Knowledge, Attitude and Practice of Health Care Workers Towards HIV Patients at Primary Health Care level in southwestern Saudi Arabia: Twenty-five years after the initial report

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Abstract

The objective of the present study was to critically review the existing knowledge, attitude and practices of HCWs towards HIV. A cross-sectional study was conducted in Primary Health Care centers in Abha and Khamis Mushait cities of Aseer region, southwestern Saudi Arabia. All HCWs (physicians, nurses, lab technicians and dentists) were invited to participate in the study. A validated self-administered structured questionnaire was used to collect data about HCWs' personal and professional characteristics; knowledge of HIV infection and transmission; attitudes towards HIV/AIDS patients and practices. A total of 372 HCWs were included in the study. Out of them 23.9% were unable to identify tattooing and ear piercing as methods for transmission. A considerable proportion failed to mention blood transfusion (3.8%), unprotected sex (6.7%) and unclean needles (4.0%) as possible methods for disease transmission. Additionally, 36.8% of HCWs have a misconception that kissing could transmit HIV and about misbelieved that sharing eating and drinking utensils (23.1%), swimming pool (18.8%) and living with AIDs patients (17.5%) could transmit infection. Stigmatizing attitude was detected. In conclusion, poor knowledge and stigmatizing attitude toward HIV patients are evident in HCWs. Health education programs should be adopted to improve HCWs' knowledge about transmission mode and combat HIV stigma.

Key words: HIV/AIDS; healthcare workers, Knowledge, attitude, stigma, Saudi Arabia

Background

According to recent WHO statistics, there were globally approximately 36.7 million people living with the human immunodeficiency virus (HIV) at the end of 2016(1). A recent report by the Saudi Ministry of Health in 2018, including data obtained from 20 HIV treatment centers located in different regions of the Kingdom, showed that there were 6,256 people living with HIV and knew their status by the end of 2017, which is equivalent to 76% of the estimated number of people living with HIV in Saudi Arabia (2).

A study performed in 2015 in Jeddah, Saudi Arabia, among the general population showed lack of proper knowledge about the disease and more than 40% think that HIV positive people should be isolated (3). Similarly, a study among male dental students in Saudi Arabia showed lack of knowledge regarding HIV/AIDS transmission and means for prevention in addition to unfavorable attitudes towards HIV/AIDS individuals (4).

It was well known that the traditional primary health care approach of health promotion and disease prevention that focuses on case-finding, continuity of care and problem resolution, adapts well to HIV/AIDS. Primary care is holistic, patient based, and has as its focus healing rather than cure. Primary care physicians have a role in the prevention of HIV infection, in identifying asymptomatic seropositive people, in offering early therapeutic interventions, in the early detection of opportunistic infections and HIV-related malignancies, and in the ongoing management of chronic ill-health. There is also a role for primary care physicians in the psychosocial management of people with HIV/AIDS, in supporting those close to the patient, and in educating the community in general about the social parameters of HIV/AIDS (5).

In 1995 two published articles addressed the awareness of HIV among primary health care workers in Aseer region, Saudi Arabia. They found massive defects in their knowledge (6, 7). Recent data regarding knowledge, attitude and practices of primary healthcare workers in Saudi Arabia in general and in the Aseer region in particular, are scarce and even lacking. The aim of the present work is to study the current knowledge, attitude and practices (KAP) of primary healthcare workers towards HIV in Abha and Khamis Mushait cities of Aseer region, Saudi Arabia.

Patients and Methods

The present cross-sectional study was conducted in primary health care centers in Abha and Khamis Mushait cities of Aseer region, southwestern Saudi Arabia in 2017. All health care workers (physicians, nurses, lab technicians and dentists) were invited to participate in the study. Administrative personnel not in direct contact with patients' care were not included.

Data were collected through self-administered validated structured questionnaire (4). The questionnaire covered the following four major areas; demographic data including age, sex, and nationality, professional data including type of profession, how long they have been working, have they provided care towards HIV patients. The questionnaire included 14 closed-ended question about knowledge of HIV infection and transmission. The questionnaire also covered attitudes regarding treating HIV patients, the right of health personnel to practice and willingness to treat.

Data were verified, coded and analyzed using the Statistical Package for Social Sciences (SPSS). Frequencies and percentages were used to present the results.

The study protocol was approved by the research ethical committee of King Khalid University (REC#2017-04-03). All the necessary official permissions were obtained before data collection. Written consent was taken from the participants. Collected data were kept strictly confidential and used only for the research purposes.

Results

Description of the Study Sample

The present study included 372 Health Care Workers (HCWs). Almost half of the study sample were from Abha city (199, 53.5%) and the rest were from Khamis Mushait city. The majority of HCWs were females (228, 61.3%) and Saudis (318, 85.5%). The highest frequent age group was 20-30 years (181, 48.7%) followed by 31 to 40 years (149, 40.1%). Dentists represented 47.6% (177) of the study sample followed by physicians (95, 25.5%) and nurses (78, 21.0%). The highest frequent period of work was 5-10 years (160, 43.0%) followed by less than 5 years (105, 28.2%).

Failure to identify the well-known modes of HIV transmission

Table 1 (next page) shows the wrong beliefs among HCWs regarding HIV modes of transmission. Regarding the failure to identify the well-known modes of HIV transmission, the highest failed mode to be mentioned was via tattoos or ear piercing (89, 23.9%). The least unidentified mode was blood transfusion from an infected person (14, 3.8%). On the other hand, unprotected sex and using unclean needles was not mentioned by (6.7 % and 4.0%, respectively). No significant differences (P> 0.05) were found by gender, nationality, age, profession and duration of employment.

Suspecting Incorrect modes of HIV transmission

Regarding incorrect knowledge of modes of HIV transmission, the highest wrong modes mentioned by HCWs was via kissing (137, 36.8%), followed by mosquitos and other insects bites (94, 25.2%) and via sharing plates, cups, and utensils (86, 23.1%). The least mentioned incorrect modes of transmission were via sitting in a hot tub or a swimming pool (70, 18.8%), via living with a person with AIDs (65, 17.5%) and through the air (coughing or

Table 1: Wrong Beliefs in Modes of transmission of HIV as mentioned by PHCCs workers in the study area, 2017

Wrong Beliefs	No (%)
A. Failure to Identify known modes of transmission	
1. Using Unclean syringes or needles	15 (4.0)
2. Unprotected Sexual Intercourse	25 (6.7)
3. Blood Transfusion from an infected person	14 (3.8)
4. Tattoos or ear piercing	89 (23.9)
B. Suspecting incorrect modes of transmission	
1. Kissing	137 (36.8)
2. Insects and Mosquito Bites	94 (25.2)
3. Daily contact and living with infected person	65 (17.4)
4. Eating and using utensils of a case	86 (23.1)

staying in the same room as someone infected with HIV (56, 15.1%). No significant differences (P> 0.05) were found by gender, nationality, age, profession and duration of employment.

Other wrong knowledge mentioned by HCWs were the presence of a vaccine that can stop getting HIV (38, 10.2%) and that the people who have been infected with HIV quickly show serious signs of being infected (63, 16.9%).

Attitudes towards HIV Patients

Regarding attitudes towards HIV patients, the highest frequent response was feeling uncomfortable when eating meals prepared by a person with HIV (209, 56.2%). Almost one out of each ten HCWs (39, 10.5%) stated that HIV patients should be ashamed of themselves, they deserve what they get (32, 8.6%) and only promiscuous people get HIV (28, 7.5%). On the other hand, more than two-thirds of HCWs (295, 79.3%) mentioned that they were empathetic with HIV patients.

Preventive activities during practice

Regarding preventive activities during practice, one-third of HCWs (142, 38.2%) mentioned that spills of blood or body fluids are decontaminated by sodium hypochlorite solution. Two-thirds (267, 71.8%) mentioned that the work provides protective equipment for HCWs to prevent the spread of HIV and identified the use of liquid detergent and running for hand washing to prevent the spread of HIV (243, 65.3%).

Discussion

The present study explored the current status of knowledge and misconceptions of HCWs about HIV transmission in two big cities in southwestern Saudi Arabia. The results of the present study indicate an overall insufficient level of knowledge, inappropriate attitudes and inadequate behavior of health care workers in Abha and Khamis Mushait, of KSA. Similar results were reported 25 years ago(6, 7).

Generally, HCWs' knowledge about the disease transmission was unsatisfactory, as evident by the fact that nearly one quarter of them were unable to identify tattooing and ear piercing as methods for transmission. Also, a considerable proportion (3.8% to 6.7%) failed to mention blood transfusion, unprotected sex and unclean needles as possible sources for disease transmission. Additionally, over one third of HCWs have a misconception that kissing could transmit HIV and about one fifth to one quarter misbelieved that sharing eating and drinking utensils, swimming pools and living with AIDs patients could transmit infection. Similar results of a relatively poor knowledge were found among medical and dental doctors in 4 major cities in Saudi Arabia namely; Jeddah, Riyadh, Dammam and Jizan (8). In the current study, the observed poor knowledge and misconceptions were unrelated to HCWs' gender, age, specialty and duration of employment. The same results were observed in other studies in Saudi Arabia (8), Middle East and North Africa (9, 10). This indicates that the HCWs may be influenced by the cultural preconception that HIV is usually an outcome of immoral sexual relationships such as sexual relationships outside marriage and homosexuality(8-11) rather than their educational background.

The consequence of the reported unsatisfactory knowledge and misconceptions among the studied HCWs was the improper attitude and stigma toward patients living with HIV/AIDS (PLWHA). This was demonstrated by the fact that more than half of the HCWs mentioned that they will feel uncomfortable when eating meals prepared by HIV patients and about one third were not empathetic with HIV patients. Moreover, a considerable proportion (7.5%-10.5%) considered HIV patients are guilty and should be ashamed of themselves. One Saudi study among physicians reported a high proportion of stigmatizing attitude among physicians and attributed this attitude to their poor knowledge of HIV transmission (8). Other studies in India (12), South Africa (13) and a review article (14) explained this attitude by psychological fear of HIV infection as a result of poor knowledge.

The observed proportion of HCWs with judging and blaming stigmatizing attitude toward peoples with HIV/AIDS in the present study can be attributed also to religious factors which consider AIDS as a punishment for immoral sexual behaviors (8, 11, 15, 16). Additionally, a study in another Muslim country in Indonesia reported stigmatizing attitudes among nurses being significantly predicted by education and their HIV training(17). This attitude also was observed in a Chinese study which reported blaming attitude among healthcare workers and related it in some extent to the belief that HIV is a sequence of promiscuity (18).

Unfortunately, the reported poor knowledge and stigmatizing attitude in Saudi Arabia is running in future health care professionals. This was evident in studies conducted among dental, paramedical and medical students in Jazan (19), Taif (20), Abha (4) regions of the country.

The observed poor knowledge and negative attitude of HCWs will eventually affect their practices in the future when dealing with PLWHA and may be an obstacle to the control of HIV in Saudi Arabia (8).

The study showed the availability of protective equipment at primary healthcare services. This will raise the issue of the importance of knowledge and attitude rather than the lack of facilities in combating the hazard of occupational infection in the practice.

Conclusion / Recommendation

The findings of the present study suggest an urgent need for continuous medical education on HIV/AIDS in the southwestern region of Saudi Arabia. To combat HIV infection in the public an intensive educational training should start with the HCWs to improve their knowledge of HIV. More stress should be given to methods of HIV transmission. They should distinguish the well-known modes from the disputed modes. Proper understanding of the epidemiology of HIV/AIDS might impact the HCWs' stigmatizing and discriminatory attitudes observed in the current study towards PLWHA. Good knowledge of prevention of HIV transmission is more likely to reduce the HCWs' stigmatizing attitude and improve their future practices. More qualitative studies are needed to search deeply in underlying reasons for stigmatization of HCWs and deal with the cultural fear.

Limitations of the study include the relatively small number of enrolled HCWs from the total practicing HCWs in KSA.

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Conflict of interest
There was no conflict of interest.

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