Original Article

Barriers and Challenges to Cervical Cancer Screening, Follow-Up, and Prevention Measures among Korean Immigrant Women in Hawaii

Eurina Yujin Cha[1], Hans Chun[2]

[1]School of Nursing and Health Professions, [2]School of Education and Behavioral Sciences, Chaminade University, Honolulu, HI, USA

Corresponding author: Eurina Yujin Cha, PhD, MSN, RN, CRRN, PHNA-BC, CHES.School of Nursing and Health Professions, Chaminade University, Honolulu, HI, USA. E-mail: eurina.cha@chaminade.edu

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ABSTRACT

Objective: Despite being the fastest-growing population in the United States, Asian American women have one of the lowest cancer screening rates and the least attention given to cancer-related research. Cervical cancer screening disparities among Korean immigrant women (KIWs) in Hawaii have been reported. **Methods:** The qualitative ethnographic study was to explore the health barriers and challenges of cervical cancer prevention among KIWs in Hawaii. The Social Ecological Model was used to guide the study. Data were collected using individual structured interviews with 20 KIWs aged 21–65 years. The data were coded and analyzed to identify themes in exploring health barriers. **Results:** The findings revealed that participants (a) lacked knowledge about the U.S. health-care system; (b) lacked access; (c) had limited resources regarding cervical cancer screening communicated in Korean; (d) lacked an understanding of cultural and psychosocial beliefs on preventive care; (e) lacked female and Korean-speaking providers; and (f) experienced language barriers and limited coverage of health insurance. **Conclusions:** A multicomponent intervention combining individual and community-based, Internet-accessible, culturally, and linguistically appropriate approaches may enhance effective cervical cancer screening rates and positive health outcomes among KIWs in Hawaii.

Key words: Cervical cancer screening, cultural approach, health barriers, health disparity, Korean immigrant health, minority health, underserved minority population

Introduction

Cervical cancer is the second most common type of preventable cancer among women globally.[1] It is the seventh most common cancer and the third leading cause of cancer-related deaths among Korean women in Korea.[2,3] The mortality rate among Korean American immigrant (KAI) women diagnosed with cervical cancer was significant as the age-specific incidence rate of cervical cancer showed a decreasing trend in all age groups except those younger than 30 years.[4]

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Korean Americans are one of the most rapidly growing ethnic minority populations in the United States. In 2010, there were 1,706,822 KAIs living in the United States. Of that population, 505,225 KAIs were in California and 153,609 were in New York.[5] Although the total number of KAIs living in Hawaii at 48,699 may not appear significant compared to the numbers in California and New York, the population per 100,000 is higher than in any other state.[6] In Hawaii, the Korean American population per 100,000 residents is 3,580 compared to 1,356 in California and 1,190 in New York.[4]

Cervical cancer rate among American women had dropped dramatically due to the increased availability of cancer screening tests for early detection over the last five decades.[7] Despite these efforts, cervical cancer is still the leading cause of death among many Asian Americans, including KAIs.[8] Immigrants are generally the most vulnerable population in the context of health-care access and public health services.[9] Many KAIs are unable to take advantage of medical privileges due to cultural and linguistic barriers, limited access to high-quality health services, and providers' limited knowledge of KAI patients and their culture.[10]

For many decades, federal and state health policies have not directly addressed the barriers to quality health services for millions of immigrants in the United States.[9] Barriers to health care for undocumented immigrants go beyond policy and range from financial limitations to discrimination and fear of deportation.[11] Disproportionate health-care benefits negatively influence the health outcomes of society's most vulnerable female populations, low-income households, and Asian immigrants.[12] When compared to native-born U.S. citizens, immigrants tend to delay seeking professional health care and underutilize available health services.[13] Socioeconomic and ethnic health disparities in cervical cancer screening continue to persist in the United States.

Korean women are noted for having the third longest life expectancy, with an average lifespan of 85.48 years, just behind Japanese (86.8) and Spanish (85.5) women.[7] Korean women who migrated to the United States, however, find themselves at increased risk for metabolic imbalance, cancer-related death, and preventable diseases, as their access to quality health-care resources and services is limited.[14] In Korea, individuals have access to low-cost compulsory national health insurance for all medical treatments, prescription drugs (including traditional complementary medicine), and ongoing preventive services.[15] KAIs arrive in the United States in a healthier condition than most Americans, but their health status steadily deteriorates over time due to the changes and challenges associated with assimilating to a new culture.[16] Individual-level challenges include cultural and linguistic barriers, adoption of American diets and a sedentary lifestyle, and learning to navigate system-level health-care challenges.[17] With respect to health-care challenges, Korean Americans, like many other Asian subgroups in the United States, have difficulty adjusting to the high-cost, limited medical services offered through the U.S. health-care system.[18]

The Korean immigrant woman (KIW) population in Hawaii is made up mostly of first-generation immigrants.[19] These women obtain health insurance through spousal employment or via their own employers. Many of them own small businesses or work in private employment settings because of limited English proficiency and unfamiliarity with the American work culture. Korean American working females tend to disengage in cancer-preventive screenings, not only because of lack of health insurance but also because of their busy work schedules, language barriers, lack of female gynecologists, and discomfort with screening procedures.[20] Many older females believe it is unnecessary to seek screening.[21] Younger generations, on the other hand, tend to seek medical advice or information from Internet sources, YouTube, podcasts, or blogs, which prevents them from reaching out to health-care professionals.[22]

Current cervical cancer screening programs frequented by ethnic minorities often face obstacles such as limited available services, inadequately trained health-care providers, insufficient testing supplies, and inferior patient follow-up health management systems. Many KAI communities in the United States had a lack of appropriate screening programs, culturally trained health-care providers, and female health-care providers that were associated with low participation in cervical cancer screening.[23] In turn, this is often linked to a higher risk for cancer mortality and poor prognosis of treatment due to delayed diagnosis. Socially, the inappropriate allocation of health funds and human resources in health-care systems that serve ethnic minorities may lead to a deficiency in early detection of cervical cancer among KIWs.[24]

As an at-risk subpopulation, KIWs are vulnerable to possible harm associated with screening such as anxiety over a positive test, the stigma of a sexually transmitted infection (STI), pain or bleeding from procedures, or treatment-related pregnancy complications.[25] KIWs also have a lack of adequate knowledge regarding cervical cancer screening and sociocultural barriers such as the embarrassment associated with a pelvic examination, which might be the major factor hindering participation in available screening programs.[26] Major barriers among KIWs include limited knowledge about cervical cancer and prevention measures, barriers caused by culture differences

toward prevention measures, and limited accessibility to health-care services.[27]

Social Ecological Model

Cervical cancer prevalence and the mortality rate have declined over the past few decades in the United States.[28] In indigenous minority populations, however, the high rates of cervical cancer and cancer-related complications still exist due to the under-utilization of screening tests and inadequate follow-up health management.[29]

Individual-level barriers

People practice their health behaviors based on a person's knowledge, health attitude, health behaviors, developmental history, and demographical characteristics such as race/ethnicity, gender, and socioeconomic status. Individual level of barriers is mostly the burdens of poverty to access cancer screening care.[29] The health literacy for non-English speaking or English as a second language coupled with lower educational levels are important barriers when considering one's likelihood to comply with recommendations made by health-care providers.[30] Cancer literacy played a significant role in predicting cancer prevention behavior for Koreans.[31]

Interpersonal-level barriers

The cancer prevention barriers of interpersonal level are to utilize social networks and support systems that include family members, friends, neighbors, and co-workers. Social connectedness in ethnic and mainstream society is a stronger predictor of well-being to immigrants.[32] KIWs are a family-oriented and socially connected ethnic subgroup that shares cultural behaviors and common thoughts, opinions, advice, and recommendations, while they also share medical advice and suggestions among themselves to overcome their health literacy and practice socially acceptable health actions together.[33]

Organizational/institutional-level barriers

Many KIWs are familiar with organizational or institutional levels of approach that they receive annual cancer screening services as an organizational routine health activity. Some KIWs in Hawaii receive health insurance benefits through employment, but many who are self-employed are uninsured or underinsured. For KIWs, the organizational approach by collaborating among health-care providers to disseminate cancer prevention information can be one of the effective health approaches along with adopting worksite regulations and policies to support preventive measures.[34]

Community-level barriers

There are insufficient community-based programs offering cervical cancer prevention and screening education support KIWs and encourage them to share health information.[26] Disseminating information regarding Pap smear tests and human papillomavirus (HPV) vaccinations through community organizations such as Korean faith-based and social leisure institutions could inspire KIWs to obtain health information as a group without making them feel targeted.

Policy-level barriers

The policy-level barriers for KIWs is a lack of local, state, national, and global policies and laws for immigrant underserved populations.[35] Offering a free consultation or affordable screening test, for example, to address the health demands of KIWs would be effective. The population-based and policy-driven cancer screening programs showed effectiveness in reducing income disparity in cancer screening and cancer care among Koreans.[36]

In order to establish culturally effective and appropriate health interventions for cervical cancer screening, it is vital to explore the unique health barriers and challenges to screening practices among KAIs in Hawaii. Few studies have attempted to identify culture-related health barriers to care for KAI in Hawaii.[37] There is a lack of Hawaii-based research on KIWs' health perceptions, attitudes, and behaviors toward cervical cancer screening.[38] Although cervical cancer prevention through routine screening is a priority for medical and nursing practices, there are barriers such as limited literature and data on cancer screening and prevention measures for KAI.[39]

This study aimed to explore health barriers and challenges regarding cervical cancer screening and HPV vaccination as a preventive measure. This study attempts to answer the following research question: What are the barriers and challenges to cervical cancer screening, follow-up health management, and prevention measures among KIWs in Hawaii?

Methods

The methodology of the study is a qualitative ethnographic design that included in-depth interviews with a group of 20 KIWs, ages 21–65, residing in Hawaii. This type of design was used to explore the participants' personal experiences and social interaction related to health barriers regarding cervical cancer screening.

The recruitment flyers were posted in Korean immigrant communities such as local Korean supermarkets, Korean churches and temples, Korean community associations, and local Korean radio and TV broadcasting companies. Eligible participants were contacted to arrange the interview. The consent for audio recording was obtained and the interview instructions were given at the designated sites.

Participants were recruited using purposeful sampling, a widely used research technique in a qualitative study.

Purposeful sampling is a technique in which a researcher uses his or her judgment to choose participants of the study and is a widely used research technique in qualitative research studies because of its emphasis on identification and selection of information-rich cases related to a particular phenomenon.[40] The interview data were sorted according to themes and analyzed viaNVivo, a qualitative data analysis computer software developed by QSR International [Table 1].

Results

Participants' previous and current health perceptions, social influences, motivations, and experiences related to the Pap smear test were examined to identify factors that may have influenced noncompliance to engage in routine cervical cancer screening and medical follow-ups. Primary demographic data were collected using a simple questionnaire. Overarching themes emerged during the one-on-one interview sessions in which participants were able to provide narrative responses [Table 2].

Findings from the study revealed that KIWs (a) have a gender preference of physicians when it comes to women health issues, (b) were highly motivated to maintain physical health, including prevention, (c) preferred culturally appropriate community-based cancer prevention programs, and (d) expected innovative health maintenance approaches.

KIW participants preferred a female gynecologist for women's health issues such as having an invasive Pap smear test conducted and preventive care screening. Due to the limited female gynecologists available in Hawaii, KIWs indicated traveling to South Korea for women's health screening and check-ups. Lacking female health providers for women's health issues also was a reason for avoidance or noncompliance of follow-up care.

Health barriers and challenges regarding preventive care measures and cervical cancer screening tests such as the Pap smear test were explored to understand cultural perspectives on cancer-preventive care and participants' awareness of

Table 1: Demographic characteristics

Characteristics	Subtotal (n=20), n (%)
Age (years)	
21-29	4 (20)
30-39	2 (10)
40-49	6 (30)
50-59	6 (30)
60-65	2 (10)
Years in US	
<1	1 (5)
1-5	2 (10)
6-10	1 (5)
>10	16 (80)
Years in Hawaii	
<1	2 (10)
1-5	4 (20)
6-10	1 (5)
>10	13 (65)
Highest educational degree	
< High school	1 (5)
High school	4 (20)
Vocational training program	3 (15)
College	10 (50)
Graduate school	2 (10)
Annual income ($)	
<5000	2 (10)
5000-19,000	3 (15)
20,000-39,000	3 (15)
40,000-59,000	5 (25)
>60,000	7 (35)
Employment status	
Unemployed	5 (25)
Part-time	3 (15)
Full-time	6 (30)
Self-employed	5 (25)
Others	3 (15)

Table 2: Summary of health barriers and challenges

Category	Subtotal (n=20), n (%)
Health barriers (multi-responses, relative ratio)	
Language barriers	8 (27.5)
Financial barriers	4 (13.7)
No time	6 (20.6)
Not available female doctors	5 (17.2)
Limited resources	2 (6.8)
No insurance	1 (3.4)
Not familiar with the US system	3 (10.3)
Reason to avoid a routine pap smear	
Not available a female GYN	6 (30)
Not available a Korean GYN	3 (15)
Done in Korea	2 (10)
Limited English	2 (10)
No insurance	1 (5)
Other	6 (30)
Learning style	
Korean (video, flyer)	13 (65)
English (video, flyer)	5 (25)
Picture	-
Routine pap smear	
Yes	13 (65)
No	5 (25)
Not sure	2 (10)
Health needs regarding pap smear (open responses)	
Korean female GYN	5 (25)
Easy access	3 (15)
Convenient location	2 (10)
More information	2 (10)
Language service	2 (10)
Reminder system	1 (5)
Health insurance	1 (5)
Not need at this time	4 (20)

cancer-preventive services. Health behaviors and barriers and/or challenges associated with cultural factors were identified in the narrative summary to explain participants' health decisions and medical preferences.

Discussion

Understanding culturally specific health barriers and challenges of a minority population may provide the foundation for appropriate public health strategies. The goal was to empower this ethnic group to overcome unique barriers and to engage in ongoing cancer-preventive practices. This study provided a foundation for understanding the target population to improve cervical cancer screening rates and decrease cancer-related deaths. To improve cancer screening rates, the Hawaii Breast and Cervical Cancer Control Program offers free mammograms and Pap smear tests to uninsured or underinsured females. Early detection and early intervention increase cancer survival rates.[41] The cancer screening rate, however, continues to be disproportionately lower among KAI in Hawaii.[42] This signals the importance of exploring cultural factors such as health beliefs and health values, which might impact health-related decisions and outcomes.

Koreans tend to prefer older male physicians for their general medical services.[43] For women's health issues, however, participants in the study revealed that they preferred a female gynecologist and Korean-speaking physicians. KIW participants reported feeling more supported by and close to female gynecologists when receiving medical advice, including encouragement of cervical cancer screening. Acculturation and health literacy predicted health-care access and compliance with follow-up health maintenance engagement in cancer screening behaviors.[44] The study findings supported that KIWs, who have lived in Hawaii and/or the mainland United States longer than 5 years, tend to engage more with cervical cancer-preventive measures, including follow-up maintenance.

In general, KIWs face similar physical risk factors compared to other Asian populations.[45] KIWs in Hawaii experience numerous challenges and barriers when accessing health-care services for preventive measures. Hawaii had one of the lowest uninsured rates at 3.53%[46] compared to the national average of 11.7% in the United States in 2017.[47] Similar to the residents in Hawaii, most of the study participants were currently insured and revealed that health insurance was not a contributing factor to their avoidance of cervical cancer prevention measures. The study findings showed that KIWs were prepared to pay for health services in cash if they are without health insurance, and they were willing to fly back to Korea to receive annual health check-ups, including various cancer screenings at an affordable price.

For KIWs, like other nonnative English speakers, the linguistic barriers negatively influenced access to health information. In terms of culturally appropriate health-care approaches, most studies indicated that a health-care coordinator who assists with routine cancer screening, reminders, educational resources, and follow-up visits would be beneficial.[48] The health-care coordinators or community health workers who speak the same language as service recipients assist minority elders with culturally sensitive interventions[49] and ensure health-care service engagement. Typical linguistic services or interpreters are not sufficient because they are available only on an intermittent basis and do not include important factors of education and follow-ups.

Finally, using innovative Internet-based approaches, such as Korean web blogs, social networks, podcasts, and YouTube, to disseminate cancer prevention information may yield a greater response from KIWs, especially in younger generations that are more adept at technology.[22] The effectiveness of STI education and prevention education on Korean young adults using Internet-based smartphone applications.[50] Another study showed that culturally competent Internet cancer support groups influence positive health outcomes and improve health compliance for Korean young adults.[43] Significant health disparities in cervical cancer mortality and incidence rates exist among KIWs.

Conclusions

Asian American women have one of the lowest cancer screening rates and the least attention given in cancer-related research, despite their being the fastest growing populations in the United States.[51] Cancer screening disparities among KIWs in Hawaii have been attributed primarily to the population's lack of knowledge about the U.S. health-care system, lack of access, limited resources regarding cervical cancer screening in Korean, and cultural and psychosocial beliefs.

This pilot study suggests the new intervention – specifically those involving a community-based cultural approach with bilingual intervention – can be developed to increase KIW cervical cancer screening rates and follow-up commitment to maintain routine testing. Community-based cervical cancer screenings regardless of their health insurance status at local community health centers are effective for ethnically diverse women.[52] A multicomponent intervention combining individual and community-based cancer prevention education with navigation services by Korean-speaking health-care professionals and health educators yielded significant increases in cervical cancer

screening rates among Korean American women in the United States.[53]

It is important to note that providing educational interventions without addressing access barriers may not yield sufficient results. Hence, public health interventions that emphasize access to community-based facilities, community health navigators, or community care coordinators (individuals including lay health workers with culturally and linguistically appropriate approaches) may enhance effective cervical cancer screening rates and positive health outcomes. These important findings of the study should motivate more research for future interventions to increase cancer screening and to address health disparities among minority populations.

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Conflicts of interest

There are no conflicts of interest.

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