



Genital Warts Among Men Attending a Dermatology Clinic: Risk Factors and Knowledge

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Abstract

Human papillomavirus (HPV) is one of the most common sexually transmitted infections, with the highest prevalence among young adults. We investigated the risk factors of this infection among men. A total of 224 men referred to a dermatology clinic in Shiraz to treat anogenital warts from June 2015 till Feb 2016 were enrolled. Data collection form included demographic characteristics and risk factors. The participants' mean age was 28.84 ± 8 years, and half of them (54.5%) were in the second decade of their life. Nearly half of them were single, 110 (49.1%), and 103 had high education (48.4%). Among our participants, the mean age of sexual relationship onset was 20.31 ± 3.71 ; 69 (60.5%) of the married participants had experienced sexual intercourse before marriage, and 58 (61.05%) had extramarital sexual relationships. The mean number of sex partners was 2.8. More than half of the participants ($n = 146$, 66.4%) were not aware of STI symptoms. Our participants were young, and more than half of the married ones had extramarital relationships. Altogether, low awareness of STI symptoms was seen. HPV could be a public health challenge in our young male adults because of their risk factors and lack of knowledge.

Keywords: Warts, Genitalia, Men, Risk Factor, Knowledge

1. Background

Worldwide human papillomavirus (HPV) is known as the most frequent sexually transmitted viral infection. HPV is a highly contagious disease with a high level of relapse, increasing the chance of genital cancers, medical costs, loss of productivity, and increased psychosocial outcomes (1, 2). Early-onset sexual activity, multiple sexual partners, and unsafe sex are important risk factors for genital warts (3). Two studies showed tobacco use and a greater number of lifetime sexual partners were associated with higher HPV infection prevalence (4, 5).

High-risk behavior affecting anogenital warts (AGW) prevalence varies among different geographic, ethnic, racial, and cultural populations (6). A study reported that the HPV prevalence was relatively high (54.8%) in Tehran (7).

The HPV is identified as the principal reason for cervical cancer, penile cancer, anal and oropharyngeal cancer, which is seen in people practicing anal and oral sex (8). Knowledge about the risk factors and preventive strategy is low that results in serious health problems (3, 6, 9, 10).

2. Objectives

We investigated risk factors and knowledge about STIs among men with AGW.

3. Patients and Methods

The men who referred to a dermatology clinic affiliated to Shiraz University of Medical Sciences to treat AGW from June 2015 to Feb 2016 in Shiraz were enrolled. The data collection form consists of age, marital and educational status, age of the first sexual intercourse, alcohol consumption, cigarette smoking, and pattern of sexual behavior and STIs knowledge.

Informed consent was taken from each patient after explaining the objectives of the study, and their information was recorded anonymously. Our study was approved by the local Ethics Committee of Shiraz University of Medical Sciences (Ethics code: ec-p-9378-7568).

4. Results and Discussion

A total of 224 men diagnosed with genital warts by health care providers were enrolled. The mean age was 28.84 ± 8 years (range 16 - 57). Nearly half of the men were single 110 (49.1%), and 103 (48.4%) were highly educated, and the majority of the participants were employed 144 (64.3%). The onset of sexual relationships was 20.31 ± 3.71 years (rang 7 - 30). Among the married ones (95 men), 58 (61.05%) of them reported having extramarital sexual relationships. The median number of sex partners was 2.8.

A total of 125 (55.8%) had girlfriends, and 41 (31.5%) of them had 2 sex partners in the past six months. Moreover, 132 (58.9%) of them had the experience of anal sex in their lifetime, and only 15 (7.1%) of the participants used condoms regularly.

The history of smoking cigarettes, pipe or water pipe, and drinking alcohol was reported in 194 (87.1%), and 144 (64.3%) of our participants, respectively. Unprotected sex after opioid, use of stimulants, and consumption of alcohol occurred among 10 (4.5%), 11 (4.9%), and 57 (25.6%) participants, respectively (Table 1).

4.1. STI Knowledge

More than half of the men ($n = 146$, 66.4%) were not aware of STI symptoms. The mean knowledge score regarding STI symptoms was 1.7 ± 1.31 (out of 8). The mean knowledge score of our participants regarding the transmission route of STI was 2.26 ± 1.37 (out of 9). The mean knowledge score regarding STI prevention was 1.04 ± 1.95 (out of 8). The total knowledge score regarding transmission routes, prevention, and STI symptoms was 6.25 ± 3.36 (out of 25).

There was no significant difference between knowledge of single (6.3 ± 3.01) and married participants (6.2 ± 3.69) (P value = 0.893) about STIs. There was no significant difference in knowledge scores regarding different levels of education (P value = 0.418).

Anogenital warts are one of the most common infections among adolescents and young adults (11). This study represents general information and risk factors in men with genital warts in Shiraz, Iran. Those infected were largely young; almost half of them were single and had a high level of education. Similarly, young adults have been reported as the highest vulnerable group (11, 12).

In our study, the onset of sexual activity was similar to Tehran (6). The onset of sexual activity differs in various cultures and religions; hence, health education, especially about STI prevention, should be initiated at high school when this vulnerable group is easily accessible.

There were no differences in awareness about STI between married and single participants. Also, no association was observed among condom use, sex type, and STI

Table 1. Characteristic and Risk Factors of the Men with Genital Warts in Shiraz, 2015 -2016

Variables	No.	%
Mean age \pm SD (years)	28.84 \pm 8	
Age (years)		
≤ 20	33	14.7
21 to 30	122	54.5
31 to 40	54	24.1
≥ 40	15	6.7
Marital status		
Single	110	49.1
Married	95	42.5
Other	19	8.4
Education^a		
Secondary school and less	10	0.5
High school	43	20.2
Diploma	57	26.8
Associate Degree	29	13.6
Bachelor Degree	53	24.9
Master degree and higher	21	9.9
Occupation^b		
Employed	144	64.3
Unemployed	60	26.8
No response	19	8.5
Type of sex partner (lifetime)^c		
Permanent wife	90	40.2
Temporary wife	15	6.7
Sex worker	58	25.9
Girlfriend	125	55.8
Homosexual	2	0.9
Number of sex partners in the past six months^d		
1	32	24.6
2	41	31.5
3	33	25.4
4	14	10.8
≥ 5	10	7.6
Type of sex (lifetime)		
Vaginal	174	77.7
Oral	52	23.2
Anal (incentive)	125	55.8
Anal (receptive)	7	3.1
Condom use^d		
Always	15	7.1
Often	26	12.4
Sometimes	62	29.5
Rarely	60	28.6
Never	47	22.4
Unprotected sex after opioid usage	10	4.5
Unprotected sex after stimulant usage	11	4.9
Unprotected sex after consumption of alcohol	57	25.6

^aNA (4.1%)

^bNA (0.4%)

^cEverybody may have more than one type of sex partner

^dNA (0.1%)

knowledge in our study. On the other hand, another study showed that HPV awareness was higher among highly educated and married participants (11).

Result of different studies showed that most of the participants had high education and unsafe sex, but did not use a condom (1, 6, 13, 14). These results are consistent with our findings.

Our study could provide baseline data for an interventional study. The presence of information bias is probable due to self-report. Lack of a control group was our limitation.

HPV is a public health challenge that involves young adults. To combat this problem, primary prevention by abstaining from multiple sex partners and condom usage are the best option. Managing the affected patients should be considered secondary prevention by finding and treating symptomatic and asymptomatic individuals in STI clinics. Most of the infected population are young people; hence, the psychological and economic burden of HPV infection should be considered.

Footnotes

Authors' Contribution: Nasrin Motazedian: Contributed substantially to the conception and design of the study, the acquisition of data, drafted the manuscript; provided final approval of the version to publish, agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Mehrab Sayadi: The acquisition of data, or the analysis and interpretation, provided critical revision of the article, provided final approval of the version to publish, performed bioinformatics analyses. Shohreh Beheshti: Contributed substantially to the conception and design of the study and interpretation, provided critical revision of the article, provided final approval of the version to publish, agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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