AIDS awareness in an Indian metropolitan slum dweller: A KAP (Knowledge, Attitude, Practice) study

INTRODUCTION

Come 2007 and the 60 millionth individual of this planet would have got infected with HIV totally unaware of his vulnerable state. With 5 million new cases being recorded every year, the management of this pandemic is currently off human comprehension (1). With so much of probing already being done on the pathogenesis of this virus and most of the modes of transmission already being established, the increase in awareness of this disease is not on par with the spread of this disease.

India alone is hosting a whopping 4.2 million cases (2). Taking into account even the unreported and the undiagnosed cases, the count in India would be around 1.2 million which is nearly 0.1% of the nation's population. A number of secondary bacterial, fungal, and viral pathogens invade the host magnifying the morbidity and costing the number of effective living years.

The incidence of HIV can be made zero percent if the problem of prostitution is tackled (3). Prostitution is considered to be a main cause of HIV both as a first line of infection from brothel to a customer and as a second line of infection from husband to an innocent wife (4, 5). Targeted interventions on brothel based on CSWs did show a certain success but again the illegal nature of commercial sex in the country makes the identification of the target population very challenging (6).

Three papers published in “The international journal of STD and AIDS” take a radical view according to which 48% of new HIV are because of unsafe needles and that unsafe injections spread more HIV than unsafe sex (7). The view of doctor as the “Second God” and to take whatever he gives, is still standing the test of time in the hearts of the poor and illiterate people. This may be a risk factor with a medical practitioner not using a disposable syringe for his patients.

Many people of south India of various religions undergo periodic tonsuring as a part of religious practices. Few of the many reasons for this happens to be the first birth day, a restored health of a family member, a new job, and the like. This may be devastating if the subject is unaware of the serious complications of an infected barber’s blade.

HIV is a potential source of TB particularly in the Indian sub-continent. An AIDS patient being thrown out of the village is an every day story in the Indian newspapers. That is the magnitude of stigma attached to this disease.

With a host of conventional ethnic medical practices and the false promises of treatment and guarantee given by the quacks for quick money, a new dimension to the spread of the disease may take its shape.

Even today AIDS vaccine is not a reality and ARVs are restricted only for an advanced stage and after a thorough patient counseling.

Southern parts of India have been recording a very high rate of literacy with a few areas crossing 90% in serial demographic statistics over the decades. So we have herein made an attempt to find out HIV/AIDS awareness among slum dwellers within Chennai city metropolitan limits.
Table 1: Questionnaire used in the study

1. Do you know what AIDS is?
   1- yes, 2- no, If yes; What is the nature of the disease?
   1- Infectious, 2- Hereditary. (Positive awareness if 1)
2. How does it spread?
   (positive awareness if the answer is sexual transmission or infected needle)
3. Does it spread by air/water/fomites/contact/ droplets/ mosquito bite?
   (positive awareness if the answer is no)
4. When do you suspect AIDS?
5. Is there a treatment for AIDS?
6. What is the outcome of the disease?
   (Is it a fatal and devastating or a chronic disease like HTN or DM?)
7. What syringe do you use when you visit a doctor?
8. Do you ask for a change of blade at a barber's?
9. Should an AIDS patient be outcast?

MATERIALS AND METHODS

1. Population and sampling
2. Data collection

Population and sampling

The data were specifically targeted on slum dwellers, who form a considerable proportion of the general population.

The survey was conducted on a representative city sample of 650 subjects aged 15-45 years which happens to be sexually and economically the most productive age group.

Two stage cluster sampling was used. In the first stage five different localities in various parts of the city were randomly selected. In the second stage four to five slums within each locality were selected randomly. Not more than 20 to 30 were interviewed in each slum to avoid bias from cross information exchange with the first set of interviewed people.

Data collection and data analysis

Data was collected by means of a questionnaire in local Tamil dialect (Table 1) and administered by 11 field workers. Four of the volunteers were males and seven were females, all being junior residents. Questioning of the opposite sex was avoided to eliminate any sort of confounders due to the stigma attached to the disease. Extensive training on the objectives of survey sampling methods and administration of questionnaire was given to avoid inter and intra examiner bias.

The study was conducted within Chennai city metropolitan limits. Slum dwellers were identified among a PHC out patient lot, workers at construction sites, and a direct door-to-door interview in slums. 650 subjects comprising of 400 females and 250 males, all in the age group of 15-45 yrs (economically and sexually most productive age group) were selected by random sampling procedure and were interviewed by a structured interview questionnaire.

Most of the questions were selected because of their pertinence to this geographical region as discussed above and were framed to assess the KAP criteria - knowledge, attitude, and practice. Information was obtained on the following matters:
1. Sociodemographic matters: Age, gender, literacy, place of residence, and occupation.
3. Practices regarding the use of disposable needles and a new blade at a barber's shop and attitudes towards an AIDS afflicted patient.

Care was taken to ensure that none of the questions were of the leading type. For instance, “How does AIDS spread?” rather than “Does AIDS spread by sexual contact?” Likewise for a complete assessment, even misleading questions were included “Does AIDS spread by mosquito bite?” A subject answering in positive indicated an incomplete awareness. Each subject was interviewed privately and were explained the importance of an honest answer.

RESULTS

Socio-demographic factors

Age

Those individuals above 15 and below 45 yrs of age were retained in the study as most of the older people were dependent, restricted to house, and mostly are uninformed about the disease process.

Literacy

70% of the males and 60% of females were literate with an overall literacy rate of 64%.

The questionnaire

What is AIDS?

80 % of males and 89 % of females could recognise it as a disease and the rest either never heard of it or gave a weird answer like a 'Periodical' or a 'TV serial'. All the 20% of males and 11% of females who never knew about AIDS were illiterates.

What is the nature of the disease?

Up to 34% of males and 50% of females considered AIDS to be a hereditary disease also.

How does it spread?

Only 67% of the males and 55% of the females were aware of the sexual mode of transmission.

Does AIDS spread through contact / contaminated water / air / mosquito bite / fomites?

A whopping 45% of males and 62% of females considered even these as modes of transmission reflecting a lack of complete understanding of the modes of the spread of disease.

When do you suspect AIDS?

Only 30% of males and 22% of females know about the possible symptoms of AIDS.

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Is there a treatment for AIDS?
56% of males and 71% of females feel that AIDS can be treated with either costly medicines or at least by a traditional herbal medicine. This may to some extent cause a false sense of security and add to the spread of the disease.

What is the outcome of the disease?
Only up to 10% of the subjects clearly stated that AIDS cannot be treated but can be made as a chronic disease like DM or HTN with proper medication. The rest either stated that AIDS is a potentially fatal disease or that it can be completely treated by a traditional medicine or costly allopathic medicines.

What syringe do you use when you visit a doctor?
30% of males and 45% of females never ask for a new syringe if not provided as they are totally unaware of its significance.

Do you ask for a change of blade at a barber's shop?
43% of males and 78% of females do not know about the risk of a barber's blade.

Should an AIDS patient be outcast?
48% of males and 60% females prefer outcasting an AIDS patient from the slum. The false concept of mosquito bite or contact spreading AIDS may be responsible for this attitude. This may prevent those affected with AIDS to reveal their disease and thereby increase the morbidity and risk of transmission.

DISCUSSION
The global AIDS population today stands at nearly 46 million (2). New HIV infections are rising faster in Asia-Pacific region than anywhere else in the world (8). South-east Asia stands second only to sub-Saharan Africa with 6 million positive cases (2). HIV in India is fuelling TB and has become a leading public health emergency with severe impact on south-east Asia (9). Apart from this, a number of other bacterial, viral, and fungal diseases are seen costing the number of effective living years. According to a World Bank report, 15% of the healthy days are lost due to STD's among women aged 15-45 years in developing countries (10).

According to a recent UNAIDS release, there is a lack of persuasive evidence that the epidemic is tried being curbed in India on a nation wide basis (2). Serious epidemics are under way in several states like Maharashtra, Tamil Nadu, Nagaland, and Manipur. 56% of STD clinic attendees in Manipur (a state in the far eastern parts of India) are HIV positive (11). In Namakkal district of Tamil Nadu and Mumbai, 1 percent of delivering mothers were found to be HIV positive (2).

Worryingly, the HIV surveillance and detailed recording of the incidence of HIV/AIDS in the vast populous interiors of Uttar Pradesh and other states of North India are far from reality (2).

Previous data on AIDS were focussed on variety of target populations like nurses, rural college students, and the like (12, 13). A few institutes and NGO's regularly update the epidemic situation of HIV/AIDS in India (4). In India 50% of AIDS/HIV clinic attendees are slum dwellers (14). In the present study the awareness of HIV/AIDS in illiterate people was minimal owing to their inability to comprehend writings or display boards.

A few of the subjects who considered contact / contaminated water/ air/fomites/mosquito bite answered more by their intuition rather than by their true knowledge. Though this may improve the personal hygiene and sanitary practices, it may offshoot discriminatory feeling against those affected with the disease which is reflected in the results of the last question.

Stigma and discrimination towards PLHA is seen not only in common public but also in health care workers and social servicing agencies. Even the Government of India in the year 2002, in a 43-page booklet presenting the policy for AIDS prevention in India admits that PLHA have relatively been denied access to medicare (3).

Majority of the newly recruited interns in our own institution think twice even before conducting a preliminary examination. So these people must be made more sensitive to matters of stigma and discrimination and should be prompted to act against it. As highlighted by Piot and Seck (15), even UNAIDS gives a key priority to regularly implement basic safety procedures to allay fears of health care workers.

The pain from societal discrimination is more than the disease itself. In fear of being outcast, many a patient never reveal their status and pose a major risk of transmission. These cases spreading as 'water under the mat' will on one fine day make a fiery revelation.

Though donated blood screening for HIV has reduced HIV incidence, it did not eliminate the risk of HIV transmission (16). The recommended practice of using only sterilised or high level disinfected gloves and instruments is not religiously followed during minor procedures having a potential for transmission of blood borne infections (17). What more, the annual HIV sentinel surveillance for year 2003 conducted in Chennai by TNSACS (Tamil Nadu state AIDS control society) revealed that 63.8 % of IVDUs are HIV positive as against 24.5% in 2001 and 33.3 % in 2002 (18).

So only forceful enactment and proper execution of the clear recommendations put in place by the WHO and the policy makers can, if at all, make the situation in developing countries change.

According to Feacham, health systems in poor countries are dysfunctional and this is one of the main reasons for improper HIV/AIDS care in India (19).

Added to these things is a new menace of ARVs in the form a boon. An indiscriminate ART may give a new shape to the disease severity by creating drug resistance (20, 21). ARTs are not advised until an advanced state of the disease (CD4+<200). Unfortunately in India it is said...
that 75% of STD out patient cases are in private sectors and are described as “low quality” and are provided by “untrained practitioners” (22). These private institutions, by promising magic remedies resort to indiscriminate ARTs, create drug resistant strains, and escalate morbidity. Even if a subject is ELISA positive, India’s NACO stipulates three consecutive ELISA positives before confirming HIV positivity (23).

In 2002, WHO chartered a model of prevention and control of HIV/AIDS for Botswana and India which is a guideline for most of the Governmental and NGOs in the country (3). New institutions are coming up which are regularly updating the epidemic situation of HIV/AIDS in India (4) but the overall situation is still not up to the mark. Even in a nation wide study done in year 2000, only 76% of Indian population between 15-49 years age group had an overall awareness of AIDS (24).

The questionnaire we put forth is brief and can act as a prototype. It can be used with necessary modifications based on the geographical factors and the problems concerning the population at which it is targeted. The same questionnaire can be used on a population after a time gap to assess the effectiveness of an education program which popularly is known as the two-source capture-recapture method (25).

CONCLUSION

Our study targeting the urban slum dwellers reveals the poor state of their KAP. The awareness in the females is much poorer.

Conventional IEC methods targeting general population via mass media are not reaching slum dwellers. A specially designed targeted intervention is needed. Street skits even in the urban areas may be useful for the illiterate. Lack of funds should never hinder the education programs. The concept of discussing issues of sexual behaviour and STDs which is otherwise a taboo in the conservative set up of India must be eliminated by newer investments, Bulletin of the WHO, 79: 1152-3, 2001.

REFERENCES

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