

A Community-based intervention to improve HPV vaccination and Cervical cancer screening

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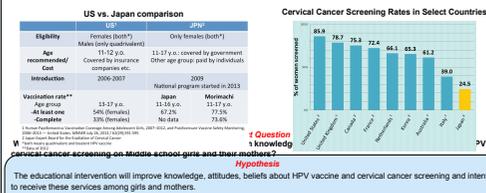


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Introduction

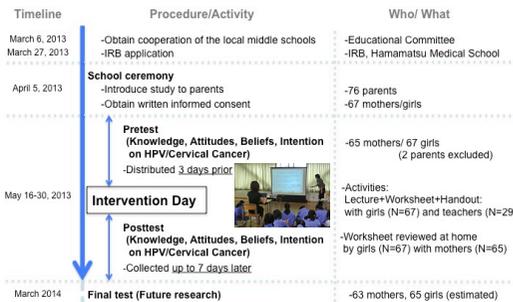
Background

- Cervical cancer is the second most common cancer among women between the ages of 20-49 y.o. in Japan
- HPV vaccination began in 2009 in Japan, but lagged behind other developed countries
- Japan has the lowest rate of cervical cancer screening among 22 developed countries
- Educational efforts by health professionals could enhance women's understanding of the disease and prevention
- Family physicians can play a unique role in promoting HPV vaccination and cervical cancer screening



Hypothesis
The educational intervention will improve knowledge, attitudes, beliefs about HPV vaccine and cervical cancer screening and intentions to receive these services among girls and mothers.

Project Overview



Results

Figure 7. Student Knowledge Score, Pre-Intervention vs. Post-Intervention

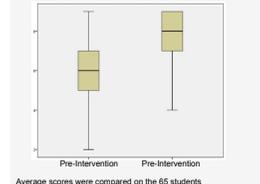


Figure 8. Mothers' views about cervical cancer prevention

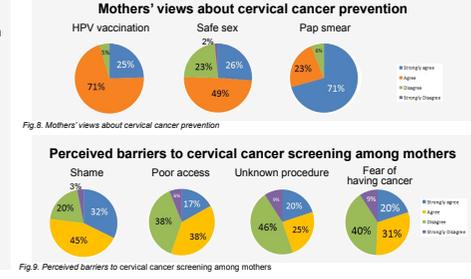


Figure 9. Perceived barriers to cervical cancer screening among mothers

Methods

Educational interventions

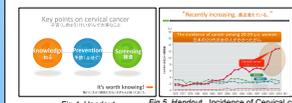
- School activity:** Slide presentation, and 9 item worksheet filled out by students during an educational session
-Conducted with 7th grade girls at middle school by 2 family medicine residents
-About HPV and cervical cancer in May, 2013.
- Home activity:** Worksheet review by girls and mothers was a required homework assignment



Data Analysis: Descriptive, chi-square and paired t-test
Design: Single group Pre test/Post test QUASI-experimental design
Approved by: The Hamamatsu Medical School
Setting: Three middle schools in the rural town of Morimachi, Shizuoka, Japan
Participants: First-year female middle school students, their parents, and teachers
-The girls become HPV vaccine eligible upon matriculation in April, 2013

Intervention Worksheet

- What cancer is most common among women 20-40 years old?
a) Cervical cancer
b) Breast cancer
c) Ovary cancer
- In which age group is cervical cancer increasing?
(20-40) years old
- Cervical cancer is caused by a (viral) infection.
- Early on symptoms will be (absent).
- Which is correct about cervical cancer prevention?
a) It cannot be prevented.
b) Can prevent with hand-washing and gargling.
c) Can prevent it with a vaccine.
- When does cervical cancer screening begin?
a) 20 years old (sister generation)
b) 25 years old (mother-generation)
c) 30 years old (grand-mother-generation)
- Cervical cancer is (increasing) in 20-40 year old women.
8. Because it is caused by a (virus), there is a (vaccine) to prevent it.
9. In addition to vaccination, (screening) is important.



Questionnaires

- Overall**
- Distributed as Pre- / Post-intervention
 - Takes 15-20' for non-medical person
 - Targeted 6th grade reading level
- Contents**
- Demographic factors**
Age, highest educational level, history of cervical cancer, history of cervical cancer screening
 - Knowledge**
HPV, cervical cancer and preventing cervical cancer
12 questions for girls, 15 for mothers, T/F questions
 - Attitudes and beliefs (mothers only)**
20 questions, 4-point Likert scale
 - Intention to get cervical cancer screening (mothers only)**
1 question, Y/N question



Discussion/Future Plans

- Discussion**
- Student knowledge scores improved meaningfully from pre- to post-intervention, but we could not assess long term knowledge retention
 - Mother knowledge scores did not change from pre- to post-intervention; this may be due to high baseline knowledge scores
 - While all the mothers were highly knowledgeable about cervical cancer prevention, 26% (n=17) reported not getting screening
 - 11 of 17 women who had never undergone cervical cancer screening indicated an intention to be screened
 - There may be barriers besides knowledge to getting cervical cancer screening among the mothers, e.g. shame, poor access, unknown procedure and fear of having cancer
 - A previous opinion paper from Japan, and empirical data from Taiwan about barriers to breast cancer screening suggest shame and other related factors may be barriers to cancer screening participation in Japan and other parts of Asia
- Limitations**
- It is uncertain whether the home activity of a daughter teaching her mother was linked to mother's intention to be screened
 - While the educational intervention content was appropriate for improving student knowledge, it may be insufficient for teaching their mothers
- Future plans**
- In March 2014 (10 months after the educational intervention), we will repeat the knowledge, attitudes, beliefs, intention survey to assess how participants' answers change.
 - We will add "services received" items to the final survey to see whether the girls got HPV vaccinations and their mothers underwent cervical cancer screening
 - For our mixed method analysis, we will add interviews of mothers and daughters from both the "changed behavior group" and the "unchanged behavior group"
 - If the results are compelling, we plan to introduce this community-based intervention as a tool for increasing HPV vaccination and cervical cancer screening throughout Japan

Acknowledgement

We thank the students, parents and teachers of Morimachi town. We appreciate Dr. John W. Creswell, Dr. Payyoyo Payyoyo and Dr. Karl Rew for their helpful advice. We also thank Kiyomi Ozawa of the Morimachi Educational Committee, Natsuko Morita and Sachiko Takeshita of SFM, and Ayaka Yajima of the University of Michigan for their assistance.

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