

Knowledge and Attitudes about HIV/AIDS in Illegal Residents in the Kingdom of Saudi Arabia

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ABSTRACT

Objectives: To study the knowledge, attitudes, and practices with regard to human immunodeficiency virus infection / acquired immune deficiency syndrome (HIV/AIDS) in illegal residents, in the Kingdom of Saudi Arabia (KSA). **Materials and Methods:** A questionnaire study was conducted among the illegal residents from four regions in Saudi Arabia: Jeddah, Makkah, Riyadh, and Jazan. **Results:** The survey enrolled 5,000 participants, 79% male (39.6% from Jeddah; 20% from Riyadh; and 20% from Jazan), aged between 15 and 45 years. Of the total, 1288 (25.8%) had not heard about HIV/AIDS. Knowledge of HIV transmission was poor in 90% of the respondents. Of the total, 737 had read about HIV/AIDS materials and 649 participants had been previously tested for HIV. The majority of participants (85%) held a negative attitude toward people living with HIV/AIDS. Those who were knowledgeable about HIV/AIDS expressed more a positive attitude. One-fifth (968, majority were men; single 55%, married 45%) had engaged in non-marital sexual activity. The largest proportion of the individuals who had engaged in non-marital sex were single (54.9%) followed by the married ones (40.4%). Men cited pleasure as the main reason for such activity (84.6%), whereas women (73.4%) cited financial gain. Of the respondents, 53.9 and 32.1% believed that TV and schools were the best media through which information with regard to HIV/AIDS could be imparted. **Conclusions:** Knowledge of HIV/AIDS, its mode of transmission, and prevention measures was poor. Educational programs specifically targeted toward this group were required.

Key words: Attitudes, HIV, illegal residents, knowledge, practice, prevalence, Saudi Arabia

INTRODUCTION

According to a recent report from UNAIDS,^[1] about 2.6 million people throughout the world were newly infected with HIV, in 2009. Globally, by the end of 2009, around 33.3 million people were living with HIV. Although epidemiological surveillance in the Middle East and the region in North Africa (MENA) is limited, HIV prevalence is believed to be low, except in southern Sudan and Djibouti. In 2009, around 75,000 people were newly infected in the MENA region. As of 2009, an estimated 460,000 people were living with HIV in this region, and about 23,000 deaths were attributed to AIDS.

In the Kingdom of Saudi Arabia (KSA), recent data^[2,3] indicate that during a span of 19 years (1984-2003), 7807 HIV/AIDS cases were reported to the Saudi Ministry of

Health. The most infected individuals (6064, 77.6%) were expatriates, whereas, the remaining (22.4%) were Saudi citizens. Most of the HIV-positive individuals resided in three major Saudi cities, Jeddah, in the western province of Saudi Arabia, had 40% of the HIV-positive cases, followed by Riyadh (15%), and Dammam (12%). Most of the HIV cases were among people in their prime years (20-40 years of age).

The main mode of infection is heterosexual activity, followed by blood transfusion, but this information is limited, owing to the specific focus on studies conducted in hospitals.^[2,3] Saudi men are thought to contract HIV infection mainly from non-marital heterosexual activity, whereas, the majority of females appear to acquire it from their spouse. A study found that in a sample of 65 HIV-positive women, 62 had acquired the infection from their husbands, and 111 of the 124 HIV-positive men had acquired HIV infection from sex workers.^[4] From 1984 to 2001, there were 6046 HIV cases in KSA and 21.3% were Saudi citizens.^[5] The incidence of new HIV infections was low in 2012, among non-Saudis (1.5/100,000) and Saudi

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(1.2/100,000) citizens.^[6] AIDS was the usual presentation in HIV-infected men and 55% of the women were diagnosed with HIV owing to ‘contact with an infected person’.^[7] One study showed that heterosexual transmission was the route of acquisition of HIV in 46% of the 189 patients.^[8]

Little is known about illegal residents in KSA, especially in relation to HIV. In a small study, 69 non-Saudi drivers scored higher on knowledge than 40 Saudi drivers.^[9] We report findings from a large-scale survey on HIV/AIDS performed among illegal residents in four main cities of KSA, to obtain information on the knowledge and attitude and presence of HIV/AIDS among these illegal residents in KSA, which would help guide specific investments into the educational and prevention campaigns for these risk groups. The aims of the study were: To describe the socioeconomic characteristics of illegal residents in the four regions in Saudi Arabia; to explore their attitudes toward people living with HIV/AIDS; to assess their knowledge on HIV; and to understand their risk behavior.

MATERIALS AND METHODS

This is a cross-sectional, descriptive, questionnaire and structured interview study. The study was approved by the KSA National AIDS Program. The survey was conducted among 5000 illegal residents, who were selected from the cities of Riyadh ($n = 1000$), Jeddah ($n = 2000$), Makkah ($n = 1000$), and Jazan ($n = 1000$). These four regions were chosen because a large percentage of the reported HIV-cases were located in these regions, and because these cities had a large proportion of illegal residents.

The definition of illegal resident was: Residents (both males and females) who lacked a residence permit, held an expired residence permit, or were born in KSA to parents who fit the above two criteria. The study was restricted to adults (over 15 years of age).

The participants were recruited using two main methods: (a) In each region several community leaders of illegal residents were identified and were asked to help in recruiting participants for the study; at the conclusion of each interview, the participants were asked to help in recruiting other illegal residents (snowball sampling technique).

Informed consent

Participants who agreed to take part in the study were asked to sign an informed consent form. The questionnaire interviews were conducted by trained male and female interviewers either in the participant’s home or at a place of his or her choice.

RESULTS

Country of origin and reason for continued residence

The 5,000 participants were from 31 different countries and the largest number came from Yemen (1,583; 30%), Ethiopia (569; 11.3%), Nigeria (544; 11%), Somalia (446; 9%), and Burma (401; 8%). Of the 5,000 participants, 20.8% ($n = 1040$) were born in Saudi Arabia of illegal residents. Those who were born in Saudi Arabia resided in Jeddah (51.6%), Makkah (38.5%), and Jazan (9.7%). Of those ≥ 18 years, 76% were employed, and 68% had been working in Saudi for at least 10 years. The largest number of unemployed individuals was from Yemen (27.3%), followed by Burma (17.9%), and Nigeria (17.1%).

Age and gender of participants

The mean age of the participants was 28.16 years (\pm SD = 7.15). Of all the participants, 43.6% were between 15 and 25 years old and 39.3% were 26-35 years of age. Men formed 80% of the participants. Approximately half, 50.4%, of the entire group were married, 2.3% were divorced, 1.3% were widows, and 35% were separated.

Literacy status

Of the respondents, 1,975 (39.5%) could not read or write. The majority of the illiterate were men (75.4%). Of the 1,975 illiterate, 705 (35.6%) were from Yemen, 261 (13.2%) from Nigeria, 11.8% from Somalia, and 11.4% from Ethiopia. The other 60.5% reported various degrees of educational attainment and of them 59.7% had at least a high-school diploma and only 42 individuals had a college degree.

Drug and alcohol use

Of the total, 951 (19%) had used drugs at some point in their life, and 751 (15%) had used drugs one month prior to the survey. Hashish was the most commonly used drug (12.3%). The practice of injecting drugs was not common among the participants and only 15 individuals had injected drugs during the past year. Only 606 individuals (12.1%) had taken alcohol ever and 263 (5.2%) had taken alcohol one month prior to data collection.

HIV/AIDS-related knowledge

A significant proportion of the participants (74.2%) had heard about HIV/AIDS. The remaining (25.6%) had not heard about HIV/AIDS. About 78.3% of those who had not heard about HIV/AIDS were men. Slightly more than

one-half of the participants (52.8%) had learned about HIV/AIDS from the TV, friends, acquaintances, relatives (37.9%), radio (13.9%), and newspapers (11.5%). Healthcare professionals were the least likely source of information on HIV/AIDS (6.1%).

In regard to knowledge of the common symptoms of HIV infection, 27.8% indicated weight loss to be the most obvious symptom of HIV infection. Fever for more than one month was the second most obvious sign of HIV infection (14.8%). Diarrhea, as a sign of HIV infection, was mentioned by 8.8% of the participants and only 24.2% knew that AIDS was caused by a virus. Of the participants, 63.8% knew that HIV was transmitted through sexual activity, 30.8% knew that HIV could be transmitted through contaminated blood and contaminated sharp objects (27.1%).

Of the 3,694 participants who had heard about HIV/AIDS and provided their answers, 29.7% indicated that an HIV-positive person might look healthy without noticeable symptoms, 33.4% disagreed with this notion, and 37% had no knowledge with regard to this question.

With regard to a popular misconception about HIV transmission via mosquito bites — of the 3,711 individuals who responded to this idea, 30.3% stated that it was possible, 36.5% answered in the negative, and 33.4% reported a lack of knowledge about this idea.

When asked about sharing food with an HIV-positive person, of the 3,713 who answered this question, 36.2% stated that one could contract HIV by sharing food with an HIV-positive person, 43.3% stated that it was not possible, and 20.4% did not know the answer.

With regard to sharing needles with an HIV-positive person, of the 3,711 individuals who answered this question, 67.1% stated that it was possible and 9.8% stated that it was not possible to contract HIV by sharing contaminated needles. With regard to the idea of mother-to-infant transmission of HIV, 42.8% stated that yes, and 25.7% had no idea.

AIDS stigma and views about persons living with AIDS

A large proportion of participants (76%) reported that they would not share food with an HIV-positive person [Figure 1]. When asked if HIV-positive people should be allowed to attend school if they did not manifest symptoms, 35.1% stated that they should be allowed and 54.2% stated that they should not be allowed. Although 34.2% expressed support for allowing HIV-positive people to

work, 56.2% stated that HIV-positive people should not be allowed to work.

The participants were split over disclosing the HIV status of a relative, 54.6% favoured not informing others about having an HIV-positive relative, 41.7% had no problem disclosing a relative's HIV status to others, and 3.7% were not sure.

A positive attitude toward HIV-positive people was shown by 38.4% and 2.7% expressed positive attitude of a high level. Participants who knew more about HIV expressed a greater attitude of positivity toward HIV-positive people ($P < 0001$). Women were more likely than men to express a positive attitude toward people with HIV/AIDS ($P < 0001$).

Sexual activity and condom use

With regard to condoms, 45.3% had not heard about or seen a condom before, 30.4% had heard about condoms, and 24.4% had heard about and seen condoms before. The largest proportion of those who had heard or seen condoms had obtained this knowledge from their friends (29.8%), followed by TV (20.1%) [Figure 2]. Relatives were ranked third in providing knowledge about condoms (16.8%) and another important source was the drug store (12.7%).

Engagement in non-marital sexual activity was reported by 968 (19.4%) participants; the majority (93.2%) of those were men and 54.9% were single; 69.2% of the 65 females who had sexual activity were married.

The number of sexual encounters one month prior to the survey were once (41.4%), twice (11.4%), and thrice or more (9.6%).

A significant proportion of those who had engaged in non-marital sexual activity had used condoms to prevent

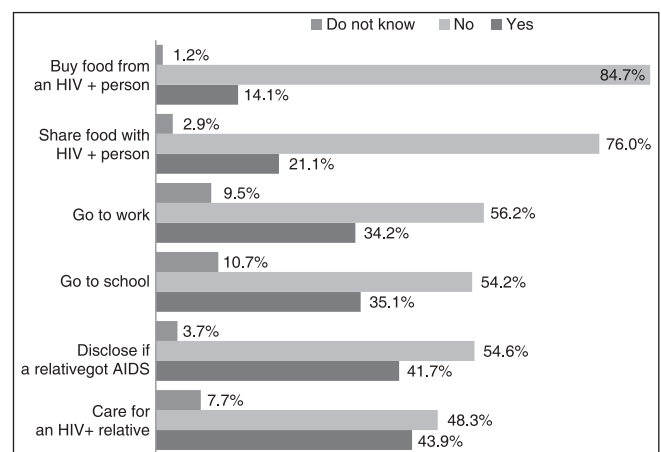


Figure 1: Perception of HIV-positive people

sexually transmitted infections, including HIV (35.1%), as well as to avoid pregnancy (5.5%).

The majority of men who had engaged in non-marital sexual activity had sex with women (64.9%), other men (14.6%), or with both (20.5%). The majority of women (86%) had sex with men. Only 12% reported sex with both men and women, and less than 2% reported sex with just women.

The reasons respondents provided for engaging in non-marital sexual activity also varied by gender. Men participated in sexual activity for enjoyment at a higher rate (84.6%) than women (21.9%). On the other hand, more women had sex for financial gain (73.4%) than men (5.4%) [Figure 3].

Media use

Of the surveyed population, 52.2% owned only a TV, 8.1% owned only a radio, 20.3% owned both a TV and a radio, and 19.3% did not own a radio or TV.

Men tended to listen more to national programs in the evenings (7.5%), while women tended to listen to national programs in the morning (11.9%). Only 737 individuals (14.9%) received printed educational material about HIV/AIDS. A large proportion of the participants (53.9%) believed that TV was the best medium for educating people about HIV/AIDS, followed by schools (32.1%).

DISCUSSION

From 1984 to 2003, in KSA, there was a total of 7807 HIV-infected persons — of whom 22.3% were Saudi.^[10] In KSA, between 2000 and 2009, there was a total of 10,217 new HIV cases (2,956 Saudis and 7,261 non-Saudis) and 53%

of the latter were from Sub-Saharan Africa.^[11] The mean annual incidence per 100,000 was 1.5 for Saudis and 13.2 for non-Saudis.^[11] Previous studies from KSA reported the attitude of the Saudi nationals toward HIV/AIDS patients.^[12] This was the first comprehensive HIV-related National Survey of illegal residents in KSA. The survey findings pointed to several positive signs, as well as areas of concern. About one-quarter of the respondents had not heard about HIV/AIDS and a large number of participants expressed discomfort interacting with HIV-positive people in various situations. Premarital sex activity was reported in 31% of the 225 study participants, comprising of young men, in Riyadh city.^[13]

In a previous study of students in health institutes and colleges, there were negative attitudes shown toward discussing AIDS topics with others, home-care for HIV/AIDS people, and their right to work.^[14] Less knowledge about HIV/AIDS was associated with more stigmatization of People Living with HIV/AIDS (PLWHA).^[15] Similarly, a negative attitude was observed among healthcare professionals.^[16]

It is important to learn about participants’ use of media for the purpose of communicating and informing the public about health-related issues such as AIDS.

This survey queried the participants about their media use, including the types of programs they watched and listened to during the day and evening. A small number of individuals had received printed material about HIV/AIDS. This was a major area of concern that might indicate a lack of availability or distribution of printed materials on HIV/AIDS to this segment of the population. Another important concern was that the least informative sources on HIV/AIDS were the healthcare professionals.

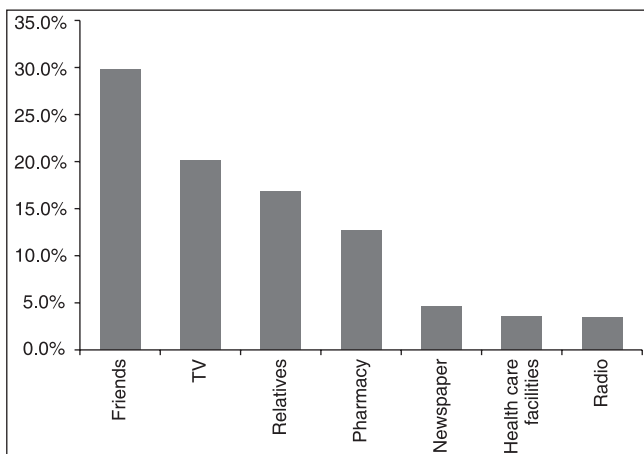


Figure 2: Source of information about condoms

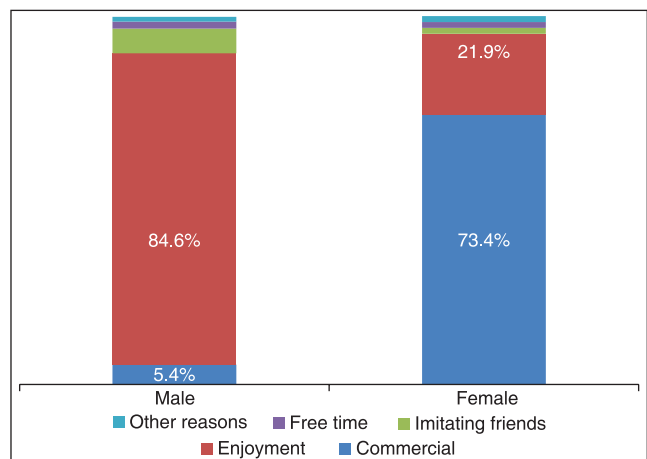


Figure 3: Reasons for engaging in sexual activity by gender

Until we implement prevention programs with proven efficacy more widely, we will continue to miss opportunities to reduce the spread of HIV infection. It has been reported that health education positively impacts the attitudes toward discussion of AIDS; acceptance of home care for HIV infected people, and their right to work.^[14] Among the educated men in KSA, 51% agreed that the use of condom prevents sexually transmitted infections (STIs).^[13,17,18]

The need at present is to develop and expand National Saudi AIDS strategies that provide and facilitate access to HIV testing and prevent its spread among illegal residents in Saudi Arabia in a secure non-threatening environment. There is also a need to develop specific mass media HIV-related information and educational and preventive programs in languages spoken by the illegal residents in Saudi Arabia.

Providing access to HIV testing that is culturally and linguistically suitable for both legal and illegal residents and training healthcare providers to identify and recommend HIV testing to individuals at risk of contracting HIV infection is the need of the hour. Disseminating information on HIV throughout the year and in areas where illegal residents tend to congregate is important to prevent bridging between to prevent spread of the HIV infection from the high-risk population and the community. Improving the understanding of factors that contribute to HIV infection among illegal residents by mapping and conducting further research on this segment of the Saudi population is significant. Strategies need to be developed to combat the AIDS-stigma among both legal and illegal residents. The hidden places that cannot be seen, accessed or changed easily need to be explored and focused on.

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