Knowledge about sexually transmitted diseases among primary health care providers

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1Dr. Mohan Lal, M.D, PGDH & HM, Associate Professor, Department of Community Medicine, Govt. Medical College, Amritsar, Punjab, India

Address for correspondence: E-mail id:- drmohanlal2004@yahoo.com

Abstract

Objective: The objective of this study was to assess the knowledge about sexually transmitted diseases among various health care providers who attended the in-service training. Material & Methods: The study is of cross sectional design. The participants included in the study were the various level health care providers, viz. Medical Officers, Health Supervisors (Male & Female) and Multipurpose Health Workers (Male & Female). Results: Six hundred and sixty six health care providers had participated in the study. 74.7% of the respondents mentioned AIDS as Sexually transmitted Disease, 49.5% syphilis and 45% gonorrhea. The most important symptoms mentioned were genital ulcer (39.3%), vaginal/urethral discharge (44.3%), fever (19.5%) and loss of weight (16.9%). Conclusion: In general, this study shows low level of awareness regarding Sexually Transmitted Diseases. Health care providers play important role in dissemination of knowledge, hence their awareness regarding Sexually Transmitted Diseases should be of optimal level.

Keywords: Knowledge, HIV, sexually transmitted diseases, Health Providers

Introduction

Sexually transmitted diseases (STDs) can have serious consequences beyond the immediate impact of the infection. Sexually transmitted diseases produce considerable waste-age of manpower besides unfolding misery both directly and indirectly through complications they produce. Globally 333 million suffer from STDs per year. In India, this comes to 30 million. Thus STDs occupy second position among communicable diseases in India [1]. STDs have nexus with HIV transmission. Some STDs can increase the risk of Human Immunodeficiency Virus (HIV) infection three – or more fold. Acquired Immunodeficiency Syndrome (AIDS) is a leading cause of adult deaths in the world. Case fatality is 100%. HIV/AIDS has emerged as pandemic.

Adolescent health and health of young people should focus on access to information on HIV/AIDS, modes of transmission and do away some of the wrong beliefs and misconceptions [2,3]. Health care providers are expected to provide care and accurate information on this subject matter to the patients and their relatives, as well as to the general public.

It is clearly important that they have credible and accurate knowledge of the disease. This is important for optimal health care delivery because several studies have shown that knowledge and beliefs of health care providers about HIV and AIDS are frequently inaccurate, their attitudes often negative. High level of awareness is needed among health care providers to provide health education to the general population. For this, flow charts and algorithm for each syndrome have been developed by World Health Organization (WHO) and National AIDS Control Organization (NACO) in India. These can be used easily to make rapid decision by different health workers, supervisors and doctors [4,5]. In India, the main strategy aimed at achieving effective management for people with established infections has been to integrate STD services into the existing health care system, with a special emphasis on integration at the primary health care level. Syndromic management is recommended by the NACO for case management at this level [6].

Awareness and positive attitudinal change of health care providers will also eliminate that fear and prejudice when they are dealing with AIDS. With the above in view, need to undertake this study was felt to identify areas related to STDs and HIV prevention amongst health care providers
working in primary health care level who are very close to the community by requiring conceptual clarification. The objective of this study was to assess the knowledge about STDs including HIV/AIDS among health care providers.

**Materials and Methods**

Present Cross sectional study was conducted among health care providers who attended various training courses at the Health & Family Welfare Training Centre, Amritsar from January 2002 to July 2004. Sample includes Medical Officers, Health Supervisors (Male and Female) and Multipurpose Health Workers (Male and Female). Sampling was convenience type. These health care providers were representative of roughly about half districts (8 out of 17 districts) of Punjab State. Health care providers were informed of the purpose of the study.

A pretested questionnaire developed in local language was used to collect data. Questionnaire comprised of questions relating to awareness regarding STDs, including HIV/AIDS. It included knowledge about STDs, types of STDs, causation and symptoms, health facilities for treatment of STDs, complications of STDs in the society, association of STDs and HIV. A questionnaire was distributed as a surprise test during inauguration of the training course. The data collected was tabulated and analyzed by using percentage and chi-square test.

**Results**

Sample was composed of 666 participants. Data was collected from Medical officers, Health Supervisor (Male and Female) and Multipurpose Health Workers (Male and Female). 74.7 % of the respondents mentioned AIDS as sexually transmitted diseases, 49.5% syphilis and 45.0% gonorrhea [Table 1]. The most important symptoms mentioned were vaginal and urethral discharge 44.3%, genital ulcer 39.3%, fever 19.5 % and loss of weight 16.9% [Table2]. 40.7% of the health care provider cited the causes of Sexually Transmitted Diseases in the society as multiple sexual partners, ignorance/lack of education in 20.8 %, illiteracy by 15.8 etc, while nearly 15% respondents did not mention any cause of Sexually Transmitted Diseases in the society [Table3]. Regarding the health facility for sexually transmitted diseases, about one third of the participants mentioned that Primary Health / Community Health centre as health facility for sexually transmitted disease treatment. About 1/4th did not mention about the health facility for STDs treatment [Table 4]. 64.4% of the total participants opined that there is an association of Sexually transmitted Diseases and HIV infection. [Table 5]. 92.1% of the participants had the view that treatment of the spouse is also important [Table 6]. 73.1 % of the total respondents opined that STDs leads to infertility as a complication also 72.8% of the respondents mentioned repeated abortion as other complication [Table 7].

**Breakdown of the 666 health care providers who participated in the study**

|                      | M.O’s (M) | Health Assistants (M) | Health Assistant (F) | Multipurpose Health Workers (M) | Multipurpose Health Workers (F) | Total |
|----------------------|-----------|-----------------------|----------------------|---------------------------------|---------------------------------|-------|
| NO.                  | 161       | 135                   | 60                   | 110                             | 200                             | 666   |
| %                    | 24.2      | 20.3                  | 9.0                  | 16.5                            | 30.0                            | 100   |

**Table No 1: Distribution of Respondents according to Knowledge regarding various STDs**

| Diseases            | MO’s No. (161) | MO’s % | MO’s No. (135) | MO’s % | MO’s No. (60) | MO’s % | MO’s No. (110) | MO’s % | MO’s No. (200) | MO’s % | MO’s No. (666) | MO’s % |
|---------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| AIDS                | 142            | 88.2   | 97             | 71.8   | 42             | 70.0   | 85             | 77.3   | 132            | 66.0   | 498            | 74.7   |
| Syphilis            | 147            | 91.3   | 45             | 33.4   | 30             | 50.0   | 31             | 28.2   | 77             | 38.5   | 330            | 49.5   |
| Gonorrhea           | 128            | 80.1   | 42             | 31.2   | 25             | 41.7   | 31             | 28.2   | 73             | 36.5   | 300            | 45.0   |
| Chancroid           | 45             | 27.9   | -              | -      | -              | -      | -              | -      | -              | -      | 45             | 6.7    |
| LGV                 | 44             | 27.3   | -              | -      | -              | -      | -              | -      | 01             | 0.5    | 45             | 6.7    |
| Hepatitis B         | 22             | 13.6   | 01             | 0.7    | 01             | 1.7    | 02             | 1.8    | 01             | 0.5    | 27             | 4.0    |
| Herpes Genitalis    | 23             | 14.3   | -              | -      | 02             | 3.4    | -              | -      | 02             | 1.0    | 27             | 4.0    |
| others              | 49             | 30.4   | 12             | 8.9    | 11             | 18.4   | 26             | 23.6   | 34             | 17.0   | 132            | 19.8   |
| Unanswered          | -              | -      | 24             | 17.8   | 10             | 16.7   | 15             | 13.6   | 42             | 21.0   | 91             | 13.7   |

*Leucorrhea etc.*
### Table No. 2: Distribution of Respondents according to Knowledge regarding Symptoms of STDs

| Symptoms                          | MO's (No. 161) | %     | HAs(M) (No. 135) | %     | HAs(F) (No. 60) | %     | MHWs(M) (No. 110) | %     | MHW(F) (No. 200) | %     | Total (No. 666) | %     |
|-----------------------------------|----------------|-------|------------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|
| Genital Ulcer                    | 136            | 84.9  | 42               | 31.2  | 13              | 21.6 | 52              | 47.3  | 19              | 9.5   | 262             | 39.3  |
| Vaginal /Urethral discharge       | 123            | 76.4  | 31               | 22.9  | 27              | 45.0 | 47              | 42.7  | 67              | 33.5  | 295             | 44.3  |
| Lymphadenopathy                   | 48             | 29.8  | 20               | 14.8  | 9               | 15.0 | 4              | 3.6   | 15              | 7.5   | 96              | 14.4  |
| Itching                           | 32             | 19.8  | 40               | 29.6  | 15              | 25.0 | 30              | 27.3  | 33              | 16.5  | 150             | 22.5  |
| Lower abdominal Pain              | 21             | 13.0  | 01               | 0.7   | 11              | 18.4 | 05              | 4.5   | 34              | 17.0  | 72              | 10.8  |
| Burning Micturation               | 19             | 9.8   | 04               | 2.9   | 01              | 1.7  | 07              | 6.4   | 04              | 2.0   | 35              | 5.2   |
| Fever                             | 38             | 23.8  | 15               | 11.2  | 20              | 33.4 | 19              | 17.3  | 38              | 19.0  | 130             | 19.5  |
| Loss of weight                    | 18             | 11.2  | 19               | 14.1  | 18              | 30.0 | 18              | 16.4  | 40              | 20.0  | 113             | 16.9  |
| Diarrhea                          | 33             | 20.5  | 07               | 5.2   | -               | -    | 04              | 3.6   | 11              | 5.5   | 55              | 8.2   |
| *Others                           | 05             | 3.1   | 22               | 16.3  | 26              | 43.4 | 23              | 20.9  | 53              | 26.5  | 129             | 19.4  |

*Others include cough, weakness, loss of appetite, backache, irregular bleeding, infertility etc.

### Table No. 3: Distribution of Respondents according to the Main Cause of STDs in the Society

| Main Cause                        | MO's (No. 161) | %     | HAs(M) (No. 135) | %     | HAs(F) (No. 60) | %     | MHWs(M) (No. 110) | %     | MHW(F) (No. 200) | %     | Total (No. 666) | %     |
|-----------------------------------|----------------|-------|------------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|
| Multiple Sexual Partner           | 68             | 42.3  | 59               | 43.7  | 3               | 51.6 | 38              | 34.5  | 75              | 37.5  | 271             | 40.7  |
| Ignorance/lack of education       | 53             | 32.9  | 10               | 7.4   | 08              | 13.4 | 28              | 25.5  | 40              | 20.0  | 139             | 20.8  |
| Illiteracy                        | 24             | 14.9  | 24               | 17.7  | 10              | 10.0 | 24              | 21.8  | 23              | 11.5  | 105             | 15.8  |
| Unsterilized needles & syringes   | 12             | 7.5   | 09               | 6.6   | 02              | 3.4  | 01              | 0.9   | 23              | 6.0   | 036             | 5.5   |
| Unscrened Blood transfusion       | 03             | 1.8   | 03               | 2.3   | 02              | 3.4  | 03              | 2.7   | -               | 0.0   | 011             | 1.6   |
| Others                            | 00             | 0.0   | 05               | 3.7   | 00              | 0.0  | 00              | 6.4   | 01              | 0.5   | 006             | 0.9   |
| Unanswered                        | 01             | 0.6   | 25               | 18.6  | 07              | 11.6 | 16              | 14.6  | 49              | 24.5  | 098             | 14.7  |

### Table No. 4: Distribution of Respondents according to knowledge regarding association of STDs and HIV

| Association                      | MO's (No. 161) | %     | HAs(M) (No. 135) | %     | HAs(F) (No. 60) | %     | MHWs(M) (No. 110) | %     | MHW(F) (No. 200) | %     | Total (No. 666) | %     |
|-----------------------------------|----------------|-------|------------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|
| Yes                               | 149            | 92.5  | 103              | 76.3  | 53              | 88.4 | 84              | 76.4  | 173             | 86.5  | 562             | 84.4  |
| No                                | 012            | 7.5   | 32               | 23.7  | 07              | 11.6 | 26              | 23.6  | 27              | 13.5  | 104             | 15.6  |

\[ \chi^2 = 33.176 \text{ p <0.01} \]
Table No.5: Distribution of Respondents according to Knowledge of the health facility for STDs Treatment

| Health Facility | MO’s (161) | HAs(M) (135) | HAs(F) (60) | MHWs(M) (110) | MHW(F) (200) | Total (666) |
|-----------------|------------|--------------|-------------|---------------|--------------|-------------|
| Sub Centre      | 04         | 2.5          | 02          | 1.5           | 05           | 8.3         | 06          | 5.5          | 10           | 5.0         | 27          | 4.1 |
| PHC/ CHC        | 57         | 35.4         | 30          | 22.3          | 28           | 46.6        | 52          | 47.3         | 68           | 34.0        | 235         | 35.2 |
| SDH/ CH         | 14         | 8.7          | 49          | 36.4          | 19           | 31.7        | 18          | 16.4         | 47           | 23.9        | 147         | 22.1 |
| Any other       | 36         | 22.4         | 26          | 19.4          | 03           | 5.0         | 03          | 2.6          | 18           | 9.0         | 86          | 12.9 |
| No Answered     | 50         | 31.0         | 28          | 20.4          | 05           | 8.4         | 31          | 28.2         | 57           | 28.5        | 171         | 25.6 |

Table No.6: Distribution of Respondents according to Knowledge regarding treatment of spouse for STDs

| Treatment   | MO’s (161) | HAs(M) (135) | HAs(F) (60) | MHWs(M) (110) | MHW(F) (200) | Total (666) |
|-------------|------------|--------------|-------------|---------------|--------------|-------------|
| Yes         | 155        | 96.3         | 119         | 88.2          | 56           | 93.4        | 91          | 82.7         | 192          | 96.0        | 613         | 92.1 |
| No          | 06         | 03.1         | 016         | 11.8          | 04           | 6.6         | 19          | 17.3         | 008          | 04.0        | 53          | 7.9 |

$\chi^2 = 36.869 \ p < 0.01$

Table No.7: Distribution of Respondents according to the Knowledge of the complications of STDs

| Complications | MO’s (161) | HAs(M) (135) | HAs(F) (60) | MHWs(M) (110) | MHW W(F) (200) | Total (666) |
|---------------|------------|--------------|-------------|---------------|----------------|-------------|
| Infertility   | 149        | 92.5         | 82          | 60.8          | 56             | 93.4        | 49          | 81.6         | 130          | 73.1        | 48          | 73.1 |
| No            | 012        | 7.5          | 53          | 39.2          | 11             | 18.4        | 33          | 30.0         | 70           | 26.9        | 17          | 26.9 |

$\chi^2 = 48.410 \ p < 0.001$

$\chi^2 = 12.511 \ p > 0.05$

Discussion

Health care providers are called upon to provide care and accurate information about sexually transmitted diseases to the patients and their relatives as well as to the general population for prevention and control. But in this study health care provider demonstrated low level of knowledge except medical officers. To prevent and control STDs, the knowledge of the front-line workers working in the field with the general population must be up to the mark but as found in this study, knowledge of the health care providers especially the front line workers is less than expected. According to this study, health care providers had inadequate knowledge regarding the various aspects of sexually transmitted diseases. Similarly the study conducted in Kathmandu, Nepal, also shows that knowledge and practice regarding STI/HIV has not been found sufficient among health workers [7, 8].

According to the Table no.1, 49.5% and 45.0% of the respondents were aware of syphilis and gonorrhea while in a study conducted in Vietnam 83% of respondents revealed Syphilis and Gonorrhea as STIs [9]. However, knowledge regarding the common symptoms of STD urethral/vaginal discharge was found to be higher than that of the study conducted on KAP of general practitioners in Karachi, Pakistan, and among private general practitioners in.
Windhoek, Namibia, where the knowledge for urethral discharge was 55.3% and 56.5%, respectively [10, 11]. This might be because these studies only focused on knowledge of general practitioners while our study included health care providers working in the public health facilities. When asked about the treatment of spouse, 92.1% of respondents gave a positive response while a study conducted in Vietnam 70% of respondents believed partner treatment is necessary for bacterial vaginosis or candidiasis cases.[9]. Knowledge about treatment from health care facilities for STDs is the most pivotal point and crucial for the further referring. But in our study one – fourth of the health care respondents did not know about the health care facilities. Low level of knowledge is mainly attributed to the poor training of the health care provider. Hence extensive awareness campaign and training to the health care provider must be conducted to improve their knowledge.

Conclusion

This study concluded that even medical officers did not have that level of knowledge about Sexually Transmitted. Similar finding was revealed among other health care providers also. It is recommended that Health staff members should be empowered through various in-service training courses, so that they can disseminate the correct and authenticated information to general population which is a social vaccine for prevention of the HIV/AIDS which is a serious new generation Sexually transmitted disease.

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References

1. Marfatia YS, Sharma Archana*, Singh Monika*, Engineer Swati*, Bansal Nidhi* HEALTH CARE SEEKING BEHAVIOUR OF STD PATIENTS INDIAN J SEX TRANSM DIS 2005; VOL. 26 NO. 1, 23

2. UN AIDS. Summary of the Declaration of Commitment of HIV/AIDS. Special session on HIV/AIDS. New York:(accessed UNAIDS ;2001)

3. NACO. Training Module on The Sentinel surveillance of HIV infection. New Delhi: NACO , GOI;1993

4. WHO. Guidelines for the management of sexually transmitted infections. Geneva. World Health Organization 2003.

5. NACO. Specialist training and reference module NACO II (1999-2004). New Delhi :MOH and FW GOI

6. National AIDS Control Organization. Country scenario 1997-98. Ministry of Health and Family Welfare: New Delhi; 1998.

7. . NCASC. National STI Case Management Guidelines. Kathmandu, Nepal: Ministry of Health and Population; 2001.

8. Adhikari C., Sherchan L., Thapa S., Adhikari L. Effectiveness of syndromic STI case management/RH training in knowledge and practice of auxiliary health workers. Journal of Universal College of Medical Sciences. 2014;2(3)

9. Lan PT Mogren IPhuc HD Stålsby Lundborg C (Knowledge and practice among healthcare providers in rural Vietnam regarding sexually. Transmitted infections., Journal of the American Sexually Transmitted Disease Association, Vol.36, issue 7, pp452-458, 2009.

10. S. N. Iipinge and L. Pretorius, “The delivery and quality of sexually transmitted infections treatment by private general practitioners in Windhoek Namibia,” Global Journal of Health Science, vol. 4, no. 5, pp. 156–171, 2012.

11. M. F. A. Hussain, M. R. Khanani, S. E. Siddiqui, N. Manzar, S. Raza, and S. Qamar, “Knowledge, attitudes & Practices (KAP) of general practitioners (GPs) regarding sexually transmitted diseases (STDs) and HIV/AIDS in Karachi, Pakistan,” Journal of the Pakistan Medical Association, vol. 61, no. 2, pp. 202–205, 2011.

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Kulkarni S, Kumavat A., Mane A. Prevalence and determinants of overweight/obesity among affluent school children. Public health Rev: Int J Public health Res 2016;3(1):15-19.doi:10.17511/ijphr.2016.i1.04.