

Pre- and post-HIV test knowledge, attitude, behavior, and practice of people living with HIV and AIDS by questionnaire pattern

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Abstract

Context: In spite of intensive information, education, and communication (IEC) activities, the incidence of new HIV cases is also increasing. Its incidence for the past 3 years was 375, 385, and 457 at our tertiary care center. **Aims:** The impact of IEC activities on the society was assessed in this study. **Settings and Design:** This was a retrospective, epidemiological study conducted by a questionnaire pattern. **Subjects and Methods:** The questionnaire pattern was issued to 100 newly diagnosed PLWHA, which evaluated the knowledge, attitude, behavior, and practice pre- and posttesting. Every month, follow-up was done for 3 months for further assessment. **Statistical Analysis Used:** One-way ANOVA test was used for the statistical analysis. **Results:** Out of the 100 patients, 37 were male, 60 were female, and 3 were transgender. Academic education had a significant association, while occupation had no association with the awareness. Nearly 80% of the new cases were identified by the government institutions. Around 33% of the study group were first identified on sexually transmitted infection screening and 20% by skin problems. Nearly 79% of the married couples revealed their status to their spouse. Out of 79% of single individuals willing to get married, 50% were willing to reveal their status to their future partner. Almost 94% of the participants were willing to undergo antiretroviral treatment. Acceptance by family and society was reflected by 87% and 68%, respectively. **Conclusions:** Although this study reveals the success of IEC activities, the subtle population who are still undergoing high-risk behavior after knowing their status should be targeted for achieving zero new case identification. This study gives hope to reach that day in the near future.

Key words: Acceptance, HIV awareness, HIV counseling, HIV identification, posttest behavior, revealing the seropositive status

INTRODUCTION

HIV epidemic has hit our country for the past three decades. A lot of information, education, and communication (IEC) activities are concentrated toward the elimination of HIV. Still, the incidence of new cases is on increasing trends. Three years' statistics in our center were 375, 385, and 457. This increase in new case detection rate might be due to increased sensitization among medical personnel, surplus investigative facilities even in small villages, hike in the

health-seeking behavior of the public and IEC activities through public media. We conducted this study to find whether IEC activities have made any change in the people's awareness about HIV.

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SUBJECTS AND METHODS

After obtaining institutional ethical clearance, 100 newly diagnosed people living with HIV and AIDS (PLWHA) who attended sexually transmitted disease (STD) clinic were randomly selected. A questionnaire which included 28 questions was issued to the patients, who were able to understand and answer. Otherwise, on counseling, the questions were asked through a sexually transmitted infection counselor and the answers were noted. Follow up of the patients was done every month for a period of three months to assess the condom-using practices; revealing the status to the spouse; acceptance of family members, friends, and society; and mental status assessment. The questions were formed on the basis of six questions on general demographic surveillance, two on sexual exposure, two on previous awareness and safe practice, three on the first center of identification and symptom to suspect, and 15 on posttest behavioral changes following counseling. The questions were formed to scrutinize the knowledge, attitude, behavior, and practice (KABP).

RESULTS

Educational status was divided into illiterate, primary education, higher secondary, and graduate. It had a significant association with awareness about HIV ($P > 0.05$.) Condom usage had no statistically significant association with educational status ($P < 0.05$). Occupation was divided into daily-wage employees, self-employed, private sector employees, government sector employees, and homemakers. Occupation had no significant association with previous HIV awareness in this study. Nearly 23% of females, 33% of transgenders, and 44% of males showed previous awareness about HIV transmission.

As cited in Chart 1, government institutions identified 80% of new cases and private health sectors found 20% of new cases.

The first clinical manifestation which made the patient to seek medical personnel was inquired, and the results are plotted in Chart 2. Among them, thirty three percent of the new cases were identified on HIV screening, twenty percent presented with skin problems, seventeen percent reported with weight loss, twelve percent with diarrhea, ten percent presented with fever of unknown origin, five percent presented with sexually transmitted diseases and three percent presented with cough of long duration.

Posttest mental status showed depression in 90% of patients, anger in 3%, revenge in 2%, and 5% of people showed no changes in the mental status among the newly detected PLWHA [Table 1].^[1]

Seventy-nine percent of the study group revealed their status to their spouse, 13% did not reveal their status,

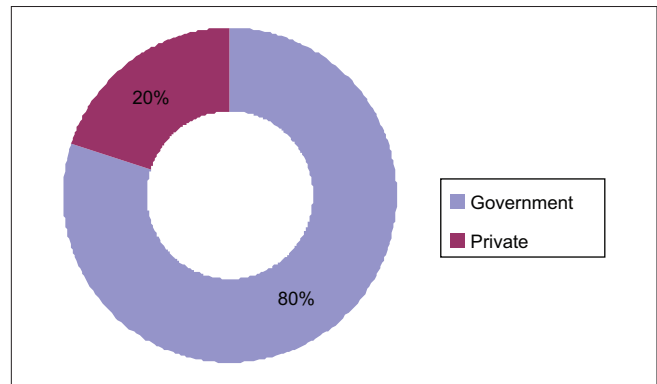


Chart 1: Center of identification

and 8% were single. Ninety-six percent of the individuals said that they were adopting regular barrier methods after posttest counseling, whereas only 26% of them used barrier methods previously. Among the single, 60% were willing to express their status to their future spouse, whereas 40% denied revealing. Ninety-six percent of the respondents denied having further EMC (Extramarital contact)/PMC (Premarital contact) after their results.

Acceptance by the family and society was the same as before in 87% and 68%, respectively. Ninety-four percent were willing to undergo antiretroviral treatment (ART) medications. Eighty-eight percent were still able to continue the previous job pattern. Alcohol had been withdrawn in 28%, decreased in 8%, increased in 2%, and same as before in 2% of the individuals. The rest of them were nonalcoholic.

DISCUSSION

In our study, educational status of the individuals has been divided into illiterate, primary education, higher secondary education, and degree holders. The education status was compared with pretest HIV awareness using one-way ANOVA test. The comparison of education and the previous awareness about HIV is described in Table 2. The P value was lesser than 0.05. This showed the strong correlation of educational status and HIV awareness. A similar study on KABPs about HIV/AIDS in Kuwait also stated that educational status was directly proportionate to HIV awareness.^[2-4] Our study revealed the significant association of HIV awareness and education. This indicates the importance of implication of awareness about STD/AIDS transmission and preventive measures in educational syllabus itself. Furthermore, health education should be imparted to people with low education standards in a tailor-made process such as street play, television short films, and advertisement in cinema theaters. IEC activities should be made as a continuous process throughout the year until and even after obtaining zero new case detection.

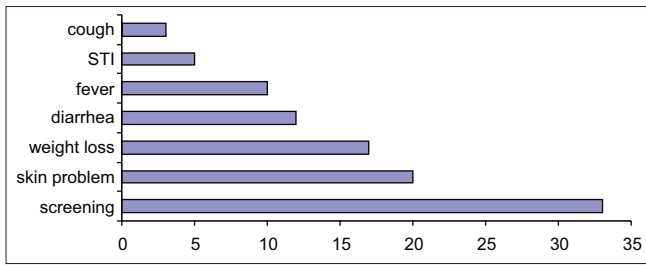


Chart 2: Clinical manifestation of new HIV cases

Table 1: Post test psychological behaviour in percentage (N = 100)

Psychological behavior	Expression (%)
Depression	90
Anger	3
Revenge	2
Nil	5

Table 2: Education status versus Awareness about HIV/AIDS (N = 100)

Education	Previously aware (n)	Previously unaware (n)
Illiterate	5	24
Primary	13	3
Higher secondary	30	18
Graduate	5	2

In our study, as shown in Chart 3, out of 60 female participants, only 14 had previous awareness about HIV. This was about 23%, while the general awareness irrespective of gender was about 28%. Out of three transgenders, only one participant had previous awareness about HIV. In the Kuwait study also, female population had less awareness about transmission of HIV.^[5,6] Female population's sensitization is necessary to curtail the disease process. Considering antenatal checkup testing for syphilis and HIV which drastically reduces perinatal transmission, testing before marriage can be made a mandatory one to halt the HIV disease transmission.

Government institutions play a dominant role in identification and ART measures. This implies the success of governmental activities in IEC and ART implication.

In our study, the acceptance by family members was the same as before knowing the results in 87% of the individuals and increased care among 2% of the group. However, family care reduced by 1% of the study group. Ten percent of the respondents did not reveal their status to the family members because of the fear of stigma. The acceptance by the society and friends showed a similar response as before in 68%, sympathy in 3%, and 17% expressed stigma by the society. Twelve percent were not willing to express their status to anyone. The acceptance by family and society shows a marked improvement

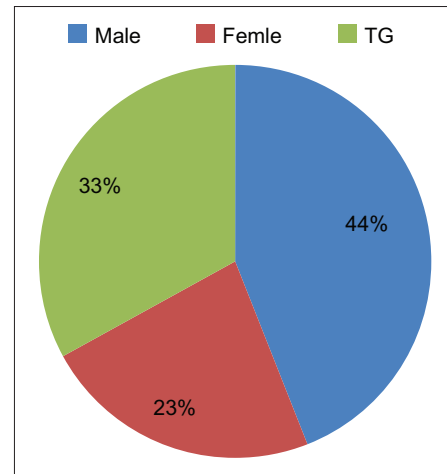


Chart 3: Gender versus HIV awareness

compared to that of other studies. This is a welcoming attitude. A study on HIV-related stigma and knowledge in the United States conducted during 1991–1999 by Herek *et al.* which revealed discomfort of common people with PLWHAs (people living with HIV and AIDS) and the blame was directed towards PLWHAs for their condition. Misapprehensions about casual social contact were present in spite of supportive policies toward PLWHA to decline the stigma in the United States.^[7] Till now, our study results also correlated with the Gregory study regarding social stigma.

Ninety-four percent of the individuals were either taking or willing to undertake ART medications in future in our study group. Six percent were either disinterested in taking continuous medication or had fear in taking the medication near their residential premises because of stigma. A study done by Nachegea *et al.* on HIV/AIDS and ART KABPs in HIV-infected adults in Soweto, South Africa, showed that 99% of the individuals were not worried about the side effects of ART and 80% did not worry about revealing their ART consumption to the family members and friends.^[8] Our study showed a gross percentile of hope on ART medication intake compared to the other studies.

Among married individuals, 13% were not willing to reveal their status to their spouse and 4% were not willing to use condoms. Fifty percent of single PLWHA were not willing to reveal their status to their future spouse. Less than 6% were denying the ART services. In order to halt the future disease transmission rates, though the risk behavior is trivial, counseling should be concentrated on these aspects.^[9]

Further EMC/PMC activities following their results in our study revealed that 4% of the study group still wished to continue their high-risk behavior. Marks *et al.* in a

meta-analysis conducted in the United States showed a 53% confidence interval in persons infected with HIV who were aware and unaware of high-risk sexual behavior.^[10] Ninety-five percent of HIV aware individuals showed lower high-risk sexual behavior, which is comparable to our study, which showed 96%.^[11-14]

Our study found that about 96% of the study group were using condoms after posttest counseling though most of them have completed their family, while prior to the test, 26% adopted barrier methods on sexual intercourse. A study done on sexual behavior of HIV discordant couples after HIV counseling by Allen *et al.* stated that prior to the test, the condom usage was less than 3% among the couple, whereas postcounseling condom usage was >80%. But in that study, 50% of HIV transmission and 32% of pregnancies were noted even in the said to be regular condom users at the post counselling period,^[15-17] while in our study, the rate of pregnancies and HIV/STI transmission was nil in the follow-up period. This implies the regular adoption of barrier methods following counseling. In contrast, a study by Magnussen *et al.* showed that the intervention reviewed was not respondingly successful in achieving their goals in less developed countries.^[18]

Our study found that 28% of the group had previous awareness about HIV. Education was proportionately associated with the awareness level, while condom usage was not associated with the educational status. A similar study done in South India by Sudha *et al.* on awareness, attitude, and belief of the general population toward HIV/AIDS in Hyderabad concluded that 80.63% of the group had awareness about HIV/AIDS, but incorrect perceptions about transmission.^[19-25] This implies the importance of health education to all the sectors of people. Tailor-made health education program for those at lower education levels should be designed.

CONCLUSIONS

This study concludes that the awareness of the public toward HIV, their health-seeking behavior toward the governmental institutions, and the acceptance of family members and society toward seropositive individuals have been appreciably improved.

Nevertheless, health education programs should be targeted on people with various cadres of education in a tailor-made fashion. Premarital voluntary counseling and testing should be made mandatory by law to curtail incidences among innocent, ignorant victims. Psychiatric counseling should be included in the posttest counseling schedule. With all these measures, the day to reach zero new case identification target is so nearby in future.

Our study also has some drawbacks such as limited sample size in the study, trusting the patient's word only was taken as an ultimate parameter, and considering different variants superficially. However, with the limited resources out of interest, we have tried our level best to evaluate.

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Conflicts of interest

There are no conflicts of interest.

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