Cervix cancer screening among Greek and immigrant women: the experience of a Greek District Hospital

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Summary

Purpose: To explore whether there are differences in Papanicolaou (Pap) smear screening between native and immigrant women that attended our outpatient clinic.

Methods: In this retrospective study, from January 2002 until December 2003 we examined age, nationality, marital status, economic status (self-reported family income per year) and previous Pap test screening frequency; 3,316 women were included in the study.

Results: The average age was 41.95 years. The majority of the women who had had a Pap test (58.4%) were Greeks and 41.6% immigrants. Regarding marital status a percentage of 61.2% were married, 13.7% were single and 24.9% were divorced. Regarding economic status 71.0% of the women had a low-income, 25.1% a middle-income and 3.8% a high-income. Of the women 24.99% had never had a Pap test in their lives.

Discussion/Conclusion: The possibility of having easy access to a clinic and to routine health care has a critical influence on the cancer screening habits of immigrant women. Opportunistic Pap smear screening as part of a pregnancy or family-planning checkup in local clinics is an acceptable strategy for poor immigrant women.

Key words: Cervix cancer screening; Greeks; Immigrants.

Introduction

Cervical screening in the form of a Papanicolaou (Pap) smear provides the key to early detection and improved survival chances from cervical cancer [1]. When pre-invasive cervical intraepithelial neoplasia is identified and treated, development of invasive cervical cancer can be avoided. Cervical screening has been clearly associated with reducing the incidence of, and mortality from cervical cancer, particularly when it is provided in an organised rather than opportunistic manner. Since introduction of cytological screening for cervical cancer using the Pap test in the 1950s, the incidence of invasive cervical cancer in the United States has fallen more than 100% [2]. No other cancer-screening program has been more successful. This fall occurred despite an increase in risk factors for cervical cancer, such as younger age at initiation of sexual intercourse, more sexual partners in a lifetime, and greater prevalence of human papilloma virus (HPV) infection and cigarette smoking.

Racial/ethnic disparities in cancer outcomes are often attributed to a more advanced stage of disease at diagnosis among minorities [3]. Differences in the stage of the cancer at diagnosis are thought to be primarily caused by the under utilization of cancer screening among racial/ethnic minorities [4].

As a consequence, increasing access to screening has been the main issue in the battle against racial/ethnic disparities in cancer mortality.

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During the last decade, a large number of immigrants from neighboring countries (especillay Albania) have settled in our country. Unfortunately we have no official records regarding the health status of immigrants in Greece. Cervical screening in the form of a Pap smear is free of charge in all public hospitals, although an organized screening program does not really exist.

The aim of this study was to explore whether there are differences in Pap smear screening between native and immigrant women that attended our outpatient clinic with scheduled appointments for all kinds of different gynaecological problems (not urgent).

Material and Methods

In this retrospective study we collected data from our outpatient department where women with all kinds of different gynaecological problems seek consultation. Women come after scheduled appointments. Adolescent women without sexual relationships were excluded from the study. The study period was from January 2002 until December 2003 (two years). Data collection included previous Pap test screening frequency, marital status, age, economic status (self-reported family income per year) and nationality. A total of 3,316 women were included in the study.

Results

Of the women in the study 24.99% had never had a Pap test in their lives. Women who had had a test within the last 24 months made up 41.16%. Regarding marital status a total of 61.2% were married, 13.7% single and 24.9% were divorced. It seems that marital status favourably influences the decision to have a Pap test. The average age was 41.95 years (range 17-90).

Table 1. — *Main results of the study.*

Characteristics	All	Ever screened (%) or 95% CI			Recently screened (%) or 95% CI			Screened in the study period (%)
Age								
< 40 years	62.09%	76.25%			48.27%			12.43%
≥ 40 years	37.91%	73.19%			29.51%			5.49%
Nationality								
Greeks	58.41%	89.00%	6.5	3.0-14.8	56.06%	5.0	2.8-12.6	15.28%
Immigrants	41.59%	55.51%	1.0		20.21%	1.0		2.10%
Marital status								
Never Married	13.75%	12.25%	1.0		4.76%	1.0		10.77%
Currently Married	61.28%	63.01%	1.7	1.2-4.6	76.71%	6.4	2.9-14.4	74.77%
Previously Married	24.97%	24.74%	1.5	1.1-3.8	18.53%	2.6	1.7-5.8	14.46%
Economic status								
Low (< 8,000 e/y)	71.02%	62.13%	1.0		54.58%	1.0		32.31%
Middle (< 15,000 e/y)	25.18%	33.01%	30.6	16.2-45.1	36.85%	3.3	2.4-7.4	41.23%
High (> 15,000 e/y)	3.80%	4.86%	15.8	9.6-21.4	8.57%	31.6	16.8-46.2	26.46%

We observed that 62.0% of women who had had Pap tests were under the age of 40 years. The rest (37.9%) were 40 years or older. Forty years is demarcated due to the hormonal changes that come out around that age. The majority of the women who had had a Pap test (58.4%) were Greeks and 41.6% were immigrants. Regarding economic status, 71.0% of the women had a low-income (< 8,000 euro/year), 25.1% had a middle-income (< 15,000 euro/year) and 3.8% had a high-income (> 15,000 euro/year).

Discussion

Reduction of morbidity and mortality associated with squamous cell carcinoma of the cervix is the ultimate goal of screening. In most developed countries women are advised to have their first smear test soon after becoming sexually active and subsequently once every one to five years. Many national guideliness are currently moving towards less frequent smear tests (once every 3-5 years) because it is recognized that cervical lesions develop slowly over several years. Women with low-grade lesions are generally advised to return for routine follow-up smears. Women with high-grade precursor lesions are further evaluated via colposcopy, biopsy, and subsequent treatment of confirmed lesions. Organized programmes with systematic call, recall, follow-up and surveillance systems have shown the greatest effect (e.g. in Finland and Iceland), even though they use fewer resources than unorganised programmes (e.g. in the USA).

Immigrant populations present a challenge to the public health system because they often differ from the general population in their patterns of disease, knowledge, and utilization of early detection services [5].

Although legal status was not questioned, other studies [6] performed with undocumented immigrants showed that they were significantly less likely to have ambulatory physician visits and use public programmes serving primarily the adult population than the general population, because they were afraid they would not receive care due to their immigration status.

In our study marital status was associated with cervical cancer screening use. Compared to women who had never been married, currently married women had a nearly two times the odds of ever having had a Pap test, and over six times the odds of having been recently screened. The relationship between marital status and cervical cancer screening participation may be explained, at least in part, by the fact that pregnancy and childbirth motivate women to access the health care system; Pap smears may be linked to obstetric care during the reproductive years [7].

Nationality was strongly associated with cervical cancer screening use. Compared to women who were immigrants, Greek women had a nearly seven times the odds of ever having had a Pap test, and five times the odds of having been screened recently.

Low-income seems to be associated with cervical cancer screening as well. Compared to middle-income women, low-income women had nearly 31 times the odds of not ever having had a Pap test, and nearly 32 times the odds of not having been screened recently, compared to high-income women. Some studies support our findings [8] while other studies suggest that these differences are not due to income [9]. Other studies have suggested that differences in cervical cancer screening are due to educational attainment [10] and others have found that these differences are due to lack of health insurance [11] or having a regular source of health care [12].

The possibility of having easy access to a clinic and to routine health care has a critical influence on the cancer screening habits of immigrant women. Opportunistic Pap smear screening as part of a pregnancy or family-planning checkup in local clinics (such as ours) is an acceptable strategy for poor immigrant women who cannot afford to pay for extra healthcare visits, particularly if a health professional recommends it. Although opportunistic screening is a common practice, physicians and other health professionals should make greater efforts to reach immigrant women during clinic visits and seize the opportunity to encourage them to get their scheduled (case dependable) Pap smear.

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