family, community, health centers or workplace. This suggests that HIV/AIDS-related discrimination may be a common experience in this part of India. This is highlighted by a shocking incident was reported in Howrah, a few kilometers from Kolkata, where following the death of an HIV infected truck driver, the neighbors refused to grant him a proper cremation – claiming it would pollute and infect the entire area (Das, 2010).

In this study the family was the major source of discrimination, followed by the health center, community, and work place. Findings with respect to discrimination within the family are contradictory to the findings of some of the previous studies in other cultures which showed supportive attitudes of the family towards the HIV infected persons (Ankrah, 1993).

In-depth analysis of qualitative data highlights different forms of discrimination within the family like rejection, threat of divorce, hatred, scolding, rejection, and instigation for committing suicide or leaving home. These findings are consistent with some of the

Table 4: Results of Multiple Logistic Regressions for Severe Depression, Suicidal Thoughts and Suicidal Attempts Among a Sample of HIV Infected Persons in India

Independent variables	Severe depression	Suicidal ideation	Suicidal attempts
Discrimination within family	1.8 (0.6–5.5)	6.3 (1.0–40.5)*	3.6 (0.4–36.3)
Discrimination in health center	1.9 (0.5–6.7)	7.4 (1.2–46.3)*	140.7 (2.9–6929.1)*
Discrimination in community	0.6 (0.2–2.5)	1.0 (0.1–13.4)	0.2 (0.0–8.0)
Discrimination at workplace	0.5 (0.1–3.1)	0.2 (0.0–4.4)	0.5 (0.0–33.0)
Gender (female)	1.4 (0.5–3.8)	0.4 (0.1–2.6)	0.2 (0.0–6.0)
Age (31–36 years) <sup>†</sup>	0.8 (0.3–2.4)	1.2 (0.2–7.6)	7.9 (0.2–268.7)
Age (37 years and older) <sup>†</sup>	0.5 (0.2–1.7)	0.3 (0.0–2.7)	0.1 (0.0–10.9)
Occupation (labor/transport/service) <sup>‡</sup>	1.9 (0.6–5.5)	65.3 (2.7–1595.9)*	20.5 (0.2–2202.1)
Occupation (CSW or unemployed) <sup>‡</sup>	0.9 (0.3–3.0)	2.9 (0.2–52.7)	4.0 (0.1–229.5)
Education (primary or illiterate)	1.2 (0.5–3.0)	0.9 (0.2–4.0)	0.1 (0.0–2.9)
Marriage (separated/divorced/widowed)	1.8 (0.6–5.7)	4.8 (0.6–36.0)	5.3 (0.1–201.8)
Income (no income – 5000)	0.9 (0.2–3.5)	0.4 (0.0–3.1)	36.3 (0.2–6949.7)
Residence (live alone or in places other than family)	1.5 (0.5–4.8)	13.4 (1.4–125.2)*	486.1 (3.8–62014.8)*

Notes: OR=Odd ratio; CI=Confidence interval; CSW=Commercial sex worker; n= 103.

<sup>†</sup>Reference group was those aged 30 years or younger.

<sup>‡</sup>Reference group was those in occupations other than labor/transport/service and CSW or unemployed.

\*Test for regression coefficient,  $p < 0.05$ .



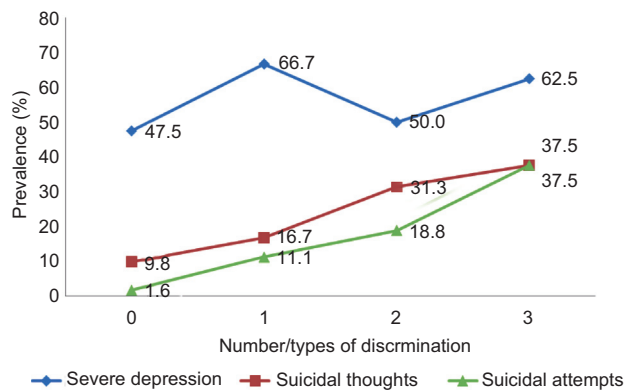


Fig. 1. Prevalence (%) of mental health measures by types of discrimination experienced by HIV infected persons in an Indian sample (n=103).

earlier studies in India (Bharat, 1999; Bharat *et al.*, 2001). These negative experiences create tremendous mental pressure and hopelessness in the HIV infected persons, which finally leads to depression and suicidal ideations.

At the same time, in the health centers in Kolkata, HIV infected persons encounter discrimination at the time of admission, during their stay in the ward, during blood testing and regarding maintaining the confidentiality of the report. Nearly half of the HIV infected persons studied reported discriminatory communication/conversation style by some of the health attendants in the hospital after disclosure of their seropositive status. In some cases, family members experienced discrimination while discharging the patient from the hospital.

The health workers named responsible for discriminatory behavior included nurses, ward boys, attendants as well as doctors. The results are consistent with the findings of Mwinituo and Mill (2006) – negative attitudes towards people living with HIV and AIDS could lead to social exclusion of the person as well as of the caregiver, and sensitization is necessary to reduce discrimination against HIV infected persons.

So far as risk factors across demographic variables are considered, females report a higher discrimination from the community than do males – a trend expected in a patriarchal society like India. Interestingly there was no gender difference in the frequency of discrimination within the family, health centers or at the workplace. Age was also related to discrimination within the family, health center, and workplace – with the older persons being more likely to experience discrimination than younger persons. In addition, occupation had a significant effect on the prevalence of any type of discrimination, as commercial sex workers reported substantially more discrimination in different social

settings than did HIV infected persons coming from other occupations. HIV infected persons who were illiterate experienced significantly greater discrimination in the health centers than did their counterparts with higher levels of education. Current residence had a significant association with all types of discrimination except discrimination at workplace. HIV infected persons who lived within the family reported experiencing less discrimination than infected persons living on their own – since the presence of family members during visits to health centers may have discouraged discrimination by others. These findings are corroborated by some of the latest studies that cite low socioeconomic status, poverty, and unemployment as major factors causing delay in accessing care by HIV-infected persons (Louis, Ivers, Smith Fawzi, Freedberg & Castro, 2007; Joy *et al.*, 2008; Kiwanuka *et al.*, 2008).

Although HIV infected persons more often experienced discrimination at home, discrimination in the health centers seemed to contribute more to mental problems among HIV infected persons. Multiple logistic regressions showed that discrimination at home and in health care centres was significantly associated with both suicidal ideation, while discrimination in health care centres was associated with suicide attempts. This finding requires special attention of the counselors and the authorities of the health centers. A number of previous studies in India highlighted that individuals with HIV/AIDS in India experience discrimination and stigma, which affects their access to health care, testing, disclosure, treatment adherence, and prognosis (Mahendra *et al.*, 2007; Steward *et al.*, 2008; Thomas *et al.*, 2009; Rahangdale *et al.*, 2010). This discrimination often puts them under great mental pressure, which may often lead them to suicide (Gala *et al.*, 1992; Rabkin, Remien, Katoff & Williams, 1993). Decreasing stigma and providing psychosocial support would help people living with HIV/AIDS utilize effective coping strategies to deal with the negative aspects of the infection (Kabbash, El-Gueneidy, Sharaf, Hassan & Al-Nawawy, 2008). Therefore, health policy makers should take this issue seriously and take appropriate measures to stop any sort of discrimination in the health centers.

These findings should be interpreted in the light of some limitations. The study is based on a sample drawn from only one major hospital and one Network of HIV/AIDS infected people. The small sample size limits the application and generalization of our findings. The statistical power is low regardless of the relatively large effect size (odds ratios). For example, using a power analysis tool (G\*Power: Faul, Erdfelder, Buchner & Lang, 2009), the post hoc power to detect a significant binary association between any discrimination and severe depression with an OR of 1.6 (Table 3) is 55% and it reduces to 40% when demographic variables

were controlled. This can also be reflected by the large confidence intervals in the multiple logistic regressions. Therefore, the lack of significance in many associations between discrimination and mental health measures may be due to the small sample size and should not be interpreted as non-existence of associations. There is a need to carry out another study with a large sample covering clients from different hospitals and different Networks of people living with HIV/AIDS.

Another limitation was the language barrier for some patients. Although data were collected using the face to face interview method, since most of the patients were either illiterate or poorly educated, or came from neighboring states with different mother tongues, sometimes it was difficult to help them understand the meaning of a question. It is relevant to mention here that India is a multi-lingual country and even within the same community there are different dialects and mother tongues. A good number of patients came from distant places and other states as migrant labor with different languages and dialects.

### Implications

The results highlight a need for family counseling services to ensure family support for the clients. Associated with this there is a need for anti-stigma programs to decrease the stigma and discrimination experienced in families. There is also need to conduct programs to reduce stigma and discrimination in health care centres. Innovative community education strategies should also be explored, experimented with and implemented through grass-root level organizations. In community awareness programs and

training of health professionals, higher learning institutes should also be involved for conducting research and for organizing effective training programs. The recent experiment by the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) to achieve national mission for HIV prevention is a good example of this, where involvement of higher learning institutes is found to be fruitful in organizing professional training programs for counselors.

### Conclusion

About two-fifths of the people living with HIV/AIDS studied experienced discrimination in different social settings. Family was the most common source of discrimination, followed by health centers, community, and workplace. A number of risk factors were associated with discrimination – such as gender, age, occupation, education, and current residence. More than half of the sample were suffering from severe depression. Suicidal ideation was reported by 17 while nine had attempted to commit suicide. The prevalence of people who had attempted suicide in the entire sample was 8.7%. Although no significant associations were found between types of discrimination and severe depression, most types of discrimination were significantly associated with suicidal ideations and suicidal attempts.

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