Cancer Quest Online Cancer Prevention Education for Parents Residing in Rural Areas: Pilot Study Results to Inform Clinical Practice, Intervention Studies and Reduce Health Disparities

PURPOSE: This exploratory feasibility study sought to identify parental views about an online cancer prevention education program for their children and sought feedback about the content specific to cancer prevention and whether it could be used in their rural community.

QUESTIONS:

- How can you educate parents in and out of your office about HPV Vaccination as Cancer Prevention?
- What are Parents’ attitudes and beliefs about Web-based cancer prevention resources?
- Would parents use a web based cancer prevention resource to talk to their children or families about HPV?

DESIGN: This exploratory feasibility study used mixed methods design and a community engagement approach with two separate groups of parents representing three rural counties in southeast Georgia. Based on constructs from the adapted social networking and Health Belief Model, focus group questions, prompts and surveys were used to answer research questions focused on the acceptability of Cancer Quest, a free web based cancer prevention website with educational animation, video vignettes, posters, on-line games, and interactive educational games focused on preventing skin cancer, lung cancer, and HPV-related cancer.

FINDINGS AND CLINICAL IMPLICATIONS: This pilot project reveals that innovative methods of promoting health using Cancer Quest may be an adjunct to standard health promotion strategies for middle school children and their parents. While our findings demonstrate enthusiasm and acceptability of Cancer Quest as option to promote education to prevent cancer, it is important to note computer access limitations and literacy limitations could affect the overall impact of the Cancer Quest website. In addition to providing access to the website and its contents via home and school computers, the researchers also recognize the opportunity to reach out to teens and parents via the mobile web. By developing an application for smart phones or tablets, teens and parents would also be able to access the website without being tied to a specific environment. This development would enable even more content distribution by increasing the number of media venues. Overall, both the parents and caregivers of vaccine eligible children residing in rural Georgia counties felt that Cancer Quest would provide a viable, beneficial role in providing cancer prevention education to teens and parents; increasing knowledge of HPV related cancers and prevention methods to reduce cancer risk.

Tami L. Thomas, PhD, RN, CPNP, FAANP, FAAN, Associate Professor, Nicole Wertheim College of Nursing and Health Sciences, Florida International University, Miami, FL; Regena Spratling, PhD, RN, CPNP, Assistant Professor, , Byrdine F. Lewis School of Nursing & Health Professions, Georgia State University, Atlanta, GA; Gregg Orloff, PhD, Associate Professor, College of Medicine, Emory University, Atlanta, GA.

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NAPNAP Research Priorities - Health Promotion and Disease Prevention
Papillomavirus (HPV) infection is increasing in the United States, so it is imperative that pediatric nurse practitioners (PNPs) encourage HPV vaccination by using the best evidence and approaches that account for individual culture, social networks, and normative group behaviors4. Vaccinating children and adolescents age 9-26 years, can prevent 5,416,000 cases of genital warts and 40,000 cancer-related deaths over the next century while saving $25,700 per quality adjusted life year5-6. Raising awareness of the links between HPV infection and cancer. 1-3 The prevalence of Human Papillomavirus (HPV) infection is increasing in the United States, so it is imperative that pediatric nurse practitioners (PNPs) encourage HPV vaccination by using the best evidence and approaches that account for individual culture, social networks, and normative group behaviors4. Vaccinating children and adolescents age 9-26 years, can prevent 5,416,000 cases of genital warts and 40,000 cancer-related deaths over the next century while saving $25,700 per quality adjusted life year5-6. Raising awareness of the links between HPV infection and cancer. 1-3

Background & Significance

Relationships in rural counties were developed among parents, teachers, community leaders, and the Principal Investigator (PI) during a series of qualitative and quantitative (mixed methods) research studies that examined the correlates of HPV vaccination for children ages 9 to 13 years. These data identified a gap between what parents understand about HPV vaccination and the link between HPV infection and cancer. The prevalence of Human Papillomavirus (HPV) infection is increasing in the United States, so it is imperative that pediatric nurse practitioners (PNPs) encourage HPV vaccination by using the best evidence and approaches that account for individual culture, social networks, and normative group behaviors4. Vaccinating children and adolescents age 9-26 years, can prevent 5,416,000 cases of genital warts and 40,000 cancer-related deaths over the next century while saving $25,700 per quality adjusted life year5-6. Raising awareness of the links between HPV infection and cancer. 1-3

Purpose

This exploratory feasibility study sought to identify parental views about an online cancer prevention education program for their children and sought feedback about the content specific to cancer prevention and whether it could be used in their rural community.

Methods

This exploratory feasibility study used mixed methods and a community engagement approach with two separate groups of parents representing 3 rural school districts of Georgia in the southeastern United States who were asked to complete an adapted social networking and Health Belief Model; focus group questions, prompts and surveys were used to answer research questions focused on the acceptability of CancerQuest, and the resulting findings were based on criteria set forth by Lincoln & Guba 12.

Pre-Test and Post-Test Results

There was an increase in HPV vaccine knowledge in this group of participants, noted by a change in response from disagree to agree on three questions, see Table 1. After exposure to CancerQuest, participants increased their knowledge of HPV as indicated by their choice of “Agree” to the statement, “HPV infection can cause cervical cancer.” Acceptability of CancerQuest and the need for cancer prevention was noted in responses to a question asking if they thought their children needed cancer education prevention, if they had ever seen or read anything about HPV-related cancer prevention.

Qualitative Results

The qualitative results presented here are organized around four major themes identified from the data: 1) Exposure and Awareness, 2) Use of CancerQuest, 3) Interactive Games to teach children about cancer prevention education, 2) The innovative nature of this approach to cancer prevention education, 3) Content appropriateness, and 4) Access.

Clinical Implications

This pilot project reveals that innovative methods of promoting health using Cancer Quest may be adjacent to standard health promotion strategies for middle school children and their parents. While our findings demonstrate enthusiastic acceptability of CancerQuest as an option to promote education to prevent cancer, it is important to note computer access limitations and literacy limitations could have affected the overall impact of the CancerQuest website.

Hypothesis

Post-test measures and focus groups will show an increase in HPV vaccine knowledge and understanding of the connection between chronic HPV infection and HPV related cancer after parent’s engage with the CancerQuest website.

Findings and Clinical Implications

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References