



Minnesota State University, Mankato
Cornerstone: A Collection of Scholarly
and Creative Works for Minnesota
State University, Mankato

All Graduate Theses, Dissertations, and Other
Capstone Projects

Graduate Theses, Dissertations, and Other
Capstone Projects

2021

Perceived Barriers and Facilitators to Cervical Cancer Screening in Asian American Women

Bouathong Thepsombath
Minnesota State University, Mankato

Follow this and additional works at: <https://cornerstone.lib.mnsu.edu/etds>



Part of the [Obstetrics and Gynecology Commons](#), and the [Women's Health Commons](#)

Recommended Citation

Thepsombath, B. (2021). Perceived barriers and facilitators to cervical cancer screening in Asian American women [Master's alternative plan paper, Minnesota State University, Mankato]. Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. <https://cornerstone.lib.mnsu.edu/etds/1096/>

This APP is brought to you for free and open access by the Graduate Theses, Dissertations, and Other Capstone Projects at Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. It has been accepted for inclusion in All Graduate Theses, Dissertations, and Other Capstone Projects by an authorized administrator of Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato.

**Perceived Barriers and Facilitators to Cervical Cancer Screening in
Asian American Women**

Bouathong Thepsombath, BSN, CMSRN

School of Nursing, Minnesota State University, Mankato

NURS 695: Alternate Paper Plan

Dr. Gwen Verchota, PhD, APRN, CNP

April 26th, 2021

Abstract

The purpose of this systematic review is to explore barriers and facilitators of cervical cancer screening in Asian-American women. Articles selected for review were found using a database search method using select predetermined key terms. The clinical question this review sought to answer is: *In Asian-American women (21-65 years of age), how does perception of cervical cancer screening impact screening compliance?* Nine articles addressing the topic of interest were included in the review. Emerging themes related to answering the question under study included the health literacy of Asian-American women, modesty, acculturation, income comfortability, and self-efficacy. This review found information that could be beneficial to advance nursing practice and advanced practice registered nurse (APRN) providers.

Understanding barriers and facilitators to cervical cancer screening in Asian American women can help to reach the goal of increasing cervical cancer screening within this population.

However, there is still a need for more research into this topic.

Keywords: cervical cancer screening, pap smear, Asian American women, perception

Perceived Barriers to Cervical Cancer Screening in Asian American Women

The current recommendation of the United States Preventative Services Task Force (USPSTF) is that women ages 21-65 years of age be screened for cervical cancer. In women 21-29 years of age, USPSTF is recommending they have pap screening with cytology every three years. In women 30-65 years of age, the recommendation is either a combination of cytology with HPV testing every five years or cytology alone every three years. Those who have had a hysterectomy, are less than 21-years old, or older than 65 with adequate screening are not at high risk for cervical cancer (Nardi, Sandu, & Selix, 2016; USPSTF, 2018). In this group, screening is not recommended. Widespread screening and rates of cervical cancer have substantially decreased with most cases occurring among women who have not been adequately screened (USPSTF, 2018). The goal for cervical cancer screening for Healthy People 2020 is 93%, yet the rate continues to be below this threshold (Nardi, et al, 2016).

Background

Cervical cancer screening entails having a noninvasive procedure during a pelvic exam to collect cell samples from the cervix (McCance & Huether, 2019). This preventative screening is an important aspect of detecting and preventing diseases such as cervical cancer. Decreases in cervical cancer rates are a result of adequate, early, routine screenings (Nardi et al., 2016). Even with the known benefits of cervical cancer screening, rates of screening continue to be lower than the targeted goal (Nardi et al., 2016). Minority groups tend to have lower rates of screening, with Asian-Americans (AA) having the lowest rates compared to other ethnic groups (Fang et al., 2011). According to a 2015 National Health Interview Survey, findings show that lowest screening rates for preventive screening were associated with having no source of care, no

insurance, no physician visits in 12 months, and being of non-Hispanic Asian origin (Hall et al., 2018).

Little research has been conducted on why rates of screening for AA are lower than other ethnic groups. Of the studies that have been conducted, factors that influence screening rates in the AA population are related to knowledge regarding cervical cancer, financial comfort, health care access, and language barriers (Nardi et al., 2016). The purpose of this systematic review is to gather evidence on the perceptions surrounding barriers and facilitators of cervical cancer screening in the AA population. The clinical question this review seeks to answer is: *In Asian-American women (21-65 years of age), how does perception of cervical cancer screening impact screening compliance?* Understanding perceptions and barriers to adequate screening can help raise awareness and assist in the promotion of cervical cancer screening among AA women. This topic is also of importance to providers in providing culturally competent care to this population.

Methods

A systematic literature review was conducted to answer the clinical question. A database search was conducted using PubMed, CINAHL, Academic Search Premiere, and Google Scholar (See Table 1 in the Appendix). Google Scholar provided search results that were not manageable and were thus excluded. Academic Search Premier and PubMed yielded duplicate results as CINAHL thus articles were extracted from CINAHL. Search restrictions included articles that were free, full text sources, and publication dates between 2010-2020. All studies were in the English language. Terms used for search included cervical *cancer screening*, *pap smear*, *Asian American women*, and *perception*. Perusing abstracts from searches yielded 23 studies for review (see Table 2 in the Appendix). After reviewing full-text articles, inclusions for review were articles that included AA women, cervical cancer screening and addressed perceptions/barriers to

screening. Studies that were excluded were those that focused on interventions or were not related to the AA population (see Table 3 in the Appendix for inclusion/exclusion criteria).

Summary of Literature Review

Results of the full text review identified nine articles to be including into the systematic literature review. The most common type of study were cross sectional surveys with a total of nine articles. One study was a systematic review. There were two qualitative studies, and one an exploratory analysis. Key findings of articles included for review found common barriers and facilitators to having cervical cancer screening (see Table 4 in the Appendix).

Health literacy

Four of the articles included in the review note health literacy as a factor in cervical cancer screening in AA women. In the cross-sectional study conducted by Han et al. (2019), 560 foreign born Korean-Americans were asked about health literacy related to cancer screening. In this study it was found that a key factor to low health literacy was related to proficiency in the English language. Kue et al. (2014), noted that older women had more concerns with language barriers. A systemic review by Jun and Nan (2018) also confirms the same finding; that English proficiency and healthy literacy were barriers. Interestingly, this single review by Jun and Nan (2018) found that while literacy is a factor, Vietnamese-Americans had higher rates of screening compared to Korean- Americans, despite Koreans reporting a higher level of education. In Gor et al. (2011), it was found that while literacy was a concern, the younger AA females were also more interested in learning about cervical cancer and Human Papilloma Virus (HPV) and more likely to obtain a pap smear after receiving this education.

Modesty

There were four articles that addressed modesty in this review. Gor et al. (2011) found that while young AA women were interested in learning about cervical cancer and HPV, they still held conservative views regarding their sexuality. Similarly, Lee et al. (2015) conducted a cross-sectional survey of 164 Hmong-American women and found that modesty was a potential barrier. However, the Hmong-American population had a higher rate of screening, yet still below the Healthy People 2020 threshold. Some concerns regarding modesty were related to feeling embarrassed about the body, lack of female doctors, and their partner's negative attitude towards screening (Kue et al., 2014; Tung et al., 2017).

Acculturation

Four of the articles mention acculturation as an influence in cervical cancer screening. Acculturation was related to ethnicity, age, and birthplace as factors influencing beliefs (Jan & Nan, 2018). Yoo et al. (2011) found that for every one year in age, the likelihood of having a pap test increased in the Filipino and Vietnamese-American group. Yoo et al (2011) found that the younger population and those who were significantly older also had higher odds of pap testing. The systematic review by Jun and Nan (2018) found that place of birth also influenced rates of screening. AA women who were born outside the United States (US) had lower rates than US born AA women. This correlates with the idea that acculturation can influence screening rates, as the length of time in the US and citizenship status had higher association with AA women obtaining cervical cancer screening. In two studies, researchers found that AA women reported use and preference for traditional medicine as a barrier to cervical cancer screening (Tung et al, 2017; Tung et al., 2017a). In both studies, one of Chinese-American and the other Korean-Americans, participants reported that preference for traditional medicine was related to distrust

or unfamiliarity with the US healthcare system (Tung et al., 2017). In the second study by Tung et al. (2017a), the Chinese-Americans participants reported similar reasoning.

Income comfortability

Cost is another factor that influences cervical cancer screening in AA women. Four of the articles in this review discussed cost. Three articles found that lack of insurance is a problem, especially in the younger women (Kue et al., 2014; Tung et al., 2017). In Han et al. (2019), of the 560 participants studied, only 38% reported having health insurance which was below the US national average of 74.5% of people having insurance. In Tung et al. (2017a), it was noted that screening was more likely to occur if there were free or low-cost screenings available to participants, thus supporting the notion that cost is a perceived barrier for many AA women.

Self-efficacy

Of the nine articles reviewed, six addressed self-efficacy. Two articles discussed the lack of a provider recommendation as a reason for not completing cervical cancer screening (Han et al., 2019; Kue et al., 2014). In Han et al. (2019), only 15.7% of the 560 participants reported receiving recommendations for cervical cancer screening from their healthcare provider. The study found that women reported a greater likelihood of obtaining cervical cancer screening if it was recommended by their healthcare provider or from families and friends. In the study by Kue et al. (2014), a small portion of the participants voiced having never been screened for cervical cancer and that their provider did not recommend cervical cancer screening as one of the reasons they had not completed this screening. Difficulties with appointment scheduling, not knowing where to go for screening, and lack of access to a medical facility were other barriers that were identified (Jun & Nan, 2018, Lee et al., 2015; Kue et al., 2014). Additional concerns with screening were related to fatalism such as fears about a positive result, not having any symptoms

or family history of cancer, and the difficulties associated with detecting cancer (Jun & Nan, 2018; Kue et al., 2014, Tung et al., (2017a).

Discussion

Literature reviews and research on this topic is limited. Findings from this literature review were similar to findings from other studies and of what has already been researched. Some of the barriers that emerged from this review are very common to many minority groups, especially when language, cost, and health literacy are involved in navigation of the health care system (Nardi et al., 2016). There were also findings on perceived facilitators to cervical cancer screening in this population such as the need for low-cost testing, having provider recommendations, and increasing education on cervical cancer and HPV.

Study Limitations

This review has several limitations. The studies were mostly cross-sectional; thus considered level IV evidence (source). While the level is low, the articles were of high quality and many contained qualitative information that further helped to answer the clinical question. The articles in this review supported known knowledge about the barriers to cervical cancer screening in AA women. While there are many great findings that came from this review, it is still difficult to generalize the information to all AA women, as there are multiple ethnic groups under this umbrella. This was mentioned by Jun and Nan (2016), with findings that literacy was not a factor in Vietnamese women versus Korean women. Different ethnic groups had varying perceptions and understanding of what cervical cancer is and what screening involves. This also influences screening rates in certain ethnic groups within AA women.

Future Directions

Recommendations for Research

There are more opportunities for further research in this area. Since the AA population is not limited to one ethnic group, additional research could be done to focus on other groups, such as Southeast-Asians, Indian, or Malaysian women as well as women from different parts of the country. There is also a need for more systematic reviews and higher levels of research related to cervical cancer screening in AA women. Further interventional studies on how to increase rates of screening are also needed to provide further recommendations and support for clinical practice.

Recommendations for Clinical Practice

Based on information from this review, several recommendations can be drawn to improve clinical practice. Providers should continue offering screening at visits as recommended by the USPSTF, even if patients refuse initially. With continued efforts to recommend screening, patients may eventually become more comfortable and more likely to complete recommended health screenings. Providers should also provide necessary education on cervical cancer, HPV, and the screening process to increase understanding and improve health literacy in this population. This literature review would be a useful resource for developing interventions tailored to addressing specific barriers and facilitators to cervical cancer screening in AA women. It is also a resource to help increase providers cultural awareness and understanding of the AA women and their views on screening.

Recommendations for Policy Change

Recommendations for policy change would involve providing low to no cost coverage for screening. From the review, AA patients view finances as a barrier. Many would choose to screen if there was an affordable or free option available. Many screenings including cervical cancer screening are covered by insurance, however those who do not have insurance will likely opt out

on screening if there is an out-of-pocket cost to them. The advanced practice nurses have a role in influencing policy change by lobbying for free to low-cost screening.

Recommendations for Education

There is a need to improve further on education of patients and providers. Lack of knowledge on cultural aspects of the AA patients can hinder a provider understanding of how to best improve health outcomes for this population. Providers should be educated on these barriers and cultural variances of the different AA groups to increase cultural awareness. Providers should also work to educate their patients on HPV and the benefits of cervical cancer screening as part of when providing recommendations for screening. Increasing patient knowledge and frequent reminders will likely help to improve understanding of screening and lead to increasing screening rates. Educational institutions should continue to provide education on cultural awareness and on why socioeconomic factors in all types of patient can influence health outcomes.

Conclusion

In conclusion, this literature review is one that could be beneficial to advanced nursing practice. While the evidence is limited, it provides a framework for understanding barriers and perceptions in AA females and why rates of cervical cancer screening are low within this group. The studies within the review have found key themes including healthy literacy, modesty, acculturation, income comfortability, and self-efficacy as barriers and facilitators to screening within this population. There is still a need for further research in this topic yet having qualitative studies available can help support best practices today and guide further studies to create further interventions needed to increase rates of cervical cancer screening.

References

- Dang, J., Lee, J., & Tran, J. H. (2010). Knowledge, attitudes, and beliefs regarding breast and cervical cancer screening among Cambodian, Laotian, Thai, and Tongan Women. *Journal of Cancer Education*, 25(4), 595–601. <https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-010-0082-1>
- Fang, C. Y., Ma, G. X., & Tan, Y. (2011). Overcoming Barriers to Cervical Cancer Screening Among Asian American Women. *North American journal of medicine & science*, 4(2), 77–83. <https://doi.org/10.7156/v4i2p>
- Gor, B., Chilton, J., Camingue, P., & Hajek, R. (2011). Young Asian Americans' knowledge and perceptions of cervical cancer and the human papillomavirus. *Journal of Immigrant & Minority Health*, 13(1), 81–86. <https://doi-org.ezproxy.mnsu.edu/10.1007/s10903-010-9343->
- Hall, I. J., Tangka, F. K., Sabatino, S. A., Thompson, T. D., Graubard, B. I., & Breen, N. (2018). Patterns and trends in cancer screening in the United States. *Preventing Chronic Disease*, 15. <http://dx.doi.org/10.5888/pcd15.170465>
- Han, H. R., Kim, K., Cudjoe, J., & Kim, M. T. (2019). Familiarity, navigation, and comprehension: Key dimensions of health literacy in pap test use among Korean American women. *Journal of Health Communication*, 24(6), 585–591. <https://doi-org.ezproxy.mnsu.edu/10.1080/10810730.2019.1607955>
- Jun, J., & Nan, X. (2018). Determinants of cancer screening disparities among Asian Americans: A systematic review of public health surveys. *Journal of Cancer Education*, 33(4), 757–768. <https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-017-1211-x>

- Kue, J., Zukoski, A., Keon, K. L., & Thorburn, S. (2014). Breast and cervical cancer screening: exploring perceptions and barriers with Hmong women and men in Oregon. *Ethnicity & health, 19*(3), 311–327. <https://doi-org.ezproxy.mnsu.edu/10.1080/13557858.2013.776013>
- Lee, H.Y., Yang, P. N., Lee, D. K., & Ghebre, R. (2015). Cervical cancer screening behavior among Hmong-American immigrant women. *American Journal of Health Behavior, 39*(3), 301–307. <https://doi-org.ezproxy.mnsu.edu/10.5993/AJHB.39.3.2>
- McCance, K. L., & Huether, S. E. (2019). *Pathophysiology: The biologic basis for disease in adults and children* (8th ed.). St. Louis, MO: Elsevier.
- Nardi, C., Sandhu, P., & Selix, N. (2016). Cervical cancer screening among minorities in the United States. *The Journal for Nurse Practitioner, 12*(10), 675-682.
- Tung, W.C., Lu, M., Granner, M., & Sohn, J. (2017). Assessing perceived benefits/barriers and self-efficacy for cervical cancer screening among Korean American women. *Health Care for Women International, 38*(9), 945–955. <https://doi-org.ezproxy.mnsu.edu/10.1080/07399332.2017.1326495>
- Tung, W. C., Lu, M., & Granner, M. (2017a). Perceived benefits and barriers of cervical cancer screening among Chinese American women. *Oncology Nursing Forum, 44*(2), 247–254. <https://doi-org.ezproxy.mnsu.edu/10.1188/17.ONF.247-254>
- Yoo, G. J., Le, M. N., Vong, S., Lagman, R., & Lam, A. G. (2011). Cervical cancer screening: attitudes and behaviors of young Asian American women. *Journal of Cancer Education, 26*(4), 740–746. <https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-011-0230-2>

Appendix

Table 1

Database Search Description

Database (or Search Engine)	Restrictions Added to Search	Dates Included in Database	General Subjects Covered by Database
1. CINAHL	Full text	2010-2020	Provides full text access to e-books about nursing and 29 core nursing journals. Also provides citations and abstracts to articles, books, dissertations, proceedings, and other materials about all aspects of nursing and allied health, including cardiopulmonary technology, emergency service, health education, medical/laboratory, medical assistant, medical records, occupational therapy, physical therapy, physician assistant, radiologic technology, social service/health care, and more.
2. PubMed	Free Full Text; Randomized Controlled Trial	2010-2020	Provides citations, abstracts, and selected full text to articles about "medicine, nursing, dentistry, veterinary medicine, the health care system, and the preclinical sciences."
3. Google Scholar	None	2015-2020	Scholarly literature, including peer-reviewed papers, theses, books, preprints, abstracts and technical reports from all broad areas of research. Articles from a wide variety of academic publishers, professional societies, preprint repositories and universities, as well as scholarly articles available across the web.
4. Academic Search Premier	Full text	2010-2020	Provides citations and abstracts to articles, as well as full text of articles from over 4,600 publications, covering almost every academic subject.

Table 2*Data Abstraction Process*

Date of Search	Key Words	Results in CINAHL	Results in Pubmed	Results in Google Scholar	Results in Academic Search Premier
10/17/20	“Asian women” AND “pap smear”	20	16	515	23
	Asian women AND pap smear	20(7)	16	10,200	23
	Asian women AND cervical cancer screening	54	26	17,500	49
10/24/20	Cervical cancer screening	1,783	271	89,500	2, 373
	Asian American AND cervical cancer screening AND perception	3(2)	15	17, 200	3
	"young Asian women" AND "perception" AND "pap smear"	0	0	10	1
11/14/20	Cervical cancer screening AND Asian American AND compliance	2	1	17,200	0
	Pap smear beliefs in Asian American	3	8	17,100	2
	"young Asian American" AND "perception" AND "pap smear"	1	1	17,200	1

***BOLD** = articles reviewed for match with systematic review inclusion criteria (parentheses indicate those articles meeting inclusion criteria)

Table 3*Characteristics of Literature Included and Excluded*

Reference (Include the full reference here)	Included or Excluded and Document	Rationale
Benard, V. B., Thomas, C. C., King, J., Massetti, G. M., Doria-Rose, V. P., & Saraiya, M. (2014). Vital signs: cervical cancer incidence, mortality, and screening - United States, 2007-2012. <i>MMWR: Morbidity & Mortality Weekly Report</i> , 63(44), 1004–1009.	Excluded	Not specific to Asian American group. Did not discuss perception/beliefs.
Breslau, E. S., Jeffery, D. D., Davis, W. W., Moser, R. P., McNeel, T. S., & Hawley, S. (2010). Cancer screening practices among racially and ethnically diverse breast cancer survivors: results from the 2001 and 2003 California health interview survey. <i>Journal of Cancer Survivorship</i> , 4(1), 1–14. https://doi-org.ezproxy.mnsu.edu/10.1007/s11764-009-0102-5	Excluded	Not specific to Asian Americans and participants were breast cancer survivor which can skew beliefs/perceptions on screening.
Dang, J., Lee, J., & Tran, J. H. (2010). Knowledge, attitudes, and beliefs regarding breast and cervical cancer screening among Cambodian, Laotian, Thai, and Tongan Women. <i>Journal of Cancer Education</i> , 25(4), 595–601. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-010-0082-1	Included	Included knowledge, attitudes, and beliefs of different Asian American. Cross sectional survey including cervical cancer screening.
Dang, J., Lee, J., Tran, J. H., Kagawa-Singer, M., Foo, M. A., Nguyen, T.-U. N., Valdez-Dadia, A., Thomson, J., & Tanjasiri, S. P. (2010). The role of medical interpretation on breast and cervical cancer screening among Asian American and Pacific Islander women. <i>Journal of Cancer Education</i> , 25(2), 253–262. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-010-0074-1	Excluded	Study to evaluate intervention on cervical cancer screening.
Fowler, C. I., Saraiya, M., Moskosky, S. B., Miller, J. W., Gable, J., & Mautone-Smith, N. (2017). Trends in cervical cancer screening in Title X-funded health centers - United States, 2005-2015. <i>MMWR: Morbidity & Mortality Weekly Report</i> , 66(37), 981–985. https://doi-org.ezproxy.mnsu.edu/10.15585/mmwr.mm6637a4	Excluded	Does not address Asian American groups perceptions/beliefs.
Gor, B., Chilton, J., Camingue, P., & Hajek, R. (2011). Young Asian Americans' knowledge and perceptions of cervical cancer and the human	Included	Qualitative study. Included young Asian American women (18-29 years).

Reference (Include the full reference here)	Included or Excluded and Document	Rationale
papillomavirus. <i>Journal of Immigrant & Minority Health</i> , 13(1), 81–86. https://doi-org.ezproxy.mnsu.edu/10.1007/s10903-010-9343-		
Han, H., Song, Y., Kim, M., Hedlin, H. K., Kim, K., Lee, H.B., & Roter, D. (2017). Breast and cervical cancer screening literacy among Korean American women: A community health worker–led intervention. <i>American Journal of Public Health</i> , 107(1), 159–165. https://doi-org.ezproxy.mnsu.edu/10.2105/AJPH.2016.3035227	Excluded	RCTs testing intervention to address literacy to screening. Study results related to intervention and did not address barriers/perceptions.
Han, H. R., Kim, K., Cudjoe, J., & Kim, M. T. (2019). Familiarity, navigation, and comprehension: Key dimensions of health literacy in pap test use among Korean American women. <i>Journal of Health Communication</i> , 24(6), 585–591. https://doi-org.ezproxy.mnsu.edu/10.1080/10810730.2019.1607955	Included	Study includes Asian American women, pap smear, and discussed behaviors and understanding of pap test.
Han, H. R, Kim, J., Lee, J. E., Hedlin, H. K., Song, H., Song, Y., & Kim, M. T. (2011). Interventions that increase use of Pap tests among ethnic minority women: a meta-analysis. <i>Psycho-Oncology</i> , 20(4), 341–351. https://doi-org.ezproxy.mnsu.edu/10.1002/pon.1754	Excluded	Discussed intervention and not perception/beliefs.
Jun, J., & Nan, X. (2018). Determinants of cancer screening disparities among Asian Americans: A systematic review of public health surveys. <i>Journal of Cancer Education</i> , 33(4), 757–768. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-017-1211-x	Included	Included Asian American women and addressed cervical cancer screening.
Kue, J., Zukoski, A., Keon, K. L., & Thorburn, S. (2014). Breast and cervical cancer screening: exploring perceptions and barriers with Hmong women and men in Oregon. <i>Ethnicity & health</i> , 19(3), 311–327. https://doi-org.ezproxy.mnsu.edu/10.1080/13557858.2013.776013	Included	Include an Asian American group and discussed perceptions on cervical cancer. A qualitative study.
Lee, H. Y., Yang, P. N., Lee, D. K., & Ghebre, R. (2015). Cervical cancer screening behavior among Hmong-American immigrant women. <i>American Journal of Health Behavior</i> , 39(3), 301–307. https://doi-org.ezproxy.mnsu.edu/10.5993/AJHB.39.3.2	Included	Included Asian American group and behaviors regarding cervical cancer screening.
Love, G. D., & Tanjasiri, S. P. (2012). Using entertainment-education to promote cervical cancer screening in Thai women. <i>Journal of Cancer</i>	Excluded	Study not related to Asian Americans and focused on interventions to promote cervical cancer screening.

Reference (Include the full reference here)	Included or Excluded and Document	Rationale
<i>Education</i> , 27(3), 585–590. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-012-0369-5		
Patel, V., Rajpathak, S., & Karasz, A. (2012). Bangladeshi immigrants in New York City: A community based health needs assessment of a hard to reach population. <i>Journal of Immigrant & Minority Health</i> , 14(5), 767–773. https://doi-org.ezproxy.mnsu.edu/10.1007/s10903-011-9555-5	Excluded	Address Asian American, but not specific to cervical cancer screening. Study focused on health needs assessment.
Shea, J., Klainin, Y. P., & Mackey, S. (2013). Young Singaporean women's knowledge of cervical cancer and pap smear screening: a descriptive study. <i>Journal of Clinical Nursing (John Wiley & Sons, Inc.)</i> , 22(23–24), 3310–3319. https://doi-org.ezproxy.mnsu.edu/10.1111/jocn.12420	Excluded	Study group not Asian American.
Shoemaker, M., White, M., Shoemaker, M. L., & White, M. C. (2016). Breast and cervical cancer screening among Asian subgroups in the USA: Estimates from the National Health Interview Survey, 2008, 2010, and 2013. <i>Cancer Causes & Control</i> , 27(6), 825–829. https://doi-org.ezproxy.mnsu.edu/10.1007/s10552-016-0750-5	Excluded	An analysis of a cross sectional study.
Thompson, C. A., Gomez, S. L., Chan, A., Chan, J. K., McClellan, S. R., Chung, S., Olson, C., Nimbale, V., & Palaniappan, L. P. (2014). Patient and provider characteristics associated with colorectal, breast, and cervical cancer screening among Asian Americans. <i>Cancer epidemiology, biomarkers & prevention: a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology</i> , 23(11), 2208–2217. https://doi-org.ezproxy.mnsu.edu/10.1158/1055-9965.EPI-14-0487	Excluded	Study included breast, cervical, and colon cancer. Describes characteristics of patient and providers, but does not discuss barriers and perception.
Tung, W.C., Lu, M., Granner, M., & Sohn, J. (2017). Assessing perceived benefits/barriers and self-efficacy for cervical cancer screening among Korean American women. <i>Health Care for Women International</i> , 38(9), 945–955. https://doi-org.ezproxy.mnsu.edu/10.1080/07399332.2017.1326495	Included	Asian American women included in study. Discussion on barriers/perception to cervical cancer screening included.
Tung, W.C., Lu, M., & Granner, M. (2017). Perceived benefits and barriers of cervical cancer screening among Chinese American women. <i>Oncology</i>	Included	Chinese American perceptions/barriers of cervical cancer screening included in study.

Reference (Include the full reference here)	Included or Excluded and Document	Rationale
<i>Nursing Forum</i> , 44(2), 247–254. https://doi-org.ezproxy.mnsu.edu/10.1188/17.ONF.247-254		
Xiong, H., Murphy, M., Mathews, M., Gadag, V., & Wang, P. P. (2010). Cervical cancer screening among Asian Canadian immigrant and nonimmigrant women. <i>American Journal of Health Behavior</i> , 34(2), 131–143.	Excluded	Included Asians-Canadian group.
Yoo, G. J., Le, M. N., Vong, S., Lagman, R., & Lam, A. G. (2011). Cervical cancer screening: attitudes and behaviors of young Asian American women. <i>Journal of Cancer Education</i> , 26(4), 740–746. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-011-0230-2	Included	Includes Asian American women and discusses disparities.
Liao, Y., Bang, D., Cosgrove, S., Dulin, R., Harris, Z., Stewart, A., ... & Giles, W. (2011). Surveillance of health status in minority communities -- Racial and ethnic approaches to community health across the U.S. (REACH U.S.) Risk factor survey, United States, 2009. <i>MMWR Surveillance Summaries</i> , 60(SS-6), 1–41.	Excluded	Did not specifically address Asian American groups or cervical cancer screening. Study on broad topics within community health.
Yu, T., Chou, C, Johnson, P. J., & Ward, A. (2010). Persistent disparities in pap test use: Assessments and predictions for Asian women in the U.S., 1982–2010. <i>Journal of Immigrant & Minority Health</i> , 12(4), 445–453. https://doi-org.ezproxy.mnsu.edu/10.1007/s10903-009-9255-6	Excluded	Did not address perceptions and beliefs

Table 4
Literature Review Table of All Studies Included

Citation (Include the citation of all studies that met inclusion criteria from Table 3 above)	Study Purpose	Pop (N)/ Sample Size (n) /Setting(s)	Design/ Level of Evidence	Variables/ Instruments	Intervention	Findings	Implications
Dang, J., Lee, J., & Tran, J. H. (2010). Knowledge, attitudes, and beliefs regarding breast and cervical cancer screening among Cambodian, Laotian, Thai, and Tongan Women. <i>Journal of Cancer Education</i> , 25(4), 595–601. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-010-0082-1	To understand the knowledge, attitudes, and beliefs of breast and cervical cancer screening among AAPI to identify barriers.	1,808 AAPI total Cambodian = 355, Laotian= 361, Thai= 742, Tongan= 350	Cross sectional survey/ Level VI	Excluded participants who were US born.	Face to face interviews	CC risk factor knowledge: 79% for increase partners 41% cigarette smoke exposure 55% birth control Attitudes and beliefs 78.4% would get pap smear if encouraged by family/friends Screening rates 18.2% received information from HCP	-Results suggest more education is needed -Further research needed to address disparities
Gor, B., Chilton, J., Camingue, P., & Hajek, R. (2011). Young Asian Americans' knowledge and perceptions of cervical cancer and the human papillomavirus. <i>Journal of Immigrant & Minority Health</i> , 13(1), 81–86. https://doi-org.ezproxy.mnsu.edu/10.1007/s10903-010-9343-	To collect information about knowledge, perceptions, and sources of information regarding pap smear, cervical cancer, and human papillomavirus	Korean, Vietnamese, and Filipino women/ men 18-29yrs old. 28 females and 24 males	Qualitative study; Focus group Level VI	Participants received \$20 gift card for participation	Focus group and interviews on cervical cancer, HPV, and pap smear	Pap smear rate 13% for Korean 10% Vietnamese females, 70% for Filipinos Heard of HPV: 38% Korean, 50% Vietnamese, 90% Filipino Heard of CC: 63% Korean, 100% Vietnamese, 90% Filipinos Heard of Pap Test: 38% Korean, 80% Vietnamese, 90% Filipino	-More information needed in this population -Differences within the 3 ethnic groups -Young AA interested in learning about HPV and CC, but still hold conservation values about sexually related topics -Participant willing to act on information following focus group sessions

Citation (Include the citation of all studies that met inclusion criteria from Table 3 above)	Study Purpose	Pop (N)/ Sample Size (n) /Setting(s)	Design/ Level of Evidence	Variables/ Instruments	Intervention	Findings	Implications
Han, H. R., Kim, K., Cudjoe, J., & Kim, M. T. (2019). Familiarity, navigation, and comprehension: Key dimensions of health literacy in pap test use among Korean American women. <i>Journal of Health Communication, 24</i> (6), 585–591. https://doi-org.ezproxy.mnsu.edu/10.1080/10810730.2019.1607955	Examine role of health literacy in cervical cancer screening in Korean American women	560 foreign born Korean American women 26-65 yrs.	Cross-sectional study/ level VI	5-point Likert scale, Assessment of health Literacy in Cancer Screening	Questionnaire	15.7% reported Pap test recommendation from HCP in last 2 years 38% had health insurance 23% spoke fluent English 48% report lifetime Pap test 25.4% report triennial pap test	-Low health literacy in cancer screening -English proficiency a factor in health literacy -Screening associated with income comfortability -provider recommendation also a factor
Jun, J., & Nan, X. (2018). Determinants of cancer screening disparities among Asian Americans: A systematic review of public health surveys. <i>Journal of Cancer Education, 33</i> (4), 757–768. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-017-1211-x	Identify factors associated with lack of cancer screening in AA to assist cancer screening promotion and awareness in the population	24 articles included	Systematic Review/ Level V	Abstracts and full text articles selected	Review of articles	CC screening rates for AA was 64% Foreign born AA rates lower than US born Duration of residence, English fluency, and US citizenship + association with CC screening Healthcare access strong predictor Health literacy + association for CC screening	-AA cancer literature is still insufficient compared to other groups -Social economic status was limited as factor for low screening -Acculturation and healthcare access two most prominent factors -study suggest individual and cultural factors needs to be investigated to better understand AA cancer screenings
Kue, J., Zukoski, A., Keon, K. L., & Thorburn, S. (2014). Breast and cervical cancer screening: exploring perceptions and barriers with Hmong women and men in Oregon. <i>Ethnicity & health, 19</i> (3), 311–327. https://doi-org.ezproxy.mnsu.edu/10.1080/13557858.2013.776013	To present exploratory findings on following research questions (1) What are Hmong women and men’s perceptions of breast and cervical cancer?; (2) What are Hmong women and men’s perceptions of	Hmong women N=83 (44 women, 39 men)	Qualitative study	Limited to Hmong population in Oregon	Interviews	Women 40+ reported having pap test 90% Women 18-39 reported having pap at some point in their lives 80% Greater concern with cervical cancer, effects on reproduction, difficulty detecting Positive aspects of pap test, but expressed concerns about pain, comfort, embarrassment with test. Older women discuss embarrassment and being modest about exposing body.	-Study provides insight into perception, experience, and barriers to CC screening in Hmong women. -helps to address intervention needs to address certain barriers.

Citation (Include the citation of all studies that met inclusion criteria from Table 3 above)	Study Purpose	Pop (N)/ Sample Size (n) /Setting(s)	Design/ Level of Evidence	Variables/ Instruments	Intervention	Findings	Implications
	CBEs, mammograms, and Pap tests?; (3) What are Hmong women's experiences with breast and cervical cancer screening?; and (4) What health care system factors pose barriers to breast and cervical cancer screening for Hmong women?					Small portion report never being screened. Reason include asymptomatic, no family history, not having HCP recommendation, not pregnant, having hysterectomy, not wanting to get screening. Health systems barriers include insurance coverage, language, and appt conflicts. Older women had concern with language, lack of insurance, access to medical office. Younger women reported lack of insurance and scheduling as barriers.	
Lee, H.Y., Yang, P. N., Lee, D. K., & Ghebre, R. (2015). Cervical cancer screening behavior among Hmong-American immigrant women. <i>American Journal of Health Behavior</i> , 39(3), 301–307. https://doi-org.ezproxy.mnsu.edu/10.5993/AJHB.39.3.2	Investigate Hmong American women's utilization of cervical cancer screening	164 Hmong-American women 21-65 years of age (40yrs +) N=22 (18-39yr) N=85	Cross-sectional survey/ Level VI	\$5 compensation provided	Face to face survey for 40+, Questionnaire for 18-39 group	Socioeconomic factors 10% never had formal education 57.7% graduated middle/high school 32.3% college/graduate school CC screening rates 75% had CC screening at least once in lifetime Pap in last 3 years 71.5% (21-39yr); 45.4% (40-59), 40% (60+)	-Screening rates are higher but still not meeting Healthy people objective of 93% -modest and fatalism significant factors with Pap test
Tung, W.C., Lu, M., Granner, M., & Sohn, J. (2017). Assessing perceived benefits/barriers and self-efficacy for cervical cancer screening among Korean American women. <i>Health Care for Women International</i> , 38(9), 945–955. https://doi-org.ezproxy.mnsu.edu/10.1080/07399332.2017.1326495	Provide an understanding of factors associated with Pap smear testing among Korean American women to help develop effective	21-65year old Korean American women N=102	Cross-sectional survey	Benefits/Barrier Scale 7-item self-efficacy scale 4question algorithm on pap screening behaviors	Survey questionnaire	Had pap in past or never had pap and did not intend to have test in 6 mo 24.5%, N=25 No previous pap, intend to have in next 6 mo; 17.7%, n=18 Pap in the past year or had regular pap and will continue; 57.8%, n=59	-low literacy rate associated with pap test behavior -lack of preventative health orientation -barriers identified include financial concerns, lack of female doctors, preference for traditional Korean medicine -self efficacy concerns include distance to screening, painful nature of test, cost, time to perform, appt conflict

Citation (Include the citation of all studies that met inclusion criteria from Table 3 above)	Study Purpose	Pop (N)/ Sample Size (n) /Setting(s)	Design/ Level of Evidence	Variables/ Instruments	Intervention	Findings	Implications
	intervention and close gap.						-Intervention should be aimed to address health literacy
Tung, W. C., Lu, M., & Granner, M. (2017a). Perceived benefits and barriers of cervical cancer screening among Chinese American women. <i>Oncology Nursing Forum</i> , 44(2), 247–254. https://doi-org.ezproxy.mnsu.edu/10.1188/17.ONF.247-254	Explore perceived benefits and barriers to cervical cancer screening in Chinese American women.	Chinese women age 21-65 years N=121	Cross-sectional design with self-report surveys/ Level VI	Snowball sampling technique used Benefits/barrier scale Cervical cancer Screening Stage Questionnaire	Survey questionnaire	Association with stages and perceived benefits. Barriers were feeling worry about pap, pap too expensive, not knowing where to go, partner’s negative attitude towards screening, fear of results, preference for traditional Chinese medicine	-cultural sensitivity intervention needed -need to increase provider’s cultural understanding of Chinese conception on health and illness -free or low-cost screening services could address issue -perceived fewer benefits and more barriers in stage
Yoo, G. J., Le, M. N., Vong, S., Lagman, R., & Lam, A. G. (2011). Cervical cancer screening: attitudes and behaviors of young Asian American women. <i>Journal of Cancer Education</i> , 26(4), 740–746. https://doi-org.ezproxy.mnsu.edu/10.1007/s13187-011-0230-2	Investigate and understand differences in cervical cancer screening behavior of young Asian American women.	College aged Korean, Vietnamese, and Filipino American women N=304	Exploratory analysis	Population limited to San Francisco Bay Area. Participant received \$10 movie ticket. 17-item instrument	Survey on knowledge and beliefs about HPV and CC risk factors	For every 1 yr increase in age, odds of having pap test increased Vietnamese and Filipino American women 18-28 had higher odds of having pap test than Korean older AA had higher odds of being screened HPV and CC knowledge not significant compared to past studies	- Ethnicity, age, birthplace, and comfort were all + factors that affects odds of someone getting screened -interventions should focus on subgroups

(AAPI= Asian American Pacific Islander; AA= Asian American; HCP= Health care provider; CC= Cervical cancer, HPV= Human papillomavirus)