Original Article

Knowledge about AIDS among the married women in field practice areas of a tertiary care hospital

Authors
Dr (Col) Rajendra Kumar1, Dr (Col) Rajendra Harnagle2*
1Associate Professor (Community Medicine) & Medical Superintendent Heritage Institute of Medical Sciences, Bhadwar, Varanasi (UP), Pin: 221311
2Adani Institute of Medical Sciences; Bhuj (Gujarat)
Mob: 9997711223, Email: rajendrak5462@gmail.com
*Corresponding Author

Dr (Col) Rajendra Harnagle
Mob: 9762170399, Email: rajendra.harnagle@gmail.com

Abstract
Objective: To assess the knowledge about AIDS among the married women in field practice areas of a tertiary care hospital.

Methods: The study was carried out on married women in the age group 15-45 years in both urban and rural areas of field practice areas of a tertiary care hospital. The study was carried out in both urban and rural areas using 30 cluster sampling technique as suggested by WHO. The women in the age group of 15-45 years from each cluster were interviewed and information was collected on a pretested questionnaire based on syndromic approach. It was proposed to cover 16 women per cluster both in urban and rural areas and finally, a total of 480 women each from urban and rural areas were included in the study.

Results: About one third (30.7%) of women had knowledge about AIDS of whom 32.5% were from urban area and 29% were from rural area. The majority of the women of urban areas were of the view that transmission of the disease is due to having sex with multiple partners (47.4 %). The women who had knowledge about AIDS were asked about preventive measures to be taken in the prevention of AIDS. The majority of the women (65.6 %) were not sure that whether there is possibility of having AIDS through STDs.

Conclusion: With the observations in the present study, it is clear that the awareness in rural areas among women is low as compared with the urban counterpart in the study areas. Therefore, the knowledge and awareness should be raised by the Government agencies as well as by Non-Government Agencies (NGOs) in both urban and rural areas.

Keywords: HIV/AIDS, Knowledge, Urban and rural areas.

Introduction
The official estimates of HIV cases in India reached 2.39 million in the year 2010 of whom 39% were women amounting to 0.93 million of the total (Govt. of India, 2010). Despite of the decline in overall disease prevalence during the period 2000-09, the prevalence among women continued to remain high (Thomas et al, 2009). Several socio-economic factors predispose Indian women for acquiring HIV/AIDS infection (Ghosh et al, 2011). These include early marriage, illiteracy, financial dependence, violence and sexual abuse against women (Raj et al, 2009). A large proportion of the women have poor access to
information and education (Krishnan et al, 2008). It is also suggested that knowledge of HIV is greater in better educated and from higher socio-economic classes compared to among the general population (Balk and Lahiri, 1997).

The National Family Health Survey, Phase-3, conducted by the Ministry of Health in India reported low level of knowledge about HIV infection among women as one of the factors promoting spread of HIV infection (NFHS-3). Earlier reports indicate that empowerment of women is fundamental in HIV/AIDS prevention in India. The studies indicate that the risk for women was high in young and poor urban widows, as well as in those who have suffered sexual violence (Ghosh et al, 2011).

Widespread ignorance, poor information and misconceptions about the disease in society are responsible to cause in social stigma and discrimination and stigmatization (Meena et al, 2013). Although there is a possibility that married women are given sexually transmitted diseases by their husbands, only 6% of them are able to avail themselves of condoms (NIPORT, 2011). The situation in Bangladesh may turn into an epidemic as a result of the low rate of condom usage (Islam and Conigrave, 2008). In such critical conditions, increasing public awareness may be a first step to prevent HIV/AIDS (Rahman et al, 2009).

The importance of mass media for health promotion and disease prevention is well known. Routine exposure and strategic use of mass media play a vital role in promoting awareness, increasing knowledge and changing health behaviors (Bertrand et al, 2006; Li et al, 2009). Mass media channels, radio, television, and newspapers for example, have been suggested to be vital sources of information about HIV/AIDS for ordinary people.

The present study was conducted to assess the knowledge about AIDS among the married women in field practice areas of a tertiary care hospital.

**Material and Methods**

The study was carried out on married women in the age group 15-45 years in both urban and rural areas of field practice areas of a tertiary care hospital.

The study was carried out in both urban and rural areas using 30 cluster sampling technique as suggested by WHO. The women in the age group of 15-45 years from each cluster were interviewed and information was collected on a pretested questionnaire based on syndromic approach. It was proposed to cover 16 women per cluster both in urban and rural areas and finally, a total of 480 women each from urban and rural areas were included in the study.

An interview schedule was developed to collect various information from the women in the age group 15-45 years. The schedule was pretested. In view of the experience gained from pretesting, certain modifications were incorporated and schedule was finalised.

**Analysis**

The data so collected by the team of investigators was analysed using SPSS 16.0 version (Chicago, Inc., USA). The tables were generated to cover various aspects of the study.

**Results**

About one third (30.7%) of women had knowledge about AIDS of whom 32.5% were from urban area and 29% were from rural area. It was observed that the maximum knowledge about AIDS was found amongst 15-19 age group (45.0%) followed by 35-39 age group (37.5%) in the urban areas. The %age of women having knowledge about AIDS in rural area was quite reverse with that in urban area where maximum knowledge was amongst 25-29 age group (38.4 %) and minimum in 15-19 age group (13.3 %). Hindus (31.2 %) were more aware about AIDS than Muslims (29.9%) in the community. In urban areas, maximum knowledge about AIDS was found in women belonging to SC (37.2%) followed by general (36.1%) and backward caste...
Knowledge about AIDS was maximum amongst women who have education level of High School. A low number was found amongst illiterates (23.0%). It was observed in urban areas that service professionals had more knowledge about AIDS (60%) than house wives (34.7%). In rural areas, similar trend was found. There was not much difference in knowledge about AIDS in different income-groups (Table-1).

The majority of the women of urban areas were of the view that transmission of the disease is due to having sex with multiple partners (47.4%). It was surprising that there were 33.4% women were unaware about mode of transmission of this disease in the urban areas. There were 16.7% women who were unable to express their views. Almost same trend was found in rural women (Table-2).

The women who had knowledge about AIDS were asked about preventive measures to be taken in the prevention of AIDS. Majority of women (48.4%) had knowledge about safe sex for the prevention of AIDS. There were 33.7% women who were not aware about the knowledge of prevention of AIDS (Table-3).

The majority of the women (65.6%) were not sure whether there is possibility of having AIDS through STDs. A total of 11.8% knew that there was possibility of having AIDS through STDs. This knowledge was more in urban women (13.3%) ($X^2=8.89$, df=2 and $p<0.01$) than in rural women (10.4%) (Table-4).

Table-1: Knowledge about AIDS by demographic characteristics

| Age in years | Urban No. Interviewed | With knowledge No. | % | Rural No. Interviewed | With knowledge No. | % | Total No. Interviewed | With knowledge No. | % |
|--------------|-----------------------|-------------------|---|-----------------------|-------------------|---|-----------------------|-------------------|---|
| 15-19        | 20                    | 9                 | 45.0 | 30                   | 4                 | 13.3 | 50                    | 13                | 26.0 |
| 20-24        | 96                    | 32                | 33.3 | 98                   | 34                | 34.6 | 194                   | 66                | 34.0 |
| 25-29        | 143                   | 41                | 28.6 | 117                  | 45                | 38.4 | 260                   | 86                | 33.0 |
| 30-34        | 105                   | 35                | 33.3 | 120                  | 30                | 25.0 | 225                   | 65                | 28.8 |
| 35-39        | 64                    | 24                | 37.5 | 74                   | 16                | 21.6 | 138                   | 40                | 28.9 |
| 40-44        | 52                    | 15                | 28.8 | 41                   | 10                | 24.3 | 93                    | 25                | 26.8 |
| Total        | 480                   | 156               | 32.5 | 480                  | 139               | 29.0 | 960                   | 295               | 30.7 |
| Religion     |                       |                   |     |                       |                   |     |                       |                   |     |
| Hindu        | 302                   | 110               | 36.4 | 417                  | 115               | 27.5 | 719                   | 235               | 31.2 |
| Muslim       | 178                   | 46                | 25.8 | 63                   | 24                | 38.1 | 241                   | 72                | 29.9 |
| Caste        |                       |                   |     |                       |                   |     |                       |                   |     |
| Upper        | 163                   | 59                | 36.1 | 90                   | 46                | 51.1 | 253                   | 105               | 41.2 |
| Backward     | 159                   | 40                | 25.1 | 215                  | 60                | 27.9 | 374                   | 100               | 26.7 |
| Scheduled    | 153                   | 57                | 37.2 | 174                  | 33                | 18.9 | 315                   | 90                | 28.5 |
| Scheduled Tribe | 5            | 0                 | 0.0  | 1                    | 0                 | 0.0  | 6                    | 0                 | 0.0  |
| Education    |                       |                   |     |                       |                   |     |                       |                   |     |
| Illiterate   | 373                   | 86                | 23.0 | 327                  | 70                | 21.4 | 700                   | 156               | 22.2 |
| Primary      | 33                    | 21                | 63.6 | 33                   | 12                | 36.3 | 66                    | 33                | 50.0 |
| Middle       | 48                    | 26                | 54.1 | 84                   | 40                | 47.6 | 132                   | 66                | 50.0 |
| High School  | 13                    | 12                | 92.3 | 27                   | 10                | 37.0 | 40                    | 22                | 55.0 |
| Intermediate | 8                     | 7                 | 87.5 | 9                    | 7                 | 77.8 | 17                    | 14                | 82.3 |
| Graduates+   | 5                     | 4                 | 80.0 | 0                    | 0                 | 0.0  | 5                     | 4                 | 80.0 |
| Occupation   |                       |                   |     |                       |                   |     |                       |                   |     |
| House wife   | 368                   | 128               | 34.7 | 389                  | 115               | 39.5 | 757                   | 243               | 32.1 |
| Labor        | 85                    | 15                | 17.6 | 69                   | 15                | 21.7 | 154                   | 30                | 19.4 |
| Service/ Domestic help | 15 | 9               | 60.0 | 7                     | 6                 | 85.7 | 22                    | 15                | 68.1 |
| Petty Business | 12              | 4               | 33.3 | 11                   | 2                 | 18.1 | 23                    | 6                 | 26.0 |
| Others       | -                     | 0                 | 0.0  | 4                    | 1                 | 25.0 | 4                     | 1                 | 25.0 |
| Family income per month (Rs.) | | | | | | | | | |
| 4000-4400    | 44                    | 16                | 36.3 | 53                   | 15                | 28.3 | 97                    | 31                | 31.9 |
| 3001-3400    | 69                    | 26                | 37.6 | 58                   | 20                | 34.4 | 127                   | 46                | 36.2 |
| 2001-2900    | 130                   | 41                | 31.5 | 98                   | 20                | 20.4 | 228                   | 61                | 26.7 |
| 1001-2000    | 197                   | 51                | 25.8 | 216                  | 60                | 27.7 | 413                   | 111               | 26.8 |
| Upto 1000    | 40                    | 22                | 55.0 | 56                   | 24                | 42.8 | 96                    | 46                | 47.9 |
Table-2: Knowledge about mode of transmission of AIDS

| Mode of Transmission                        | Urban (n=156) | Rural (n=139) | Total (n=295) |
|--------------------------------------------|---------------|---------------|---------------|
|                                            | No. | %    | No. | %    | No. | %    |
| By having multiple sex                     | 74   | 47.4 | 79  | 56.8 | 153 | 51.8 |
| By infected blood                          | 3    | 1.9  | 0   | 0.0  | 3   | 0.9  |
| By multiple use of infected needle by Drug addicts | 1   | 0.6  | 0   | 0.0  | 1   | 0.3  |
| By infected mother to unborn child          | 0    | 0.0  | 0   | 0.0  | 0   | 0.0  |
| Can’t say                                  | 26   | 16.7 | 20  | 14.4 | 46  | 15.5 |
| Don’t know                                 | 52   | 33.4 | 40  | 28.8 | 92  | 31.5 |

Table-3: Knowledge about prevention of AIDS

| Methods of Prevention                        | Urban (n=156) | Rural (n=139) | Total (n=295) |
|---------------------------------------------|---------------|---------------|---------------|
|                                            | No. | %    | No. | %    | No. | %    |
| Should have safe sex                        | 72   | 46.3 | 72  | 51.7 | 144 | 48.4 |
| The syringe should not be reused            | 3    | 1.9  | 1   | 0.7  | 4   | 1.3  |
| Blood of infected person should not be used | 0    | 0.0  | 1   | 0.7  | 1   | 0.3  |
| Infected mother should not have pregnancy   | 0    | 0.0  | 0   | 0.0  | 0   | 0.0  |
| Don’t know                                  | 51   | 32.6 | 45  | 32.3 | 96  | 33.7 |
| Can’t say                                   | 27   | 17.3 | 18  | 11.9 | 45  | 14.7 |
| No answer                                   | 3    | 1.9  | 2   | 1.3  | 5   | 1.6  |

Table-4: Knowledge about possibility of having AIDS through STDs

| Knowledge                  | Urban (n=480) | Rural (n=480) | Total (n=960) |
|----------------------------|---------------|---------------|---------------|
|                            | No. | %    | No. | %    | No. | %    |
| Yes                        | 64   | 13.3 | 50  | 10.4 | 114 | 11.8 |
| No                         | 4    | 0.8  | 16  | 3.3  | 20  | 2.0  |
| Can’t say                  | 298  | 62.2 | 332 | 69.2 | 630 | 65.6 |
| No answer                  | 114  | 23.7 | 82  | 17.1 | 196 | 20.6 |

Discussion

In the present study, about one third (30.7%) of women had knowledge about AIDS of whom 32.5% were from urban area and 29% were from rural area. In a study conducted by Sarkar et al (2007) in Pondicherry, it was observed that 96% of women had heard about HIV/AIDS. According to the findings of the present study the women are little less aware than that (99.6%) obtained by NACO (NACO, 2003). In the study conducted by Singh et al (2012), it was observed that 27.41% women know about HIV/AIDS in the rural areas. According to the baseline survey carried out by Kotech (this is name of author) and Patel (2008) in urban slums of Vadodara city 47% women had heard about HIV and the mass media were the most common source of the information. Keeping in mind all these results and views of various studies from various parts of the country in different communities, it can be concluded here that there is similarity in status of awareness about HIV/AIDS in both rural areas and urban slums.

In the present study, the majority of the women of urban areas were of the view that transmission of the disease is due to having sex with multiple partners (47.4 %). It was surprising that there were 33.4 % women were unaware about mode of transmission of this disease in the urban areas. There were 16.7 % women who were unable to express their views. Similarly according to the study by Sarkar et al (2007) in Pondicherry, 83% women knew one or more modes of spread of this disease. With the help of the observations in these studies here we can say that there are similarities in status of awareness about modes of transmission of HIV/AIDS in all the three types of...
communities namely rural, urban and urban slum in the different regions of the country. Singh et al (2012) observed that some of the women in the urban areas in the present study did not know (19.67%) about HIV/AIDS and among these some of them even did not know (33.73) the exact source of their information.

In the present study, the women who had knowledge about AIDS were asked about preventive measures to be taken in the prevention of AIDS. A majority of the women (48.4 %) had knowledge about safe sex for the prevention of AIDS. There were 33.7 % women who were not aware about the knowledge of prevention of AIDS. These findings are similar to the study by Singh et al (2012).

According to the NACO (2012), the women have poor access to information and education, which is critical in the context of HIV/AIDS since behavior change is the key to controlling the epidemic. This is further accentuated among poverty stricken communities.

Conclusion
With the observations in the present study, it is clear that the awareness in rural areas among women is low as compared with the urban counterpart in the study areas. Therefore, the knowledge and awareness should be raised by the Government agencies as well as by Non-Government Agencies (NGOs) in both urban and rural areas.

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