ARTIGO ARTICLE

# MEN AND WOMEN WITH HUMAN PAPILLOMAVIRUS: FOCUSING ON THE EXPOSITION RISK AND PREVENTION

PAPILOMAVÍRUS HUMANO EM HOMENS E MULHERES: ENFOCANDO O RISCO À EXPOSIÇÃO E PREVENÇÃO

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#### ABSTRACT

Introduction: it is estimated that HPV infection increases four to six times the risk to acquire HIV by means of sexual transmission **Objective:** we aimed to address HPV infection awareness among outpatients, highlighting gender differences concerning exposure, associated risk and prevention. **Methods:** this study was conducted in three Health Centers from Fortaleza. The sample was randomly chosen using the following criteria: subjects from either sex, regardless of race, and socio-economic profiles who had submitted to a HPV treatment. The participants (100 men and 100 women) enrolled in this investigation have submitted to a guideline interview, previously developed by the authors in order to assess demographics and detailed information about HPV awareness, contamination risk, and partners' follow-up. Data analyses were conducted using Epi-Info 6.0 version. **Results:** concerning HPV's knowledge, men (75%) and women (87%) confirmed that they were aware of the disease. When we asked the participants about STD prevention, men (90%) and women (81%) were aware of the condom efficacy to prevent STD. **Conclusion:** our findings have confirmed gender differences in coping with HPV infection. Additionally, our data will be helpful in building a HPV profile locally, which might substantially improve sexual education programs towards the real necessities of our population.

Keywords: sexual behavior, papillomavirus, primary prevention

#### RESUMO

Introdução: a contaminação pelo HPV aumenta de quatro a seis vezes o risco de transmissão sexual pelo HIV. Objetivo: abordar pacientes com HPV, destacando as diferenças de gênero em relação à exposição ao risco associada à prevenção. Método: o estudo foi conduzido em três centros de saúde de Fortaleza com amostra randomicamente selecionada, usando os seguintes critérios: sujeitos de ambos os sexos, independente de raça e perfil socioeconômico que estivessem submetendo-se a tratamento para HPV. Os sujeitos (100 homens e 100 mulheres) envolvidos no estudo foram entrevistados utilizando um guia previamente desenvolvido pelas autoras, identificando informações demográficas, enfrentamento da doença, risco de contaminação e seguimento dos parceiros. A análise dos dados foi realizada pelo Epi-Info versão 6.0. Resultados: ficou constatado que 75% dos homens e 87% das mulheres conheciam a doença. Homens (90%) e mulheres (81%) sabiam que se usassem o preservativo se preveniriam de contrair uma DST. Conclusão: nossos achados têm confirmado diferenças de gênero no enfrentamento da infecção por HPV. Além disso, nossos dados serão úteis para construir um perfil do problema, podendo contribuir substancialmente para o desenvolvimento de programas de educação sexual direcionados às necessidades da população local.

Palavras-chave: comportamento sexual, papilomavírus, prevenção primária

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#### INTRODUCTION

It is estimated that in Brazil there are 35 million people contaminated with Human Papillomavirus (HPV). The principal risk factor among Latin Americans is the sexual contact without protection<sup>1</sup>. The importance of approaching the HPV epidemiology is greatly warranted due to its characteristic presentation and highly infectivity among different serotypes and oncogenic potentiality<sup>2</sup>. In addition, it is estimated that HPV infection increases four to six times the risk to acquire

Fortaleza, Ceará's capital in the Northeast Brazil, with a population of 2,141,402 inhabitants<sup>4</sup>, has recently harbored an increasing prevalence of HPV infection over the years. According to local epidemiologic reports, the HPV prevalence had been relatively stable during 1991-1995 with an average of cases reaching 11,8 %; 8,9%; 7,3%; 8,6% and 9,0%, per each year respectively (State Health Secretary), however, in 2001 a local surveillance enrolling 1,013 patients has shown 31.4% of HPV incidence identified by symptomatic diagnosis and 22.5% by laboratorial findings<sup>5</sup>.

Treatment drawbacks and recurrent infections have corroborated to a high prevalence of HPV among sexually active dwellers. Furthermore, a relatively straightforward diagnosis has led to rapid increase in field notifications<sup>3</sup>, making it a more prevalent amidst all sexually transmitted diseases (STD), and reaching 15.17% of overall notifications done in Fortaleza<sup>6</sup>.

Human Immunodeficiency Virus (HIV) by means of sexual transmission<sup>3</sup>.

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Based on these clinical reports, this study aimed to address HPV infection awareness among outpatients living in Fortaleza, highlighting gender differences concerning exposure, associated risk and prevention.

#### **METHODS**

### **Setting & Participants**

This study was conducted in three Health Centers from Fortaleza (Anastácio Magalhães Health Center, Meireles Health Center and Institute for Cancer Prevention). The sample was randomly chosen from HPV infected individuals, using the following criteria: subjects from either sex, regardless of race, and socio-economic profiles who had submitted to a HPV treatment and who agreed to participate in the study. One hundred men and one hundred women were enrolled in this investigation. Some patients submitted twice to the treatment.

#### **Procedure**

The Ethical Committee for Human Investigation at the Federal University of Ceará approved the study. After HPV clini-

cal confirmation, participants were asked to enroll in the study. Two hundred informants signed the informed consent, according to legal and ethical principles under the 196/96 Resolution of The National Council of Health<sup>7</sup>. Informants were interviewed in private by the investigators.

#### Measures

We have administered a guideline interview, previously developed and tested by the authors in order to assess demographics and detailed information about HPV awareness, contamination risk, and partners' follow-up. Data analyses were conducted using EpiInfo 6.0 version.

#### **RESULTS**

Characteristics of the participants and sources of previous knowledge about STD are summarized in **Table 1** and **Figure 1**, respectively. According to the informants, different sources of media were important to gather knowledge about STD prevention (**Figure 2**). When we asked the male participants about STD prevention, 90% of the study men were aware of the condom efficacy to prevent STD, however, according to their interviews,

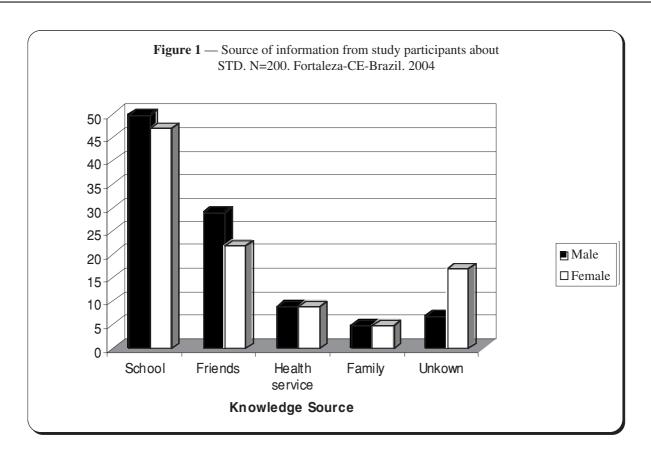
Table 1 - Characteristics of the study participants enrolled in this study. N=200. Fortaleza-CE-Brazil. 2004

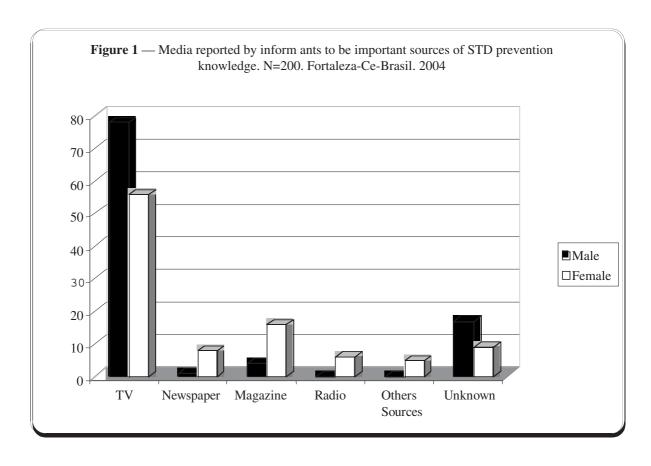
Characteristics	<b>Male</b> (%) 10-19yo	Female (%)	
Age		06	22
	20-29yo	59	54
	> 30yo	35	24
Schooling	Primary School	24	27
	High School	32	37
	Undergraduate	04	02
	Below Primary School	33	27
	Unknown	07	07
HPV infection	First time	81	88
	Second time	17	10
	Unknown	02	02

Table 2 - Men' and Women' principal reasons to have sexual unprotected relations. N=200. Fortaleza-CE-Brazil. 2004.

Reasons	Male	Female
Partner's confidence	17.8%	26%
The moment	10.7%	16%
When drink, do not know what are doing	10.7%	_
Partner does not like to use	_	16%
Only happens with other people, not with me	_	12%
Other different reasons	60.8%	30%

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43% referred not to use condoms, 44% had used eventually and only 8% always had used condoms.

In the women's perspective, 81% were aware of the importance of condoms to prevent STD, however, 54% of the partners never had used condoms, 35% eventually and 9% of the partners always had used the preservative. The major reasons drawn from our study group to continue practicing unprotected sex, even with the awareness of the risks are synthesized in **Table 2**.

Concerning HPV's knowledge, 75% of the study men and 87% of the study women confirmed that they were aware of the disease. 17% among the male group and 10% of the women had recurrent HPV's papillomatosis. In addition, we have inquired whether the study subjects have shared information about HPV infection and treatment with their partners. Surprisingly, we have found 70% of the study men under treatment shared the knowledge about their infection with their partners; however only 50% of the study women's partners were under HPV treatment.

#### DISCUSSION

Most socio-demographic characteristic were, as expected, relatively even for both groups, with an age-related prevalence of < 30 years old and low educational level, confirming a trend seen in other epidemiologic studies elsewhere, as documented before<sup>1;8</sup>.

For either group, major sources of knowledge about STD were school and friends, revealing the family's omission concerning individual sexual education, as previously shown by Oriá and Alves<sup>9</sup>. Even knowing about infection risks through unprotected sexual contact; men and women has taken it for granted. In an attempt to understand such behaviors, we have approached the problem by a cultural point of view.

Some cultural factors in Northeast Brazil might be taken in account to explain these observed behaviors. There is a strong heritage of patriarchal education among the Northeast cultural context. Familiar hygienism is still present in the Brazilian society, which frequently places the man as the family provider, and the woman assuming a secondary role in the productive system, eclipsed by the man in the family structure, as well as depicting the woman as the household caregiver, as their main activity and identity<sup>10</sup>. Thus, women are placed in an unfavorable position in regard to her partner, maintaining an economic dependence, limited to the domestic environment. Such social context further reinforce the lack of woman empowerment at the family level.

However others factors have been shown to influence women's acceptance for a free-condom sex, such as confidence in the partner, which might impose an additional risk. These factors also have been referred by the male group, however male partners further blame alcoholic beverage for excusing the condom usage.

Despite some problems during the follow-up, in general, study men and women shared about their disease with their partners. This was true even when their relationships ended; therefore, suggesting a raised level of awareness built along the treatment. Surprisingly, we have found that men showed a better communication with their partners regarding HPV infection and the importance of early treatment, which further reinforces differences in gender in coping with HPV infection. Nevertheless, our data suggest that the study women, most likely because of cultur-

al dependence, were ashamed or afraid to talk about their disease and to persuade their partners to initiate a treatment. In addition, it is generally recognized that women are more concern about self-care than men are. They worry more about their health, as confirmed by their enrollment in the treatment in larger scale.

#### **CONCLUSION**

Our findings have confirmed gender differences in coping with HPV infection. Additionally, our data will be helpful in building a HPV profile locally, which might substantially improve sexual education programs towards the real necessities of our population. These findings are shedding new light about HPV infection within the family context, and at the sexual level and therefore targeting potential risk groups for early intervention. Studies are now being planned to address the importance of the HPV infection at the emotional level.

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#### REFERENCES

- World Health Organization. Research on Reproductive Health Biennial Report 2000-2001. Geneva, 2002.
- Jacyntho C, Almeida Filho GL. Prevenção. In: Jacyntho C, Almeida Filho GL, Maldonado P. HPV: Infecção genital feminina e masculina. Rio de Janeiro: Revinter; 1994.
- Rouquayrol MZ, Pinheiro AC, Façanha MC. Epidemiologia das doenças infecciosas em Fortaleza 1991-1995. Secretaria de Saúde de Fortaleza/Departamento de Vigilância à Saude/Divisão de Epidemiologia; 1996. p. 43-44.
- Instituto Brasileiro de Geografia e Estatística. População residente por situação do domicílio e sexo, segundo as grandes regiões. IBGE [online]. Available: (Acesso em abril 2003).
- Cavalcante EGF, Teixeira TG. Aspectos epidemiológicos característicos dos usuários do ambulatório Centro de Saúde Escola Meireles. DST - J bras Doenças Sex Transm 2002; 14(3): 49.
- Unaids/Who. Brazil: Epidemiological Fact Sheets on HIV/AIDS and Sexually Transmitted Infections. Geneva, 2002.
- Brazil, Ministry of Health. Informe epidemiológico do SUS. Brasília, DF: Fundação Nacional de Saúde, 1996.
- Brazil. Ministry of Health. Manual de Controle das Doenças Sexualmente Transmissíveis. Brasília, 2000.
- Oriá MOB, Alves MDS. Adolescente com papilomavírus humano no contexto familiar. Rev Esc Enf UERJ 2004; 12(1): 44-48.
- 10. Costa JF. Ordem médica e norma familiar. Rio de Janeiro: Edições Graal; 1999.

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