A community based study of HIV/AIDS knowledge among housewives of rural and urban background in Punjab

Harpreet Kaur1, GPI Singh2, RK Soni3

Introduction: When the history of 20th century tragedies is written, the pages devoted to Acquired Immunodeficiency Syndrome (AIDS) will be extensive. This modern day plague has and will continue to have profound shattering effects on individuals and societies throughout the world. Marriage does not always protect a woman from becoming infected with HIV. Various studies have been done to ascertain the awareness of different subjects like nurses, doctors, students, males but fewer attempts have been made to assess the awareness levels among housewives towards HIV/AIDS.

Methodology: A community based study was conducted among housewives of rural and urban background in Punjab. Pre-designed questionnaire was used to explore awareness levels of housewives towards HIV/AIDS as a disease. Data analysis was done using SPSS 16.0 version.

Results: More than half of subjects in rural as well as in urban area were not aware whether HIV and AIDS are synonymous or not. On the whole, 66% of subjects in both rural & urban area had no knowledge about cause of HIV/AIDS. There was observed lack of knowledge about sign and symptoms of AIDS among subjects in the present study. Majority of subjects both in rural (88%) as well as in urban (85.6%) area knew that AIDS is a preventable disease.

Conclusions: HIV prevention and intervention strategies need to focus on married, monogamous Indian women whose self-perception of HIV risk may be low, but whose risk is inextricably linked to the behavior of their husbands.

Key words: HIV/AIDS; Housewives; Knowledge; Rural; Urban

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economic and behavioral impact on individual, families, communities and indeed the whole world [1].

Globally, 34.0 million [31.4 million–35.9 million] people were living with HIV at the end of 2011. An estimated 0.8% of adults aged 15-49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions [2].

This epidemic unfortunately remains an epidemic of women. At the end of 2011 it was estimated that out of the 34 million adults worldwide living with HIV and AIDS, half are women [3]. HIV continues to profoundly affect women and girls across all regions. For example, in sub-Saharan Africa, the region most severely affected by HIV, women represent 58% of the people living with HIV and bear the greatest burden of care [2]. For women in their reproductive years (15–49), HIV/AIDS is the leading cause of death [4].

The number of women living with HIV and AIDS in Asia varies greatly between different countries. It has been estimated that 90 percent of women living with HIV in Asia were infected by their husband or long-term partner [3]. The Government of India estimates that about 2.40 million Indians are living with HIV with an adult prevalence of 0.31% (2009). Of all HIV infections, 39% (930,000) are among women [5].

According to India’s National AIDS Control Organization (NACO), the bulk of HIV infections in India occur during unprotected heterosexual intercourse. Generally women are at a greater risk of heterosexual transmission of HIV. Biologically women are twice more likely to become infected with HIV through unprotected heterosexual intercourse than men. Women are at least twice as likely to acquire HIV from men during sexual intercourse and vice versa [3]. The feminization of the epidemic brings into sharp relief the inequalities that shape people's behavior and limit the options women have to protect themselves.

Marriage does not always protect a woman from becoming infected with HIV. Many new infections occur within marriage or long-term relationships as a result of unfaithful partners [3]. Throughout their life cycle, women face harmful gender norms that increase their vulnerability to HIV; indeed, they are often blamed for contracting HIV and face stigma and discrimination because of perceived immorality [2].

Housewife has important role in home & society. She forms the vital link that unites a home & is focal point around which home revolves. Women who believe they are in monogamous relationships are becoming infected because their husbands have had multiple sexual partners.

The spread of HIV/AIDS in Indonesia is the fastest in Asia, and West Java has the fourth highest rate in Indonesia. The proliferation of HIV/AIDS in West Java has left more housewives prone to the deadly disease than commercial sex workers [6].

Reports by the district health societies (Kanpur, India) revealed that around 45 women in the city were detected as HIV positive during April to October, out of which 42 were housewives. Figures indicated that 19 (out of the total) housewives detected as HIV positive belonged to the age group 21-30 followed by 16 women in the age group 31-40 [7].

Various studies have been done to ascertain the awareness of different subjects like nurses, doctors, students, males but fewer attempts have been made to assess the awareness levels among housewives towards HIV/AIDS In 26 of 31 countries with generalized epidemics, less than 50% of young women have comprehensive and correct knowledge about HIV[8]. It is believed that there is positive correlation between knowledge, attitude & behavior. Women have poor access to information and education which is critical in context of HIV since behavior change is the key to controlling the epidemic. So with this aim present study was planned to understand the awareness levels regarding HIV/AIDS among housewives.

Materials and Methods
A community based study was conducted in field practice area of Rural Health Centre (R.H.C), Pohir & Urban Health Centre (U.H.C.), Kirti Nagar, Ludhiana of Department of Community Medicine, Dayanand Medical College & Hospital, Ludhiana. The field practice area of (R.H.C) covers 10 villages & U.H.C covers 10 colonies. A family folder system exists in both rural & urban area that contains information regarding the families. From these existing family folders, a list of housewives in the age group of 15-49 years was prepared for each village/colony. A serial number was allotted to each of the listed housewives. Simple random sampling technique was used for selection of the subject by adopting lottery method. Investigator accompanied the multipurpose health worker in the area and the housewife was contacted from the sample list prepared as mentioned above. A question “Have you heard of HIV/AIDS? was asked to be subject. If the response to the question was ‘No’, then subject in the next contiguous house was taken so as to complete the sample size. Thus a sample of 1000 housewives comprising 50 housewives from each of the 10 villages & 50 housewives from each of the 10 colonies was selected for the study. A pre–designed & pre –tested questionnaire was used to assess the knowledge of
subjects regarding HIV/AIDS in general, modes of spread, susceptibility for HIV & preventive measures. The data was analysed by using statistical package SPSS 16.0. Consent was taken from the study subjects.

Results

The demographic profile of the study reflects that 65.6% subjects in rural area & 64.8% belonged to younger age group (less than 35 years). It was observed that 40.2% of subjects in the rural area were educated till middle, 32.8% till matric and 8.2% of them were illiterates. In contrast of 32.6% subjects in the urban area were educated upto matric while 27% were educated till middle and 15% were illiterates. Farming was observed to be the main occupation of the husbands of subjects in rural area whereas husbands of the subjects in urban area were mainly laborers. Present study reflects that majority of subjects in rural (89.8%) and urban (93.4%) area belonged to middle socio-economic group.

T.V. topped the list in both rural (98.4%) and urban area (99.4%) as source of information about HIV/AIDS. 54.4% subjects in rural area and 32.6% subjects in urban area were educated till middle, 32.8% till matric and 8.2% of them were illiterates. In contrast of 32.6% subjects in the rural area were educated till matric while 27% were educated till middle and 15% were illiterates. Farming was observed to be the main occupation of the husbands of subjects in rural area whereas husbands of the subjects in urban area were mainly laborers. Present study reflects that majority of subjects in rural (89.8%) and urban (93.4%) area belonged to middle socio-economic group.

It was observed that only 30.4% subjects in rural and 33.6% in urban area responded correctly that HIV and AIDS are not synonymous terms. However majority, 52% rural and 47.2% in urban area had no idea whether HIV and AIDS are synonymous or not.

Table 1: Knowledge of subjects whether females are more likely to get aids

<table>
<thead>
<tr>
<th>Response</th>
<th>Rural (n=500)</th>
<th>Urban (n=500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>195 (39.0)</td>
<td>146 (29.2)</td>
</tr>
<tr>
<td>No</td>
<td>210 (42.0)</td>
<td>151 (30.2)</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>95 (19.0)</td>
<td>203 (40.6)</td>
</tr>
</tbody>
</table>

Figures in parentheses indicate percentages
\[ \chi^2 = 55.825, \text{df}=2, p=0.000, \text{significant} \]

Table 1 shows that 39% subjects in rural and 29.2% in urban area mentioned correctly that females were more likely to get AIDS. More subjects in rural (42%) than urban (30.2%) area responded incorrectly that females were not more likely to get AIDS.

Only 37.4% subjects in rural & 22.7% subjects in urban area were correct in responding that there are some category of persons who are at high risk of getting AIDS (Table 2). All the subjects both in rural and urban area responded that truck drivers are a high risk group for contracting AIDS. Prostitutes, drug addicts, heterosexuals were quoted as high risk group by 89.8%, 39%, 22.4% subjects in rural & 83.1%, 34.5%, 16.8% subjects in urban area, respectively. The level of knowledge was however lower in identifying blood donors (5.8% and 7.0%), soldiers (4.2% and 17.6%) and homosexuals (0.5% and 3.5%) as high risk group by subjects in rural & urban area.

Table 2: Knowledge of subjects whether there is any category persons who are at high risk of contracting HIV/AIDS

<table>
<thead>
<tr>
<th>Response</th>
<th>Rural (n=500)</th>
<th>Urban (n=500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>187 (37.4)</td>
<td>113 (22.7)</td>
</tr>
<tr>
<td>No</td>
<td>178 (35.6)</td>
<td>149 (29.9)</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>135 (27.0)</td>
<td>236 (47.4)</td>
</tr>
</tbody>
</table>

Figures in parentheses indicate percentages
\[ \chi^2 = 48.317, \text{df}=2, p=0.000, \text{significant} \]

More than 76% subjects in rural area had no knowledge about weight loss and repeated fever attack as symptoms of AIDS. Similarly, in the urban area, more than 85% subjects had no knowledge about weight loss and repeated fever attack as symptoms of AIDS and only 12% had knowledge about these symptoms. The difference was found to be statistically significant. The difference between rural and urban responses regarding symptoms of frequent vomiting & prolonged diarrhea was found to be significant (p=0.000). More than two-third subjects in rural and urban area had no knowledge about swollen glands in neck as symptom of AIDS (Table 3). A significant difference was found between subjects response in rural and urban area (p=0.000).

Knowledge of the subjects regarding signs and symptoms of AIDS patient was observed to increase with increase in education status of the subjects in rural as well as urban area. Also a general & consistent increase in knowledge about sign & symptoms was observed with increase in socio-economic status.
Table 3: Knowledge of subjects regarding signs and symptoms of AIDS

<table>
<thead>
<tr>
<th>S/S of AIDS</th>
<th>Rural (n=500)</th>
<th>Urban (n=500)</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
</tr>
<tr>
<td>Weight loss</td>
<td>111 (22.2)</td>
<td>07 (1.4)</td>
<td>382 (76.4)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 16.032$, df=2, $p=0.000$, significant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeated Fever Attack</td>
<td>110 (22.0)</td>
<td>07 (1.4)</td>
<td>383 (76.6)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 17.427$, df=2, $p=0.000$, significant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prolonged Diarrhoea</td>
<td>75 (15.0)</td>
<td>36 (7.2)</td>
<td>389 (77.8)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 38.827$, df=2, $p=0.000$, significant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequent Vomiting</td>
<td>71 (14.2)</td>
<td>41 (8.2)</td>
<td>388 (77.6)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 49.995$, df=2, $p=0.000$, significant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swollen Glands in Neck</td>
<td>40 (8.0)</td>
<td>70 (14.0)</td>
<td>390 (78.0)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 36.539$, df=2, $p=0.000$, significant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figures in parentheses indicate percentages

As many as 59% subjects in rural & 53.4% in urban area responded incorrectly that there is no drug available for AIDS. In contrast fewer proportion of subjects in rural (22.4%) & urban (20.2%) were of the opinion that drug is available for treatment of AIDS ($p=0.013$).

Majority of the subjects in rural (88%) & urban area (85.6%) knew that AIDS is a preventable disease. Table 4 shows that majority of subjects in both rural (84%) & urban (84.5%) knew that that HIV/AIDS could be prevented by using condoms during sex. 15.2% subjects in rural & 13.5% subjects in urban area knew that HIV/AIDS could be prevented by remaining faithful to single sexual partner. Only 0.6% subjects in rural and 1.3% in urban responded that pregnancy should be avoided in case one is infected with AIDS.

Table 4: Knowledge of subjects regarding method of prevention of transmission of HIV/AIDS

<table>
<thead>
<tr>
<th>Prevention of AIDS Transmission</th>
<th>Rural (n=440)</th>
<th>Urban (n=428)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using condoms during sex</td>
<td>370 (84.0)</td>
<td>362 (84.5)</td>
</tr>
<tr>
<td>Having single faithful sexual partner</td>
<td>66 (15.2)</td>
<td>58 (13.5)</td>
</tr>
<tr>
<td>Using spermicidal jelly</td>
<td>01 (0.2)</td>
<td>03 (0.7)</td>
</tr>
<tr>
<td>Avoiding pregnancy if infected with AIDS</td>
<td>03 (0.6)</td>
<td>05 (1.3)</td>
</tr>
</tbody>
</table>

Figures in parentheses indicate percentages

$\chi^2=1.665$, df=3, $p = 0.645$, non significant
Discussion

The source of information about HIV/AIDS was mainly Television in rural (98.4%) as well as urban (99.4%) area. Surprisingly newspaper and radio were found to be more popular among rural than urban subjects. In another study by Sarkar, Danabalan and Kumar (2007) regarding knowledge & attitude about HIV/AIDS among married women about AIDS aged 15-50 years in rural area of Pondicherry, the sources of acquiring knowledge were television (81.98%) radio (42.79%) and Newspaper (15.76%) [9].

Only around one third of subjects in rural as well as urban area correctly mentioned that HIV and HIV AIDS are not synonymous terms. However more than half of subjects, 52% in rural as well as 77.2% in urban area were not aware whether HIV and AIDS are synonymous or not. Lacunae were observed regarding knowledge of subjects in the present study as regards cause of AIDS. The cause of AIDS is germs was known to only one third of subjects in rural as well as urban area. On the whole, 66% of subjects in both rural & urban area had no knowledge about cause of HIV/AIDS.

However in another study conducted among married women in rural area of Tamil Nadu to assess their awareness levels regarding AIDS by Subramaniam, Ehzil and Gupta (2004), 81% of women had no idea about the cause of AIDS and only 4% knew germs to be the cause [10]. The reason could be attributed due to the difference in literacy level among study subjects in both studies. 8.2% subjects were illiterates in rural & 15% in urban area in the present study as compared with 50.8% illiterates subjects in study done by Subramamain, Ehzil and Gupta. In another study to collect information on knowledge, attitude & beliefs about preventive practices about AIDS conducted, among adolescent in Nigeria by Odujinrin and Akinkuade (1991) showed that only 37.9% of them knew about the causative agent of AIDS [11]. Findings were in accordance with our study. However, this finding highlights that despite intensive efforts to spread awareness about AIDS since HIV was first identified, there still exist lacunae regarding certain aspects of AIDS as a disease.

As regards knowledge about mode of spread of HIV/AIDS among subjects in present study, vaginal fluid, semen & blood were responded to as mode of spread by 99.6%, 94% & 82.2% subjects in rural area compared with 98.6%, 92.8% & 81.8% subjects in urban area. More than two thirds subjects in both rural & urban area mentioned that breast milk act as mode of spread. However a study conducted among journalists to assess their knowledge, attitude towards people living with AIDS in Ibadan Nigeria by Isibor & Ajuwon (2004) revealed that 57.9% mentioned at least one of the body fluid in which HIV is found. Of those journalists who responded, 61.4% mentioned blood, 29.3% semen & 0.5% breast milk as body fluid in which HIV is found [12]. Surprisingly journalists in Ibadan, Nigeria did not have sufficient knowledge of AIDS. However in our study subjects comparatively more knowledge was observed about m highlights the positive role of media in creating awareness about HIV/AIDS.

In the present study, less subjects had correct knowledge that females are more likely to get AIDS. 39.0% subjects in rural and 29.2% subjects in urban area responded that females are more likely to get AIDS. The difference was found to be statistically significant.

However in another study among rural women to assess awareness about AIDS done by Subramaniam, Ehzil and Gupta (2004) in Tamil Nadu, majority of subjects mentioned that all (men, women and children) are prone to get this infection [10]. Illiteracy coupled with ignorance could be the reason that women are still not aware about physical & social vulnerability of women which puts them at greater risk of acquiring HIV/AIDS.

There was observed lack of knowledge about sign and symptoms of AIDS among subjects in the present study. Weight loss and repeated fever attack were mentioned by a few subjects (22%) in rural & (12%) in urban area. Similarly knowledge about other symptoms like frequent vomiting, prolonged diarrhoea was also observed to be less in both rural as well as urban area. Only very few subjects (8%) in rural and (0.8%) in urban had knowledge about swollen glands to be the symptoms of AIDS. Significant difference was observed between responses in rural and urban area.

Almost similar findings were observed in another study to assess awareness among slum dwellers in Chennai by Kalasagar, Sivapathasundharam and Einstein (2006). Only 30% of males and 22% females knew about the possible symptoms of AIDS [13]. Subramanian, Ehzil and Gupta (2004) in their study among married women in rural area of Tamil Nadu found that 28% women mentioned fever and 39% weight loss as symptom of AIDS [10].

Overall, it is observed that majority of the subjects of various studies had incomplete knowledge or no knowledge about symptoms of AIDS. This highlights the need to disseminate adequate information about signs & symptoms of HIV/AIDS.

It was found in our study that knowledge of subjects about signs & symptoms of AIDS increased with increase in education status & socio-economic status. It is possibly because the exposure of person to various sources of information is comparatively better in
case person has higher educational qualification or belongs to higher socio-economic status.

Higher number of subjects in rural (37.4%) than urban (22.7%) responded that there are some categories of persons who are at high risk of getting AIDS. However 27% subjects in rural & 47.4% in urban area had no idea about high risk category.

Ahmed and Gaash (2002) in rural and urban area of Kargil District observed almost similar findings that 49.84% of the respondents had no idea about the high risk groups likely to increase the problem in the community [14]. The present study showed that Truck drivers were correctly identified as a high risk group by all of the subjects in rural and urban area. Prostitutes, drug addicts, heterosexuals were quoted as high risk group by 89.8%, 39.0%, 22.4% in rural in comparison with 83.1%, 34.5%, 16.8% in urban area.

The level of knowledge was lower in correctly identifying truck drivers as high risk groups as observed in a study conducted among students by Bhalwar and Jayaram (2003) Maharashtra [15]. High level of awareness about truck drivers in our study could be because of flourishing transport business in Punjab especially in the study area.

Majority of subjects both in rural (88%) as well as in urban (85.6%) area knew that AIDS is a preventable disease. Almost all the female teachers in a study conducted among teachers in Nepal by Jha, Paudel, Chaturvedi, Niraula, (2001) knew that HIV/AIDS was preventable[16]. Awareness about AIDS being preventable disease is high in our study & study done by Jha et al in teachers despite the difference in educational background.

Conclusions

This study highlights that despite intensive efforts to spread awareness about AIDS since HIV was first identified, there still exist lacunae regarding certain aspects of AIDS as a disease. Knowledge of subjects in the present study as regards cause of HIV/AIDS was found to be incomplete. Awareness levels among subjects were found to be incomplete regarding certain aspects of HIV/AIDS i.e., signs and symptoms of persons suffering from AIDS. Women’s risk of contracting HIV is interlinked with lack of access to information, services and commodities which they need to protect themselves. Focusing on women’s vulnerability is the key to fight the epidemic of HIV.

There is a need to lay emphasis on educating masses about these aspects of HIV/AIDS. HIV prevention and intervention strategies need to focus on married, monogamous Indian women whose self-perception of HIV risk may be low, but whose risk is inextricably linked to the behaviour of their husbands.

References


