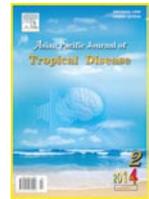


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A study of the knowledge on HIV in regards to routes of transmission and sexual practices in men between the ages of 20 to 50 in Tehran

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ABSTRACT

Objective: To study the knowledge of 20–50 years old men regarding HIV transmission routes and their sexual practices in 2012.

Methods: A cross sectional study on 20–50 years old men visiting barber shops in Tehran, Iran was carried out to assess their knowledge regarding HIV transmission routes as well as their sexual practice by questionnaires. A total of 1097 individuals were included in our study through cluster sampling.

Results: About 93% of the study population correctly answered questions about most probable HIV transmission routes, including blood transfusion, shared syringe and sexual contact whereas 55% were unaware of HIV transmission through breast feeding. About 29% of participants in our study had sexual contact with more than one person, among those 52.8% reported using condom and 30% of them were tested for HIV.

Conclusions: Educational programs on HIV transmission routes are essential for general population. We also strongly recommend educating multi partners people regarding importance of using condom and its effects on minimizing the chance of HIV infection.

1. Introduction

HIV/AIDS is a serious concern in Iran as well as many other countries, with both physical and psychosocial impacts on society. Several studies have attempted to assess the knowledge and practice regarding HIV/AIDS among high risk populations in Iran^[1,2], but none of the selected groups in these studies were representative

of the general population. The following study was designed and conducted due to the importance of this issue, lack of sufficient information about HIV among population in Iran and necessity of defining appropriate indicators for monitoring the taken measurements concerning HIV/AIDS. We designed the study to help modify the policies and measurements of HIV/AIDS control and management. Our findings will provide insights on our population knowledge concerning HIV/AIDS which can then be used by policy makers, health managers and researchers to evaluate HIV/AIDS programs at national level.

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2. Materials and methods

This cross sectional study was conducted in March 2012 among men in certain barber shops around Tehran between the ages of 20 and 50 years. The total sample size was 1097 individuals, each of whom was selected through cluster sampling from 50 clusters. For this purpose, we listed all the Tehran's barbers based on the socio-economic condition. Given that we were going to choose 50 clusters, we divided the number of barbers by 50 to obtain the sampling interval. In the first sampling interval, a random number was chosen and by adding the interval to the first number all the barber shops were selected. We prepared a questionnaire which included questions about participant demographics (age and education), their knowledge regarding HIV transmission routes and their sexual history for the past 12 months. These questionnaires were distributed to selected barber shops in Tehran and were filled out anonymously by individuals who were willing to participate in the study. All information provided by participants was kept confidential. Prior to the distribution of the questionnaires, barbers were given a thorough explanation about the purpose of the study and its methodology. Throughout the duration of the study, our research team frequently visited the barber shops that have previously agreed to participate in the study to oversee the entire procedure of data collection.

Data was analyzed by SPSS for windows, version 16 software. After the analysis, frequencies and percent of frequencies were extracted and valid percents were considered.

3. Results

Demographic characteristics and our main findings regarding participants' knowledge about HIV transmission routes, their sexual practices and also frequency of people who were tested for HIV are illustrated in Tables 1 and 2.

Among 1046 people who responded to the questions concerning sexual practice, 28.8% stated that they had sexual contact with more than one person ($n=301$), of those only 159 people (52.8%) had used condom in their last sexual intercourse. Among these 301 people, 91 (30.2%) were tested for HIV but all of them were informed about the results.

Table 1

Demographic characteristics and knowledge of men visiting barber shops in Tehran regarding HIV/AIDS transmission routes. n (%).

Variable	Men	
Age (years)	20–24	287 (27.3)
	25–34	384 (36.6)
	35–44	231 (22.0)
	45–50	148 (14.1)
Educational level ¹	Elementary school	43 (4.1)
	Junior high school	86 (8.3)
	Senior high school	161 (15.5)
	Diploma	319 (30.7)
	University	430 (41.4)
Knowledge regarding transmission routes ²	Blood transfusion	1023 (93.2)
	Shared syringe	1018 (92.7)
	Sexual contact	1018 (92.7)
	Mother to child transmission	874 (79.6)
	Breast feeding	493 (44.9)
	Shared blade	977 (89.1)
	Tattoo	860 (78.4)
	Touching	833 (75.9)
	Public toilets	795 (72.4)
	Swimming pools and public baths	747 (68.1)
	Sneezing and coughing	723 (65.9)
	Kissing	717 (65.4)
	Shared meals	712 (64.9)
	Stinger	435 (39.6)
Shared toothbrush	307 (28.0)	

¹Sum of the frequencies not equal to 1097 is due to missing data. ²frequencies indicate correct answers.

Table 2

Sexual practices and frequency of people being tested for HIV who visited barber shops in Tehran, Iran. n (%).

Sexual practice and HIV testing	Men	
Sexual relationship during the past 12 month ¹	No sexual contact	273 (26.1)
	Sexual contact with one person	472 (45.1)
	Sexual contact with more than one person	301 (28.8)
	Using condom in the last sexual contact	346 (42.8)
Tested for HIV	278 (26.3)	
Informed about the results	281 (34.1)	

¹Sum of the frequencies not equal to 1097 is due to missing data.

4. Discussion

Our study showed that the majority of men in Tehran are aware of the most probable routes of HIV transmission. Almost all the participants correctly answered the questions regarding main HIV transmission routes including blood transfusion, sexual contact and shared syringe. These findings are similar to those of some previous studies. A study by Mazloomi and Baghianimoghadam on 290 high school teachers in Yazd, Iran indicated that 93.1% of target population were aware of HIV transmission through sexual contact and blood transfusion and 71.4% gave correct answers to all of the questions concerning HIV transmission

routes^[3]. Findings from a study by Montazeri also showed that despite many misconceptions about AIDS among our population, Iranians have relatively good knowledge about AIDS^[4]. Our study also showed that the most Tehranian males are unaware of the potential risk of HIV transmission through breast feeding.

Although the majority of men are aware of the most probable routes of HIV transmission, this study has shown that the general population of Iran displays an irrational fear of the HIV. This fear is a result of misconception regarding basic HIV facts, such as circumstances in which the virus is not a threat. This same misconception was noted in a study by Tavooosi *et al*^[5]. This lack of knowledge has led to discriminative attitudes and negative behaviors directed at those living with the virus.

Our study also showed a high percent of sexual contact with multiple partners among participants and minimal use of condoms. This result was also found in a previous survey on 1385 boys of age 15–18 years in which 27% of the study population had sexual relationship and 68% of this group was reported to have multiple sexual partners and/or not using condoms^[6]. We believe it is extremely important that the general population be educated about HIV/AIDS, especially on the topic of transmission routes. It is also important to minimize the fear of the people who have against those infected. This can be accomplished by educating people on the basic facts of the virus. A study performed by Behrooz *et al.* showed that social–cognitive method based education, was associated with higher knowledge about HIV/AIDS among students in high school of a small city in Maraghe, Iran, although this method of education was not significantly associated with a change in students' attitude toward HIV/AIDS^[7].

Recently HIV transmission through sexual contact has been increasing. Most female sex workers do not use condoms and there is also evidence of increasing high risk sexual practices among people using amphetamines^[8]. Due to this high risk behavior and lack of condom use, it is absolutely necessary that general population be educated about the importance of condom use and its significant impact on minimizing the chance of HIV infection.

To conclude we believe that it is essential to encourage people to voluntarily attend for counseling and HIV testing and to increase the tendency of people for being informed about the test results.

Conflict of interest statement

We declare that we have no conflict of interest.

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