RESEARCH ARTICLE

PERCEPTIONS AND OUTLOOK TOWARDS HIV/AIDS AMONG REPRODUCTIVE AGE GROUP OF URBAN SLUM POPULATION

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ABSTRACT
Background: Acquired Immunodeficiency Disease Syndrome (AIDS) has evolved into a pandemic affecting millions of people worldwide. The global HIV/AIDS epidemic has had a major detrimental impact on high risk group and general population leading to morbidity and mortality.
Aims & Objective: To assess the perceptions and attitude among reproductive age group of urban slum population towards HIV/AIDS.
Materials and Methods: This was a Community Based Cross Sectional Study carried out in the urban slums, field practice area of Community Medicine attached to a tertiary care hospital. The study was conducted by interviewing general population in the reproductive age group for four months in the urban slums using pre-designed and pre-tested proforma.
Results: A total of 188 were interviewed. Out of which 48.94% were more than 35 years of age. 51.59% were housewives and belonged to middle class families. 80.85% were aware about sexual transmission and 67.18% opined that it can be prevented by using condoms. Literates were more aware about HIV/AIDS, when compared to illiterates, which was statistically significant ($p<0.05$). However, majority of them lacked the knowledge of risks associated with breastfeeding by HIV positive mothers.
Conclusion: Thus, impetus has to be laid upon awareness and counselling regarding HIV/AIDS at all levels of health care. Integrated Counselling Testing Centres (ICTC) should be made available at all the hospitals, so as to heighten the knowledge of facilities available at a negligible cost, to lead safer and better life.
Key Words: Attitude; Awareness; HIV/AIDS; Literacy; Slums; Reproductive Age Group

Introduction

Acquired Immunodeficiency Deficiency Syndrome (AIDS) was first reported in the world from a group of homosexual men in North America in 1981. A couple of years later, Human Immunodeficiency Virus (HIV) was discovered as the causative organism leading to AIDS.[1] With an ephemeral background of just 30 years, the pandemic has evolved to infect almost 75 million people worldwide, and to slay about 36 million people.[2]

HIV/AIDS has been reported from all parts of the globe with Sub-Saharan Africa and parts of Asia being the worst affected areas.[1] Five high priority countries in South East Asian Region (SEAR) which account for 99% of the HIV burden include India, Indonesia, Myanmar, Nepal and Thailand.[3] Although overall prevalence of HIV infection remains low in India, even relatively minor increases in HIV infection rates in a country of more than one billion people translates into large number, making India second among highest HIV burden countries of the world.[4]

The Government of India estimates that about 2.5 million Indians are living with HIV with an adult prevalence of 0.41%. Children (less than 15 years of age) account for 3.5% of all infections, while 83% are in age group of 15 to 49 years.[4] India's highly heterogeneous epidemic was born with the detection of first case in Chennai in 1986 in a commercial sex worker[1] and since then has shown to be concentrated largely in only a few states - in industrialized south-west, and in north-east. The four high prevalent states of South India (Andhra Pradesh: 500,000, Maharashtra: 420,000, Karnataka: 250,000 and Tamil Nadu: 150,000) account for 55% of all HIV infections in the country.[4]

The management of this epidemic is currently off human comprehension. With so much research already being done on the pathogenesis of this virus and most modes of transmission already being established, the increase in awareness of this disease is not on par with the spread of this disease.[5] The lack of knowledge about the modes of transmission leads to stigma and discrimination against the People Living With HIV/AIDS (PLWHA), and this in turn could further accelerate the spread of the virus, given that fear of stigma and ostracism would cause PLWHA to conceal their status. Additionally, the low levels of knowledge resulting in the general population not being aware about the methods of reducing risk of HIV infection has been one of the factors responsible for spread of HIV infection in South Asian countries.[5,6]

This situation is further worsened by epidemiological transition taking place in developing countries, which is characterized by urbanization, industrialization and globalization. Urbanization is a worldwide trend, but the increasing inability of developing countries to respond to this situation has been noted with the mushrooming of urban slums.[7] India is home to 63% of all slum dwellers in South Asia, amounting to 169 million people.[8] Low literacy level, migration, poor quality housing, overcrowding, unsafe water and inadequate sanitation are inherent attributes of slum areas.[9] India has now ventured into type 4 pattern of AIDS epidemic, which shifts from high risk group to the bridge population (migrants being notable contributors)[3] and then to general population as a whole.[10] Earlier, studies done in urban slums have revealed extremely limited acknowledgement (let alone understanding of symptoms and preventive measures) of HIV/AIDS amongst slum dwellers.[11] Also, most of the studies taken up to date, had concentrated on high risk groups or some single key population groups such as school children or adolescents or prisoners.[12] Hence, we attempted to study the perceptions and attitude of general population in the reproductive age group residing in the urban slums towards HIV/AIDS.

Materials and Methods

The present study design was community based, cross-sectional study, which was carried out among adults of reproductive age group (15-45 years of age), which happens to be sexually and economically the most productive age group. The study was conducted in the urban slums, field practice area of Urban Health Centre, attached to a tertiary care hospital, which provides quality primary health care to the urban slum dwellers and the population of nearby catchment area. The ethical clearance for the study was obtained from Institutional Ethics Committee of the tertiary care hospital.

As per sample registration system statistical report 2010, the percentage of population accounting to 15 to 45 years age group was recorded to be 49.2%.[13] The sample size of 188 at 5% alpha error, was calculated using the formula $4pq/L^2$, with permissible error taken as 15%.[14]

A pre-study survey was conducted for a month to assess the feasibility of using pre-designed proforma, which when found to be satisfactory, was followed by the present study which was conducted for a period of four months from September 2013 to December 2013.

Individuals who were willing to participate voluntarily were explained the need and importance of the study and an informed written consent was obtained. Confidentiality was assured before the start of data collection. House to house survey was done using convenient and systemic random sampling (every 5th house considered). Data was collected by interviewing, only one member from each house (considered as representative of the family). The pre-designed and pre-tested proforma was used to collect information on socio-demographic characteristics like age, occupation, literacy status, socioeconomic status (SES, Modified B.G Prasad Classification 2012)[15], knowledge regarding modes of transmission and attitude towards People Living With HIV/AIDS (PLWHA).

Descriptive statistics were applied and data was analyzed using proportions and percentages. Chi-square test was used to find the association between different attributes. Statistical significance was set at 0.05% level of significance ($p < 0.05$).

Results

A total of 188 adults belonging to 15 to 45 years of age were interviewed, with a mean age of 34.32 years. The study population comprised of 82 (43.62%) males and 106 (56.38%) females. Among the total 188 individuals interviewed, majority 92 (48.94%) were aged more than 35 years of age, while the age group of 15 to 19 years contributed least with only 15 (7.98%) participants belonging to this group. On the basis of gender, of the total study population, 82 (43.62%) were males and 106 (56.38%) were females. Majority of the participants 75 (39.89%) had education up to primary as compared to only 11 (5.85%) graduates. Most of them were housewives 97 (51.59%) and 87 (46.28%) belonged to middle class families. The socio-demographic characteristics of the study participants are given in table 1.

When source of information on HIV/AIDS was enquired, television was a common channel, with majority participants 117 (62.23%) quoting it as the main source, followed by 66 (35.11%) participants who received the information from others (family members, friends and healthcare providers). The least contribution was made by advertisements as the source of information in case of only 18 (9.57%) participants.

Table-1: Socio-demographic characteristics of study participants (N = 188)

Socio-Demographic Characteristics		N (%)
Age in years	15 – 19	15 (7.98)
	20 – 24	32 (17.02)
	25 – 29	32 (17.02)
	30 – 34	17 (9.04)
	≥ 35	92 (48.94)
Gender	Males	82 (43.62)
	Females	106 (56.38)
Education Status	Illiterates	51 (27.13)
	Primary	75 (39.89)
	High School	37 (19.68)
	Intermediate	14 (7.45)
	Graduate/Above	11 (5.85)
Occupation	Housewife	97 (51.59)
	Private Service	41 (21.81)
	Government Service	5 (2.66)
	Labourers/Agriculturists	45 (23.94)
Socio-Economic Status*	Class I	7 (3.72)
	Class II	19 (10.11)
	Class III	87 (46.28)
	Class IV	61 (32.44)
	Class V	14 (7.45)

* Modified B. G. Prasad Classification – 2012

Table-2: Knowledge regarding information on HIV/AIDS* (N = 188)

Information		N (%)
Sources of Information	Television	117 (62.33)
	Papers	43 (22.87)
	Advertisements	18 (9.57)
	Others	66 (35.11)
Modes of Transmission	Breast feeding	9 (4.79)
	IV abusers /share needles	28 (14.89)
	Mother to child	77 (40.96)
	Blood transfusion	110 (58.51)
	Sexual contact	152 (80.85)
Symptoms	Loss of weight	118 (62.77)
	Prolonged fever	88 (46.81)
	Continuous diarrhoea	34 (18.09)
	Others	15 (7.98)
Laboratory Diagnosis	Blood test	153 (81.38)
	Urine test	28 (14.89)
	Stool test	0 (0.00)
	Sputum test	0 (0.00)

* Multiple responses

Table-3: Knowledge regarding prevention on HIV/AIDS

Knowledge Regarding Prevention		N (%)
Prevention (N = 188)	Can be prevented	131 (69.68)
	Cannot be prevented	6 (3.19)
	Don't know	51 (27.13)
Methods of Prevention* (N = 131)	Avoid sharing needles	15 (11.45)
	Avoid breastfeeding	3 (2.29)
	Avoid unsterilized needles	27 (20.61)
	Avoid multiple sexual partners	62 (47.33)
	Use of condoms	88 (67.18)

* Multiple responses

Table-4: Attitude towards HIV/AIDS patients (N = 188)

Attitude Towards Patients		N (%)
Marriage	Yes	59 (31.38)
	No	103 (54.79)
	Don't know	26 (13.83)
Conception	Yes	26 (13.83)
	No	95 (50.53)
	Don't know	67 (35.64)
Breastfeeding	Yes	19 (10.11)
	No	88 (46.81)
	Don't know	81 (43.08)

Table-5: Comparison of literacy status with modes of transmission

Modes of Transmission		Illiterates (n=51) N (%)	Literates (n=137) N (%)	Significance
Breast feeding	Yes	1 (1.96)	8 (5.84)	$\chi^2 = 1.227$; df = 1; p = 0.2681; Not significant
	No	50 (98.04)	129 (94.16)	
IV drug use/ Needle sharing	Yes	2 (3.92)	26 (18.98)	$\chi^2 = 6.647$; df = 1; p = 0.0099; Highly significant
	No	49 (96.08)	111 (81.02)	
Mother to child	Yes	11 (21.57)	66 (48.18)	$\chi^2 = 10.880$; df = 1; p = 0.0010; Highly significant
	No	40 (78.43)	71 (51.82)	
Blood transfusion	Yes	21 (41.18)	89 (64.96)	$\chi^2 = 8.662$; df = 1; p = 0.0032; Highly significant
	No	30 (58.82)	48 (35.04)	
Sexual contact	Yes	30 (58.82)	122 (89.05)	$\chi^2 = 21.934$; df = 1; p < 0.0001; Highly significant
	No	21 (41.18)	15 (10.95)	

Among the various modes of transmission, 152 (80.85%) participants believed that sexual contact was the most common mode of contracting HIV/AIDS, followed by blood transfusion as believed by 110 (58.51%) of the participants. Only 9 (4.79%) participants thought that HIV/AIDS could spread through breast feeding by HIV positive mothers.

Loss of weight was the most common symptom known to 118 (62.77%) participants, while prolonged fever and continuous diarrhoea were other common symptoms cited by 88 (46.81%) and 34 (18.09%) of the participants respectively. 153 (81.38%) participants were aware that diagnosis of HIV/AIDS was carried out by blood examination as compared to 28 (14.89%) participants, who thought that urine could also be a source to diagnose the disease in an individual. The details regarding various information regarding HIV/AIDS are given in table 2.

Among the 188 participants, 6 (3.19%) thought that HIV/AIDS could not be prevented, while 51 (27.13%) did not know about its prevention. Preventable nature of the disease was popular in 131 (69.68%) participants, with use of condoms thought to be the most common method of prevention by 88 (67.18%) of the participants. Nearly half, 62 (47.33%) of the participants opined that avoidance of multiple sexual partners could be another important mode of prevention. Knowledge regarding various methods of prevention among the study participants is explained in table 3.

Majority of the participants had conformist attitude towards PLWHA, with 103 (54.79%) of the participants believing that they should not marry, while 95 (50.53%) thought that conception by PLWHA was not feasible and 88 (46.81%) considered that HIV positive mothers should not breastfeed their children. Attitude towards HIV/AIDS patients among the study population is explained in table 4.

The level of literacy played a significant role ($p<0.05$) in understanding and awareness regarding the various modes of transmission of the disease, with literates being satisfactorily informed as compared to illiterates, regarding the spread of the disease by blood transfusion ($\chi^2=8.662$, df=1, p=0.0032, highly significant) and sexual contact ($\chi^2=21.934$, df=1, $p<0.0001$, highly significant). Literates were better informed than illiterates about the effect of IV drug abuse on the proliferation of the disease and also about the vertical route of transmission. However no significant difference ($\chi^2=1.227$, df=1, p=0.2681, not significant) was seen between the two groups when breastfeeding as a mode of transmission was assessed. Comparison of literacy status with various modes of transmission is explained in table 5.

Discussion

The present study aspired to assess the knowledge and attitude of adult slum population towards HIV/AIDS, with an effort to generate awareness about HIV/AIDS and to make them aware of various facilities available for counselling and testing at various hospitals.

The present study highlights that the knowledge of the participants regarding the disease, its modes of transmission, symptoms of the disease, its diagnosis and prevention was average, providing a window of opportunity for Information, Education and Communication (IEC) activities to be implemented.

The mean age of our study participants was found to be 34.32 years. Of the total 188, 43.62% were males and 56.38% were females. The higher number of female participants could be attributed to the fact that more number of females were available during house to house survey as compared to males, who were at work. The overall literacy level was 72.87%, which was higher compared to a similar study done in slums of Chennai by Kalasagar M[5], where the literacy level was found to be 64%. The comparatively high level of literacy could be due to universalization of education and increased awareness regarding importance of education among the study participants. Illiteracy was seen in 27.13% of the study group, which was similar to that noted in a study done in Hyderabad by Sudha RT.[12]

Urbanization though with unpleasant effects, has blessed us with the boon of technological revolution, which has enabled easy accessibility to various sources of mass media communication. A similar study done by Zaman FA[16] among urban slum dwellers of Dibrugarh, Assam, showed that television was the most common source of information from where HIV knowledge was obtained, which was akin to our study finding. Next important sources of information in our study were family members, friends and healthcare providers as per 35.11% of our study participants, similar to that seen in the study done in Vadodara by Kotecha PV.[17]

The participants had fair knowledge regarding the modes of transmission, with sexual contact being cited as the most common route by 80.85% of the participants, followed by blood transfusion by 58.51% of the participants. Awareness regarding breastfeeding as a potential route of HIV transmission was poor and was known to only 4.79% of the participants. An analogous study done by Sudha RT[12] also showed that only 43.25% of the study subjects were aware of the spread of HIV through breast milk as compared to other routes of transmission known by more than 75% of the subjects. This could be attributed to the fact that breastfeeding as a route of transmission is observed to be less significant and hence has received less publicity compared to other modes of transmission, because in a developing country like India the benefits of breastfeeding outweigh the risk of transmission through breast milk.

The knowledge about loss of weight being an important symptom of HIV followed by prolonged fever and continuous diarrhoea was disparate compared to the findings of a similar study done by Kalasagar M[5] in which only 26% of the study group were aware about the possible symptoms of HIV/AIDS. This disparity in knowledge could be attributed to the low illiteracy level seen in our study as against 36% level of illiteracy seen in the comparative study. The diagnosis of HIV/AIDS by blood examination was acclaimed by majority of participants in our study, while 14.89% thought that urine could be analyzed for diagnosis.

HIV/AIDS was found to be amenable for aversion by majority (67.18%) of the participants, use of condoms (67.18%) being the most common mode of prevention quoted, followed by avoidance of multiple sexual partners (47.33%) and use of sterilized needles (20.61%). Comparable findings were noted in the study done by Kotecha PV.[17]

Misconceptions and myths were well documented among the study participants, with more than half of them believing that PLWHA should not marry and should not conceive, while 46.81% believed that HIV positive mother should not breastfeed the child. These theories of

falsehood form the basis for stigmatization and discrimination. Stigma makes the disease more difficult to discuss and harder to deal with.

Our study showed that literacy played a significant role in the understanding the various modes of transmission of HIV/AIDS. This shows that even primary schooling has beneficial effect on improving knowledge and understanding regarding various aspects of HIV/AIDS.

Conclusion

Our study shows that the adult population in urban slums has inadequate knowledge regarding the modes of transmission and is besieged by many myths and misconceptions brought forward by their attitude towards PLWHA. This exemplifies that the conventional IEC activities have barely had any impact on the slum dwellers. Furthermore, illiteracy was found to be significantly associated with poor knowledge of HIV/AIDS in our study. This reaffirms the necessity of specially designed, targeted interventions such as street plays which may prove to be useful even in case of illiterate population. There is also a need to relay the bearing of breastfeeding on transmission of HIV/AIDS. The concept of discussing issues of sexual behavior and STDs, which is considered forbidden in the conservative setup of India, needs to be expunged by promoting awareness by newer initiatives like 'each one teach ten', thus instilling among individuals a sense of personal responsibility in curbing the epidemic of HIV/AIDS.

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