



Factors Affecting the Breast and Cervical Cancer Screening Willingness of Southeast Asian Women in Transnational Marriage Relationships in Taiwan

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Abstract

Purpose: Malignant neoplasm ranked as the leading cause of the death among Taiwan women in 2011. Breast and cervical cancers were, respectively, the 4th and 10th leading cause of death among women in 2017. Regular screening is a preventive measure that has been shown to reduce breast and cervical cancer morbidity and mortality. This study elicited the barriers to undergoing early detection screening for breast and cervical cancers among Southeast Asian women in Taiwan with Taiwanese husbands.

Methods: A face-to-face and in-depth interview research design was used. Purposive and snowball techniques identified participants from communities in the Kaohsiung County area. A team comprising the researchers and an experienced interviewer conducted interviews in Mandarin Chinese over a 6-month period with 10–15 women of various Southeast Asian nationalities at a time and place convenient to each participant.

Results: The spectrum of factors of influence identified included: deficient cancer-screening-related knowledge; social and personal barriers such as language, educational background, geographic location, health values of family, and friends and community health education. Implication for Practice: Understanding the factors influencing breast and cervical cancer screen behaviors may improve quality of healthcare and increase the willingness of foreign spouses in Taiwan to participate in regular breast and cervical cancer screening programs. Findings may provide a reference to policymakers to help increase breast and cervical cancer screening rates in this important population in Taiwan.

Keywords: cancer screening, transnational marriage, Southeast Asian women

Introduction and Background

Because of changes of social and demographic structure in Taiwan, there is a trend for Taiwanese male getting married with Southeast-Asian female under the purpose of maintaining family bloodline. Through marriage agencies, these Taiwanese male get marry with the female from Southeast Asia such as Vietnam, Indonesia, or Thailand, while these Southeast Asia female try to improve their living circumstances of their family through married to other countries [1]. Therefore, these female characterized as “Southeast Asian Brides” or “foreign brides” leave their original countries and start a new life

in Taiwan [2]. According to official registration records in Taiwan, one out of seven new marriage is now transnational with more than four hundred thousand foreign females spouse obtained valid resident permits, including from Vietnam (64%) and Indonesia (21%) [3]. Because of stereotypes of “Southeast Asian Brides” as the sigma of “buyer and seller”, in this study, these female is named as foreign mate. Foreign mate has defined as foreign females, from People Republic of China or Southeast Asia including Vietnam, Indonesia, Thailand, Philippine, Cambodia, get marriage certification with Taiwanese males through marriage agencies [1]. These foreign mates with vulnerability of race, social class, and gender could be marginalized. They have to face a totally different environment of living from their hometowns. Changes in interpersonal relationships, personal role, language, values system and attitudes, brought on by entering a new cultural environment, exert negative impact on immigrants’ health [4-6]. Immigrants in a community are highly vulnerable to health problems, in that it is harder for them to access health information and resources due to social and interpersonal isolation, language barriers, cultural conflicts and lack of support systems [5-9]. These disadvantages result in lower usage of health resources by the immigrants.

Cancer is a public health issue of great proportion. People cannot get away from cancer threaten but cancer could be early detected and treated, especially for breast cancer and cervical cancer. From the view of health promotion, female are encouraged to do the breast self-examination every month and Pap smear every year. For female with 50 years old and over are advanced to do the mammography every 2 years. The malignant neoplasm topped the ten leading causes of the death for women in 2017 in Taiwan [10]. While the breast and cervical cancer were leading fourth and seventh high in the death rate. The morbidity and mortality of breast and cervical cancer has presented a significant challenge in Taiwanese health care system [11]. There had more than two millions female population with 50 years old and over in Taiwan, but only one hundred thousand had taken mammography [12]. Moreover, about 10,368,731 female populations in Taiwan in 2016, half of them had been used Pap smear to examine cervical cancer and more than sixty hundred women had diagnosed with cervical cancer with 5.5% of death rate [13]. The results showed that prevention of breast cancer and cervical cancer still have room to improvement.

Regular screening is an important preventive method in reducing morbidity and mortality from breast and cervical cancers. However, breast or cervical cancer rates among Southeast Asia females living in Taiwan is lacking. A few published in Taiwan discussed health concern of female immigrants [1,7,14-17]. Studies found that the immigrant Vietnamese women reported lower breast and cervical cancer screening rates and higher breast cancer mortality rate than their white counterparts in USA [18-21], in Australia [22,23], and in Canada [24,25]. The similar results had found in the immigrant Thai women in USA and Australia [26,27] and in other Asia countries [6,9, 28-31]. Given the lower screening rates in Southeast Asia immigrant women, therefore, it is important to explore the barriers of South-Asia immigrants on the screening of breast and cervical cancers.

Methods

This study explores the Southeast Asian women's barriers of breast and cervical cancers screening prevention in Taiwan. Qualitative data obtained from in-depth interviews. Southeast-Asian immigrated women tend to live in countryside in Taiwan and not respond to unknown persons, thus, convenience sampling with snowball technique were appropriate to recruit participants. Participants contributed their barriers of cancers screening to meet the aims of this study. A thematic content analysis approach was utilized to analyze interview transcriptions.

Participants

There totally had 15 Southeast Asian immigrated women agreed to involve in this study, including 4 Vietnamese, 4 Thai, 3 Philippine, 3 Indonesian, and 1 Cambodian. The mean age of participants was 32.1 years (SD=5 years) from 22 to 45 years old. Most of them (73%) graduated from junior high school. All of them are married having at least 2 children. The average length of residence in Taiwan was 8.3 years (SD=4.5 years) with 1 year being the shortest and 21 years being the longest. 14 women have jobs in a wide range of industry.

Data collection

A primary health care center in the countryside assisted researchers to approach participants. A staff from primary health care center assisted researchers to identify the qualification of participants, including the credentials of Southeast Asian women, at least 18 years of aged, spoken mandarin, and a flyer with information and researchers' contact details regarding the study provided to participants. Once researchers firstly made an interview with a participant, she was encouraged to introduce other Southeast Asian women to researcher for an opportunity of another interview. The researcher was instructed to begin each interview with the same request: "Please tell me about your thoughts of women health." The researcher then asked the interviewees to elaborate and explain various issues that they raised in their answers. The interview was designed to allow participants to speak freely about what they think about the barriers and needs of self-breast examination and Pap smear. The interview lasted between 40 minutes and one hour and took place at the discussion room of primary health care center where constitutes a familiar and comfortable environment.

Reliability and Validity

To ensure the rigor of the study process, the researcher observed the criteria recommended by Lincoln and Guba (1985) for judging the quality of qualitative research – namely, credibility, transferability, dependability, and confirmability. All researchers were trained to be qualitative researchers with extensive work experience in clinical nursing and nursing education. All researchers were able to undertake all aspects of the investigation credibly and reliably. Several procedures were followed to ensure transferability and dependability. Firstly, direct quotations are supplied when presenting findings; secondly, each report demonstrates a 'thick description' on information gained; and thirdly, all interview transcribes were read to participants. Fourthly, two researchers conducted data analysis

independently with 90% similarity in categories perforations. Furthermore, confirm ability was achieved by presenting the data from the participants' own viewpoint.

Ethical considerations

This study received approval from the Institutional Review Board of the university. All participants were informed of the purpose of this study and invited to participate in person after the recruitment of snowball method. All participants were volunteers in this study and they could withdrawal from this study any period of time without any penalties. No document relating to the transcribed would be identified thus ensuring anonymity. Once the participants agreed to participate, they needed to sign informed consent.

Data organization and analysis

Data organization began with the management of coded files. Each file represented a transcription of interview on the participants' barriers of breast and cervical cancer screening. A total of 15 files were initially merged into one file for the purpose of general reading.

A thematic content analysis developed by Burnard (1991) whom expand the method from Glaser and Strauss' grounded theory approach was used to analyze data. The Burnard's content analysis consists of fourteen steps. Emerging these fourteen steps into three stages, the researcher began to read all transcriptions to obtain a sense of the whole meaning of the text. All writings were read carefully and any keywords or phrases relating to cancer screening were captured in participants' own expressions. The next step was to detach the text into parts relating to breast and cervical cancer screening. Data were grouped together into the different sub-categories. In each section of sub-category, all data that seemed to have similar meaning were classified with a particular code to identify the initial concept. The third step was classified sub-categories into categories as themes and conceptualized these categories to have similar characteristics of sub-categories. The process of coding allowed the researcher to reduce the data and to provide the means of promoting trustworthiness.

The process of data analysis was conducted by two researchers independently. The research team then discussed the results of data analysis from two researchers, and got an agreement on the development of categories as themes.

Findings

The results identify the Southern-Asian immigrated women's needs of cancer prevention. These inadequate needs enforce participants to hesitation on moving toward screening cancer prevention. Three categories were identified as the tracking back to personal influences, lacking knowledge and going further from here.

Tracking back to personal influences

Disadvantages of involving in a new society degenerated the necessary information of daily life gained, including cancer screening which is seen as a policy of social welfare. Those disadvantages relating to personal matters were identified as language barriers, educational background, life experiences, and family value of health. These personal disadvantages indicate that Southeast Asian women group is marginalized from Taiwanese society, and made their new lives more difficult to adjust.

Language barrier

Language barrier limited information gained and reported often among the Southeast-Asian women group. Participants referred to the language barrier as personal limitation to get proper cancer information from health services. This isolation caused by language barrier towards cancer tests donates the main reason of a lower percentage of having cancer screenings. Some participants give their statements on highlighting their language deficit which in relating to participants' educational background.

"I don't think these questions (cervical cancer and breast cancer)

because I actually can't read the words". (Indonesian 38 year old)

"I don't speak well...I don't know how to say the words (cervical cancer and breast cancer) when I go to hospital...". (Pilipino 33 year old)

"...I only can write my name...I only know a few words..."(Thai 32 year old)

Educational background

Most participants came to Taiwan have their disadvantage on the status of original family's finance and education. All their educational backgrounds are insufficiency to cope with Taiwanese society. The inadequately educational level of participants caused by their original family's finance influences their ability to access health education or information in Taiwanese community. The power of knowledge is concealed from the view of health rights as Taiwanese civil citizens. From this point, the group of participants is placed in a boundary of health care rights caused by their education limitation.

"I didn't go to school since year 5...I had to help mother to do the work" (Vietnamese 30 year old)

"I had to work to help to earn money... I didn't go to high school... only year 8...". (Vietnamese 28 year old)

"I hadn't been educated that (pap smear and breast cancer screening) so I don't know" (Indonesian 32 year old)

Life experiences

Life experiences set a boundary of expanding views on fighting civil rights as citizen of Taiwanese society aggressively. Unfortunately, the imperfect life experiences are both undergone in original birthplaces and Taiwan. Geographic location of living influences life experiences and the access of health resources. For those groups of Southeast-Asian women often came from the countryside of the developing countries. The family's financial status enforces those people not well educated. They came to Taiwan with their hopes to rearrange the social status, including family economic, in the unusual society. However, most South-Asia women stay in the countryside of Taiwan where have seen as economical disadvantage areas compared to metropolitan districts.

"In Vietnam, I live in very countryside, less people know that (pap smear and breast cancer screening). Otherwise, I should hear that. But I hadn't heard that...". (Vietnamese 30 year old)

"I hadn't heard that until I come here". "in Thailand, we have a lots information about AIDS. I only contact that (pap smear and breast cancer screening) before I came here.". (Thai 31 year old)

"Here is remote area, no a lot of people to talk and share information... only family and neighbors...". (Thai 45 year old)

Family value of health

Two ways gain health information, family in law and friends having the same life experiences basically. The value of family on health affects people's motivation to take the cancer screening action. When a family member, mother in law most time, actively delivery information to participants, they simply accept as displaying their obedient to an elder member of family. This obedient can be seen as a way of adjusting into the Taiwanese society or life-style. In addition, having similar life status or experiences easily communicate each, and being a social group naturally. It is a way to obtain health information for new comers. The beginners in Taiwanese society take an advice from an old hand's opinion or experience. From understanding the ways of health information gained, it discovers how isolated life the people from South-Asian regions have had. Primary health providers need to know these rational influences in order to delivery health information in community base.

"...my mom needs to work to earn money and take care of whole family. She only taught me how to take care of menstruation...". "My mother-in-law takes it (pap smear) every year... I did pap smear because

she(mother-in-law)told me to do so". (Vietnamese 30 year old)

"...my friend talked about breast cancer story...so I did touch my breast to check in my ways, but I don't know it is correct or not...". (Pilipino 31 year old)

"...I have questions about health then I ask my friends from the same country...". (Cambodian 32 year old)

Lacking knowledge

Lacking adequate knowledge on screening cancer dominated the situation of Southeast Asian women group. Without adequate knowledge on these issues, participants realized that these health problems can no longer prevent or receive an effective treatment. Two sub-categories, ignorance of cancer screening and limited access to health education, contribute to the category of lacking knowledge. Participants most way to involve in Taiwanese society are from television and neighborhood.

Ignorance of cancer screening

Results identified those participants with limited knowledge about cervical cancer and breast cancer screening, especial Pap smear. Several participants expressed limited understanding on preventive cancer screening caused by not knowing them. Participants possibly ignore the information they gained from any possible ways of information delivered. Additionally language barrier may donate the potential information of preventive cancer tests obtained. As participants stated that "I have never heard about that (pap smear) (Vietnamese 22 year old)", "maybe I heard about that (cervical cancer and breast cancer) but I am not too sure" (Thai 30 year old), "I haven't heard about breast cancer...I don't know about cervical cancer" (Indonesian 32 year old), "I haven't heard about cervical cancer and breast cancer until you ask me today" (Cambodian 32 year old). The performance of ignorance in this study interprets participants' unknown and never heard about those cancer tests. The ignorance of cancer screening has significant impact on the possibilities of access of health education.

Limited access to health education

Non-commercial ads frequently deliver information through TV programs, newspaper, or women's magazines about the prevention of cervical cancer and breast cancer. However, the majority of Southeast-Asian people can not read newspaper and magazines because of language barriers, and sometimes information delivered from TV programs. Although the primary care centers have hosted women's cancer prevention workshops annually, participants argued not receiving any notice. Inadequate literacy skills could be the fact of barrier to information on cancer screening in written format. Participants interpreted the possible causes to access health information as following statements.

"maybe I had ever received letter from primary health care center. But I can't read. So I got the letter, then my husband told me the letter is important or not..."(Vietnamese 30 year old)

"TV program...I only watch soap opera..."(Pilipino 35 year old)

"I seemed to see the cancer prevention TV commercial...but I don't know that..."(Thai 45 year old)

Going further from here

Primary health providers are appropriate people to offer health information for the promotion of cancer prevention. Regarding South-Asia participants not familiar with Mandarin or Taiwanese dialect, they have less chance or passively contact with other health professionals. Participants present their willing attitude and needs to do the activities of health promotion, such as health information gained. It is seen as an opportunity or a way to involve in Taiwanese society, and a way of stepping out to join a social life. However, two conditions under people's willing attitude are an appropriate time and the presenter. They advise that a trained lay person organizes health education in group form during weekend.

These suggestions indicate the way of people's needs to be satisfied. Primary health providers can go further from here.

"I don't know a lot of health knowledge but if there is a group to teach that, I really like to join it..." (Vietnamese 28 year old)

"...to teach information about health knowledge...I will attend but it need to be happened in the weekend because my husband will let me go, not the weekdays, because I need to do the housework and take care of my children..." (Thai 30 year old)

Discussion

The study on breast and cervical cancer screening behavior among Southeast-Asian women revealed a spectrum of factors, ranging from deficit knowledge of cancer screening to social and personal barriers to screening. These findings were similar to other studies [21,32-35]. This study sheds light on the factors which impede women's access to breast and cervical cancer screening. The intersection among individual, society and health care system reinforced women's poor breast and cervical cancer screening practice.

Southeast-Asian immigrated women learned about the breast and cervical cancer screening practice through their family and friends rather than public media. Although public media could play important role to give publicity of Pap smear and breast self-examination, this research indicated that media did not play important role in health information dissemination for Southeast-Asian immigrated women because of language barrier. Combination of multiple approaches, such as varies types of media and small group meetings, could increase the campaign of breast and cervical cancer screening in order to improve the rate of screening practice. Using varies of Southeast women's first language to advertise from newspaper, television, radio, and booklet include the content of problems of breast and cervical cancer, screening guideline, availability for pap smear and how to do the breast self-examination, and contact information. It is crucial that information is presented in a culturally appropriate format. Media alone could be a poor source of information for Southeast immigrated women. The media could be effective when it is combined with direct information for women and health care providers [36].

Moreover, support from social network includes family and peer friends could influence Southeast-Asian immigrated women's cancer screening practice [35,36]. From the results of this research, women's family and friends to do so are more likely to encourage them to practice breast and cervical cancer screening. The women have had the way of people disseminating information and advice through informal conversation. Recruited Southeast outreach health workers to do the peer education about the benefits and purposes of breast and cervical cancer screening could remove the identified barriers [36]. Outreach activities would be more effective for women in the community [37]. Also, the existing women group such as Taiwanese International Family Association or Women Awakening Association may take a lead role in initiating such as health education. These groups which aim to empower women and improve their social status is a structural advantage for breast cancer and cervical cancer screening promotion in the community. Finally, the results of study strongly suggest a need for Southeast-Asian immigrated women in providing public health education in breast cancer and cervical cancer screening or other health information. Well planed community outreach intervention strategies using media with trained outreach workers as capacity builders for breast and cervical cancer screening practice could be beneficial [38].

Limitations and recommendations

This study represents the Southeast Asia women's perspectives of cancer screening which does not capture the perspectives of the new resident women over other areas. This study is based on 15 interviewees from 5 countries of Southeast Asia. Generalizing from this study is to other context is problematic. Based on the results from current study, to explore women's perspectives of breast and cervical

cancer screening in diverse environments is needed. A further quantitative research can be developed and used in order to gather data from large samples and from other culturally diverse settings.

Conclusion

Southeast immigrated women are a growing segment of Taiwan society and challenge the social, economic and health care system. The research has demonstrated the barriers to uptake breast and cervical cancer screening, from the individual to societal, among Southeast women. The outcomes of this study may provide the beneficial role of intervention program in successful breast and cervical cancer screening. Understanding the factors influencing the breast and cervical cancer screen behaviors may improve the quality of care that health care professional deliver and may increase Southeast-Asian foreign mates' confidence in their behavior to breast and cervical cancer screening if she does encounter difficulties. Also, for the participated communities, the outcome of the study could provide policy makers as a guideline to improve their breast and cervical cancer screening behaviors. The understanding enables the health care provider to design various and effective prevention programs to target different group of women in order to meet their needs of health information, which will help to reduce the incidence of breast cancer and cervical cancer in Southeast Asian population.

References

1. Chang, C.F. (2008). The research about social need of foreign mates' adapting to Taiwan. *J Chinese Public Admin* 5: 165-74.
2. Hsia, H.C. (1997). The trade of women body: Taiwan/ Indonesia foreign bride analysis. *J SE Asia Study*. 2: 72-83.
3. Department of Household Registration (2008). Certificate of marriage in Taiwan Taipei: Ministry of Interior; [cited 2009 9th December].
4. Lipson, J.G. (1991). Afghan refugee health: some findings and suggestions. *Qualitative Health Research* 1: 349-69.
5. Choo, H., & Sim, T. (2-010). Health Risk Behaviours of Foreign-Born Adolescents in Singapore: Exploration of Risk Factors in an Asian Context. *Brit J Soc Work* 40: 2203-2222.
6. Changa, H-C., & Wallace, S.P. (2016). Migration processes and self-rated health among marriage migrants in South Korea. *Ethnicity & Health* 21: 20-38.
7. Yang, Y.M., & Wang, H.H. (2003). Life and health concerns of Indonesian women in transnational marriages in Taiwan. *J Res (Taiwan)* 11: 167-75.
8. Im, H., Lee, K.Y., & Lee, H.Y. (2014). Acculturation Stress and Mental Health Among the Marriage Migrant Women in Busan, South Korea. *Community Mental Health* 50: 497-503.
9. Gupta, V.B. (2010). Impact of culture on healthcare seeking behavior of Asian Indians. *J Cult Divers* 17: 13-19.
10. Executive Yuan. Cancer Registry Annual Report 2008 9th 2009.
11. Directorate-General Budget Account and Statistics (2005). The morbidity rate and numbers of 10th malignant neoplasm Taipei: Executive Yuan [cited 2009 9th December].
12. Directorate-General Budget Account and Statistics (2006). Gender Statistics Taipei: Executive Yuan [cited 2009 9th December].
13. Bureau of Health Promotion (2015). Cancer Registry Annual Report, 2006 Taiwan. Taipei: The Executive Yuan; 2015.
14. Lin, S-L., & Hsiao, Y-L. (2007). Social segregation and the health care of female immigrants in Taiwan. *Nursing (Taiwan)* 54: 67-71.
15. Liu, M.F., Chung, H.H., & Hsu, M.T. (2001). Adaption of foreign brides in Taiwan: Implications for nursing. *Nursing (Taiwan)* 48: 85-89.

16. Wang, H.H., & Yang, Y.M. (2002). The health of Southeast Asia women in transnational marriages in Taiwan. *Nursing (Taiwan)*. 49: 35-41.
17. Shu, B.C., Chuang, L.Y., Lin, L.L., & Liu, K.L. (2008). The mothering experience: perspectives of women from Indonesia married and living in Taiwan. *J Nurs Res* 16: 169-176.
18. Samuel, P.S., Pringle, J.P., James, N.W., Fielding, S.J., & Fairfield, K.M., et al. (2009). Breast, cervical, and colorectal cancer screening rates amongst female Cambodian, Somali, and Vietnamese immigrants in the USA. *Int J Equity in Health* 8: 1-5.
19. McCracken, M., Olsen, M., Chen, M.S., Jemal, A., Thun, M. et al. (2007). Cancer incidence, mortality, and associated risk factors among Asian Americans of Chinese, Filipino, Vietnamese, Korean, and Japanese ethnicities. *Cancer J Clin* 57: 190-205.
20. Taylor, V.M., Schwartz, S.M., Yasui, Y., Burke, N., & Shu, J. et al. (2004). Pap testing among Vietnamese women: Health care system and physician factors. *J Community Health* 29: 437-50.
21. Do, H.H., Taylor, V.M., Burke, N., Yasui, Y., Schwartz, S.M. et al. (2007). Knowledge about cervical cancer Risk factors, traditional health beliefs, and pap testing among Vietnamese American women. *J Immigrant Health* 9: 109-14.
22. Taylor, R.J., Morrell, S.L., Mamoon, H.A., Macansh, S., & Ross, J., et al. (2003). Cervical cancer screening in a Vietnamese nominal cohort. *Ethnicity and Health* 8: 251-561.
23. Cheek, J., Fuller, J., Gilchrist, S., Maddock, A., & Ballantyne, A., et al. (1999). Vietnamese women and pap smears: issues in promotion. *Aus NZ J Pub Health* 23: 72-6.
24. Donnelly, T.T. (2008). Challenges in providing breast and cervical cancer screening services to Vietnamese Canadian women: the health care providers' perspective. *Nursing Inquiry* 15: 158-68.
25. McDonald, J.T., & Kennedy, S. (2007). Cervical cancer screening by immigrant and minority women in Canada. *J Immigrant and Minority Health* 9: 323-34.
26. Tsui, J., & Tanjasiri, S.P. (2008). Cervical cancer screening among Thai women in Northern California. *J Women's Health*. 17:393-401.
27. Jirojwong, S., & Manderson, L. (2001). Beliefs and behaviors about pap and breast self-examination among Thai immigrant women in Brisbane, Australia. *Women and Health* 33: 47-66.
28. Teo, C.T., Yeo, Y.W.S., & Lee, S.C. (2013). Screening Mammography Behavior and Barriers in Singaporean Asian Women. *Am J Health Behavior* 37: 667-782.
29. Kanbara, S., Lee, H.J., Ngatu, R.N., Nojima, S., & Nagasawa, K. et al. (2016). Shortfall of disaster health information for foreign residents in Japan. *Health Sci J* 10: 12-16.
30. Kanbara, S., Lee, H.J., Ngatu, R.N., Nojima, S., & Nagasawa, K. et al. (2016). Shortfall of Disaster Health Information for Foreign Residents in Japan. *Health Sci J* 10: 1-5.
31. Teo, C.T., Yeo, Y.W.S., & Lee, S.C. (2013). Screening mammography behavior and barriers in Singaporean Asian women. *Am J Health Behavior* 37: 667-82.
32. Amankwah, E., Ngwakongnwi, E., & Quan, H. (2009). Why many visible minority women in Canada do not participate in cervical cancer screening. *Ethnicity and Health* 14: 337-349.
33. Woltman, K.J., & Newbold, K.B. (2007). Immigrant women and cervical cancer screening uptake. *Can J Pub Health* 98: 470-475.
34. Islam, N., Kwon, S.C., Senie, R., & Kathuria, N. (2006). Breast and cervical cancer screening among South Asian women in New York city. *J Immigrant Minor Health*. 8: 211-21.
35. Ho, I.K., & Dinh, K.T. (2011). Cervical cancer screening among Southeast Asian American women. *J Immigrant Minor Health* 13: 49-60.
36. Tanjasiri, S.P. (2001). Breast cancer screening among Chamorro women in Southern California. *J Women's Health and Gender-Based Med* 10: 479-85.
37. Wong, L.P. (2011). Knowledge and attitudes about HPV infection, HPV vaccination, and cervical cancer among rural Southeast Asian women. *Int J Behavior Med* 18: 105-11.
38. Shannon, G.D., Franco, O.H., Powles, J., Leng, Y., & Pashayan, N. et al. (2011). Cervical cancer in indigenous women: The case of Australia. *Maturitas* 70: 234-45.