Enfermería Clínica

Women's knowledge, beliefs, and behaviors toward the prevention of human papillomavirus transmission

Lela Larasati[a], Yati Afiyanti[b],*, Hayuni Rahmah[b] and Ariesta Milanti[b]

[a]Akper RS Kepresidenan RSPAD Gatot Soebroto, Jakarta, Indonesia
[b]Faculty of Nursing, Universitas Indonesia, Depok, Jawa Barat, Indonesia

Abstract

Objective: To identify the relationship between women's knowledge, beliefs, and behaviors and human papillomavirus (HPV) transmission prevention.

Method: This was a cross-sectional study with a convenience sampling technique. The samples were from 649 women of reproductive age who either were married or who had once been married. Data were analyzed using the Pearson and Spearman correlation tests.

Results: The results showed a statistically significant relationship between knowledge, beliefs and sexual behaviors, and the prevention of HPV transmission. Knowledge was the most dominant variable affecting the prevention of HPV transmission ($r = 0.174$) with p value < 0.001; the better the women's knowledge, the higher the prevention effort.

Conclusions: Beliefs regarding HPV transmission, healthy sexual behavior, and knowledge of prevention could reduce the prevalence of HPV transmission and would improve women's health in general. In addition, providing education, avoiding the risk factors, early detection, and performing a regular screening of reproductive organs are the key factors in preventing HPV transmission.

© 2018 Elsevier España, S.L.U. Todos los derechos reservados.

Introduction

Cervical cancer (CC) is primarily caused by persistent infection of human papillomavirus (HPV), including type 16, 18, 31, and 45, among sexually active women[1,2]. CC is a major disease burden among women, especially in low and middle income countries (LMIC)[3]. More than 85% of deaths due to CC occur in LMIC, including Indonesia[3,4].

Indonesia is the fourth most populous country in the world after China, India and the United States, with more than 257 million people inhabiting the largest archipelago on earth[5]. CC control is a tremendous issue in this country. Due to a variety of elements, including the characteristics of its population, its geography, the education system, economic and sociocultural factors, and the health care system. There are some regions in Indonesia, which report the highest CC morbidity rate. The National Health Survey in 2013 by the Ministry of Health of the Republic of Indonesia reported that CC cases are most prevalent in three particular provinces: East Java (21,313 cases), Central Java (19,734 cases), and West Java (15,635 cases)[6].

Poor knowledge is the predominant factor impeding preventative measures against cervical cancer[7]. Another barrier, especially among Asian women, is sociocultural factors[8].

*Corresponding author.
Email:* yatikris@ui.ac.id (Y. Afiyanti).

Table 1	The characteristics of respondents (n = 649)		
Characteristics	Category	No.	%
Age, years	20-29	280	43.1
	30-39	216	33.3
	40-49	153	23.6
Education	Basic	410	63.2
	Higher	239	36.3
Level of family income	Low	424	65.3
	High	225	34.7

Knowledge and beliefs strongly affect women's perception and behavior in performing cervical cancer prevention and early detection[9]. These conditions eventually lead to a low coverage rate of CC screening; as low as 5% in Indonesia[10].

Many studies have examined the knowledge, beliefs, and behaviors related to the prevention of cervical cancer[11-16]. This interrelated subject is no longer new; however, it remains vital to assess this fundamental issue for problem mapping and policymaking in cancer control. Therefore, in this present study, we identified the women's knowledge, beliefs, and behaviors regarding HPV transmission prevention in the three most CC-prevalent regions in Indonesia.

Method

This was a correlational research with a cross-sectional design. Using a convenient sampling method, we recruited 649 consenting women who had been sexually active (married or once married) in three different regions in Indonesia. These regions were selected due to their high incidence of cervical cancer. The Ethical Committee of the Faculty of Nursing University of Indonesia reviewed and approved this study. Careful considerations of ethical conduct were applied throughout the study, from the design and implementation through to the completion of the study.

We used a questionnaire (the Awareness of HPV and Cervical Cancer Questionnaire) developed by Jenkins et al[17]. This tool contains 55 questions and statements to measure the knowledge, beliefs, and sexual behavior, in the prevention of HPV transmission. We conducted reliability tests in different populations prior to data collection and got the score of 0.916; 0.921, and 0.894 for the knowledge, beliefs, and behavior, respectively. The validity test also showed that this tool is valid.

We added the Cervical Cancer Knowledge Prevention 64 Questionnaire to assess the cervical cancer prevention acts in our respondents[18]. The pilot test yielded validity and reliability scores of 0.448-0.727 and 0,888.

Data analysis was conducted through univariate, bivariate, and multivariate analysis. We used frequency distribution and central tendency for the univariate analysis; Pearson and Spearman correlations for the bivariate analysis, and linear regression for the multivariate analysis.

Results

The characteristics of all respondents in this study are summarized in Table 1. The respondents were evenly distributed across different age spans with a slight majority being in the age group of 20-29 years-old (43.1%). Most respondents had a lower education level (63.2%) and came from a poorer economic background (65.3%).

Table 2 summarizes the distribution and bivariate analysis to identify the relationship between knowledge, beliefs, and sexual behavior and the prevention of HPV transmission.

Discussion

This study found a statistically significant relationship between knowledge, beliefs, sexual behavior and the prevention of HPV transmission. A larger sample size in the present study might lead to consistency of statistical and practical significance, despite the need to render true representation of the population of women being studied. Previous studies

Table 2	Women's knowledge, beliefs, and sexual behavior according to their age group, education, and income level						
Variable	Participants	Knowledge	Beliefs		Sexual behavior		
	No. (%)	No. (%)	p	No. (%)	p	No. (%)	p
Age, years							
20-29	280 (43.1)	280 (43.1)	0.116	280 (43.1)	0.140	280 (43.1)	< 0.001
30-39	216 (33.3)	216 (33.3)		216 (33.3)		216 (33.3)	
40-49	153 (23.6)	153 (23.6)		153 (23.6)		153 (23.6)	
Education							
Basic	410 (63.2)	410 (63.2)	0.001	410 (63.2)	0.015	410 (63.2)	0.001
Higher	239 (36.8)	239 (36.8)		239 (36.8)		239 (36.8)	
Income							
Low	424 (43.1)	424 (65.3)	< 0.001	424 (65.3)	0.012	424 (65.3)	0.065
High	225 (33.3)	225 (34.7)		225 (34.7)		225 (34.7)	