Lessons From a Culturally Tailored Technology-Based Intervention Study Among Asian American Breast Cancer Survivors

Eun-Ok Im, PhD, MPH, FAAN¹
Wonshik Chee, PhD¹
Yun Hu, PhD¹
Sangmi Kim, PhD, MPH¹
Hanna Choi, PhD, MPH¹
Yuko Hamajima, MSN¹
Eunice Chee, BSE²
(1)Nursing, Duke University, Durham, NC, USA
(2)Engineering, North Carolina State University, CHAPEL HILL, NC, USA

Purpose: At its early stage, the Internet was often utilized as a resource locator or a demographic survey tool in health care areas. At that time, the Internet was rarely used as a method for an intervention. However, with recent advances in computer and mobile technologies, Internet-based interventions are now widely utilized for health interventions across the globe. Furthermore, with sophisticated technologies, cultural tailoring of Internet-based interventions is becoming a norm in the interventions for racial/ethnic minorities. However, still, little is known about possible challenges in using a culturally tailored technology-based intervention for racial/ethnic minorities. The purpose of this presentation is to provide an open-forum to discuss possible challenges in using a culturally tailored Internet-based intervention program for Asian American breast cancer survivors and to provide directions for future research using a culturally tailored Internet-based intervention.

Methods: The parent study that was the basis for this presentation was a randomized repeated measures pretest/posttest control group study among 330 Asian American breast cancer survivors. The intervention group was asked to use the intervention and the American Cancer Society (ACS) website on breast cancer for 3 months, and the control group was asked to use only the ACS website for 3 months. The instruments were: the Support Care Needs Survey-34 Short Form, the Memorial Symptom Assessment Scale-Short Form, and the Functional Assessment of Cancer Therapy Scale-Breast Cancer. The reliability and validity of the instruments were established in Asian Americans; Cronbach’s alphas were .76~.96. The data were analyzed using inferential statistics including an intent-to-treat linear mixed-model growth curve analysis. To identify the themes reflecting the challenges in using the culturally tailored technology-based intervention, a content analysis by Weber was used; the minutes of research team meetings and research diaries of research team members were analyzed using line-by-line coding and categorization. Throughout the research process, the research team kept the written records of team meetings and research diaries.

Results: The identified challenges included: (a) technology literacy; (b) language issues; (c) cultural barriers; (d) interventionists’ competence; (e) security and confidentiality issues; and (f) time and geographical constraints. First of all, most of the participants did not have a computer, and those who were using smart phones did not want to access the project website to discuss their breast cancer survivorship experience using the project website because they did not want to login to the project website or they were uncomfortable of using the software and typing. Rather, they wanted to use their social networking site (SNS) programs to communicate with the interventionists and view the educational modules and links to the Internet resources. Also, most of the participants did not have an email account or rarely checked their emails. Even when they had email accounts, the participants rarely used or responded to emails. Second, in this study, we adopted four languages: English, Mandarin Chinese, Korean, and Japanese. The most prominent issue related to the use of multiple languages was that the four languages could not sometimes cover the diversities within languages. For instance, even among Chinese Americans, their languages were different depending on where they originally came from. Also, in all the Asian languages, we found that there existed phonetic translations. It was more prominent in
Japanese language compared with other languages though. Third, Confucianism that was once prevalent in most Asian sub-cultures pursues the unity of the self and Tiān (the traditional high god), which subsequently prescribes people live in harmonious relationships. This cultural heritage makes Asian Americans to avoid conflict and uncertainty while pursuing harmonious relationships. Subsequently, the participants were reluctant to discuss their personal experience and issues and had a tendency to give only positive and socially desirable answers. Fourth, because of unexpected difficulties in identifying bilingual RNs in the local area where the study was conducted, the qualifications of the interventionists needed to be changed at several times. Sometimes, the interventionists found it difficult to deal with some complicated questions asked by the participants on their health and emotional issues. Fifth, when some potential participants tried to enter the project website, they reported that they received security messages indicating that the website was unsafe (e.g., delays in security certifications during regular updates). Subsequently, the potential participants chose not to participate in the study when they were followed up by the research team members. Finally, because of difficulties in recruiting Asian Americans in the local area where the study was conducted, the participants were recruited nationally to have an adequate number of Asian American breast cancer survivors. With the national approach, we had several issues related time and geographical constraints. Because the research team was in a Southeastern area of the U.S., potential participants in other areas did not trust the contacts by the research team. Also, the participants’ adherence and retention rates during major holidays (e.g., Christmas, New Year’s Eve, Easter, Chinese Spring Festival) and vacations (summer and winter) were lower than those in non-holiday or vacation time periods. Many participants who originally came from different Asian countries also tended to make international trips, which sometimes inhibited the continuity of the intervention.

**Conclusion:** This presentation supports the feasibility of a culturally tailored Internet-based intervention among racial/ethnic minorities, but also suggests that researchers need to consider possible challenges in using it among racial/ethnic minorities.

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**Symposium**

**Keywords:**

Asian Women, Cultural Tailoring and Intervention

**References:**


Abstract Summary:
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Content Outline:
-Background:
  -Intervention Studies in Women's Health
  -Intervention Studies for Culturally Diverse Populations
  -The Necessity of Cultural Tailoring
-Purpose Statement
-The Parent Study
  -Purpose of the Study
  -Study Design
  -Participants
- Instruments

- Data Analysis Methods

- The Methods:
  - Content Analysis Process

- Results: 6 themes Reflecting the Challenges
  - First,
  - Second,

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- Conclusions: Implications and Conclusion Statement

First Primary Presenting Author

**Primary Presenting Author**

Eun-Ok Im, PhD, MPH, FAAN
Duke University
Nursing
Professor & Mary T. Champagne Professor
Durham NC
USA

**Professional Experience:** 9/2006-5/2011, Professor with tenure, School of Nursing, University of Texas, Austin 9/2007-5/2011, La Quinta Motor Inns. Inc. Centennial Professor in Nursing, University of Texas, Austin 6/2011-5/2016, Professor with tenure, School of Nursing, University of Pennsylvania 9/2011-5/2016, Marjorie O. Rendell Endowed Chair, School of Nursing, University of Pennsylvania 1/2013-5/2016, Associate Director, Center for Global Women’s Health, University of Pennsylvania 9/2012-8/2014, Professor with tenure, School of Nursing, Duke University 6/2016-present, Mary T. Champagne Professor (University Distinguished Professor), School of Nursing, Duke University Have over 350 abstracts, book chapters, and articles (more than 160 refereed journal articles). Have over 270 invited or peer-reviewed conferences presentations. Have received over 17.5 million US dollars of research grants (9.1 million US dollars as the PI).

**Author Summary:** Dr. Eun-Ok Im is Mary T. Champagne Professor at School of Nursing, Duke University. She has gained national and international recognition as a methodologist and theorist in international cross-cultural women’s health through more than 160 refereed journal articles and over 270 presentations. Dr. Im has obtained over 17.5 million dollars of research grants (9.1 million dollars as the PI). She has numerous awards including the 2014 International Nurse Researcher Hall of Fame Award.

Second Author

Wonshik Chee, PhD
Duke University
Nursing
Associate Professor
Durham NC
USA

**Professional Experience:** 2016-present, Associate Professor, School of Nursing, Duke University -
Having more than 40 publications and over 100 presentations at national and international conferences. -
Have been the PI of several foundation funded studies and co-Investigator of four R01 studies on
women's health.

**Author Summary:** Dr. Wonshik Chee is Associate Professor at School of Nursing, Duke University.
Before joining Duke University, he has worked as a faculty member at the University of Wisconsin-
Milwaukee, University of Texas-San Antonio, University of Texas-Austin, and University of Pennsylvania.
Dr. Chee has more than 50 publications and more than 100 presentations at national and international
conferences. He has been the PI of several foundation funded studies and Co-Investigator of four R01
studies.

Third Author

Yun Hu, PhD
Duke University
Nursing
Visiting Scholar
Durham NC
USA

**Professional Experience:** PhD, School of Nursing, Shanghai Jiao Tong University -2016-2017, Visiting
Scholar & Project Coordinator, School of Nursing, Duke University -2017-present, Associate Professor,
School of Nursing, Shanghai Jiao Tong University (pending)

**Author Summary:** Dr. Yun Hu was a visiting scholar and project coordinator at School of Nursing, Duke
University from 2016 to 2017. Now, she is back to China, and is working as a faculty member at Shanghai
Jiao Tong University, School of Nursing.

Fourth Author

Sangmi Kim, PhD, MPH
Duke University
Nursing
Post-doctoral fellow
Durham NC
USA

**Professional Experience:** 2017, Teaching Assistant & Research Assistant, School of Nursing,
University of Pennsylvania. -2017, PhD, School of Nursing, University of Pennsylvania -2017-present,
Post-doctoral fellow, School of Nursing, Duke University -2017-present, Project Coordinator, School of
Nursing, Duke University

**Author Summary:** Dr. Sangmi Kim is a post-doctoral fellow and project coordinator at school of nursing,
Duke University. She had her PhD from School of Nursing, University of Pennsylvania, and started her
post-doctoral study in summer, 2017.

Fifth Author

Hanna Choi, PhD, MPH
Duke University
Professional Experience: -2016, PhD, College of Nursing, Seoul National University, Seoul, South Korea
-2017, Research Assistant, College of Nursing, Seoul National University, Seoul, South Korea
-Apr. 2017~Oct. 2017, Visiting Scholar, School of Nursing, Duke University, Durham, NC, USA
-Oct. 2017-present, Special Researcher, College of Nursing, Seoul National University, Seoul, South Korea

Author Summary: Dr. Hanna Choi got her PhD from College of Nursing, Seoul National University, Seoul, South Korea. Then, she came to Duke University, School of Nursing as a visiting scholar, and had worked as an interventionist at Duke University until she went back to Korea.

Sixth Author
Yuko Hamajima, MSN
Duke University
Nursing
Interventionist
Durham NC
USA

Professional Experience: -2016, MSN, School of Nursing, Duke University, Durham, NC, USA
-2016-present, Staff Nurse, Stanford University Hospital, Palo Alto, CA, USA
-2016-present, Interventionist, School of Nursing, Duke University, Durham, NC, USA

Author Summary: Ms. Yuko Hamajima got a MSN from School of Nursing, Duke University in 2016. Since her graduation, she has worked as a staff nurse at the Stanford University Hospital, and is also working as an interventionist at Duke University, School of Nursing.

Seventh Author
Eunice Chee, BSE
North Carolina State University
Engineering
Research Assistant
CHAPEL HILL NC
USA

Professional Experience: Eunice Chee is a PhD student at North Carolina State University, School of Engineering, Department of Biomedical Engineering. She has worked as a research assistant for the project that will be presented. She got her BSE from the college of applied science and engineering at the University of Pennsylvania.

Author Summary: Eunice Chee is a PhD student at North Carolina State University, School of Engineering, Department of Biomedical Engineering. She has worked as a research assistant for the project that will be presented. She got her BSE from the college of applied science and engineering at the University of Pennsylvania.