

**Barriers to condom use among Men Living with HIV: A Qualitative study in Iran**Homeira Fallahi <sup>1</sup>, Sedigheh Sadat Tavafian <sup>2</sup>, Farideh Yaghmaie <sup>3</sup>, Ebrahim Hajizadeh<sup>4</sup>, Ali Rastegarpour <sup>1</sup><sup>1</sup> Shahid Behashti University of Medical Sciences, Tehran, Iran<sup>2</sup> Associate Professor, Department of Health Education, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran<sup>3</sup> Associate Professor, Department of Nursing, Shahid Behashti University of Medical science, Faculty of Nursing& Midwifery, Tehran, Iran<sup>4</sup> Associate Professor, Department of Biostatistics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran[tavafian@modares.ac.ir](mailto:tavafian@modares.ac.ir)

**Abstract:** Unprotected sexual activity is playing an increasingly important role in the currently growing incidence of HIV infection in Iran. Recognizing barriers to safe sexual practice can improve planning for condom promotion, which was the objective of the present study. This qualitative study was performed through three behavioral disease consultation clinics (HIV care clinics) in Tehran, Iran. Participants were selected among HIV-positive men patients initially by convenience sampling and narrowed-down by maximum diversity sampling in order to obtain a sample that would express various viewpoints regarding barriers to condom use. Data were collected using semi-structured individual interviews. All interviews were recorded and codes were extracted after reviewing them several times. In this study 32 participants were interviewed. Barriers to condom use were classified in four sub-themes include: Individual Beliefs (Decreased in sexual satisfaction, No need for condom use in Sero discordant couples, Failure of condom use during sexual contact, Being extra accessories), Access /Availability of Condoms (Shyness of buying condoms, No condom access at the beginning of intercourse, Expensive condoms), Personal (Wish to have children, Laziness and discomfort for condom use) and Condoms (Low quality and no Variety of condoms in Iran). Most of the participants named decreased sexual satisfaction as the most important reason for not using condoms, followed by shyness and diffidence towards buying condoms and limited access to condoms when initiating sexual intercourse. Because of the decreased sexual satisfaction and unpleasantness of condoms, 12.5% of the HIV-positive men had not used condoms on their last sexual intercourse. The most important reason mentioned by the HIV-positive patients, for not using condoms was the decrease in sexual satisfaction. Different strategies have been suggested to overcome this barrier, one of which is the educational-behavioral strategy. Another strategy could be applying a structural strategy in the community.

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**1. Introduction**

Since the beginning of the AIDS epidemic, approximately 60 million people worldwide have been infected with HIV, and 25 million have died of HIV-related causes<sup>1</sup>. Advances in HIV care have resulted in prolonged life expectancy for HIV-positive patients, which can cause increased transmission from infected persons through unsafe sexual practices, if such practices continue and are left unchecked. This provides the dual risk of HIV transmission to non-infected sexual partners, and transmission of other sexually transmitted infections to the infected parties. Therefore, controlling unsafe sexual activities in HIV-positive persons has not only become a necessity, but a main concern in HIV prevention<sup>2-4</sup>.

During the past few years, the prevalence of AIDS in Iran has grown from a low-level status to a

concentrated prevalence. While injecting drug use has been introduced as the primary route of HIV transmission<sup>5</sup>, the lack of information surrounding sexual conduct in Iran has rendered statistics unreliable<sup>6</sup>. In addition, there is much concern that the pattern of HIV transmission in Iran may be changing towards a trend of increasing transmission from sexual intercourse. Some studies have demonstrated low rates of condom use in at-risk populations in Iran. The rate of condom use in injecting drug users has been reported to be around 37%<sup>7</sup>. For female commercial sex workers, this figure was reported as 52% in one study<sup>8</sup>, but only 11% in another<sup>9</sup>. Considering that the rate of condom use is not satisfactory in Iran, identifying the barriers of safe sexual practice in most-at-risk groups may help in planning preventive interventions.

Since it had previously been reported that up to 70% of the HIV cases in Iran were due to transmission from the reuse of syringes for drug injection, the main strategies for disease control in the country targeted injecting drug users. Since transmission through sexual contact was recognized as an increasing mode of transmission, new strategies were enforced, including education at universities, schools, and factories; public educational programs; opening of behavioral disease clinics (clinics that provide services for HIV patients and other patients of diseases with similar transmission routes) throughout the country, with free and confidential voluntary counseling and testing for at-risk populations and free condom distribution; using Drop In Centers (DIC) and out-reach groups to identify and teach at-risk groups and provide them with free condoms and syringes; and the development of consultation centers for at-risk women and providing free service at these centers.

In Iran, no official statistics exist for men who have sex with men, but these persons too can receive free services provided at the abovementioned centers<sup>10-11</sup>. There is an obvious stigmatization and sometimes prejudice towards HIV-positive persons in Iran, as still seen in some countries<sup>12</sup>. In addition, considering that 67% of HIV-positive women in Iran have reportedly been infected through sexual contact<sup>5</sup>, women's education and empowerment regarding negotiation with partners about condom use could be of much importance.

Few studies have examined the attitudes of HIV-positive persons towards condom use in Iran, and since cultural differences play a large role in such perceptions<sup>13</sup>, barriers of condom use may widely differ through various cultures<sup>14</sup>. The Health Belief Model (HBM) is one of the models used to implement interventions for reducing high-risk sexual behaviors<sup>15</sup>.

The present study used a qualitative approach to evaluate the viewpoints of HIV-positive persons regarding condom use, based on HBM. The Health Belief Model consists of perceived susceptibility, perceived severity, perceived benefit, perceived barriers, perceived self-efficacy, and cue to action constructs. This model focuses on the barriers, facilitators, and levels of behavior change and has been utilized in various studies on prevention and behavior change. The HBM constructs have been associated with protective sexual behavior, and have consequently been used to reduce high-risk sexual behavior<sup>16-17</sup>. Since many HIV-positive persons, despite knowledge of their infection, do not use condoms in their sexual contacts, this study was performed as a qualitative study based on the HBM

to evaluate barriers of condom use in HIV-positive persons.

The main reason for interviewing with men living with HIV was assess their viewpoints on HIV-AIDS and condom use in regard to all constructs of the HBM. This study is part of a larger study in which are presented merely barriers of condom use in HIV-positive persons.

## **2. Material and Methods**

### **2.1. Sample**

Qualitative research has many definitions, one of which is that it consists of a scientific approach to evaluate beliefs and identify the causes of behavior in everyday life. The advantage of qualitative research is giving weight to the viewpoints of the participants and maintaining the capacity for explanation, description, and discovery during interviews.

The present study used a qualitative design to evaluate the viewpoints of HIV-positive persons regarding condom use. The study recruited patients referring to three behavioral disease consultation clinics (HIV care clinics) in Tehran during a twelve month period from May 2010 to April 2011. Due to the limited access to HIV-positive patients, a convenience sampling was initially employed. However, the sample was subsequently narrowed-down by maximum diversity sampling to obtain a sample that would express various viewpoints regarding the subject matter of the study and represent various groups in terms of age and education. Interviews were continued until a point of data saturation was accomplished.

In Iran, 91.5% of the known patients are men<sup>5</sup>. In addition, men play a prominent role in decisions for condom use during sexual contact. Therefore, in this study, we mainly focused on men and their viewpoints

Behavioral disease clinics are centers that provide free services to HIV-positive individuals, including diagnosis, consultation, and treatment. Voluntary counseling and testing is also free for most at-risk persons. Three behavioral disease clinics in Tehran were used in this study.

### **2.2. Data Collection**

The interview questions were semi-structured and were asked as open-ended questions to evoke in-depth discussion. After obtaining consent from all participants, the demographic and personal information was recorded on paper. Then, the rest of the interview was recorded with a voice recorder. The interviews were later listened to and transcribed verbatim. At this stage, content analysis was performed manually. The interview texts were reviewed multiple times and after acquaintance with the contents, codes were extracted and categorized, and main themes were identified. As the official and

common language in Iran is Farsi (Persian), all interviews were conducted in Farsi.

Ethical approval was granted by Tehran and Shahid Beheshti Medical Universities. All participants gave oral consent to enter the study and participate in the interviews, only then were the interviews undertaken. Patient confidentiality was observed by omitting demographic data from the transcribed interviews and participants were allowed to discontinue participation at any time.

A total of 32 participants were entered into the study. The time of each interview session was variable and ranged between 41 to 90 minutes. In four cases, the interviews were held in two sessions. Interviews were held in an isolated room where an uninterrupted session could take place without the unnecessary entrance of others.

The findings of this study were supported by adherence to criteria of the following items (evaluating the rigor and trustworthiness of the qualitative data): credibility (gaining participant trust and support, researcher involvement with the data, using peer opinions and allowing for separate coding, investigator triangulation by having more than one person interpret the data, and method triangulation using interviews, observation, and studying the patients' medical records); transferability (by precise describing of the participants, including sampling, time and place of data collection, and maximum diversity sampling); dependability (by using an external check and simultaneous coding by another researcher to find probable discrepancies); and participants, reevaluation of coding, and the analysis of some interviews by other experts).

Data analysis was performed by colleagues who had previously seen adequate courses in qualitative research and data analysis and was based on content analysis.

All interviews were recorded and transcribed, and codes were extracted after reviewing them several times. Then codes were classified and the main themes were identified. Themes were structures of HBM that these structures include; perceived susceptibility, perceived severity, perceived benefit, perceived barriers, perceived self-efficacy and cue to action. This paper is related to the results of perceived barriers.

### 3. Results

#### 3.1. Socio-demographic

Of the 32 HIV-positive male participants, 16 were single, twelve were married, and four were divorced. Their mean age was  $37.5 \pm 6.9$  years, ranging from 27 to 53 years. The mean time from HIV diagnosis was 5 years, ranging from 2 months to 11 years. Eleven were unemployed, 20 were

employed, and one was retired. Five had a university education and three were illiterate, 15 had finished high school and the rest had some amount of school education. Twenty participants had reached the disease stage of AIDS and were under retroviral therapy. The demographic characteristics of patients can be observed in table 1.

**Table 1:** Demographic characteristics of the studied HIV patients

Variable	Men (32 individuals)	Frequency	Percentage
Age	19-29 years	3	9.4
	30-39 years	18	56.2
	40-49 years	8	25
	Above 50	3	9.4
Marital Status	Single	16	50
	Married	12	37.5
	Divorced	4	12.5
Employment	Unemployed	11	34.4
	Employed	20	62.5
	Retired	1	3.1
Education	Uneducated	3	9.4
	Elementary	3	9.4
	Lower secondary	6	18.8
	Upper secondary- diploma	15	46.8
	Higher education	5	15.6

Twenty six (81.2%) had a history of imprisonment and 26 had a history of substance dependence. The main risk activity responsible for infection for 11 of the participants was injecting drug use. Another 15 of the participants had both a history of injecting drug use and unprotected heterosexual activity and six only reported unprotected heterosexual contact. Ten participants reported no sexual contact during the past year. The behavioral characteristics of patients can be observed in table 2.

Among the 22 men who did report sexual activity during the recent year, four (18%) reported unprotected contact on their last sexual intercourse, despite being aware of their infection with HIV. Of these four, two was single and the others had engaged.

#### 3.2. Causes of not complying to condom use

In response to the question, "what are the barriers to condom use to you?" the viewpoints of the participants were investigated. The participants presented a spectrum of factors as barriers to condom use, including: reduced sexual satisfaction, diffidence towards buying condoms, inconvenience of access to condoms when initiating sexual intercourse, wanting to have children, unsatisfactory quality of available condoms, high price of condoms, the possibility for condom failure or tearing during intercourse, inconvenience of condom use, an unpleasant feeling of an extra accessory during sexual intercourse and the lack of necessity for condom use due to already having an HIV-positive partner. The subthemes issued by interviewers are observed in table 3.

**Table 2:** Behavioral characteristics of the studied HIV patients

Variable	Men (32 individuals)	Frequency	Percentage
Imprisonment record	Positive	26	81.2
	Negative	6	18.8
Previous drug addiction	Methanol Maintenance Treatment	12	37.5
	Narcotics Anonymous Recovery	14	43.7
	No addiction record	6	18.8
Previous high risk behavior	Injecting drug use	11	34.4
	Unprotected sexual relationship	6	18.8
	Injecting drug use & unprotected sexual relationship	15	46.8
Sexual contact during the recent year	Had no sexual contact	10	31.3
	Used condom in last sexual contact	17	53.1
	Did not use condom in last sexual contact	5	15.6

**Table 3:** The issued subthemes about barriers of condom

Theme	Subthemes	Codes
Perceived Barriers of Condom Use	Individual Beliefs	1. Decreased in sexual satisfaction. 2. No need for condom use in Sero discordant couples 3. Failure of condom use during sexual contact 4. Being extra accessories
	Access /Availability of Condoms	1. Shyness of buying condoms 2. No condom access at the beginning of intercourse 3. Expensive condoms
	Personal	1. Wish to have children 2. Laziness and discomfort for condom use
	Condoms	1. Low quality and no Variety of condoms in Iran

**Individual Beliefs:**

Most male mentioned reduced sexual satisfaction as the main barrier to condom use. Other barriers were often mentioned as less important. Since most opinions stated were similar in content, only one of the statements is presented here.

The most commonly mentioned barrier to condom use in this study was decreased in sexual satisfaction. A single 37-year-old said:

*"I have been used condoms twice but I didn't feel satisfy so I don't like to use it again."*

Some men believed that there might not be a need to use condoms when their partner was HIV-positive. A 36-year-old single HIV positive man believed that:

*"If the person is positive, I don't know..., I don't think there's a need [to use condoms]."*

Two of the infected men thought condoms where extra accessories. A married 51-year-old man said:

*"[The condom] is something extra. It's both mentally and physically traumatizing for a man."*

Two of the infected men stated the possibility of condom failure as a barrier. A married 44-year-old man believed that:

*"I say what if [the condom] comes off, but we don't notice? When I know that can happen, I try not to use them, I abstain and try to be careful."*

**Access - Availability of Condoms:**

One fourth of the infected men also mentioned diffidence and shyness towards buying condoms as a main barrier. Some thought that if the salesperson at a drugstore were a woman, a situation can occur where coyness may impede purchasing a condom. A single 34-year-old patient reported:

*"If I want to buy [a condom], I go into a drugstore and just wait until the woman goes away and a man comes along so I can buy one. If they make it easier to buy, definitely more people would. I have friends who are older than me and are married; sometimes they ask me if I can buy some for them. They're just too shy to buy 'em themselves."*

One fourth of the infected men the limited access to condoms when needed, due to the distance to the nearest drugstore or the drugstore being closed. A recently 28-year-old married man who had been infected by unprotected sexual activity, said:

*"There aren't enough condoms, or there's no drugstore in the neighborhood, or it just may be noon"*

*and we tell ourselves to just forget it. And on one of these contacts that we say 'just forget it', it happens."*

The cost of condoms was referred to by two of the HIV-positive men. A married 50-year-old man reported:

*"Buying condoms has become a routine cost for me. When I have to buy a box of condoms for 3,500 Tomans (\$3.35 USD) every week, every ten days, I may be able to pay for them now, but it can be a cause [for not using them]. I know people who can't pay 3,500 a week."*

#### **Personal:**

The wish to have children was also mentioned by the infected men who had HIV-negative partners. A 31-year-old, married male indicated:

*"My mother-in-law doesn't know I'm sick. She called my wife the other day and told her she bought stuff for a baby shower. Sometimes she tells her this couple that got married after us already has kids. I want to tell them I have AIDS. That's our problem these days- we want to have kids. My wife wants it, but we're really not in the position to do this."*

One of the HIV-positive men, 47-year-old, divorced named laziness and inconvenience of condom use as a reason:

*"I think I may still be too lazy [to use a condom], I mean, I've changed a lot, but... you know."*

#### **Condoms:**

One of the infected men 36-year-old, single believed that the quality standards of condoms were not adequate in Iran:

*"These condoms they make in Iran, they just change the scent and taste. What good is that? Foreign condoms are something else... We don't have those in Iran. Iranian condoms are no good. They break, they burst and they come off."*

#### **4. Discussion**

Reasons for not complying to condom use included: reduced sexual gratification, diffidence towards buying condoms, inconvenience of access to condoms when initiating sexual intercourse, wanting to have children, unsatisfactory quality of available condoms, high price of condoms, the possibility for condom failure or tearing during intercourse, inconvenience of condom use, an unpleasant feeling of an extra accessory during sexual intercourse and the lack of necessity for condom use due to already having an HIV-positive partner.

In this study, of all HIV-infected men, almost half (46.8%) mentioned a history of injecting drug use along with unprotected sexual activity before infection and six (18.8%) mentioned a history of unprotected sexual contact as the only possible method of transmission. This in itself emphasizes the importance of condom use in high-risk sexual

activities. More than half of the infected subjects were not married, and any unprotected sexual contact would be considered a high-risk contact, which could contribute to the overall spread of HIV in the community. In the Middle East, of all people who recognize the protective effect of condoms against HIV transmission, only a few actually use them and within the group that uses condoms, only a few use them consistently. Even in most-at-risk groups for which condom use is a priority, the rate of condom use is low<sup>18</sup>.

Rahmati Najar Kolaei et al<sup>19</sup> performed a qualitative study on HIV-positive patients in Iran. They too reported a number of HIV-positive persons who were aware of their diagnosis, and yet failed to use protection for sexual contacts. This supported the existence of certain barriers to condom use. Considering that there were no existing studies that evaluated the views of HIV-positive persons towards condom use in Iran, this study was designed to identify these barriers in people who were aware of their diagnosis, and most of which had experienced high-risk behaviors for HIV.

The most commonly mentioned barrier to condom use in this study and the most important for the majority of the participants, was a decreased sexual satisfaction. Our findings are consistent with other studies. In one study on Iranian female sex workers, it was revealed that although many clients did wish to use condoms when engaging in sexual contact with a sex worker, a larger number preferred contact without condoms<sup>20</sup>. The main reasons mentioned in this study for reluctance towards condom use included decreased sexual satisfaction, inconvenience for anal contact, and dislike and fear of condoms. Another study showed that condom use is very low among Tehran injecting drug users despite good access and availability, presumably due to the decrease of sexual sensation<sup>21</sup>. Decrease in sexual satisfaction has also been mentioned as an influential factor in various studies both in Iran<sup>8</sup> and other countries<sup>22-24</sup>. This similarity between findings shows that people strongly believe that condoms reduce sexual satisfaction.

Educational programs and consultation may be able to target this attitude and emphasize the benefits of condom use in return for the drawbacks, especially for most-at-risk groups. By overcoming this barrier, which was constantly mentioned as the most important barrier, condom use can be improved among men. Different strategies have been suggested to overcome this barrier, one of which is the educational-behavioral strategy. In other words, one way to solve the problem is utilizing educational interventions and using specifically-trained counselors in clinics to consult with patients

regarding this barrier in condom use. Part of this intervention should include education towards ways to engage in more pleasurable sexual contact with condoms. Such strategies mainly target the behavior of the patients. Another strategy could be applying a structural strategy in the community. Male condoms that are widely distributed in Iran are latex condoms. Since latex condoms create a more pronounced decrease in sexual sensation, access to polyurethane condoms could be effective for men who avoid condom use for this reason only. In consultation and education sessions, it should be also emphasized that not only can HIV-negative partners become infected in unprotected contacts, but also the HIV-positive party may be predisposed to other strains of HIV and also other sexually transmitted infections.

In the Middle East, drugstores constitute the main source for obtaining condoms<sup>18</sup>. Since in Iran the condoms are frequently located in the cosmetics section rather than the pharmacy, it is not uncommon for the salesperson in this section to be a woman. This could cause the shyness that some mentioned in the current study. Currently, in consultation clinics condoms are distributed for free and to avoid any awkwardness for the patients, sometimes the condoms are offered by the consultants. In Drop In Center (DIC) and at the Positive Club where HIV positive or at-risk populations may refer to, condoms are placed where anyone can take them. Since such centers are only open on work days and in working hours, installing vending machines for condoms in front of drugstores or supplying condoms in department stores and supermarkets could be helpful. The wish to have children was also mentioned as a reason for not using condoms. In some cases, this was the wish of HIV-negative women with infected husbands, despite awareness of the possibility of HIV transmission. This represents the fact that in current Iranian culture, having children is an important issue in family life. Consultation with the couple, and especially the woman, could help them realize the risk of transmission to one another and the child.

In addition, the quality and variety of available condoms in the market should be assessed and if necessary, improved, to ensure that none of the concerns regarding failure, physical side effects, and reduced sexual satisfaction remain valid. Considering that a noteworthy percent (46.5%) of HIV-positive men and women in Iran are in the 25-34 year age group and a considerable number of the infected are single<sup>5</sup>, interventions designed by authorities would undoubtedly need to focus on both sexes, and especially include the young population. Condom negotiation for women is definitely an essential point in HIV prevention.

While it was attempted to overcome limitations of the study where possible, the study still has a number of drawbacks, many of which are limitations of qualitative research in general. One is that the study sample in qualitative research is usually small and cannot be directly generalized to the population. On the other hand, the study subjects are patients referring to a consultation clinic for HIV and cannot represent the entire community of HIV patients and families, since those that do not refer to such clinics may be culturally or socio-economically different populations. Another drawback is that although the necessary measures were taken to gain the participants' trust during interviews, the participants may still have not expressed their uncensored intentions and beliefs, due to the controversial and personal subject of the study.

Even though the Islamic Republic of Iran has been a leading country in HIV prevention and treatment in the Middle East<sup>25</sup>, grounds for not complying with condom use consisted of a variety of reasons. Education and consultation can change many of the negative attitudes towards condom use<sup>26</sup>. One reason condom use is fundamentally and permanently internalized in some HIV-positive men is the realization that they can infect others and the burden of such a possibility on their conscience. Most-at-risk groups should especially be taken into consideration. Most other factors are nothing that cannot be overcome by precise planning and intervention by the policy makers.

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#### **Corresponding Author**

Sedigheh Sadat Tavafian  
Department of Health Education  
Faculty of Medical Sciences,  
Tarbiat Modares University, Tehran, Iran. P.O.Box:  
14115-111.

Email: [tavafian@modares.ac.ir](mailto:tavafian@modares.ac.ir)

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