

ORIGINAL ARTICLE

Knowledge and attitude of paramedical staff and hospital support staff towards HIV infection

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Abstract

Background: It is important for health care providers and hospital support staff to understand the limits of the risk to themselves when they are in constant contact with an infected patient. Proper knowledge regarding HIV/AIDS will prevent further transmission of HIV/AIDS. **Methods:** 120 participants each of the paramedical staff and hospital support staff were taken for the study. Study was done with the help of specially prepared questionnaires. The scores were collected, tabulated and analyzed. Statistical analysis was done with the help of IBM SPSS statistics 20 using student's t test. **Results:** The present study showed that the paramedical and other hospital support staff was having sufficient knowledge regarding the HIV infection. The hospital support staff had less knowledge as compared to paramedical staff. But the attitude of both the paramedical and hospital support staff needs to be changed towards the HIV infected patients. **Conclusion:** There is need to increase the awareness among these people. For these purpose seminars, workshops should be organized on a continuous basis for health care workers. **Key words:** AIDS, Paramedical staff, Hospital support staff, HIV infection

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Introduction

The sexually transmitted diseases (STDs) represent one of the major health problems worldwide today. The characteristics of human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) demarcate the pandemic from the other communicable diseases, including the STDs. These include the rate of the virus spread, reaching epidemic proportions in some parts of the world, the magnitude of its infection and the inordinately long incubation period before symptoms development. These are in addition to the lack of curative therapy and lack of a preventive vaccine. Apart from its health and social implications, it has a huge burden on the affected patient, family and society. Thus, a

global increasing attention is being paid to the prevention and control of HIV/AIDS.¹

Acquired Immuno-deficiency Syndrome (AIDS) has emerged as one of the most important public health issues of the late twentieth and early twenty-first centuries and is now one of the leading causes of global morbidity and mortality. The AIDS epidemic has prompted wide-reaching changes in public health, clinical practice, and scientific research, and has a great impact upon societies throughout the world.² Since 1986, when the first acquired immunodeficiency syndrome (AIDS) patient was detected in India, the AIDS epidemic has grown steadily. The spread of the epidemic depends on a myriad of factors like personal, social, economic, cultural, and other intricately related factors. Health workers have an important role in influencing the spread and the

impact of the epidemic. It has been observed that the perceptions regarding human immunodeficiency virus (HIV)/AIDS among the health workers are not consistent, and there exists many misconceptions with regard to HIV/AIDS.^{3,4} Many health workers are not willing to provide the necessary care and services⁵ to the HIV/AIDS infected patients. Health workers provide the first level care in the public health sector, and therefore, it is essential to train these workers to create a positive attitude toward the HIV/AIDS patient.⁶ The health care worker not only should be sympathetic in caring for the AIDS patient, be well informed about the diverse aspects of the disease and be well versed in protecting herself/himself from contracting the disease.⁷ Health care workers have been studied because they are essential in the prevention and management of diseases and important opinion leaders in their communities, and their perception of exposure to risk can influence the management of patients and diseases.⁸

Materials and Methods

This study was carried out including paramedical personnel's and hospital support staff to check the knowledge and attitude of these regarding HIV and AIDS. 120 each of the paramedical staff and 120 hospital support staff were taken into the study. The study was done with the help of the specially prepared questionnaires which were validated by doing pilot study.

Approval from the local ethical committee was taken before start of the study and informed consent was taken from all the personnel's participating into the study.

Inclusion criteria:

1. Paramedical and hospital support staff working in the general hospitals.
2. Paramedical and hospital support staff working in the specialty hospitals.
3. Willing to participate in the study.

Exclusion criteria:

1. Medical doctors of the hospitals.

Each of the participants were given specially prepared questionnaires and asked to fill them in time of half an hour. Responses from all the participants were collected and tabulated. Each correct answer were given score 1 and wrong

answer were given score zero. Accordingly depends on the questions in each group the scores were summed up and tabulated.

Results

On comparison of knowledge about causative agent of AIDS between paramedical staff (0.91 ± 0.29) and hospital support staff (0.80 ± 0.40), statistically significant difference was present. (Student t test, $p < 0.05$) (Table 1)

Table 1: Knowledge about causative agent of AIDS

Participants	(n)	Correct answer s (Mean±SD)	t Value	p value
Paramedical staff	12	0.91±0.29	2.396	0.0173
Hospital support staff	12	0.80±0.40		

SD= Standard Deviation $P < 0.05$ = Statistically significant.

Routes of transmission of HIV were checked by asking various questions about the common routes of infection transmission including HIV transmission. The comparative analysis showed statistically very significant difference between knowledge of paramedical staff and hospital support staff. (Student t test, $p < 0.001$) (Table 2)

Table 2: Knowledge regarding routes of transmission

Participants	(n)	Correct answer s (Mean±SD)	T Value	P value
Paramedical staff	12	8.55±0.67	4.747	<0.001
Hospital support staff	12	8.00±1.08		

SD= Standard Deviation, $P < 0.001$ = Very statistically significant.

Knowledge about difference between HIV and AIDS was found to be poor among both the staff, but it is still less in hospital support staff and the difference was found to be statistically insignificant. Regarding knowledge of

symptoms of AIDS, statistically significant difference was present between paramedical staff and hospital support staff. (Student t test, $p < 0.05$) The present study findings indicate that the majority of the Medical Personnel, Paramedical staff were familiar with the symptoms of the disease, with the highest knowledge among the doctors and the lowest among hospital support staff. For health professionals it is very essential to be familiar with the symptoms of any disease so that they can diagnose it properly. Knowledge among hospital support staff may be insufficient due to several factors, including lack of accessibility to information and lack of training. (Table 3)

Table 3: Knowledge about symptoms of AIDS

Participants	(n)	Correct answers (Mean±SD)	T Value	P value
Paramedical staff	120	0.87±0.34	3.3291	0.001
Hospital support staff	120	0.69±0.46		

SD= Standard Deviation $P < 0.05$ = Statistically significant difference.

Very poor knowledge was present in both the paramedical staff (1.34 ± 0.69) and hospital support staff (1.04 ± 0.75) about the diagnosis and cure of HIV/ AIDS. Statistically significant difference was present between paramedical staff and hospital support staff.

Also the attitude of the participants towards the patients infected with HIV was studied. The fear of contagion was present in about the 0.18 ± 0.09 in paramedical staff, while in hospital support staff it was found to be present in 0.31 ± 0.11 . In present study 21.42 % of health care providers stated that AIDS patient should be kept in isolation ward. Medical and paramedical staff had more positive attitude as compared to other staff. The findings of the present study were comparable with following studies.

Discussion

On comparison of knowledge about causative agent of AIDS between paramedical staff and hospital support staff, statistically significant difference was present. These findings were similar to studies conducted by Gellert et al⁹

(96.4%), Rasania SK et al¹⁰ (96.27%). Observations of the present study regarding the routes of transmission of HIV were comparable with the studies conducted by Gachigo JN et al¹¹, Michelle Kermode et al¹². In study by Rajderkar SS et al², 39.24% health care providers were afraid of getting infection during the course of their work. In a study conducted by Gordin FM et al¹³, fear of contagion was noted by 25% of employees, while in a study by Chen Reis et al¹⁴ it was noted in 81% of the respondents.

Danchaivijitr S et al¹⁵ and Mungherera M et al¹⁶ found that health practitioners had positive attitudes with PLWHA. Hentgen V et al¹⁷ in their study noted that 21% of the health workers had an opinion that AIDS patients should be isolated. Michelle Kermode et al¹⁸ found that 15.2 % thought that HCWs should be allowed to refuse to care for people with HIV/AIDS. AIDS caused by the HIV is a modern pandemic affecting industrialized and developing countries. Although the prevalence of HIV has variable distribution in country like India, states of the Southern India and North-eastern India have predominant number of reported cases.¹⁹ AIDS epidemic is worst among the youths as these groups tend to experience with practice of risky behavior often with little awareness of the danger. This high risk groups were more susceptible due to incomplete social, emotional and psychological development and results in risky behavior.¹⁹ The very alarming rate of spread of HIV, lack of curative therapy and vaccine to prevent it necessitates it need of for ongoing and consistent health educations programme at different levels of the health care.¹⁹

Health education can be regarded as the communication of knowledge and the provision of experiences to help individuals to develop attitudes and skills which will assist their adopting behaviors to improve and maintain health for themselves and their fellows. The preventive model of health education adopts behaviors which will prevent infections and/or diseases, such as HIV/AIDS, at all levels. Education about STDs, including HIV/AIDS, should cover a wide range of attitudes and behaviors. Some believe that usually the mere presence of knowledge is sufficient to motivate healthy behaviors. Hence, motivation can lead

to health-influencing behavior. This is known as the knowledge-action model of behavior change. However, in some cases, knowledge may be sufficient to elicit changes in behavior, but in other cases, it may not. Therefore, behavior may not change as a result of providing facts. The transfer of knowledge into action is dependent on a wide range of internal and external factors, including values, attitudes and beliefs.¹

AIDS is an important public health problem because the complex, emotional, behavioral, and psychosocial complication that accompany the physical illness. The only way to combat a disease that has no effective treatment is by prevention. The best single way to prevent the disease is through education.^{20,21,22} Prevention of HIV/AIDS infection through continuing education is a key strategy for the control of the HIV/AIDS epidemic at least until vaccines and drugs are available, accessible, and affordable.²³ Although it is considered that nowadays there is adequate knowledge about transmission of HIV, published figures show an increase in the number of HIV positive people and individuals suffering from AIDS. The increase in cases detected might be due to the reduction of information given to the general population.²⁴ Healthcare professionals including paramedical staff and hospital support staff have significant responsibility for providing information about the transmission of HIV and for developing a strategic health programme to reduce that transmission. Student nurses will have received some information about HIV and AIDS before commencing their undergraduate studies. Through their paramedical education and clinical training they should acquire knowledge that will change their attitudes and influence their behaviors both in the prevention of transmission of the virus, and positive attitudes for effective caring for these patients. With the continuing increase in the incidence of HIV and AIDS paramedical staff require current knowledge and skills to ensure that they are able to provide high quality, effective care to people living with HIV and AIDS.^{25,26}

Thus, Paramedical staff and hospital support staff as a subgroup of health care professionals exposed to an occupational risk of HIV infection due to direct contact with blood and bodily fluid during clinical practice, and have been reported

to tend to have sufficient knowledge but somewhat negative attitudes towards persons living with HIV/ AIDS.

Conclusion

Seminars, workshops should be organized on a continuous basis for health care workers on universal precautions, stigma and discrimination reduction. Those trained should train others on the job. When proper information will be imparted to them in systematic manner and it will be enforced from time to time (knowledge) then and then only we can hope to achieve development of proper attitudes. Findings of this study suggest that the paramedical staff had satisfactory levels of knowledge on transmission and prevention of HIV/AIDS. Most of the staff had favorable attitudes toward HIV-infected persons. The results of this study will contribute to establishment of education and policy concerning HIV/AIDS.

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References

1. Elfituri A, Kriem F, Sliman H, Sherif F. Education against HIV/ AIDS. www.intechopen.com. 105- 24.
2. Rajderkar SS, Langare SD, Naik JD. Knowledge, Beliefs and Attitudes about HIV/AIDS among Health Care Providers of Govt. Medical College and Hospital, Miraj, Maharashtra. International Journal of Health Sciences & Research 2012;2(1):82-90.
3. Goel NK. An explorative KABP study on AIDS among nursing professionals. Indian J Prev Soc Med 1999;30:79-83.
4. Brachman P Jr, Kozarsky P, Cetron M, Jacob MS, Boonitt B, Wongsrichanalai J, et al. Knowledge and attitudes of hospital-based physicians and trainees about HIV infection in the United States, Canada, India, and Thailand. Arch Intern Med 1996;156:761-6.
5. Adelikan ML. A study on KAP of health care provider in Nigeria. AIDS Care 1995;7:63-72.

6. Katira JM, Dutt D, Tolia PB, Chatterjee P. Impact of Training, on Perceptions and Practices Related to Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome, on Male Health Workers in Rajkot District, Gujarat. *Indian Journal of Community Medicine* 2007;32(2):128-30.
7. Siddiqi S, Khan MS, Majeed SA. Knowledge, Attitude and Practice Survey of Acquired Immune Deficiency Syndrome (AIDS) Among Paramedicals in a Tertiary Care Hospital in Pakistan. 1-6.
8. Awusabo-Asare K, Marfo C. Attitudes to and management of HIV/AIDS among health workers in Ghana: the case of Cape Coast municipality. *Health Transition Review* 1997;Supplement to Volume 7:271-80.
9. Gellert GA, Maxwell RM, Higgins KV et al. AIDS and pre-hospital personnel, knowledge and prevention of occupational exposure. *Pre-historical Disaster Management* 1996; 11(2):112-116.
10. Rasania SK; Singh RN.HIV/AIDS: An evaluative study among health care providers. *Indian J Sexually Trans Dis.* 2003; 24(2):58-61.
11. Gachigo JN, Naidoo. HIV/AIDS: The knowledge, attitudes and behaviour of dentists in Nairobi, Kenya. *SSADJ.* 2001; 56(12):587-591.
12. Michelle Kermode, Wendy H, Biangtung L et al. HIV-related knowledge, attitudes & risk perception amongst nurses, doctors & other healthcare workers in rural India. *Indian J Med Res,* 2005;122:258-264.
13. Gordin FM, Willoughby AD, Levine LA et al. Knowledge of AIDS among hospital workers: behavioral correlates and consequences.1987; 1(3):183-188.
14. Chen Reis, Michele H, Lynn L et al. Discriminatory Attitudes and Practices by Health Workers toward Patients with HIV/AIDS in Nigeria. *PLoS Medicine* 2005;2(8):doi:10.1371/journal.pmed.0020246
15. Danchaivijitr S, Tantiwatanapaiboon Y, Chokloikaew S et al. Universal precautions: Knowledge, compliance, attitudes of doctors and nurses in Thailand. *J Med Assoc Thai.* 1995; 78 (2):112-117.
16. Mungherera M, Van A, Hall TL et al. HIV/AIDS-related attitudes and practices of hospital-based health workers in Kampala, Uganda. *AIDS.* 1997; 11(1):79-85.
17. Hentgen V, Jaureguiberry S, Ramiliarisoa A et al. Knowledge, attitude and practices of health personnel with regard to HIV/AIDS in Tamatave (Madagascar).*Bull Soc Pathol Exot.* 2002; 95(2):103-108.
18. Michelle Kermode, Wendy H, Biangtung L et al. HIV-related knowledge, attitudes & risk perception amongst nurses, doctors & other healthcare workers in rural India. *Indian J Med Res,* 2005;122:258-264.
19. Rao S, Iyer RH, Sathiyasekaran BWC. A cross sectional study of HIV/ AIDS awareness among college students and influence of lifestyle. *Sri Ramachandra Journal of Medicine* 2011;4(1):5-10.
20. Altun I. Knowledge, attitudes and beliefs of maritime college students concerning HIV/AIDS. *HIV/AIDS Rev,* 2004; 3:51-56.
21. Çetin ET. HIV/AIDS'in Dünyadaki durumu (The situation of HIV/AIDS in the world). *AIDS Savapým Bülteni* 2000, 36:8-10 (in Turkish).
22. UNITED NATIONS/UNDP-SEAHIV/UNAIDS. Mobilizing a response to HIV/AIDS. In the Maritime Industry. Course information for students.
23. Koksall S, Namal N, Vehid S, Yurtsever E. Knowledge and Attitude Towards HIV/AIDS Among Turkish Students. *Infectious Diseases Journal of Pakistan* 2005;118-23.
24. Ouzouni C, Nakakis K. HIV / AIDS knowledge, attitudes and behaviours of student nurses. *Health Science Journal* 2012;6(1):129-50.
25. Williams RD, Benedict S, Pearson BC. Degree of comfort in providing care to PWAs: effect of a workshop for a baccalaureate nursing students. *Journal of Nursing Education.* 1992; 31: 397-402.
26. Held SL. The effects of an AIDS educational program on the knowledge and attitudes of a physical therapy class. *Physical Therapy.* 1993; 73 (3): 156-164.