THE OHIO STATE UNIVERSITY COLLEGE OF PUBLIC HEALTH

"An analysis of key stakeholders' attitudes and beliefs about barriers and facilitating factors in the development of a cervical cancer prevention program in South Africa "

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Abstract

Background: Cervical cancer is the second most common type of cancer among women worldwide. One in 35 South African women will be diagnosed with cervical cancer. The empirical literature examining key stakeholder's knowledge/awareness of cervical cancer and the Human papillomavirus [HPV] vaccine in South Africa is limited.

Methods: Key stakeholders' (e.g. government employees, health care workers and social activists) were identified in Cape Town (N=6) and Johannesburg (N=9). Participants described their 1) knowledge/awareness of HPV and cervical cancer, 2) discussed potential barriers and facilitating factors associated with vaccine administration and other cervical cancer prevention strategies, and 4) identified how families, government, and communities could be involved in preventing HPV and cervical cancer.

Results: Knowledge about HPV, the HPV vaccine, cervical cancer, and HPV's association with cervical cancer varied by interview location. About half of participants in each location thought that the government should underwrite the costs for the HPV vaccine. Potential barriers to vaccine administration include cost, lack of knowledge/awareness about HPV and cervical cancer, stigma, and multiple clinic visits for vaccine administration. Potential facilitating factors include increasing education and awareness about the vaccine, involvement of political figures and the media, and the use of mobile and home-based clinics.

Conclusion: In order to create a successful cervical cancer prevention program, public health practitioners must engage families, communities, the health sector, schools, and the government in order to improve HPV and cervical cancer prevention education and develop strategies to reduce HPV and cervical cancer while improving screening rates and access to the vaccine.

Study Purpose

This pilot study seeks to explore stakeholders' beliefs and knowledge about HPV, the HPV vaccine and cervical cancer prevention, examine their experiences with the current cervical cancer screening and treatment policy, and identify barriers and facilitating factors to vaccine implementation and uptake.

Methods

Up to 15 key stakeholders were identified by word of mouth and were invited to participate in one-on-one interviews. Participants provided written, informed consent. Interviews were conducted in English, were digitally recorded for accuracy, and took between 45 to 90 minutes. Participants were provided R140 (approximately $20 US) to thank them for their time.

Interviews were transcribed verbatim and supplemented by handwritten notes. Using grounded theory, recurring themes [e.g. two or more participants gave the same response] were identified and grouped according to grand thematic areas. Three reviewers were used to independently validate themes. The study was approved by the institutional review boards at both the University of the Witswaterandt and the Ohio State University.

Results

Topic Area	Study Results - Johannesburg	Study Results – Cape Town
HPV/cervical cancer and vaccine knowledge -Participants were asked to describe what they knew about HPV, cervical cancer and the relationship between HPV and cervical cancer	Seven out of nine participants were able to correctly describe HPV as a sexually transmitted virus with different strains. However, 2 participants were unable to correctly describe HPV. "*HPV…Human papillomavirus…it's sexually transmitted, and it's one of those silent infections. Both men and women can have HPV. Unfortunately, for it to be diagnosed in women, they need to go for a cervical smear.*" Awareness and knowledge about cervical cancer was mixed among interview participants. Five out of nine participants were able to completely explain cervical cancer. Five of the nine participants were fully aware of the country's current cervical cancer screening policy and were able to successfully articulate the policy to the interviewer. Two participants had a partial understanding of the screening policy and two participants were not familiar with the screening policy at all. Seven out of nine participants were able to correctly describe the relationship between HPV and cervical cancer.	Two of the participants were aware of HPV and knew that HPV causes cervical cancer. All six participants were aware that cervical cancer was a growing problem in their community. Five of the six participants were aware that a screening test is available to detect cervical cancer (Pap test). Three participants demonstrated comprehensive knowledge about the disease. Two of the six participants articulated a full understanding of the screening policy while two other participants conveyed basic knowledge. 3/6participants were unaware that cervical cancer and HPV were related. Two participants knew that HPV could be spread via sexual intercourse. One individual had comprehensive knowledge about the relationship.
Vaccine awareness/administration costs -Participants knowledge of the HPV vaccine was explored as well as how they thought it should be administered	Eight of the nine participants were aware that there was a vaccine for HPV. A few participants noted the vaccine was expensive and that it was difficult to obtain in public health clinics. The research consultant comments, "*Yes, I've heard that it's available and that it has been approved in South Africa by the Medicine Control Counsel, but its' very expensive.*"	Findings on participants' awareness of the HPV vaccine were mixed. One participant had heard of the HPV vaccine Cervarix while the remaining five participants were unaware of any cervical cancer vaccines.
Age to administer vaccine -Participants were asked at what age to administer the vaccine and if boys and girls should receive it	Majority (8/9) agreed that it should be given to both boys and girls. One participant disagreed and thought we should just focus on girls. *"I think now, not to boys at this stage. The greatest benefit for now is in girls. Another participant said, "The objective is to immediately reduce the level of cervical cancer that is very high. If you want to completely eliminate HPV in your country, then boys must come into the picture."* Most participants agreed that the vaccine should be administered between the ages of 8 to 17 while one participants suggested age 13. Two participants suggested administering vaccine in clinics as well as pediatric HIV clinics.	Vaccine administered between ages 9 – 14 years. Three participants mentioned that it would be better to administer the vaccine at a younger age while age 12 might be the most appropriate time to administer because it corresponds with other immunization schedules. Five out of six participants agreed that both boys and girls should receive the vaccine. Participants suggested a variety of strategies to administer the vaccine including youth family services, schools, doctors offices and clinics.
Potential barriers to vaccine uptake -Participants were asked to identify potential barriers to vaccine uptake	Returning to the clinic for the three shot series would be a barrier to successful vaccine administration. *"It's a challenge because you do not get 100% follow up. If you had 100 people take dose one, you do not get 100 who take dose two and of those who take dose two not 100% will take dose three. The fact that they have to do it like this, it's a challenge.*	All six participants expressed that the multiple shots required for the HPV vaccine would be a challenge to overcome. Two participants cited wait times at clinics as a deterrent, in addition to the unfriendly clinic environment. One participant conveyed concerns about the limited vaccine related knowledge among health professionals and the public. Specifically, the lack of parental knowledge about HPV and cervical cancer prevention would be a barrier to vaccine administration. In terms of additional barriers, one participant mentioned the capacity of the facilities. Costs, indifference, residing in rural areas, lack of parental awareness, and stigma of HPV/cervical cancer was also identified.
Cost -Participants were asked who should pay for the vaccine	Eight out of nine participants stated the government should pay for and provide the vaccine. *"I think the government needs to procure the vaccine. But we need enough enthusiasm, the same way we did for the ARVS (HIV medication)."*	Participants were mixed on who should pay for the vaccine. Three of the six participants believe that both the government and the family should contribute to the cost of vaccines and the three others thought that the cost should be entirely state-funded.
Potential facilitating factors to vaccine uptake -Participants were asked to identify potential factors that would facilitate vaccine uptake	Increasing education/awareness, creating better vaccine administration programs, reducing stigma associated with HPV, and getting political figures and media involvement. "*There's a real movement between the First Ladies of South Africa and some of the other African nations. They've set up this First Ladies organization to fight cervical and breast cancer. I think this will be very key. She's worried about the rural folks, so if she goes out to the rural areas, I think that will help a lot.*"	Three participants did not provide answers for this question. Other suggestions included: lower levels of STIs, mobile-clinics and home-based approach to care, and the media.

Implications

This study sought to examine key stakeholders' beliefs and knowledge about HPV, the HPV vaccine, and cervical cancer prevention as well as identify barriers and facilitating factors to vaccine implementation and uptake.

Key findings included:

1. Knowledge about HPV and cervical cancer varied across participants. Participants in Johannesburg had a very good understanding of HPV while participants in Cape Town were less likely to articulate what HPV was; Knowledge about cervical cancer was also mixed while knowledge about the relationship between HPV and cervical cancer was lower among participants in Cape Town. Participants in both cities were somewhat aware of the country's cervical cancers screening policy and had mixed knowledge about the availability of the HPV vaccine.
2. Participants identified numerous social, environmental and financial barriers to vaccine uptake; but identified a number of factors that might help facilitate vaccine uptake

Implications

1. Our study findings illustrate that regardless of geographical location, culture, or employment that key stakeholders share similar concerns about HPV and cervical cancer prevention.
2. The introduction and availability of the HPV vaccine requires that prevention programs and educational materials address what HPV and cervical cancer is, how to prevent it, screening recommendations, and target multiple sectors of the community, and address potential concerns regarding vaccine administration and uptake.

Limitations and Strengths

(-) Descriptive study, generalizability, small sample size
(+) Explored an understudied area
(+) Provides better understanding of issues around knowledge and attitudes about HPV, and cervical cancer, and prevention strategies

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