

Effect of healthcare access and healthcare provider status on recommendation for Pap test among Korean American women in Alameda and Santa Clara Counties, California

Young Bok Kim

Department of Health Administration, College of Health Science, Seonam University

CONTENTS

I. Introduction	IV. Discussion
II. Methods	V. Conclusion
III. Results	References
	Abstract

I. Introduction

Pap test has become common screening test to detect pre-invasive lesions of cervix. Cervical cancer can be detected at an early stage by Pap test, and early detection can be contributed to reduce the mortality. The recommendation for regular Pap test in the past 3 years as a cue to action has affected on an increased likelihood of receiving a cervical cancer screening in that period.

Although incidence and mortality rates for cervical cancer have declined in the past

several decades in American women, 11,150 new cases of invasive cervical cancer and 3,670 deaths from cervical cancer were predicted to be occurred in 2007 (American Cancer Society, 2007). According to Cancer data, 2001 to 2003, the probability of developing invasive cancer for cervix was 0.16% among less than 40 years of age, whereas it increased to 0.29% among aged 40 to aged 59 (American Cancer Society, 2007). In fortunately, with 5-year relative survival for cervical cancer, it is one of the most successfully treated cancers (American

Corresponding Author: Young-Bok Kim

720 Gwangchi-dong, Namwon-city, Cheonbuk, Korea

Tel: +82-63-620-0120, E-mail: healthkyb@empal.com

Article submitted 15 December 2008, Revised 15 January 2009, Approved 20 December, 2008

Cancer Society, 2007).

In case of APIAs (Asian and Pacific Islander Americans), they had lower incidence rates of the most common cancers than other ethnic groups. But it showed higher incidence rates of cancers related to infection (American Cancer Society, 2006). Korean American women in the U.S. showed that the incidence rate for cervical cancer was 15 per 100,000 (NIH, 2006). Cervical cancer occurred highly to Korean American women in the U.S. as well as Korean women in original country. Despite it is common disease, Korean American women were less likely to get a cervical cancer screening compared to other ethnic groups in the U.S. (American Cancer Society, 2007; Sohn & Harada, 2005). To improve the screening rate, it is important to find the predictor of cervical cancer screening behavior among Korean American women.

According to the results of Korean American Health Survey 1997, the ethnicity of healthcare provider was associated with an increased likelihood of receiving a cervical cancer screening in the past 2 years among Korean American women in two California Counties. For example, having a non-Korean doctor as regular healthcare source was likely to increase the rate of getting a Pap test compared to having a Korean doctor (Lew et. al, 2003). However, it did not imply the association between physician recommendation and participation on cervical cancer screening.

Even though there were a few studies for the relationship between recommendation of healthcare providers and cervical cancer screening, it showed that physician recommendation was one of strong factors to affect on getting a Pap test (Coughlin et al., 2005; Juon et al., 2003; Talyor et al., 2002; 1999). Among minority groups, it was important to serve appropriate healthcare using their language by same ethnic doctor, because culturally adequate communication between doctors and their patient could be reduce to barriers for getting a cancer screening test (McPhee, et al., 1997). On the contrary, Korean American women were less likely to receive a Pap test by Korean doctors (Lew et. al, 2003). Although some prior studies showed that physician recommendation was important predictor of cancer screening test among minority groups, we found out few study for Korean American women.

Therefore, this study performed to estimate the association with healthcare access, healthcare provider status, and physician recommendation for Pap test in the past 3 years among Korean American women in Alameda and Santa Clara Counties, California. It was to find out the effect of health insurance coverage, visiting number to doctor in the past year, and ethnicity of healthcare provider on recommendation for cervical cancer screening. To evaluate the association with healthcare access, healthcare

provider status, and recommendation for Pap test among Korean American women in two California Counties would contribute to our understanding of developing strategies to improve adherence of Pap test and promote their health status and quality of life among Korean American women in the U.S.

II. Method

This study performed to reanalyze with the data of the Korean Health Survey using population-based telephone survey, 2002. The Korean Health Survey was conducted in June of 2002 with Korean American women who resided in Alameda and Santa Clara Counties, California (Lee, et al., 2006). The sampling method was based the Korean surname through the telephone lists purchased from Genesys Sampling Systems and Four Winds Research Corporation (Lew et al., 2001). Telephone interviews were conducted in Korean and in English by bilingual Korean Americans. Within each Korean American household reached, one adult aged 21 years and over was randomly sampled for the interviews in 2002.

Eligible population was 1,181 through our telephone survey, and responding rate was 74.2% (n=876). 865 of them were more than 20 years of age (Alameda: 413, Santa Clara: 452). For some analyses, sample sizes were

slightly smaller because "don't know/not sure" and "refused" responses were excluded. Finally, we used the data of 772 women except them who had performed hysterectomy in their lifetime.

The questionnaire items used in this study were adapted from the 1993 California Behavioral Risk Factor Surveys. It was similar with the questionnaires of Korean Health Survey 1994 and 1997. The questionnaires assessed socio-demographic characteristics, acculturation, health status, health care access, health care provider status, and physician recommendation for regular Pap test.

Socio-demographic factors in our analysis were age (aged 21-34, aged 35-49, aged 50-64, aged 65 plus), educational level (<bachelor, ≥bachelor), employment status (employed, not employed), and marital status (married, not married). The employed category included self-employ and employed, and unemployed which implied homemakers, retired, ill or disabled persons as well as unemployed. Acculturation was assessed through English proficiency (fluent, not fluent) and length of time in the U.S. for immigrants or the U.S. born (<10years, ≥ 10years).

Health need estimated with self reported health status (excellent/good, fair/poor). Healthcare access was consisted of health insurance coverage and visiting numbers to doctor in the past year. Healthcare provider

Table 1. General Characteristics¹ (n=865)

Characteristics		N (%)
Age (n=865)	Aged 21-34	180 (20.8)
	Aged 35-49	271 (31.3)
	Aged 50-64	259 (30.0)
	Aged 65 or plus	155 (17.9)
Educational Level (n=865)	Less than Bachelor	402 (46.5)
	Bachelor plus	463 (53.5)
Employment Status (n=865)	Not employed	516 (59.7)
	Employed	349 (40.3)
Marital Status (n=865)	Not Married	202 (23.4)
	Married	663 (76.6)
English Proficiency (n=864)	Not fluent	698 (80.8)
	Fluent	166 (19.2)
Time in the U.S. (n=865)	Less than 10 years	228 (26.4)
	10 years plus	637 (73.6)
Health status (n=865)	Fair/poor	447 (51.7)
	Excellent/good	418 (48.3)
Health insurance coverage (n=821)	None	152 (18.5)
	Public insurance	149 (18.2)
	Private insurance	520 (63.3)
Visits number to doctor in the past year (n=865)	None	97 (11.2)
	1 - 3	339 (39.2)
	4 plus	429 (49.6)
Health care provider status (n=862)	Non-regular provider	157 (18.2)
	Male*Only Korean	329 (38.2)
	Male*Non-Korean	148 (17.2)
	Male*Both ethnics	46 (5.3)
	Female*Non-Korean	37 (4.3)
	Both sex*Only Korean	39 (4.5)
	Both sex*Non-Korean	67 (7.8)
	Both sex*Both ethnics	39 (4.5)
History of hysterectomy (n=852)	None	772 (90.6)
	Having/Refused	80 (9.4)

¹ All frequencies and percentages were calculated by real observation number.

status meant gender (male, female, both gender) and ethnics which were assessed as Korean, non-Korean, and both of them.

Sample weights were constructed to adjust for the probability of respondent selection and the samples were weighted to reflect the sex and age distributions of Korean Americans in Alameda and Santa Clara Counties from the U.S. Census in 2000.

Multiple logistic regression analysis was used to estimate predictors for physician recommendation for Pap test. To control for confounding, we performed to adjust all variables of socio-demographic factors and healthcare access in the logistic model. Also we used Hosmer and Lemeshow Goodness-of-Fit test for estimated stability of our models by SAS 8.2.

III. Results

Socio-Demographic Characteristics & Acculturation

The socio-demographic characteristics of the population of Korean Americans in Alameda and Santa Clara Counties, 2002 were showed in Table 1. The age distributions were 31.3% between aged 35 and 64 years of age, and there was 53.5% with bachelor degree. 40.3% of them were employed who implied self-employed, and 23.4% was not married. In the respondents, there was only 19.2% who spoke English well. The U.S. born and immigrants lived in the U.S. greater than 10 years were 73.6%.

48.3% of the respondents replied for good or excellent health. In healthcare access, non-health insurance coverage was 18.5%, and women who had never visited to doctor in the past year were 11.2%. Also 18.3% of them did not have one usual source to healthcare. The healthcare provider status was showed that Korean American women in two California Counties preferred to male doctor (n=523) for doctor gender and only Korean doctor for doctor ethnics (n=368).

Table 2. Physician recommendation for Pap test in the past 3 years (except hysterectomy, ≥ 21 yrs, n=772)

Classification		Estimated n ¹	Estimated % ¹	Weighted % ²
Received physician recommendation	≤ 3 years	296	38.3	37.9
	Never	476	61.7	62.1

¹ All frequencies and percentages were calculated by real observation number.

² All percentages weighted to account for different selection probabilities and the age and sex distribution of the 2000 Census Korean population in Alameda and Santa Clara Counties.

Table 3. Predictors of physician recommendation for Pap test in the past 3 years among Korean American women in Alameda and Santa Clara Counties¹

Characteristics	Recommendation for Pap test (≤ 3 yrs)	
	Odds Ratio	95% CI
Age	Aged 21-34	1.00 (reference)
	Aged 35-49	1.44 (0.95-2.19)
	Aged 50-64	1.37 (0.78-2.43)
	Aged 65 or plus	0.89 (0.38-2.11)
Educational level	Less than Bachelor	1.00 (reference)
	Bachelor plus	1.45 (0.99-2.11)
Employment Status	Not employed	1.00 (reference)
	Employed	1.05 (0.73-1.50)
Marital Status	Not Married	1.00 (reference)
	Married	1.25 (0.81-1.94)
English Proficiency	Not fluent	1.00 (reference)
	Fluent	0.67 (0.39-1.15)
Time in the U.S.	Less than 10 years	1.00 (reference)
	10 years plus	1.01 (0.68-1.50)
Health status	Fair/poor	1.00 (reference)
	Excellent/good	0.99 (0.72-1.36)
Health insurance Coverage	None	1.00 (reference)
	Public insurance	2.24 (1.00-5.01)
	Private insurance	2.05 (1.30-3.24)
Number of visits to doctor in the past year	None	1.00 (reference)
	1 - 3	1.87 (0.97-3.59)
	4 plus	2.35 (1.21-4.57)
Health care provider status	Non-regular provider	1.00 (reference)
	Male*Only Korean	2.19 (1.30-3.68)
	Male*Non-Korean	2.07 (1.15-3.71)
	Male*Both ethnics	1.30 (0.58-2.91)
	Female*Non-Korean	6.21 (2.63-14.66)
	Both sex*Only Korean	1.69 (0.69-4.13)
	Both sex*Non-Korean	2.28 (1.13-4.59)
Both sex*Both ethnics	1.21 (0.48-3.06)	
Goodness-of-fitness		$\chi^2=7.693$ ($p=0.464$)

¹ All data weighted to account for different selection probabilities and the age and sex distribution of the 2000 Census Korean population in Alameda and Santa Clara Counties.

Predictors of recommendation for Pap test

There was only 37.9% who received physician recommendation for Pap test in the past 3 years among our respondents having no experience of hysterectomy (See Table 2).

The predictors on physician recommendation for Pap test in the past 3 years were health insurance coverage, visiting number to doctor in the past year, and healthcare provider status (See Table 3). The women who had health insurance received the more physician recommendation for Pap test. Compared to private health insurance (OR=2.05, 95% CI=1.30, 3.24), the respondents who had public health insurance (Medicare & MediCal) were more likely to get that (OR=2.24, 95% CI=1.00, 5.01). Also those who visited to doctor in the past year more than 4 times had an increased likelihood of having a physician recommendation for Pap test (OR=2.35, 95% CI=1.21, 4.57).

For gender of healthcare provider, the women were more likely to get the recommendation from female doctors who were non-Korean doctor (OR=6.21, 95% CI=2.63, 14.66). As they had just non-Korean female doctors, it could not compare with the matrix of gender and ethnicity.

Particularly, for doctor ethnicity, no matter who was male or female, non-Korean doctors were more likely to recommend a

Pap test to their patient. Korean male doctor was significant predictor on physician recommendation for that (OR=2.19, 95% CI=1.30, 3.68), whereas both of ethnics who were Korean or non-Korean doctors were not significant.

IV. Discussion

Cancer mortality has remained a major health problem in APIAs communities until now. So it is important to understand for cancer screening behavior and to encourage screening rates among APIAs women. To improve cancer screening rate, it is important to estimate the predictors and vulnerable group for Pap test. Previous studies have showed the predictors of Pap test such as, age, educational level, marital status, acculturation, healthcare access, provider status, and so on (American Cancer Society, 2006, 2007; APIAHF, 2006; Blackman et al., 1994; Lew, et al, 2003; Sohn & Harada, 2005, etc.).

In recent, physician recommendation has issued in cancer screening part (Coughlin et al., 2005; Gulitz et al., 1998; Hawley et al., 2000; May et al, 1999). For Mammography, some previous studies suggested that physician recommendation affected on repeating cancer screening (Gulitz et al., 1998; Hawley et al., 2000; May et al, 1999).

In a study on physician recommendation for getting a Pap test, 86.7% of U.S. women who did not receive a Pap test in the last year responded that they had no recommendation for Pap test from their doctors in the past year (Coughlin et al., 2005). That is, if women fail to take useful information about regular Pap test from their valuable person, such as healthcare provider, they could not catch a chance to participate on cervical cancer screening in guideline. Considered relationship between physician recommendation and having a Pap test, we guessed that physician recommendation affected on screening rate for Pap test.

Although, in our results, 37.9% of Korean American women in two California Counties had physician recommendation in the past 3 years, it was not enough. Receiving a Pap test every 3 years is provided as guideline to early detect cervical cancer in the U.S. Nevertheless, Korean American women were less likely to get a cervical cancer screening compared to other ethnic groups in the U.S. (American Cancer Society, 2007; Sohn & Harada, 2005). It seemed likely to lack efforts to recommend a Pap test for Korean American women. Strategies to promote screening rate for Pap test was associated with exposure of cue to action with medical personnel.

A study based 2000 National Health Interview Survey provided predictors for

physician recommendation for Pap test with age, time in the U.S., and visit to doctor (Coughlin et al., 2005). Women who were 30 to 64 years of age, born in the U.S., or visited to doctor in the past year were more likely to get a physician recommendation for Pap test. These results showed that visiting number to doctor in the past year was the most important predictor of getting a doctor recommendation.

On the contrary, in this study, predictors of physician recommendation for Pap test in the past 3 years were health insurance coverage, visiting number to doctor in the past year, and healthcare provider status. Age and time in the U.S. were not significant. It seems to be not associated with demographic factors, acculturation, and physician recommendation for Pap test among Korean American women, whereas healthcare access looks like strong factor to catch a chance getting the recommendation from their regular healthcare source.

For healthcare access, no matter who had enrolled in public or private health insurances, the women who had health insurance coverage were more likely to get the recommendation for Pap test from their regular healthcare provider. Regarded association between uninsured and physician recommendation, women who had not covered any type of health insurance were less likely to contact to doctor. Also

uninsured Korean women could not use health service of large deductibles or preventive services.

In this study, women who visited to doctor more than 3 times in the past year were more likely to get a recommendation from their doctor. It means that contacting with their healthcare provider makes a chance to exposure of physician recommendation for regular Pap test, so women got physician recommendation is able to participate much more on Pap test. It can lead to suggestion that physician recommendation is not only initiative but also facilitator for having a Pap test.

For healthcare provider status, it was one of predictors on physician recommendation for Pap test in our results. Healthcare provider status was classified with one usual source, doctor gender, and doctor ethnicity. In case of both of sex (16.8%) or both of ethnics (9.9%), it was due to consideration for medical site as regular source to healthcare. Compared with healthcare provider status, Korean male doctors were more likely to recommend a Pap test in guideline. On the contrary, women who had a non-Korean doctor were more likely to get a physician recommendation for Pap test.

Physician recommendation is important to serve culturally appropriate communication among minority groups, whereas some women worry about receiving a Pap test

from same ethnic male doctors (Lee, 2000). In previous studies, having a doctor of same ethnicity, it can lead to lower rate of cervical cancer screening, and Korean American women who have a non-Korean doctor had more high screening rates of cervical and breast cancer screenings than those who had a Korean doctor (Lew et. al, 2003; McPhee, et al., 1997).

Although Korean doctor was large proportion of regular healthcare resource among Korean American women in two California Counties, they could not make efforts to encourage having a Pap test in guideline. For reasons, first, it seemed that Korean doctor was not accustomed to giving a recommendation for Pap test because it had not been popular in original country until starting the National cancer screening program, 1999. Second, they would have avoided discomforts that their patient did not like to pay large deductibles or extra charges for preventive services. Third, it can suggest association with patient characteristics of Korean doctors. Compared to other gender and ethnics groups, Korean male doctors were more likely to have patients who had history of hysterectomy (50%) than other ethnicity among our respondents. The other hands, only 20% of women who had history of hysterectomy had non-Korean doctors.

Above all, we suggest that ethnicity of healthcare providers and healthcare access

may be related to receive recommendation for Pap test among Korean American women. Even though our respondents were more likely to get a recommendation for Pap test from non-Korean doctor, they seemed to prefer same ethnic doctor as regular healthcare source. Therefore, we need to collect much more cases for healthcare provider status because our results are excluded analysis for female Korean doctor. Also we need to define exactly the Pap test in future survey, because sometimes respondents may confuse screening method between Pap test and pelvic examination.

This study has several limitations which may affect the interpretation of results. First, we used secondary data with the sampling frame consisted of telephone numbers with Korean surnames in telephone directory lists. Korean women who married non-Koreans and changed their surnames were excluded from the sample. Second, the subject of this study was limited Korean American women in two Counties, California. So our results will not be generalized. Third, we combined the healthcare provider status with one usual source to healthcare, doctor gender, and doctor ethnicity. It excluded the confirmation which it was provide physician recommendation by same doctor or medical site, or which they had changed medical source within the last 3 years.

V. Conclusion

Korean women in two California Counties were 37.9% who received physician recommendation for Pap test in the past 3 years. The predictors of physician recommendation for Pap test in the past 3 years were health insurance coverage, visiting number to doctor in the past year, and healthcare provider status. For healthcare provider status, the women were more likely to get a recommendation for Pap test from non-Korean doctors. It showed that physician recommendation was related to healthcare access, and Korean American women in two California Counties were less likely to get physician recommendation for Pap test from doctors of same ethnicity than others.

Physician recommendation for regular Pap test was important factor for receiving cervical cancer screening. To encourage adherence of Pap test, it is necessary to expand opportunities for promoting coverage of health insurance, contacting with doctors, and getting a recommendation for cervical cancer screening. So detection at an early stage for cervical cancer without symptoms would induce to decrease morbidity and mortality of cervical cancer.

Therefore, to improve screening rate, it needs to increase getting a recommendation for cervical cancer screening through

promoting enrollment of health insurance and having regular healthcare source. Particularly, some incentives would be developed for Korean doctors to recommend regular Pap test to their patient. It helps to communicate smoothly and reduce misinformation about preventive healthcare and health promotion due to fluent English among Korean American women not born in the U.S.

Reference

1. American Cancer Society. 2007. Cancer Facts & Figures. Atlanta, GA: American Cancer Society.
2. American Cancer Society. 2006. Cancer Prevention & Early Detection Facts & Figures. Atlanta, GA: American Cancer Society.
3. Asian and Pacific Islander American Health Forum (APIAHF). 2006. Health Brief: Koreans in the United States. (Available to URL: <http://www.apiahf.org/resources>)
4. Asian and Pacific Islander American Health Forum (APIAHF). 2005. Diverse communities, diverse experiences. (Available at URL: [http://www.apiahf.org/resources/pdf/Diverse %20Communities%29Diverse%20Experiences.pdf](http://www.apiahf.org/resources/pdf/Diverse%20Communities%29Diverse%20Experiences.pdf))
5. Blackman D., Bennett E.M., Miller D.S.. 1999. Trends in self-reported use of mammograms (1989-1997) and Papanicolaou tests (1991-1997)- Behavioral Risk Factor Surveillance System. MMWR CDC Surveill Summ 48(no.SS-6):1-21.
6. Campbell, P.S. 1994. Population projections for states, by age, sex, race, and Hispanic origin: 1993-2020. In: U.S. Bureau of the Census. Current population reports. Washington DC: U.S. Govt. Printing Office, pp. 5-11.
7. Coughlin, S.S., Breslau, E.S., Thompson, T., Benard, V.B. 2005. Physician recommendation for Papanicolaou Testing Among U.S. women, 2000. Cancer Epidemiol Biomarkers Prev 14(5):1143-8.
8. Gulitz, E., Bustillo-Hernandez, M., Kent, E.B. 1998. Missed cancer screening opportunities among older women-a previous survey. Cancer Pract 6:325-32.
9. Han, E., Song, H., Kim, S.H.. 1996. Doctors visits among Korean Americans in Los Angeles County. Asian American and Pacific Islander Journal of Health 4:1-3.
10. Hawley, S.T., Earp, J.A., O'Malley, M., et al. 2000. The role of physician recommendation in women's mammography use. Med Care 38:392-403.
11. Juon, H.S., Lee C S., Klassen A.C. 2003. Predictors of regular Pap smears among Korean-American women. Pre Med 37:585-92.

12. Lee, M.C.. 2000. Knowledge, barriers, and motivators related to cervical cancer screening among Korean-American women. *Cancer Nurs* 23(3):168-175.
13. Lew, A.A., Moskowitz, J.M., Ngo, L., Wismer, B.A., Wong, J.M., Ahn, Y., Tager, I.B.. 2003. Effect of provider status on preventive screening among Korean-American women in Alameda County, California. *Prev Med* 36:141-9.
14. Lin, M.K., Kazinets, G., Ivey, S., Moskowitz, J.M. 2006. The health of Asian Pacific Islander American adults in California: 2001 and 2003. Berkeley: Center for Family and Community Health, University of California at Berkeley. (Available at URL: http://cfch.berkeley.edu/reports/reports.html/APIA_health_2001-03.pdf)
15. May, D.S., Kiefe, C.I., Funkhouser, E., et al. 1999. Compliance with mammography guidelines: physician recommendation and patient adherence. *Prev Med* 28:386-94.
16. Maxwell, A.E., et al. 2000. Demographic predictors of cancer screening among Filipino and Korean immigrants in the United States. *Am J Pre Med* 18:62-8.
17. McPhee, S.J., Bird, J.A., Davis, T., Ha, N.T. Jenkins, C.N., Le, B. 1997. Barriers to breast and cervical cancer screening among Vietnamese-American women. *Am J Prev Med* 13:205-13.
18. National Center for Chronic Disease Prevention and Health Promotion. 2006. 2002 Behavioral Risk Factor Surveillance System. (Available at URL: <http://www.cdc.gov/brfss/index.htm>)
19. Sohn, L. & Harada, N.D.. 2005. Knowledge and use of preventive health practices among Korean women in Los Angeles County. *Prev Med* 41(1):167-178.
20. United States Census Bureau. 2006. 2004 State & County Quickfacts. (Available at URL: <http://quickfacts.census.gov/qfd/states/06000.html>)
21. Talyor, V.M., Jackson, J.C., Tu, S.P. et al. 2002. Cervical cancer screening among Chinese Americans. *Cancer Detect Prev* 26:139-45.
22. Talyor, V.M., Schwartz, M.S., Jackson, J.C., Kuniyuki, A., Fischer, M., Yasui, Y., Tu, S., Thompson, B. 1999. Cervical cancer screening among Cambodian-American women. *Cancer Epidemiology, Biomarker & Prevention* 8:541-6.
23. Yi K.. 1998. Acculturation and Pap smear screening practices among college-aged Vietnamese women in the United States. *Cancer Nursing* 21(5):34-51.

ABSTRACT

Purpose: Recommendation for regular Pap test in the past 3 years as a cue to action affects on an increased likelihood of receiving a cervical cancer screening in that period. This study performed to estimate the association with healthcare access, healthcare provider status, and physician recommendation for Pap test in the past 3 years among Korean American women.

Method: Korean Health survey was carried out in 2002. These population-based telephone surveys were conducted with Korean American women who resided in Alameda and Santa Clara Counties, California (n=865). We performed multiple logistic regression analyses to estimate predictors of physician recommendation for Pap test by SAS 8.2.

Results: Korean women in two California Counties were 37.9% who received physician recommendation for Pap test in the past 3 years. The predictors on physician recommendation for Pap test in the past 3 years were health insurance coverage, visiting number to doctor in the past year, and healthcare provider status. For healthcare access, no matter who had enrolled in public or private health insurances, the women were more likely to get the recommendation for Pap test from their regular healthcare provider. Particularly, for ethnicity of healthcare provider, the women were more likely to get the recommendation for Pap test from non-Korean female doctors (OR=6.21, 95% CI=2.63, 14.66), Korean male doctors (OR=2.19, 95% CI=1.30, 3.68), and non-Korean male doctors (OR=2.07, 95% CI=1.15, 3.71).

Conclusion: (상제) Effect of healthcare access and healthcare provider status on recommendation for Pap test among Korean American women in two California Counties would contribute to our understanding of developing strategies to promote adherence of Pap test and reduce morbidity and mortality for cervical cancer among Korean American women in the U.S.

Key Words: Pap test, Physician recommendation, Korean American women, Women health

〈국문초록〉

미국 캘리포니아주에 거주하는 한인여성들의 자궁경부암 수검권고에 영향을 미치는 보건의료 접근성 및 보건의료인의 특성 분석

연구목적: 3년마다 정기적인 자궁경부암 조기검진을 받도록 권고하고 있는 수검권고안은 검진행동 유발요인으로써 자궁경부암 검진참여의 가능성을 증진시키는 주요 영향요인으로 작용하고 있다. 본 연구는보건의료 접근성과 보건의료인의 특성이 자궁경부암 조기검진 수검권고에 미치는 영향을 살펴보고자 시도되었다.

연구방법: 본 연구에서 재분석된 한인여성 건강조사자료는 미국 캘리포니아주 알라메다와 산타클라라 카운티에 거주하는 한인여성 865명을 대상으로 2002년에 전화설문조사로 수행되었다. 수검권고안에 영향을 미치는 주요 예측인자를 살펴보기 위해 로지스틱 회귀분석을 수행하였다.

연구결과: 조사대상자 중 37.9%만이 지난 3년간 자궁경부암 조기검진 참여에 관한 수검권고를 받은 것으로 나타났다. 수검권고의 주요 예측인자는 건강보험 가입여부, 지난 1년간의 의사방문횟수, 정기적으로 방문하는 보건의료인의 특성인 것으로 나타났다. 또한 보건의료 접근성에서는 공공의료보험 또는 사보험 여부와 관계없이 건강보험에 가입한 여성들이 수검권고를 더 많이 받은 것으로 나타났다. 특히 보건의료인의 특성 중 인종과의 관련성을 살펴보면, 한인이 아닌 타 인종의 여성 의사로부터 가장 많이 검진참여에 관한 수검권고를 받았고(OR=6.21, 95% CI=2.63, 14.66), 다음으로 한인 남성 의사(OR=2.19, 95% CI=1.30, 3.68), 비한인 남성 의사로부터 수검권고를 많이 받았다(OR=2.07, 95% CI=1.15, 3.71).

결론: 캘리포니아주의 2개 카운티에서 거주하는 한인여성을 대상으로 보건의료 접근성과 보건의료인의 특성이 자궁경부암 조기검진 수검권고에 미치는 영향을 분석한 결과, 한인여성들의 건강보험 가입여부 및 의사방문 수준, 보건의료인의 인종이 수검권고와 관련이 있는 것으로 나타났다. 이는 한인여성들의 자궁경부암 조기검진 수검률 향상 및 자궁경부암 이환률과 사망률을 감소시키기 위한 수행전략 개발에 중요한 기초자료로 활용될 수 있다.

주제어: 자궁경부암 조기검진, 보건의료인의 수검권고, 한인 여성, 여성건강