

Original article:

Knowledge, Attitude, Practices of HIV Infection in Paramedical Staff

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Abstract

Background: HIV/AIDS has been a global pandemic for the last 30 years, and its spread has yet to be contained. Taking care of patients with HIV or AIDS requires special nursing knowledge and skills. Hence, we planned the present study to assess the knowledge, attitude and practices of HIV infection in paramedical staff of Mahatma Gandhi Medical College, Sitapura, Jaipur, Rajasthan, India.

Materials & methods: The present study included evaluation of knowledge, attitude and practices of HIV infection in paramedical staff. A total of 50 paramedical staff was included in the present study. We framed a special questionnaire which was given to all the candidates included in the present study. All the results of all the candidates were collected and were recorded on Microsoft excel sheet. All the results of the questionnaire were given a score of one for right answered and were given a score of zero for wrong answered. All the results were analyzed by SPSS software.

Results: Only 28 candidates had correct knowledge about the causative agent of AIDS in the present study. Only 30 and 16 candidates had correct knowledge about route of transmission of HIV/ AIDS and about signs and symptoms of AIDS respectively.

Conclusion: Inadequate knowledge exists among paramedical staff in relation to HIV infection.

Key words: Knowledge, HIV, Paramedical, Staff

Introduction

The characteristics of human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) demarcate the pandemic from the other communicable diseases. HIV/AIDS is a major health problem, especially for the developing world. The World Health Organization (WHO) reported approximately 33.3 million people were infected with HIV/AIDS globally in the year 2009¹. More than seven thousands new HIV/AIDS infections occur every day while approximately 4000 people die every day globally with HIV/AIDS. Of those who are infected, nearly 95% were unaware of their HIV/AIDS status.²⁻⁴ Due to sexual transmission of HIV/AIDS certain groups are at higher risk of contracting the disease including commercial sex workers, Intra Venous (IV) drug abusers and mobile population like military personnel, fishermen, prisoners and truck drivers.⁴

HIV/AIDS has been a global pandemic for the last 30 years, and its spread has yet to be contained. However, due to the availability of antiretroviral therapy, today HIV is becoming a chronic disease, which means that more physicians from every medical field will encounter HIV-infected individuals throughout their medical careers.⁵⁻⁷ This obliges all medical staff to have both sufficient and correct knowledge regarding HIV/AIDS and

a professional attitude towards the disease and the patients, unaffected by fears, stigma and misconceptions. The spread of HIV in any community is in part determined by its members' knowledge concerning safe sexual practices and prevention of HIV transmission. Taking care of patients with HIV or AIDS requires special nursing knowledge and skills.^{8- 10}

Hence; we planned the present study to assess the knowledge, attitude and practices of HIV infection in paramedical staff of Mahatma Gandhi Medical College, Sitapura, Jaipur, Rajasthan, India.

Materials & methods

The present study was planned in the department of General Medicine, Mahatma Gandhi Medical College, Sitapura, Jaipur, Rajasthan, and included evaluation of knowledge, attitude and practices of HIV infection in paramedical staff of Mahatma Gandhi Medical College, Sitapura, Jaipur, Rajasthan, India. written consent was obtained after explaining in detail the entire research protocol. We planned the present study in the paramedical staff of the hospital for checking their knowledge and attitude in relation to HIV and AIDS. A total of 50 paramedical staff was included in the present study. We framed a special questionnaire which was given to all the candidates included in the present study.

Paramedical staff working in the specialty or general hospital, Subjects willing to participate in the present study were included and Subjects not willing to give consent, Subjects other than paramedical staff of the hospital were excluded from the study. The prepared questionnaire was given to all the candidates and equal approximate time of two hours was given to all the candidates for filling the questionnaire. All the results of all the candidates were collected and were recorded on Microsoft excel sheet. All the results of the questionnaire were given a score of one for right answered and were given a score of zero for wrong answered. All the results were analyzed by SPSS software. Univariate regression curve was used for assessment of level of significance.

Results

A total of 50 candidates were included in the present study, out of which, 32 were male while the remaining 18 were females. Mean age of the subjects of the present study was 42.5 years. Only 28 candidates had correct knowledge about the causative agent of AIDS in the present study. Only 30 and 16 candidates had correct knowledge about route of transmission of HIV/ AIDS and about signs and symptoms of AIDS respectively.

Discussion

Paramedical staff is one of the key players in the prevention and management of blood-borne infection, including HIV. A number of studies regarding HIV/AIDS knowledge, attitudes, risk perception and safe practice among health personnel have been conducted. There is limited literature available on previous studies in Eastern countries.^{10- 12} Hence; we planned the present study to assess the knowledge, attitude and practices of HIV infection in paramedical staff of Mahatma Gandhi Medical College, Sitapura, Jaipur, Rajasthan, India.

In the present study, we observed that only 28 candidates had correct knowledge about the causative agent of AIDS in the present study. Only 30 and 16 candidates had correct knowledge about route of transmission of HIV/ AIDS and about signs and symptoms of AIDS respectively. Hentgen V et al surveyed HIV/AIDS-related knowledge, attitudes and practices of health care workers in Tamatave (Madagascar), to assess the feasibility of voluntary counselling and testing for HIV infection in antenatal care. A Knowledge Attitude and Practice study was conducted during July 2000 in the antenatal health care centres and the hospital of Tamatave. The health workers completed a self-administrated questionnaire on HIV transmission, attitudes and practices regarding AIDS testing and counselling, HIV risk perception and attitudes regarding patients with HIV disease. A 90%

response rate was obtained, with completed questionnaires from 45 health care workers. The sample included physicians, midwives, nurses, medical students and nursing auxiliaries. Scientific knowledge about transmissibility of HIV infection was poor: transmission was believed possible by living together without having sex (7%), by breastfeeding a HIV-positive child (9%), by using toilets after a HIV-positive patient (13%) and by blood donation (76%). 73% of the health staff believed a child born of an HIV-positive woman would systematically be infected and interventions to reduce this risk were unknown. Sixty one per cent of the health-workers reported never having advised patients to be tested and less than 10% mentioned correct counselling precautions. Seventy nine percent believed that they were at risk of acquiring AIDS, mainly through occupational exposure. Negative attitudes towards HIV-positive patients were also noted: twenty per cent of the health workers mentioned that AIDS patients should be isolated in quarantine. Physicians and paramedical staff differed only in their better knowledge about transmissibility of HIV. Physicians had the same restrictive attitude towards patients with HIV as paramedical health workers and did not differ by their counselling practice. Their study revealed gaps in the knowledge of health care workers about HIV infection. Before implementing voluntary counselling and testing in antenatal care, additional HIV/AIDS training for health staff seems necessary.¹²

Davidson G et al assessed the knowledge, attitudes, and perceptions of risk of occupational HIV transmission in hospital in relation to existing guidelines. All 1530 staff working in the hospital and 22 managers were included in their study. The response rate in the questionnaire survey was 63% (958/1530). Although staff across all occupational groups knew of the potential risk of infection from needlestick injury (98%, 904/922), significantly more non-clinical staff (ambulance, catering, and domestic staff) than clinical staff (doctors, nurses, and paramedics) thought HIV could be transmitted by giving blood (38%, 153/404 v 12%, 40/346; $\chi^2 = 66.1$ $p < 0.001$); one in ten clinical staff believed this. Except for midwives, half of staff in most occupational groups and 19% (17/91) of doctors and 22% (28/125) of nurses thought gloves should be worn in all contacts with people with AIDS. Most staff (62%, 593/958), including 38% (36/94) of doctors and 52% (67/128) of nurses thought patients should be routinely tested on admission, 17% of doctors and 19% of nurses thought they should be isolated in hospital. One in three staff perceived themselves at risk of HIV. Midwives, nurses, and theatre technicians were most aware of guidelines for safe working compared with only half of doctors, ambulance, and paramedical staff and no incinerator staff. Policy guidelines for safe working practices for patients with HIV infection and AIDS need to be disseminated across all occupational groups to reduce negative staff attitudes, improve knowledge of occupational transmission, establish an appropriate perception of risk, and create a supportive and caring hospital environment for people with HIV. Managers need to disseminate policy guidelines and information to all staff on an ongoing basis.¹³ Kocić B et al assessed HIV/AIDS-related professional risk, knowledge, attitude and practice of health care workers in Niš. A cross-sectional study of health personnel from Primary Health Centre, Clinical Medical Centre and Dental Clinic in Niš was performed. The data were collected by an anonymous questionnaire. Mantel-Haenszel χ^2 testing and multiple logistic regression analysis were applied. Results show that 89% of health personnel perceived high professional risk of acquiring HIV infection. The risk perception of acquiring HIV infections was higher among those who were frequently exposed to patients' blood and other body fluids (OR=10.1 95% CI=3.1–32.5), and those who had treated HIV-positive patients (OR=3.0 95% CI=1.0–8.8). The majority of respondents had insufficient knowledge about the modes of HIV transmission. Nearly two thirds of health personnel agreed that every

hospitalized patient should be tested for HIV, and more than four fifths of them agreed that their personal protection was more important than the confidentiality of patient's HIV/AIDS status. Twenty nine percent of health personnel use adequate protection during their daily work with patients. These findings indicated a need for urgent educational and training initiatives of HIV and AIDS for all categories of health care workers.¹⁴

Conclusion

From the above results, the authors concluded that inadequate knowledge exists among paramedical staff in relation to HIV infection. Proper orientation seminars and workshops should be organized for increasing the knowledge of these candidates about HIV infection.

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Table 1: Demographic details of the subjects included in the present study

| Parameter | | Value |
|------------------|--------|-------|
| Mean age (years) | | 42.5 |
| Gender | Male | 32 |
| | Female | 18 |

Table 2: Knowledge, attitude and practice of paramedical staff about HIV infection

| S No. | Parameter | No. of subjects giving correct answers (N=50) |
|-------|--|---|
| 1 | The causative agent of AIDS | 28 |
| 2 | Regarding routes of transmission | 30 |
| 3 | Knowledge about signs and symptoms of AIDS | 16 |

Graph 2: Knowledge, attitude and practice of paramedical staff about HIV infection

