

Knowledge and attitude about sexually transmitted diseases among youth in Saudi Arabia

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Abstract

Background: Sexually transmitted diseases (STDs) are one of the most serious diseases in the world. Our aim was to explore the knowledge and attitude about STDs among the youth.

Patients and Methods: This cross-sectional survey was conducted from August 1 to August 13, 2016. Male and female youth between 18 and 25 years were invited to participate in the survey using social media open to all Internet users consisting of questions and statements about STDs, and then the data were analyzed

Results: We received 5040 responses to the survey; out of these participants 76.6% were females and 23.4% were males with a mean age 21.5 and most of them were single (85.1%). We noticed that most of the respondents selected the Internet (71.7%) as the main source of their knowledge about STDs followed by school, television, and others, respectively. In spite of, 94.08% knew that human immunodeficiency virus/AIDS is an STD, only 43.61% knew that herpes simplex virus is an STD, and only 31.03% knew that Chlamydia is an STD. A high percent (93.1%) agreed that sexual intercourse transmits STDs. Only 59.6% agreed that condom does not provide complete protection from STDs. To our surprise, only 55% considered themselves capable of protecting themselves against STDs. About 95.8% of the participants agreed that STDs should be taught in schools, while 4.2% disagreed.

Conclusion: We noticed a lack of participant's knowledge regarding the types, mode of transmission, and the ways of protections from STDs and their desire to find out information about STDs. Hence, awareness programs about STDs should be started that aim at encouraging youth to follow our religion and culture.

Keywords: Educational level, knowledge, Saudi Arabia, sexually transmitted disease

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INTRODUCTION


Sexually transmitted diseases (STDs) are infections that are usually spread by sex, most of them initially asymptomatic, and this increases the risk of transmission to others.^[1,2] It is considered as a major health problem worldwide, especially in the developing countries.^[3,4]

Data on STDs in Saudi Arabia and other Islamic countries are very limited. Detailed information on the epidemiology of human immunodeficiency virus (HIV) infection in Saudi Arabia has been published.^[5] In spite of this, the incidence of STDs in Saudi Arabia is low, but nowadays, there is increased risk of exposure due to more travel abroad for education.^[6]

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Our study was conducted to assess the sexual knowledge of youth, the main source of this knowledge, and their attitude toward the STDs on a large scale of youth population as most of the surveys depend on relatively small number of participants.^[7,8]

PATIENTS AND METHODS

This cross-sectional survey was conducted from August 1 to August 13, 2016. Male and female youth between 18 and 25 years of age were invited to participate in the survey. Our study was performed using a standard web-based questionnaire using social media open to all Internet users consisting of questions and statements about STDs, and then the data were analyzed.

We select easy, simple questions to assess the minimal knowledge and information and encourage a large scale of youth population to answer it. Then, we invited all youth (both males and females) between 18 and 25 years of age to answer the survey questions through the social media which include

1. Gender (male-female)
2. Age group (18–20), (21–23), (23–25)
3. Educational level (primary, intermediate, secondary, university)
4. Educational level of your father (primary, intermediate, secondary, university, and above)
5. Educational level of your mother (primary, intermediate, secondary, university, and above)
6. Marital status (single, married, divorced, widow)
7. Which of the following are STDs (HIV/AIDS, syphilis, gonorrhea, herpes simplex virus [HSV], chlamydia, human papillomavirus [HPV]) and regarding it is curability (yes, and it is curable-yes, and it is NOT curable – Not curable -I do not know)
8. Which of the following do you think is a mode of transmission of STDs (sexual intercourse, oral sex, saliva, skin-to-skin contact, blood transfusion, breast-feeding, transmitted from mother to child during pregnancy)
9. Which of the following is considered symptoms of STDs (fever on and off-swelling in the groin, lower abdomen pain, vaginal or urethral discharges, menstrual disorders, genital ulcers, itchy perineum, skin rash, painful urination)
10. Do you know how to protect yourself from STDs (yes, no)
11. Do you think that condoms provide a 100% protection from STDs? (yes, no) I do not know
12. Would you like to know if you already acquired any STDs (yes, no)

13. Do you think you have the right to know if your partner has any STD (yes, no)
14. What will you do if you found out your partner has acquired one of the STDs (get a checkup, ask him/her to get treated, avoid sexual contact, ask for divorce, I don't know, do nothing, other)
15. What is your source of information regarding STDs? (TV, radio, school, parents, internet, friends, educational campaign, health-care facilities)
16. Do you think you should consider studying these diseases in school (yes, no).

The survey questions are submitted as a link to the Internet and then the response and analysis of the response data are awaited.

RESULTS

We analyzed 5040 responses to the survey. Out of these participants, 3862 were females (76.6%) and 1178 were males (23.4%) with a mean age of 21.5 and most of them were single 4289 (85.1%). We noticed that most of the respondents selected the Internet (71.7%) as the main source of their knowledge about STDs followed by school (35.1%), television (30.2%), awareness campaigns (28%), friends (27%), health institutions (15.7%), parents (11.2%), and radio only (2.3%) illustrated in Figure 1; in correlation between the answer for the question number (10), we found that the answer to this question is statistically significant for all sources of knowledge except for the sources friends and radio which did not significantly affect the answer to this question [Table 1]. In spite of this, 94.08% knew that HIV/AIDS is an STD, only 43.61% knew that HSV is an STD, 34% selected HPV as STD, and only 31.03% knew that Chlamydia is an STD with a variable perception of being STDs curable or not (this is illustrated in Table 2). A high percent (93.1%) agreed that sexual intercourse transmits STDs, but the other mode of transmissions were not clearly known to most of them (this is shown in Table 3). The clinical presentation of STDs is unclear to the participants as they select variable symptoms,

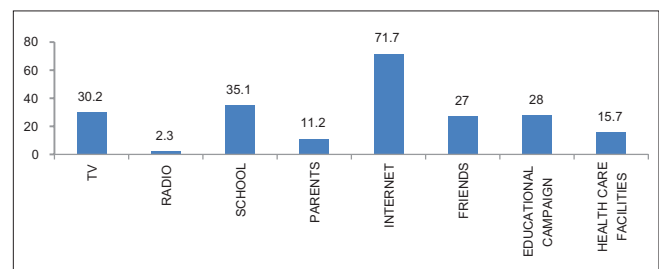


Figure 1: What is your source of information regarding sexually transmitted diseases

which can be obtained from Table 4. Only 59.6% agreed that condom does not completely provide protection from STDs. To our surprise, only 55% considered themselves capable of protecting themselves against STDs [Table 1]. About 69% of the participants wanted to know if they are already infected by one of these STDs and 31% did not want to know [Figure 2]. Nearly 96.6% think that they have the right to know if their partner has any STD; their attitude and response if their partner has STDs are as follows: 68.4% will ask him/her to get treated, 57.1% get a checkup to see if they are affected or not, 46.8% will avoid sexual contact, 22% will ask for divorce, 9.8% will not know what to do, and 0.4% select to do nothing.

When we looked to the educational level, we found that 96.6% of the participants are highly educated and only 3.4% of them are with low educational level we thought that logic with the internet user. Regarding the educational

level of the parents is as follows: 62.3% of fathers are highly educated and only 48.3% of mothers are highly educated. About 95.8% of the participants agreed that STDs should be taught in schools, while 4.2% disagreed [Figure 3].

DISCUSSION

STDs are a group of infectious diseases caused by viruses, bacteria, fungi, parasites, protozoa, or arthropods that are generally acquired by sexual contact. STDs include more than 30 different conditions, among which the most common are gonorrhoea, chlamydial infection, syphilis, trichomoniasis, chancroid, genital herpes, genital warts, HIV infection, and hepatitis B.^[9] The social stigma of STDs is known to occur in various societies and contributes to underdetection and underreporting.^[5,10]

Adolescent patients are at risk for sexually transmitted infections, so they are targeted by many studies conducted in other countries all over the world.^[11-13] We also targeted this group to assess their knowledge and ability to protect themselves.

We notice a great response in a short period for our questionnaire as it is easy, is accessible to every section of society to answer, alleviates the difficulties of feeling ashamed in face-to-face interviews; we can get more reliable

Table 1: Source of knowledge and its significance

	Do you know how to protect yourself from STDs in relation to source of knowledge		Total	Pearson χ^2	
	Do you know how to protect yourself from STDs			Value	P (significant)
	No	Yes			
TV					
Count	617	904	1521	17.92	0.00
Percentage of total	12.2	17.9	30.2		
Radio					
Count	49	65	114	0.207	0.65
Percentage of total	1.0	1.3	2.3		
School					
Count	671	1097	1768	55.9	0.00
Percentage of total	13.3	21.8	35.1		
Parents					
Count	211	353	564	15.08	0.00
Percentage of total	4.2	7.0	11.2		
Internet					
Count	1562	2053	3615	18.06	0.00
Percentage of total	31.0	40.7	71.7		
Friends					
Count	619	743	1362	0.102	0.75
Percentage of total	12.3	14.7	27.0		
Educational campaign					
Count	497	913	1410	76.42	0.00
Percentage of total	9.9	18.1	28.0		

STDs: Sexually transmitted diseases

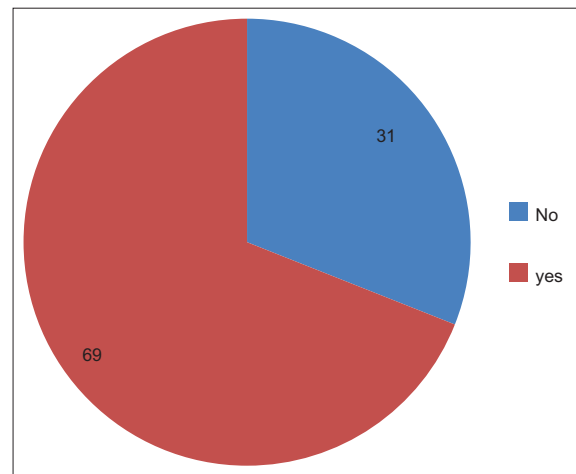


Figure 2: Would you like to know if you already acquired any sexually transmitted diseases

Table 2: Answers of which of the following diseases are STDs and its curability

	I do not know, R (%)	No, R (%)	Yes, and it is not curable, R (%)	Yes, and it is curable, R (%)
HIV/AIDS	217 (4.3)	81 (1.6)	3509 (69.6)	1233 (24.5)
Syphilis	1800 (35.7)	531 (10.5)	763 (15.1)	1946 (38.6)
Gonorrhoea	1873 (37.2)	506 (10)	695 (13.8)	1966 (39)
HSV	2398 (47.6)	444 (8.8)	645 (12.8)	1553 (30.8)
Chlamydia	2942 (58.4)	534 (10.6)	448 (8.9)	1116 (22.1)
HPV	2747 (54.5)	581 (11.5)	519 (10.3)	1193 (23.7)

HSV: Herpes simplex virus, HPV: Human papillomavirus, HIV: Human immunodeficiency virus

Table 3: Answers for the mode of transmission

	Frequency (%)
Sexual intercourse	4696 (93.2)
Oral sex	2111 (41.9)
Saliva	1593 (31.6)
Skin-to-skin contact	828 (16.4)
Blood transfusion	3287 (65.2)
Breast-feeding	640 (12.7)
Transmitted from mother to child during pregnancy	1493 (29.6)
Total	5040 (100.0)

Table 4: Answers for symptoms of sexually transmitted diseases

	I do not know, F (%)	No, F (%)	Yes, F (%)
Fever on and off	2139 (42.4)	1111 (22)	1790 (35.5)
Swelling in the groin	2099 (41.6)	526 (10.4)	2415 (47.9)
Lower abdomen pain	2342 (46.5)	1346 (26.7)	1352 (26.8)
Vaginal and urethral discharges	1710 (33.9)	843 (16.7)	2487 (49.3)
Menstrual disorders	2025 (40.2)	1566 (31.1)	1449 (28.8)
Genital ulcers	1491 (29.6)	287 (5.7)	3262 (64.7)
Itchy perineum	2106 (41.8)	710 (14.1)	2224 (44.1)
Skin rash	1929 (38.3)	906 (18)	2205 (43.8)
Painful urination	1994 (39.6)	988 (19.6)	2058 (40.8)

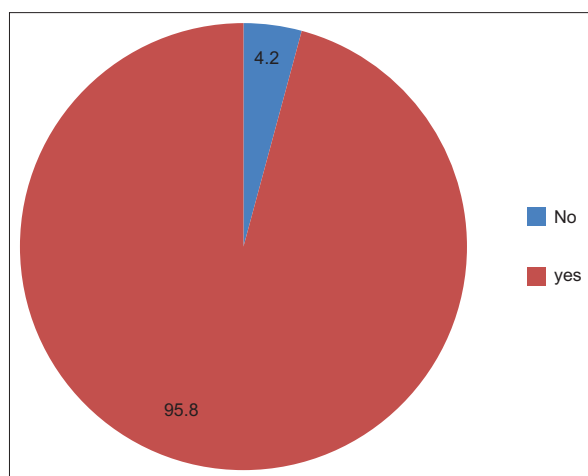


Figure 3: Do you think you should consider studying these diseases in school

answers. In addition, the Internet, which is becoming easier to use and gradually more widely available, is also frequently employed to find a sexual partner, and this fact presents a new danger in the spread of HIV/AIDS and other STDs; this method of online survey has been used before by other studies.^[14-20]

Gao *et al.*,^[21] in 2012, considered religion could be a double-edged sword for teenagers since abstinence before marriage may protect teenagers from STDs; however, religion may inhibit them and prevent them from talking about STDs freely with parents and teachers. To some extent it can be agreed that religion protect teenagers from STDs, but religion does not prevent from talking about

STDs and the message for protecting from STDs can be introduced in the context of our religion and culture, especially with our notice from the result want to teach STDs in schools.

However, the importance of the parent–child relationship for the prevention of STDs was discussed in 2010 by Deptula *et al.*,^[22] who found that a good relationship between parents and children is associated with lower levels of unprotected sex, unwanted pregnancies, and STDs in adolescents. Different studies from other Mediterranean Catholic countries have indicated that parent–adolescent communication is crucial for adolescent health indicators.^[23-25] In our study, the knowledge gained from parents is only 11.2%; we need to increase the parent–child relationship and provide the parents with a good and wise knowledge about STDs. The main source of knowledge is from the Internet according to our survey which represents 71.7% of the participants followed by school 35.1%. From this point, nowadays, the great invasion of the Internet to our life it is wise to introduce well formulated message about STDs through the Internet or the school and awareness programs to be presented to youth and families.

On the other side, we noticed some improvement in the previously reported rejection of the society of the STDs as only 22% of the participants claimed they would ask for a divorce which was less than that reported by Fageeh^[26] 2014; which reported that 32.8% will ask to divorce. In our study also about 69% will ask him/her to get treatment and 58% will get a checkup to see if they got the diseases or not. We find there is improvement in the attitude toward the STDs and encouraging attitude to treat and discover the affected persons.

From our survey, there are some points not known and unclear to the participants such as the symptoms and signs of the STDs, mode of transmissions other than sex, and the effectiveness of the condom in protection; because of that, we need to concentrate our message about STDs regarding these points. We found also lack of motivation in some of the participants as 31% of them did not want to know whether they have STDs or not; despite of, the majority (96.2%) found that they have the right to know if their partner has STDs. We are not against that, but we need to encourage the desire to diagnose and treat the STD patients to decrease the spread of the diseases.

CONCLUSION

There is a lack of participant knowledge regarding the types, mode of transmission, STD presentation, and the

ways of protections from STDs. We noticed the desire of young people to find out information about STDs. Hence, awareness programs about STDs should be started that aim at encouraging youth to follow our religion and culture.

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Conflicts of interest

There are no conflicts of interest.

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