Critical Dimensions of Cancer Literacy Among Korean Immigrant Women in the United States

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Purpose: Social, cultural, and economic factors can both inhibit and enable health and well-being and must be factored into health interventions. In particular, the type and level of health literacy—“the degree to which individuals have the capacity to obtain, process, and understand basic health information and services to make appropriate health decisions”—is the key to acquiring access to safe, quality healthcare. Health literacy has multiple dimensions including print literacy (reading and understanding text), oral literacy (speaking and listening effectively), and numeracy (ability to use quantitative information). Though scarce, available research indicates that a certain dimension of health literacy is critical to different health behavior or outcome. For example, numeracy has been shown to be a particularly critical dimension of health literacy for adequate self-management of diabetes, whereas oral literacy has been linked to dental health outcomes. In the context of preventive care, low health literacy has been identified as a major barrier to effective utilization of cancer screening tests, independent of race or socioeconomic status. Yet, it remains unclear which dimension of health literacy is particularly critical to cancer screening behaviors. Korean immigrant women in the United States represent a high risk group for high incidence and late diagnosis of cervical cancer due in large part to their low cervical cancer screening rates. Several studies have shown significant health literacy challenges in recent immigrant communities, particularly among those with limited English proficiency such as Korean Americans who are predominantly monolingual, first-generation immigrants. It is important to understand which dimension(s) of health literacy is particularly critical to Pap test screening among Korean immigrant women in order to design a targeted intervention addressing health literacy. To this end, the purpose of this study was to examine the role of different dimensions of health literacy in cervical cancer screening among Korean immigrant women.

Methods: This cross-sectional study used baseline data obtained from a community-based randomized controlled trial testing a health literacy-focused intervention designed to promote breast and cervical cancer screening. A total of 560 Korean immigrant women aged 21 to 65 years, who were overdue their mammogram or Pap smear testing at the time of enrollment were recruited from ethnic churches in Maryland, Washington DC, and Northern Virginia, and completed the baseline survey which included a validated multi-dimensional health literacy tool in cancer screening—Assessment of Health Literacy in Cancer (AHL-C). The AHL-C is a 52-item cancer screening-specific health literacy instrument based on the Baker’s conceptualization of health literacy which includes prior knowledge (“an individual’s knowledge before reading health-related materials or speaking to a healthcare professional”) and reading fluency (“the ability to mentally process written materials and form new knowledge”). The AHL-C includes multiple subscales including: familiarity (12 items), comprehension (12 items), reading ability (12 items), functional literacy or navigation (12 items), and numeracy (4 items). The AHL-C has acceptable to excellent internal consistency reliability with evidence of concurrent and construct validity. Total scores range from 0 to 52 with higher scores indicating higher levels of health literacy.

Results: All participants were foreign-born Korean immigrant women. Majority of the sample were middle-aged (mean age±SD=46.1±8.5 years) and married (85.7%), received at least some college education (64.8%), and had stayed in the United States for 10 years or more (mean±SD=16.5±9.7 years). Only 23.4% reported speaking English fluently. About 38% had health insurance and only 15.7% reported a physician had recommended Pap testing to them in the past. About 49% had received a Pap test in their lifetime and 25.4% reported receiving triennial Pap test screening. The average score on the AHL-C
scale was 19.9 (SD=12.5). Using Stata version 14.0, backward stepwise logistic regression model was estimated. Familiarity and navigation literacy were associated with more than 1.2 times (adjusted odds ratio [AOR]: 1.204, 95% confidence interval [CI]: 1.106-1.312) and about 1.1 times (AOR: 1.093, 95% CI: 1.034-1.156) of odds of reporting lifetime Pap test use, respectively, after controlling for covariates. Similarly, comprehension was associate with about 1.1 times (AOR: 1.070, 95% CI: 1.009 to 1.135) of odds of reporting triennial Pap test screening in the Korean sample, after adjusting for covariates.

**Conclusion:** Prior exposure to healthcare setting and knowing how to navigate the system appear to play a more critical role than other dimensions of health literacy for lifetime Pap test use. Understanding cancer-related words appears to be relevant to triennial Pap test use. In addition to system factors such as insurance and a physician’s recommendation, interventions to increase Pap test screening targeted at Korean American women are needed to address certain dimensions of health literacy such as familiarity, navigation, and comprehension.

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**Title:**
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**Keywords:**
cervical cancer screening, health literacy and immigrant women

**References:**


**Abstract Summary:**
We will discuss main findings from a cross-sectional study to address critical dimensions of health literacy in Pap test use among Korean immigrant women in the United States.

**Content Outline:**

Learning Objectives

1. The learner will be able to discuss different dimensions of health literacy in the

Expanded Content Outline

Known definitions and dimensions of health literacy and critical dimensions of health literacy in relation to prevention and
management and control of common chronic conditions including cancer.

2. The learner will be able to identify critical dimensions of cancer literacy in Korean immigrant women in the United States.

3. The learner will be able to discuss effective strategies for retention of Asian immigrant women in a randomized trial.

First Primary Presenting Author

**Primary Presenting Author**
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**Author Summary:** As a community health researcher, Dr. Hae-Ra Han works to reduce health disparities by implementing and evaluating community outreach programs in cancer control and cardiovascular health promotion for ethnic minorities. One of the first researchers funded through the Johns Hopkins University School of Nursing, she has served as a principal investigator of federally-funded research focused on cancer control among Korean women and as a co-investigator other investigations concerning diabetes, and health literacy among minorities.

Second Author
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immigrant women in the US. Her career goal is to decrease cancer health disparities in vulnerable populations through community-engaged research.

**Any relevant financial relationships?** No
Signed on 11/19/2018 by **Joycelyn Cudjoe**

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**Author Summary:** As a translational researcher, I have built a strong program of community-based participatory research (CBPR) to reduce cardiovascular health-related health disparities among traditionally underserved populations. My research program focus on examining the effectiveness of self-care strategies for improving health outcomes and overcoming racial, ethnic, and social disparities in healthcare.