# The exploration of life experience of married people with genital warts: A qualitative study

Fereshteh Araghian Mojarad<sup>1,2</sup>, Soghra Khani<sup>3,4</sup>, Arezoo Aliabadian<sup>5</sup>, Fatemeh Purbarar<sup>6</sup>, Tahereh Yaghoubi<sup>1,2</sup>

<sup>1</sup>Traditional and Complementary Medicine Research Center, Addiction Institute Mazandaran University of Medical Sciences, <sup>2</sup>Departmentof Nursing, Principles, Techniques and Management, Nasibeh Faculty of Nursing and Midwifery, Mazandaran University of MedicalSciences, <sup>3</sup>Sexual and Reproductive Health Research Center, Nasibeh School of Nursing and Midwifery, Sari, Mazandaran University of Medical Sciences, <sup>4</sup>Department of Reproductive Health and Midwifery, Nasibeh Faculty of Nursing and Midwifery, Mazandaran University of Medical Sciences, Sari, <sup>5</sup>Assistant Professor, Department of Psychology, Arian Institute of Higher Education, Science and Technology, Babol, <sup>6</sup>Student Research Committee, Mazandaran University of Medical Sciences, Sari, Iran

> ORCID: Fereshteh Araqian Mojarad: 0000-0002-0147-3999 Tahereh Yaghoubi: 0000-00018526-6745

AbstractContext: Human papillomavirus is one of the most important and common sexually transmitted viruses.Aims: The aim of this study was to explore the lived experiences of patients with genital warts.

**Setting and Design:** The present study was conducted by descriptive phenomenological method of Colaizzi's approach in 2020. Sampling was performed from Iranian people referring to the gynecologist's clinics in Iran. **Materials and Methods:** This study was carried out with 23 participants with genital warts who were chosen by purposive sampling based on the data saturation. The semistructured interview was used Guba and Lincoln proposed criteria were used for the rigor and strength of the study.

**Statistical Analysis Used:** Data analysis was performed by the Colaizi method. OneNote software was used for the data analysis.

**Result**: Patients with the age group of 15–45 years were included. Classification of codes leads to the extraction of 8 sub-themes and four main themes, including numerous fears (fear of rejection and fear of the outcomes of the disease), lack of awareness and misconceptions regarding disease (denial of the main way of getting genital warts, resorting to unconventional therapies), seeking support (the need for financial support and also medical support), and bitter experiences of the disease (physical and psychological problems and disruption of emotional and sexual relationship).

**Conclusion:** Due to the various physical and psychological adverse effects of genital warts, it should be emphasized on increasing public awareness about the prevention, treatment, and predicting the risk of the disease in the community.

Keywords: Genital, Warts, Life experiences, Patients, Qualitative research

Address for correspondence: Tahereh Yaghoubi, Traditional and Complementary Medicine Research Center, Addiction Institute Mazandaran University of Medical Sciences, Sari, Iran,

Department of Nursing, Principles, Techniques and Management, Nasibeh Faculty of Nursing and Midwifery, Mazandaran University of Medical Sciences, Sari, Iran E-mail: tyaghubi@gmail.com

Received: 21 February 2021; Revised: 30 Janauary 2022; Accepted: 01 February 2022; Published: 10 June 2022

Access this article online				
Quick Response Code:	Website: www.jnmsjournal.org			
	DOI: 10.4103/jnms.jnms_29_21			

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow\_reprints@wolterskluwer.com

**How to cite this article:** Araghian Mojarad F, Khani S, Aliabadian A, Purbarar F, Yaghoubi T. The exploration of life experience of married people with genital warts: A qualitative study. J Nurs Midwifery Sci 2022;9:96-104.

#### **INTRODUCTION**

Human papillomavirus (HPV) is one of the most important and common sexually transmitted infection.<sup>[1,2]</sup> There are more than 151 different types of HPV that most common sites of infection include the hands, the skin around the nails, the elbows, the knees, and the soles of the feet and genital.<sup>[3]</sup> HPV is the most common sexually transmitted diseases (STDs) in the world that can lead to malignant or benign tumors of the skin and mucous membranes, including genital area.<sup>[4-7]</sup> Reviewed studies indicated the role of this virus in the incidence of cervical cancer among women in Iran and also all over the world.<sup>[8,9]</sup> One percent of sexually active individuals with 15–45 years are infected with genital warts all over the world.<sup>[10]</sup>

According to the results of studies, this disease affects the quality of life of people and also imposes the considerable financial costs and burden on the health system.<sup>[11-14]</sup> Patients' mental health is also greatly affected by this disease and a significant decrease in the quality of sexual intercourse has also been reported in these patients.<sup>[15,16]</sup> In addition to the physical effects of genital warts, there are social effects of the patient's professional and social life, loss of trust, intimacy, and suspicion of the patient's partner. It destroys trust, intimacy and creating suspicion for the patient's partner is also threatening. Changes in the patient's quality of sex life create a sense of insecurity in meeting new partner.<sup>[17]</sup> It also has mental hazards such as anxiety, isolation, feeling ashamed of the disease, feeling rejecting, and fear of relapse are also adverse consequences of the disease.<sup>[17,18]</sup> Finally, the most important physical risks of this disease can be cervical cancer in women and genital cancer in men.<sup>[10]</sup>

Since few qualitative studies conducted in Iran focused on the lived experiences of women with genital warts and there is little information about the emotional aspects and perceived experiences of these patients (men and women). Furthermore, performing qualitative research will present these information by describing the nature of patients' individual experiences and quantitate studies are not able to answer such questions.<sup>[19]</sup> Phenomenological research leads to the extraction of human experiences and models of the humanities.<sup>[20]</sup> Therefore, the perception of reality is unique and subjective for each person. The aim of this study was to explore the lived experiences of patients with genital warts.

#### MATERIALS AND METHODS

#### Study design

The present study was conducted by descriptive phenomenological method of Colaizzi's approach in 2020.

Participants were included individuals with genital warts. Purposive sampling was performed on individuals attending to the Mustafavi Gynecology and Urology Clinic in Sari, Iran and was continued by researcher to achieve data saturation.

Inclusion criteria were: Genital warts last for 1 week and also having the ability and willingness to participate in the interview. The diagnosis of genital warts was made by a gynecologist. In-depth and semi-structured interviews were used for data collection. The interviewer was one of the members of the research team who has complete mastery of the interviewing technique. The method of conducting the interviews was that after selecting the participants, the purpose, nature and method of the study were explained to them. Then, in a secluded and safe environment, after a friendly introduction and gaining the participant's trust, they proceeded to conduct the interviews by asking questions such as "What happened that you infected with genital warts?," "What do you remember when you hear the name genital warts?," "How did you feel after infecting with genital warts?," "How did you react when you heard that you had genital warts?," "What are your views on this disease (in comparison to other STDs)?" and "How has your lives been affected by having genital warts?"

The interviews were then deepened using exploratory questions. Such as: "Please explain more if you can." or "What do you mean. The interviews were recorded by mp3 recorder, listened to the recorded voices several times, and after a deep understanding of the participants' statements and announcements, their statements were carefully transcribed into writing.

Data analysis was performed by Colaizi method. OneNote software was used for data analysis.

The analysis of the study data was performed using the Colaizzi's method as follows:

In the first stage, the content of each interview was completely transcribed and typed word by word using the Microsoft Office Word 2007 software, in the same way and in the language of the participants. In the second stage, each text was reviewed and important phrases related to the subject of the study were extracted.

Then, in the third stage, researchers recognized meanings relevant to the phenomenon.

In the fourth stage, the researchers collected the identified meanings into themes that were common across whole statements. In the fifth step, the researcher wrote a complete and comprehensive description of the phenomenon, integrating all the themes produced at step 4.

Based on the sixth stage, the research findings were discussed and described and in the final stage, the structure of the studied phenomenon was answered.<sup>[21]</sup>

Guba and Lincoln proposed criteria were used for the accuracy and strength of the study.<sup>[22]</sup> Researcher with long-term engagement with data and sufficient interaction with participants and also giving a part of the interview text along with the initial codes to the participants, to compare the homogeneity of the ideas extracted by the researcher and her main ideas, repeated step by step and analyzed the data, using the review by the research team and experts. Informed verbal and written consent were obtained from participants before the initiation of the study and before recording the interview. Withdrawal was free for participants at any stage of the study due to unwillingness to continue collaboration. The text of the interview was recorded completely regarding their confidentiality and anonymous, and fidelity to the participant's statements was observed in the text of the interview.

#### RESULTS

In this study, 23 patients with genital warts, including 20 women and 3 men with the age of 15–45 years were included. Everyone was married. Among them, only three participants used condoms in their sexual relationships.

Seven participants knew how they infected to the disease. Ten participants knew their spouse had the disease and also four individuals did not know in this regard. Demographic information of the participants is presented in Table 1.

At first, 485 codes were extracted from the analysis of recorded interviews. The codes were classified based on their similarities and differences. Finally, 8 sub-themes and 4 main themes were extracted [Table 2].

#### Theme 1-Numerous fears

The findings indicated several fears that participants had experienced such as fear of rejection and also fear of the painful consequences of disease.

#### Fear of rejection

In fact, all of participants were concerned with the fear of being rejected or stigmatized by society; because other than their spouse and sometimes close family members (mother or sister), others did not know about their disease and of course they did not face any illness, but it was always with them that if those around them and relatives know about the disease. They have a negative attitude towards them; because in our society, the existing attitude towards this disease and stricken is a negative attitude with stigma. Fear of notoriety was the most common concern in these patients; so it had a negative effect on people's access to health services, disease disclosure, social interactions, family and social support of patients.

Most of them due to the fear of stigma and discrimination, insults, penalties and embarrassment of sexual infidelity

Table 1: Demographic characteristics of the participants with genital wart (n=23)

Participants	Age (years)	Gender	Residence location	Number of spouses so far	History of genital wart	Duration	Method of getting information
1	31	Female	City	1	No	1 month	Internet
2	24	Female	Village	1	No	1 week	Internet
3	25	Female	City	1	No	1 month	Internet
4	29	Female	City	1	No	1 week	Internet
5	25	Female	City	1	No	2 weeks	Internet
6	33	Female	City	1	No	1 month	Internet
7	23	Female	City	1	No	3 weeks	Internet
8	18	Female	City	1	No	1 week	Internet
9	45	Female	Village	1	No	1 month	Practitioner
10	28	Female	Village	1	No	1 week	Internet
11	15	Female	Village	1	No	1 week	Practitioner
12	36	Female	City	>1	No	1 week	Friend
13	23	Female	City	1	No	1 month	Internet
14	32	Female	City	1	No	1 month	Friend
15	29	Female	City	>1	Yes	5 years	Internet
16	28	Female	City	1	No	1 month	Internet
17	35	Female	City	1	No	1 week	Internet and friend
18	24	Female	City	>1	No	1 week	Internet
19	26	Female	City	1	No	2 weeks	Internet
20	18	Female	City	1	No	1 week	Internet
21	32	Male	City	>1	No	1 year	Internet
22	17	Male	City	1	Yes	1 week	Internet
23	28	Male	City	>1	Yes	1 year	Internet

Araghian Mojarad, <i>et al</i> .: E	Experience genital warts
-------------------------------------	--------------------------

The main themes	Sub-themes	Some codes
Numerous fears	Fear of rejection	Fear of not receiving services
		Fear of notoriety
		Secrecy for fear of family fear of the consequences of family awareness such
		as rejection embarrassment combined with fear of expressing illness
		Fear of avoidant behavior labeling by doctors and also labeling by spouse
	Fear of the outcomes of the disease	Fear of cancer
		Fear of relapse
		Fear of getting warts all over the body
		Fear of permanent marriage and infertility
		Fear of vertical infection (mother to baby)
		Fear of losing a spouse
Lack of awareness and	Denying the main way of getting	Use a common shaving razor
misconceptions	genital warts (sexual transmission)	Use a laser for excess hair
	,	Use of public swimming pool
		Use the toilet
		Lack of hygiene by the spouse
		Touching the wart of the child's hand
	Adherence to unconventional	Wash the warts with apple cider vinegar solution
	therapies	Use garlic on warts
		Use of Ganoderma capsules
		Use a trimmer
		Use lemon juice and honey
Request for support	Need financial support	Not having visit fee
		Not having cost of vaccination
	Need medical support	Ask for help to treat the disease
		Request a test to determine the type of wart
		Request a vaccine to prevent from cancer
		Ask for help to prevent the relapse
Bitter experiences of the	Physical and mental problems	Stress and anxiety
disease		Insomnia
		Weight loss
		Probability of suicide
		Wishing for death
		Feeling victimized
		Feeling helpless
		Anger and hatred and anger from lack of commitment
		Remorse for temporary marriage
	Disruption of emotional and sexual	No sexual contact until recovery
	relationship	Use condoms to prevent other STDs
	·	Change in the quantity of sexual intercourse

Table 2: Themes and sub-themes, codes, and quotes of the participant's experiences about genital wart

STDs: Sexually transmitted diseases

wife of notifying the family and others avoid. Patients also concealed their diseases for fear of notoriety so as not to be the target of inappropriate treatment by others and they know that if their situation becomes clear, their family and community may not support them. The experiences of the participants showed that sometimes even doctors treat these patients with contempt which cause harm to the patient.

The following quotations reveal these concerns:

- Participant No. 1: "..... If I say I have warts, they may suspect me and have a bad idea about me and consider me a corrupt person"
- Participant No. 7: "..... Only God, My mother is your patient. She does not know that I married someone temporarily, if they find out, they will kill me"
- Participant No. 1: "I have genital warts. I am ashamed because no one knows I got a temporary marriage after my divorce, and if I say that, I will not me alive"

Participant No. 21: "On the first visit to the dermatologist, he misbehaved me and my wife. He said that one of you must do wrong things."

#### Fear of the outcomes of the disease

Due to the fact that some types of warts in people lead to cervical cancer, all participants were afraid of infecting to cancer. Also, due to the ugly appearance of warts, there was a fear of recurrence and spread to other parts of the body. Some of the participants were divorced. Due to the culture of the society that sexual intercourse before marriage is a practice far from sharia and morality and face a serious reaction from the family, spouse and the spouse's family, fear of marriage and fear of infertility were among the participants' fears. The following quotes reveal these fears:

- Participant No. 6: "..... I am very worried that it might be high risk and I will get uterine cancer"
- Participant No. 7: "..... I'm very afraid it will come back"

- Participant No. 1: " I'm afraid I'll have no more children"
- Participant No. 20: "Mrs. doctor, I am afraid to pass the disease on to my child when she becomes pregnant."

## Lack of awareness and misconceptions

Another finding of the study is the denial of the main way of getting genital warts and resorting to unconventional methods of treatment.

All patients interviewed called for increased public awareness of how the disease is transmitted and vaccinated between the ages of 14 and 18; because they acknowledged that the disease is very common. The following quotations make this lack of awareness clearer:

- Participant No. 12: "I always try to use a condom during sex. I have never had warts when I had a single life but when I have been several temporary marriages, I have HPV"
- Participant No. 13: "I wish all girls when they reach the age of 18 years, get all the wart vaccine so that no one gets sexually transmitted warts and does not lead to repeated and dangerous treatments"
- Participant 12: "My sister and I have body lasers. Both my sister and I have warts. I don't think she disinfected her equipment well"
- Participant No. 4: "I have been waxing for about 6 months. I think the place I went, was not hygienic"
- Participant No. 4: "When I find out I have warts, I wash myself with a lot of water and vinegar, that is, I wash twice a day."

# **Request for support**

Other experiences expressed by participants require a variety of support, because some of the patients did not have the family support system due to secrecy (because of temporary marriage, etc.) and did not have an appropriate job status, and some of them had sex due to financial need, despite the inability to pay. The cost of a doctor's visit, tests, treatment or vaccination needed medical support. Most participants sought help to treat and prevent cancer and disease recurrence. The following quotes indicate the need for various patient support:

- Participant No. 17: "At the first opportunity, I will definitely get the Gardasil vaccine. I think it should be given three times. I do not have to pay for it at the moment"
- Participant No. 20: "I Can't pay for HPV test to find out if our illness is low-risk or high-risk"
- Participant No. 2: "You are sure that I will get better.... I came here to help me get well so I don't get cancer and it doesn't come back."

# Bitter experiences of the disease

Participants stated that due to the disease, they suffered from physical and mental problems, changes in emotional and sexual relations with their spouses, and if they understand their spouses and families, there is a possibility of disintegrate of marital life, which leaded to various forms of depression, stress and anxiety. Insomnia, weight loss, suicidal ideation, death wish, feeling victimized. Often, the illness had a negative effect on participants' emotional relationships.

Participants became disillusioned and disgusted with their partner or sexual partner after finding out about genital warts and knowing the root cause of the infection, all blaming their spouses and partners, and some pointing to their lack of commitment and honesty. Despite knowing that the spouses were not committed, some participants were forced to continue living with their spouses or had to have multiple temporary marriages due to financial needs. They learned that they should be careful about high-risk behaviors and use protective equipment to prevent genital warts and other STDs. Almost all participants stated that on they will use protective equipment such as condoms to prevent other diseases. The following quotes reveal the participants' negative emotional experiences:

- Participant No. 9: "Since I noticed the warts, I'm very worried, I do not think I can sleep."
- Participant No. 11: "...I was hit hard and now I am going to psychological counseling for depression counseling"
- Participant No. 5: "I think if these warts do not get better, I will do something and kill myself"
- Participant No. 3: "I did not really have a relationship with my husband, really got sick because of my husband's lust"
- Participant No. 5: "Doctor, it is not possible for me to have a relationship with anyone from now on. I hate men anymore and I do not like. I do not trust anyone else
- Participant No. 8: "I am very sorry that I married with this man. I am still 18 years old. I just got married 2 months ago and got warts"
- Participant No. 10: "I feel I can no longer have a relationship with my husband.... I have raised the issue of my husband's infidelity in the family many times and my family says you should live with him."
- Participant No. 1: "I have become much more cautious about sex since I got warts.... I will definitely use a condom from now on"
- Participant No. 12: "I cannot tell those with whom I have temporarily married.... it may affect your relationship with me. I need money to make a living"

• Participant No. 20: "We argued a lot with my wife. She thinks I betrayed her. God, I did not betray her after marriage."

#### DISCUSSION

The aim of this study was to explore the lived experiences of patients with genital warts. The findings indicated that there were many complex problems in these patients. These problems included multiple fears, lack of awareness and misconceptions, seeking support, and bitter experiences with lessons learned.

#### Numerous fears

In this study, many participants cited the fear of rejection from family and society as a reason for hiding and not disclosing the disease. In another study many participants also considered the reactions of individuals, family and spouses, negative attitudes and misbehaviors, as well as family interference as barriers to pursuing treatment.<sup>[23]</sup> Married people with HPV had fear of notoriety, embarrassment with fear of expressing illness, fear of doctors' avoidant behavior.<sup>[24]</sup> According to other studies, women with HPV experienced negative feelings of shame and stigma.<sup>[25]</sup> Women were also very anxious to talk to family members, and some of them decided not to let anyone know about the disease.<sup>[23,13]</sup> Women who test positive for HPV experience feelings of stigma, sadness, and shame.<sup>[26]</sup> The results of a systematic review and meta-analysis of emotional reactions in people with a positive HPV test showed that short-term anxiety, test anxiety, sexual distress, disgust, shame, and fear of cancer were the most common. It is an emotional reaction.<sup>[27]</sup> An longitudinal study of women with HPV showed that they experienced negative psychological consequences, stress and depression.<sup>[28]</sup> Many people with HPV have experienced stigma from spouses and friends.<sup>[29]</sup> Women with HPV are extremely anxious about the impact of the disease on their social and sexual relationships. About 90% of them have sexual problems and decreased quality of sex.<sup>[16,17]</sup>

Stigmatization by health care professionals leads to a reduction in treatment seeking behaviors in patients. In a study conducted among medical students in Germany, the results showed a high rate of stigma and labeling of patients with STDs by students.<sup>[30]</sup> In the educational curriculum of medical students, more emphasis should be placed on proper communication with patients with STDs and their psychological support.

In our study, male participants were also afraid of expressing the disease to their wives. Other studies in men with HPV have also shown shame and embarrassment and changes in sexuality.<sup>[13,14,18]</sup> More psychological consequences for men with HPV than for women.<sup>[31]</sup> Due to the increase in the incidence of the disease in men,<sup>[17]</sup> it is necessary to plan counseling and support for the physical-psychological-social model in the counseling centers for behavioral diseases for men.<sup>[18]</sup>

In this study, participants experienced different fears of the disease (fear of cancer, fear of recurrence of the disease, fear of warts all over the body, fear of transmitting the disease, fear of Re-marriage and having a child).

In a qualitative study on women with HPV conducted in Iran, the main results of the study indicated concerns about fertility and pregnancy. They were concerned about the effects of HPV on fetal health, adverse pregnancy outcomes such as miscarriage and preterm delivery, and mother-to-child transmission of HPV during breastfeeding.<sup>[32]</sup>

All female participants identified HPV as synonymous with cancer. This point is also confirmed in the review study.<sup>[31]</sup> A study in England (2019) women with a positive HPV test are more anxious and afraid about cancer than other women.<sup>[33]</sup>

#### Lack of awareness and misconceptions

Another finding of the study was the denial of the main way of getting genital warts and resorting to unconventional methods of treatment. Most of the participants cited the pathogenesis of genital warts through nonsexual contact.

Knowledge about the disease was scarce among the both women and men participating in this study so that, they exposed with a lack of awareness about the disease (and also regarding how to get infected and treated). A study in Iran (2019), the results showed that 80% of people's knowledge about high-risk sexual behaviors and STDs was weak.<sup>[34]</sup> Another study in Iran of male students, their knowledge regarding disease transmission and prevention methods was moderate and only 18.4% of them had a sufficient knowledge.<sup>[35]</sup> In another study of Pakistani students, 40.51% of students were unaware of the methods of transmitting genital warts so that 34.10% of students reported transmission of the disease through body fluids.<sup>[36]</sup> A study in Iran, participant's awareness about disease treatment and prevention methods was considerably low.<sup>[37]</sup>

There are a number of misconceptions and misinformation about genital warts, such as the transmission of the HPV through swimming pools, saunas, shared bathrooms and toilets with infected patients.<sup>[38]</sup>

#### **Request for support**

In this study, all patients were seeking treatment for the disease and determining the type of wart and preparing a vaccine and preventing cancer and disease recurrence. A review study was conducted in Chinese women showed that their knowledge of the disease was low, but their acceptance of women for vaccination was in high level.<sup>[39]</sup> Due to the increasing incidence of cancer associated with genital warts in men, vaccination against genital warts is emphasized in them, too.<sup>[40]</sup>

Study participants emphasized on the need for financial support in pursuing treatment and vaccination. A study in China (2020) they also emphasized the effect of social and economic conditions on receiving genital wart vaccine.<sup>[41]</sup> In a qualitative study conducted on men in China to identify the barriers of receiving the genital wart vaccine, the results showed that social and cultural conditions affect vaccination selection.<sup>[42]</sup>

#### Bitter experiences with lessons learned

Negative emotional experiences in the participants were in the form of physical and mental problems, changes in emotional relationships and sexual relations with the partner. A number of participants experienced unpleasant feelings such as stress, anxiety, nervousness, depression, and emotional failure due to the stress caused by the disease. Nervousness was also reported as emotional among most participants.

In the present study, shame and embarrassment as well as feelings of guilt and remorse for marriage or sex were experienced by most participants. A qualitative study of women with HPV confirms the findings of our study.<sup>[23]</sup> In another study on the quality of life of men with HPV, they also expressed embarrassment and changes in sexual relations.<sup>[43]</sup>

In this study, most participants informed their spouse (except those who had multiple temporary marriages at the same time) and received the necessary treatment. In the systematic review and meta-analysis (2019) which looked at the psychological consequences of HPV, couples' communication problems and changes in sexual relations were also expressed,<sup>[44]</sup> but A study in Turkey (2019) no significant differences were create among women who were HPV-positive and HPV-negative in sexual functions.<sup>[45]</sup> Possible causes of the difference between the results of this study and the study conducted in Turkey include differences in the type of participants and cultural differences between them.

In recent years, Iranian culture has experienced some degree of social change. Evidence shows that there are

obvious changes in the common sexual relations among young people.<sup>[46]</sup> Therefore, more efforts are needed to raise awareness among the younger generation about STDs.

One of the strengths of the current study is the experiences of both men and women were examined. One of the limitation of the study is the stigma of HPV in patients and the lack of easy access to people to participate in the interview. Therefore, in the study, the data collection process was prolonged.

#### CONCLUSION

This study tried to explain the experiences of married people with genital warts. Findings of the study indicated that patients "multiple fears and patients" lack of awareness and seeking support were bitter experiences with lessons learned. Participants avoided informing family members and others about HPV because of fear of notoriety and discriminatory behavior. Fear of spousal infidelity was also one of the reasons was not informed of the illness. In order to reduce the problems of patients and prevent their spread in the community, it is necessary for the managers of the health system to have integrated plans in the field of increasing the public awareness. In order to reduce the psychological concerns of people with HPV, special attention should be paid to accessing free psychiatric counseling services at the level of the health system.

#### **Conflicts of interest**

There are no conflicts of interest.

#### Authors' contributions

All authors were involved in the conceptualization of the study revising the manuscript and interpreting the results.

# Financial support and sponsorship

Nil.

#### Acknowledgments

We would like to thank all the officials and staff of the specialized gynecological clinics and the participants who helped us in this research. We also thank the Student Research Committee and Deputy of research and technology of Mazandaran University of Medical Sciences for their financial support of the project. This study is the result of a research project of Mazandaran University of Medical Sciences with ethics code of IR. MAZUMS. REC.1399.356.

#### REFERENCES

 Novak E. Berek & Novak's gynecology. 16<sup>th</sup> ed. Philadelphia: Lippincott Williams & Wilkins (LWW).; April 18, 2019 ISBN: 978-1-49-638033-3.

- O'Mahony C, Gomberg M, Skerlev M, Alraddadi A, de Las Heras-Alonso ME, Majewski S, *et al.* Position statement for the diagnosis and management of anogenital warts. J Eur Acad Dermatol Venereol 2019;33:1006-19.
- Nilyanimit P, Chansaenroj J, Srisomboon J, Rodrangnok W, Rajakom N, Daengsaard E, *et al.* Human papillomavirus in Thai women and men with anogenital warts. Intervirology 2018;61:223-9.
- Tay SK, Hsu TY, Pavelyev A, Walia A, Kulkarni AS. Clinical and economic impact of school-based nonavalent human papillomavirus vaccine on women in Singapore: A transmission dynamic mathematical model analysis. BJOG 2018;125:478-86.
- Michelow P, Firnhaber C. HPV vaccination in Southern Africa: A jab of hope in the fight against cervical cancer. Cancer Cytopathol 2016;124:695-8.
- Yuan J, Ni G, Wang T, Mounsey K, Cavezza S, Pan X, et al. Genital warts treatment: Beyond imiquimod. Hum Vaccin Immunother 2018;14:1815-9.
- Mehri M, Hosseinzadeh Kakroudi S, Askari FS, Mohebbi A, Tabarraei A. Prevalence of human papillomavirus genotypes in patients with genital warts in Gorgan, Iran. JCBR 2020;4:3-9.
- Fani M, Mahmoodi P, Emadzadeh M, Avan A, Karimi E, Ferns GA, et al. Correlation of human papillomavirus 16 and 18 with cervical cancer and their diagnosis methods in Iranian women: A systematic review and meta-analysis. Curr Probl Cancer 2020;44:100493.
- Sabatini ME, Chiocca S. Human papillomavirus as a driver of head and neck cancers. Br J Cancer 2020;122:306-14.
- Khodabandehloo P, Vadiea S, Malekafzali Ardakani B. The sociological explanation of the genital wart outbreak; case study of patients treated in Bouali and Javaheri Hospitals in Tehran. Med Sci 2018;28:245-51.
- Buenconsejo L, Kothari-Talwar S, Yee K, Kulkarni A, Lara N, Roset M, et al. Estimating the burden of illness related to genital warts in the Philippines: A nationally representative cross-sectional study. Infect Agent Cancer 2019;14:26.
- Woodhall SC, Jit M, Soldan K, Kinghorn G, Gilson R, Nathan M, et al. The impact of genital warts: Loss of quality of life and cost of treatment in eight sexual health clinics in the UK. Sex Transm Infect 2011;87:458-63.
- Tan LS, Chio MT, Sen P, Lim YK, Ng J, Ilancheran A, *et al.* Assessment of psychosocial impact of genital warts among patients in Singapore. Sex Health 2014;11:313-8.
- Lee TS, Kothari-Talwar S, Singhal PK, Yee K, Kulkarni A, Lara N, et al. Cross-sectional study estimating the psychosocial impact of genital warts and other anogenital diseases in South Korea. BMJ Open 2019;9:e025035.
- Domenech-Viñolas M, León-Maldonado L, Ramírez-Palacios P, Flores YN, Granados-García V, Brown B, *et al.* Incidence, psychosocial burden, and economic impact of genital warts in Mexico. Salud Publica Mex 2018;60:624-32.
- Nahidi M, Nahidi Y, Kardan G, Jarahi L, Aminzadeh B, Shojaei P, et al. Evaluation of sexual life and marital satisfaction in patients with anogenital wart. Actas Dermosifiliogr (Engl Ed) 2019;110:521-5.
- El-Esawy FM, Ahmed HM. Effect of genital warts on female sexual function and quality of life: An Egyptian study. Hum Androl 2017;7:58-64.
- Salah E. Impact of multiple extragenital warts on quality of life in immune-competent Egyptian adults: A comparative cross-sectional study. Clin Cosmet Investig Dermatol 2018;11:289-95.
- 19. Busetto L, Wick W, Gumbinger C. How to use and assess qualitative research methods. Neurol Res Pract 2020;2:14.
- Neubauer BE, Witkop CT, Varpio L. How phenomenology can help us learn from the experiences of others. Perspect Med Educ 2019;8:90-7.
- 21. Morrow R, Rodriguez A, King N. Colaizzi's descriptive phenomenological method. The Psychologist 2015;28:643-4.
- 22. Lincoln YS, Guba EG. But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. New Dir Program Eval 1986;1986:73-84.

- Pourmohsen M, Simbar M, Nahidi F, Fakor F, Alavi Majd H. Women's experiences of infection with human papillomavirus in the face of disease symptoms: A qualitative study. Int J Womens Health Reprod Sci 2020;8:37-45.
- Pereira-Caldeira NM, Góes FG, Almeida-Cruz MC, Caliari JS, Pereira-Ávila FM, Gir E. Quality of life for women with human papillomavirus-induced lesions. Rev Bras Ginecol Obstet 2020;42:211-7.
- 25. Ciavattini A, Delli Carpini G, Giannella L, Del Fabro A, Banerji V, Hall G, *et al.* An online survey on emotions, impact on everyday life, and educational needs of women with HPV positivity or abnormal Pap smear result. Medicine (Baltimore) 2021;100:e27177.
- Uzun S, Önder S, Çetin H, Şimşek E. The effects of human papilloma virus test on anxiety, emotion and depression in women. J Acad Res Med 2020;10:149-54.
- 27. McBride E, Tatar O, Rosberger Z, Rockliffe L, Marlow LA, Moss-Morris R, *et al.* Emotional response to testing positive for human papillomavirus at cervical cancer screening: A mixed method systematic review with meta-analysis. Health Psychol Rev 2021;15:395-429.
- American Academy of Pediatrics. "Stress and depression is linked to HPV-related health problems: Study links stress levels of adolescents to health complications from human papillomavirus, which can include cervical cancer." ScienceDaily. ScienceDaily, 30 April 2016. Available from: https://www.sciencedaily.com/ releases/2016/04/160430100243.htm.
- 29. Dodd RH, Forster AS, Marlow LA, Waller J. Psychosocial impact of human papillomavirus-related head and neck cancer on patients and their partners: A qualitative interview study. Eur J Cancer Care (Engl) 2019;28:e12999.
- Klein V, Brunner F, Grabowski M, Turner D. Stigma surrounding sexually transmitted infections among medical students in Germany. J Sex Res 2021;58:129-36.
- Lazcano-Ponce E, Sudenga SL, Torres BN, Stoler M, León-Maldonado L, Allen-Leigh B, *et al.* Incidence of external genital lesions related to human papillomavirus among Mexican men. A cohort study. Salud Publica Mex 2018;60:633-44.
- Qaderi K, Mirmolaei ST, Geranmayeh M, Farnam F, Sheikh Hasani S. 'Does HPV affect my fertility?' Reproductive concerns of HPVpositive women: A qualitative study. Reprod Health 2021;18:72.
- 33. McBride E, Marlow LA, Forster AS, Ridout D, Kitchener H, Patnick J, et al. Anxiety and distress following receipt of results from routine HPV primary testing in cervical screening: The psychological impact of primary screening (PIPS) study. Int J Cancer 2020;146:2113-21.
- Akhtarkhavari T, Naderloo B. The prevalence of risky sexual behaviors and awareness of STDs among temporary residents of homeless shelters in Tehran. AUMJ 2019;8:225-35.
- 35. Farazmand K, Azin P, Eskandari S, Farazmand P, Keshavarz Mohammadi N. Comparison of the effects of direct and indirect education of sexually transmitted infections on knowledge and attitude of male nursing and medical students of Shahid Beheshti University of Medical Sciences, Tehran – Iran, 2018. Mens Health J 2020;4:1-8.
- Khan TM, Buksh MA, Rehman IU, Saleem A. Knowledge, attitudes, and perception towards human papillomavirus among university students in Pakistan. Papillomavirus Res 2016;2:122-7.
- Singh J, Baliga SS. Knowledge regarding cervical cancer and HPV vaccine among medical students: A cross-sectional study. Clin Epidemiol Glob Health 2021;9:289-92.
- Puranen M, Syrjänen K, Syrjänen S. Transmission of genital human papillomavirus infections is unlikely through the floor and seats of humid dwellings in countries of high-level hygiene. Scand J Infect Dis 1996;28:243-6.
- Tang GD, Zeng GQ, Zhao BX, Li YL, Wang R, Wan YP. Awareness and knowledge of human papillomavirus vaccination and their influential factors among Chinese women: A systematic review. Front Nurs 2019;4:317-26.
- Preston SM, Darrow WW. Are Men Being Left Behind (Or Catching Up)? Differences in HPV Awareness, Knowledge, and Attitudes

Between Diverse College Men and Women. Am J Mens Health. 2019;13:1-12.

- 41. You D, Han L, Li L, Hu J, Zimet GD, Alias H, et al. Human Papillomavirus (HPV) Vaccine Uptake and the Willingness to Receive the HPV Vaccination among Female College Students in China: A Multicenter Study. Vaccines (Basel). 2020;8(1):31.
- Siu JY, Fung TKF, Leung LH. Barriers to Receiving HPV Vaccination Among Men in a Chinese Community: A Qualitative Study in Hong Kong, Am J Mens Health. 2019;13(1):1557988319831912.
- 43. Camargo CC, D'Elia MPB, Miot HA. Quality of life in men affected by anogenital warts. An Bras Dermatol.2017;92(3):427-9.
- 44. McBride E, Tatar O, Rosberger Z, Rockliffe L, Marlow LAV, Moss-Morris R, *et al.* Emotional response to testing positive for human papillomavirus at cervical cancer screening: a mixed method systematic review with meta-analysis. Health Psychol Rev. 2021;15(3):395-429.
- Sakin Ö, Uzun SB, Koyuncu K, Giray B, Akalın EE, Anğın AD. Cervix human papilloma virus positivity: Does it cause sexual dysfunction? Turk J Obstet Gynecol. 2019;16(4):235-241.
- Kazemi S, Tavousi M, Zarei F. A mobile-based educational intervention on STI-related preventive behavior among Iranian women. Health Educ Res. 2021;36(2):212-223.