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Attitudes and knowledge of Georgian physicians regarding cervical cancer prevention, 2010

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Abstract

Objective—To document Georgian physician's knowledge, attitudes, and practices concerning HPV, Pap smear testing, and HPV vaccination, and to assess whether physician practice might change with additional education and training.

Methods—A cross-sectional study was conducted using a self-administered written survey of 288 physicians practicing in 7 healthcare institutions in Tbilisi, Rustavi, and Batumi, Georgia. Data were collected on demographics, conduct of and perceived barriers to Pap smear testing, knowledge about HPV and HPV vaccination, and willingness to receive education and training about HPV and cervical cancer. Univariate counts and proportions were calculated. Pap smear testing and barriers were compared across demographics using bivariate and Poisson regression with robust error variance methods.

Results—Overall, 54% of physicians never performed Pap smears; most reported testing was not their responsibility. Most (88%) obstetricians/gynecologists performed Pap smears. Younger physicians were more likely to perform Pap smears. Approximately 48% of physicians actively offered the HPV vaccine. Most physicians were receptive to increased education and training about HPV and cervical cancer.

Conclusion—Age-related differences in the conduct of and attitudes toward Pap smear testing exist among Georgian physicians. There is an opportunity to increase Pap smear testing and provide evidence-based HPV vaccine counseling in Georgia.

Keywords

Cervical cytology; Human papillomavirus; Vaccine

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1. Introduction

Cervical cancer incidence and mortality rates in Georgia [1] are higher than those documented for Western countries with routine cervical screening programs [2–4] which allow pre-cancerous cervical abnormalities to be detected and treated early, before progression to cancer [5]. Introduction of widespread cervical screening programs has been associated with decreases in cervical cancer mortality among women in countries where no such screening program had been in place [6,7].

An ongoing reproductive health initiative, including a National Screening Program [8], is in place in Georgia, which includes free cervical cancer screening every 3 years for women aged 25–60 years [9]. Implementation of this program may be one reason why cervical cancer screening increased 3-fold between reproductive health surveys conducted in 2005 [10] and 2010 [11]. However, the prevalence of women who have received cervical cancer screening was still low (12%) in 2010. Reasons for not receiving cervical cancer screening were not reported in the 2010 reproductive health survey, but in 2005, lack of a doctor's recommendation and lack of knowledge about cervical cancer screening were the most common reasons for not receiving testing (44% and 35%, respectively) [10]. Little is known about the knowledge and attitudes held by Georgian physicians regarding cervical cancer screening. Additionally, since its introduction in 2001, the Bethesda system [12] for reporting cervical screening results has been widely adopted in the USA, but the extent to which Georgian physicians are aware of, and actively using, the Bethesda system is unknown.

In addition to cervical screening, the vaccine against human papillomavirus (HPV) can reduce the incidence of cervical cancer by preventing infection with the 2 HPV strains responsible for 70% of cervical cancers [13,14]. The HPV vaccine is available for use in Georgia, and although there are no estimates of its uptake or physicians' willingness to provide the vaccine, there does not seem to be widespread use of this vaccine in the country, primarily related to the high cost of the vaccine. Immunization, at least for standard childhood diseases, is a priority in Georgia, with high vaccination coverage for most childhood vaccines [15]. As part of the comprehensive cervical cancer prevention and control program in Georgia, HPV vaccination is recommended, and currently, there is a program of free HPV vaccination for girls aged 11–13 residing in Tbilisi, Georgia, provided by the Tbilisi municipal program [16]. It is possible that, in the future, organizations providing immunization support and reduced-cost or free vaccines to low-income countries (e.g. GAVI Alliance, Bill and Melinda Gates Foundation) could support the wider distribution of the HPV vaccine in Georgia.

To reduce the impact of gynecologic cancers and improve women's health, it is important to understand the reasons for Georgian physicians not conducting Pap smear testing for their female patients. The present study was undertaken to identify knowledge and attitudes about HPV, cervical cancer, and cervical cancer prevention among healthcare workers in Georgia, and to identify the best ways to offer education on these topics to healthcare workers.

2. Materials and methods

Data were collected through a self-administered anonymous survey, with recruitment occurring from December 1, 2009, to July 30, 2010, inclusive. The survey was approved by the Institutional Review Board of the Maternal and Child Care Union, Tbilisi, Georgia. Physicians provided written informed consent to participate in the survey.

Recruitment occurred in 4 healthcare centers in Tbilisi, 2 healthcare centers in Batumi, and 1 healthcare center in Rustavi. On multiple days, researchers approached all primary care

physicians (pediatricians, obstetricians/gynecologists, general practitioners) seeing patients and presented the survey. Physicians who had not previously completed the survey were invited to participate.

The survey contained questions on demographics, practice characteristics (general and sexual health), use of Pap smear testing and related barriers, and knowledge about HPV, cervical cancer, cervical screening, and the HPV vaccine. Demographic data included age, gender, years of experience since medical school, clinical specialty, and clinical position. General practice characteristics queried included the typical weekly patient load and the estimated proportion of patients aged 11–26 years. Questions regarding practice characteristics related to sexual health services included the proportion of 15-year-old patients estimated to be sexually active, and the perceived level of comfort and the typical practice when discussing sexual activity with adolescents and providing counseling on contraceptive use. For Pap smear testing, frequency and use of the Bethesda reporting system were queried, as well as the possibility that the frequency of Pap smear testing might increase with additional education and training related to cervical cancer in general and the Pap smear test in particular. Physicians were asked about their barriers to Pap smear testing, including cost, technical limitations (e.g. lack of laboratory equipment to read Pap smears), and knowledge limitations. Other questions related to the knowledge about HPV and the HPV vaccine, the willingness to provide the vaccine, and the willingness to receive additional education and training on the HPV vaccine.

Data from completed surveys were returned and entered into SPSS version 16 (IBM, Armonk, NY, USA). The SPSS data file was imported into SAS version 9.1.3 (SAS Institute, Cary, NC, USA), and all analyses were performed using SAS. Descriptive statistics, including frequencies and percentages, were computed. Performance of Pap smear testing, along with knowledge and attitudes about HPV and cervical cancer, were compared by demographic variables using prevalence ratios with 95% confidence intervals. Performance of Pap smear testing was modeled using multivariate Poisson regression, with robust error variance [17], to clarify the contribution of various demographic and behavioral factors to the decision to offer the test, while controlling for other factors. Adjusted prevalence ratios with 95% confidence intervals were estimated. $P < 0.05$ was considered statistically significant.

3. Results

A total of 300 surveys were completed (response rate 90%); 12 (4.0%) surveys were excluded from the analysis because they had been completed by nurses. The majority (199/288 [69.1%]) of the surveys were completed in Tbilisi (Table 1). The respondents were primarily female, with 20.7% (58/280) aged 55 years or older and 18.9% (53/280) younger than 35 years. The most common clinical specialty was pediatrics (91/284 [32.0%]), followed by obstetrics/gynecology (64/284 [22.5%]) and general practice (258/284 [20.4%]). Most physicians reported that they saw fewer than 25 patients per week, with females aged 11–26 years comprising less than half of the total patient population for 136 (52.3%) physicians; 25 (9.6%) physicians reported that all of their patients were females aged 11–26 years (Table 1).

Of the respondents, 46.4% (124/288) reported that they performed at least some Pap smear testing (Table 2). However, only 23.3% (29/124) of these indicated that they always performed this test for their female patients as part of routine gynecological examinations. Gynecologists (56/64) and general practitioners (36/55) were more likely to perform Pap smear testing (87.5% and 65.5%, respectively) than pediatricians (15/87 [17.2%]) and other practitioners (16/59 [27.1%]) (Table 2). Overall, physicians younger than 55 years were

more than twice as likely to report Pap smear testing as those aged 55 years and older (108/204 [52.9%] versus 12/56 [21.4%]). Multivariate regression modeling confirmed that younger physicians were more likely to perform at least some Pap smear testing and also showed that, relative to obstetricians/gynecologists, pediatricians and general practitioner physicians were less likely to perform Pap smear testing (Table 2). There was little difference in Pap smear testing practices by city, with at least some Pap smear testing performed by 43.8% (84/192) of physicians in Tbilisi, 48.4% (15/31) in Rustavi, and 56.8% (25/44) in Batumi ($\chi^2 P=0.2849$).

The most common reason reported for not performing Pap smear testing was that the test was not part of the physician's responsibility (158/288 [54.9%]) (Table 3). This reason was cited more often by physicians older than 50 years (41/58 [70.7%]) than by those who were younger (112/222 [50.5%]). Most pediatricians (71/91 [78.2%]) perceived Pap testing to be outside their area of responsibility; remarkably, 48.3% (28/58) of general practitioners and 17.2% (11/64) of obstetricians/gynecologists also perceived Pap testing to be outside their responsibility. Barriers were even identified among physicians who performed at least some Pap smear testing, with cost the most commonly cited barrier (Table 3).

Overall, 95/246 (38.6%) physicians reported familiarity with the Bethesda system, although only 31 (12.6%) were actively using it. An additional 35.0% (86/246) were not familiar with the Bethesda system and either did not want to learn about it or felt that it was not within their responsibility. The remaining 26.4% (65/242) were not familiar with the Bethesda system yet expressed a willingness to learn more about it.

Discussion of sexual activity with adolescent patients was not common and consistent: Only 25.4% (68/268) of physicians reported the occurrence of such conversations during at least half of their adolescent patient visits (Table 1). Half (136/270) the physicians felt comfortable or very comfortable with discussing sexual activity with adolescent patients, with 23.3% (63/270) indicating they were absolutely uncomfortable with these discussions (Table 1). Compared with physicians aged 55 years and older, younger physicians were more likely to feel comfortable or very comfortable discussing sexual activity with adolescent patients (117/206 [56.8%] for physicians younger than 55 years, compared with 13/56 [23.2%] for physicians aged 55 years and older; $\chi^2 P<0.0001$).

Most physicians (243/259 [93.8%]) knew that HPV can infect the anogenital tract, but only 40.2% (104/259) were able to identify all 3 areas (anogenital tract, skin, oral mucosa) that can be infected. The majority (182/264 [68.9%]) of physicians knew that HPV is spread through sexual contact, but fewer (124/259 [47.9%]) knew that persistent HPV infection of the cervix is necessary for cervical cancer to develop. Only 22.0% (57/259) knew that there are more than 10 strains of HPV.

Nearly half the physicians (122/255 [47.8%]) offered and recommended the HPV vaccine to their patients, with an additional 12.9% (33/255) indicating they did not actively offer the vaccine but did vaccinate if the woman requested this. Only 5 (2.0%) physicians said they would attempt to change a woman's mind if she sought vaccination.

Physicians were overwhelmingly interested in learning, with most reporting they would like to receive more education and training about cervical cancer (259/277 [93.5%]), HPV (262/279 [93.9%]), and Pap smear testing (257/279 [92.1%]). Most indicated that if they knew more about HPV and cervical cancer, they would perform more Pap smear tests (206/261 [78.9%]) and recommend HPV vaccination more often (226/269 [84.0%]). Physicians expressed mixed opinions regarding the preferred educational approach, with 61% (164/267) indicating lectures or seminars as the preferred method, followed by

informational booklets/pamphlets (157/26 [58.8%]) and educational/training programs broadcast on television (146/267 [54.7%]).

4. Discussion

The present study found that among Georgian physicians, the absence of perceived job responsibility was the greatest barrier to cervical screening through Pap smear testing. If physicians do not perceive the need to perform the test, it stands to reason that they will be less likely to recommend it or discuss it with their patients — the 2 most common reasons cited by Georgian women for never having had a Pap smear test [11]. Remarkably, approximately 12% of obstetricians/gynecologists in the present study reported they had never performed Pap smear testing, with nearly all indicating that the test was not part of their responsibilities.

Younger physicians were more likely to perform Pap smear testing. While reasons for performing this test were not specifically addressed in the present study, prior research [18] has indicated that younger physicians in Georgia are more likely to recommend preventive medical services, such as vaccination. In the present sample, younger physicians were more likely to be comfortable discussing sexual activity with adolescents, which might have led to a greater uptake of reproductive health screening tests.

Another factor that might have prompted younger physicians to perform preventive screenings more frequently is the change in medical practice in Georgia since gaining independence from the Soviet Union [19–21]. Younger physicians have been involved in the slow transition to an approach to medical care that is more similar to that of Western nations, with an emphasis on preventive screening as well as treatment [22]. Some Georgian physicians receive training in the USA or the EU, and upon their return, their exposure to different medical practice approaches might have a direct or indirect effect on their peers.

Previous research has documented declines in the incidence of cervical cancer following widespread implementation of cervical cancer screening programs [6,7]. The age-adjusted cervical cancer incidence rate for Georgia (9.4 cases/100 000 women [1]) is approximately 1.6 times as high as that in the USA [2], where cervical cancer screening programs are more widespread, highlighting the need for implementation and acceptance of such a program. The present study provides a preliminary identification of gaps in physician's knowledge about HPV and HPV vaccines, and should allow for more targeted educational outreach programs. The key areas of focus should include the Bethesda system, differences in HPV types in terms of cellular tropism and risk type (e.g. high-risk/cancer versus low-risk/warts). Given the strong interest among Georgian physicians to receive additional information and education about HPV and cervical cancer, the development and implementation of such an educational program is feasible and likely to be met with willingness to adapt new conventions on the part of the physicians.

While cost of the Pap smear test was cited as a barrier by approximately 16% of the physicians, other inconveniences related to the testing, including the need for recall visits by women to receive test results and treatment if necessary, were not addressed in the present study. The total cost of a Pap smear test for a woman in Georgia is approximately 20–25 GEL (approximately 12–14 USD) [23]. Physicians typically receive only 4–5 GEL of this total for their role in Pap smear testing. This relatively low amount of remuneration for the physician might be a larger barrier to the performance of Pap testing than the overall cost to the women.

A limitation of the present study is its cross-sectional design. The study was not performed on a random sample of physicians, and the use of multiple recruitment periods per

polyclinic, during which all physicians practicing at the time were invited to participate, might have biased the study sample in favor of more active physicians. The response rate was high (90%). The survey was conducted among physicians in a variety of clinical specialties to get a broader understanding of the attitudes affecting women's preventive healthcare services. Although data on clinical specialty were collected, the types or frequencies of services provided by these physicians were not analyzed; inclusion of these parameters might have provided more insight about the relatively large proportion of physicians who did not feel that Pap smear testing was among their responsibilities. For example, obstetricians/gynecologists who exclusively provide birth-related services will have a reduced focus on gynecologic cancer screenings.

In conclusion, the use of Pap smear testing in Georgia is low, and although there are no estimates of HPV vaccination uptake in Georgia, this can be assumed to be very low because of the recency of vaccine availability and its high cost. The present findings indicate that with appropriate outreach, education, and training, Georgian physicians would be willing to increase Pap smear testing. Education about HPV vaccination will prepare physicians for patient counseling. Given the willingness to receive additional education and training, professional medical societies and academic institutions will need to be identified that are willing to develop and provide this information to Georgian physicians. These results highlight the unique opportunity presented to us to improve the health of Georgian women, and should serve as a call to action.

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References

- [1]. World Health Organization. ICO. [Accessed May 14, 2012] Human Papillomavirus and Related Cancers in Georgia. Summary Report 2010. Sep 15. 2010 http://www.who.int/hpvcentre/statistics/dynamic/ico/country_pdf/GEO.pdf
- [2]. World Health Organization. ICO. [Accessed May 14, 2012] Human Papillomavirus and Related Cancers in United States of America. Summary Report 2010. Sep 15. 2010 http://apps.who.int/hpvcentre/statistics/dynamic/ico/country_pdf/USA.pdf
- [3]. World Health Organization. ICO. [Accessed May 14, 2012] Human Papillomavirus and Related Cancers in United Kingdom. Summary Report 2010. Sep 15. 2010 http://www.who.int/hpvcentre/statistics/dynamic/ico/country_pdf/GBR.pdf
- [4]. World Health Organization. ICO. [Accessed May 14, 2012] Human Papillomavirus and Related Cancers in Canada. Summary Report 2010. Sep 15. 2010 http://www.who.int/hpvcentre/statistics/dynamic/ico/country_pdf/CAN.pdf
- [5]. U.S. Preventive Services Task Force. [Accessed February 26, 2009] Screening for Cervical Cancer Recommendations and Rationale. Mar. 2012 <http://www.ahrq.gov/clinic/3rduspstf/cervcan/cervcanrr.htm>
- [6]. Gustafsson L, Pontén J, Bergström R, Adami HO. International incidence rates of invasive cervical cancer before cytological screening. *Int J Cancer*. 1997; 71(2):159–65. [PubMed: 9139836]
- [7]. Gustafsson L, Pontén J, Zack M, Adami HO. International incidence rates of invasive cervical cancer after introduction of cytological screening. *Cancer Causes Control*. 1997; 8(5):755–63. [PubMed: 9328198]
- [8]. Georgia National Screening Center. [Accessed December 10, 2012] National Screening Program. 2013. <http://www.gnsc.ge/?act=page&id=44&lang=en>
- [9]. Georgia National Screening Center. [Accessed December 10, 2012] Cervical Cancer Screening. 2013. <http://www.gnsc.ge/?act=page&c=NTJjNWQ4&id=39&lang=en>

- [10]. Serbanescu, F. Reproductive Health Survey, Georgia 2005: Preliminary Report. National Center for Disease Control and Medical Statistics; Atlanta, GA: 2005.
- [11]. National Center for Disease Control and Public Health, Ministry of Labor, Health, and Social Affairs, National Statistics Office of Georgia. Reproductive Health Survey Georgia 2010 Final Report. 2012. http://www.ncdc.ge/uploads/publications/angarishebi/GERHS_2010_%20Final%20Report%20ENGL.pdf
- [12]. Solomon D, Davey D, Kurman R, Moriarty A, O'Connor D, Prey M, et al. The 2001 Bethesda System: terminology for reporting results of cervical cytology. JAMA. 2002; 287(16):2114–9. [PubMed: 11966386]
- [13]. Castellsagué X, Díaz M, de Sanjosé S, Muñoz N, Herrero R, Franceschi S, et al. Worldwide human papillomavirus etiology of cervical adenocarcinoma and its cofactors: implications for screening and prevention. J Natl Cancer Inst. 2006; 98(5):303–15. [PubMed: 16507827]
- [14]. Markowitz LE, Dunne EF, Saraiya M, Lawson HW, Chesson H, Unger ER, et al. Quadrivalent Human Papillomavirus Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep. 2007; 56(RR-2):1–24. [PubMed: 17380109]
- [15]. WHO. UNICEF. [Accessed February 18, 2013] Georgia: WHO and UNICEF estimates of immunization coverage: 2011 revision. http://www.who.int/immunization_monitoring/data/geo.pdf
- [16]. John, Snow. [Accessed April 3, 2012] Cervical Cancer Prevention: Introducing HPV vaccination in Georgia. 2010. http://www.cervicalcanceraction.org/multimedia/webinar21oct/presentations/Berdzuli_21oct2010.pdf
- [17]. Zou G. A modified poisson regression approach to prospective studies with binary data. Am J Epidemiol. 2004; 159(7):702–6. [PubMed: 15033648]
- [18]. Topuridze M, Butsashvili M, Kamkamidze G, Kajaia M, Morse D, McNutt LA. Barriers to hepatitis B vaccine coverage among healthcare workers in the Republic of Georgia: An international perspective. Infect Control Hosp Epidemiol. 2010; 31(2):158–64. [PubMed: 20038247]
- [19]. Healy J, McKee M. Implementing hospital reform in central and eastern Europe. Health Policy. 2002; 61(1):1–19. [PubMed: 12173493]
- [20]. McNabb S, Chorba T, Cherniack M. Public health concerns in the countries of Central and Eastern Europe and the New Independent States. Curr Issues Pub Health. 1995; 1:136–45.
- [21]. Vitek CR, Bogatyreva EY, Wharton M. Diphtheria surveillance and control in the Former Soviet Union and the Newly Independent States. J Infect Dis. 2000; 181(Suppl 1):S23–6. [PubMed: 10657186]
- [22]. Collins T. The aftermath of health sector reform in the Republic of Georgia: effects on people's health. J Community Health. 2003; 28(2):99–113. [PubMed: 12705312]
- [23]. [Accessed May 25, 2011] Oanda. Currency Converter. <http://www.oanda.com/currency/converter/>

Synopsis

Barriers to providing cervical cancer prevention services among Georgian physicians are associated with clinical specialty and age. However, physicians are receptive to additional training.

Table 1

Demographic and clinical practice characteristics of Georgian physicians surveyed about HPV and cervical cancer knowledge, attitudes, and practices, 2010

Parameter	Number of respondents (%)
City where survey completed (n=288)	
Tbilisi	199 (69.1)
Batumi	56 (19.4)
Rustavi	33 (11.5)
Gender (n=288)	
Female	259 (89.9)
Male	29 (10.1)
Age, y (n=280)	
25–34	53 (18.9)
35–44	84 (30.0)
45–54	85 (30.4)
55	58 (20.7)
Clinical specialty (n=284)	
Pediatrics	91 (32.0)
Obstetrics/gynecology	64 (22.5)
General practice	58 (20.4)
Other	71 (25.0)
Patients seen in a typical week (n=250)	
<25	132 (52.8)
25–49	75 (30.0)
50	43 (17.2)
Proportion of female patients aged 11–26 years, % (n=260)	
0	24 (9.2)
1–49	112 (43.1)
50	71 (27.3)
51–99	28 (10.8)
100	25 (9.6)
Frequency of discussing sexual activity with adolescents (n=268)	
>90% of visits	29 (10.8)
50–90% of visits	39 (14.6)
25–49% of visits	43 (16.0)
1–24% of visits	75 (28.0)
0% of visits	34 (12.7)
No adolescent patients	48 (17.9)
Level of comfort discussing sexual activity with adolescents (n=270)	
Very comfortable	27 (10.0)
Comfortable	109 (40.4)
Somewhat comfortable	72 (26.7)

Parameter	Number of respondents (%)
Absolutely uncomfortable	62 (23.0)
Proportion of 15-year-old patients estimated to be sexually active, % (n=260)	
50	25 (9.6)
25–49	34 (13.1)
1–24	154 (59.2)
0	47 (18.1)

Table 2Performance of Pap smear testing by demographic characteristics of the surveyed Georgian physicians, 2010 ^a

Variable	Total number	Perform at least some Pap smear testing	Bivariate analysis	Multivariate analysis ^b
			PR (95% CI)	aPR (95% CI)
Overall	267	124 (46.4)	Not applicable	Not applicable
Age, y				
25–34	45	23 (51.1)	2.39 (1.34–4.25)	1.33 (0.82–2.16)
35–44	79	43 (54.4)	2.54 (1.48–4.36)	1.52 (0.97–2.39)
45–54	80	42 (52.5)	2.45 (1.42–4.22)	1.40 (0.86–2.26)
55	56	12 (21.4)	Reference	Reference
Gender				
Female	239	113 (47.3)	1.20 (0.75–1.94)	1.55 (1.03–2.34)
Male	28	11 (39.3)	Reference	Reference
Clinical specialty				
Pediatrician	87	15 (17.2)	0.20 (0.12–0.32)	0.21 (0.13–0.35)
General practice	55	36 (65.5)	0.75 (0.60–0.93)	0.66 (0.51–0.87)
Other	59	16 (27.1)	0.31 (0.21–0.48)	0.32 (0.20–0.52)
Ob/Gyn	64	56 (87.5)	Reference	Reference
Average number of patients per week				
50	42	30 (71.4)	1.83 (1.38–2.45)	1.38 (1.02–1.87)
25–49	71	35 (49.3)	1.27 (0.92–1.74)	1.07 (0.78–1.46)
<25	131	51 (38.9)	Reference	Reference

Abbreviations: aPR, adjusted prevalence ratio; CI, confidence interval; Ob/Gyn, obstetrician/gynecologist; PR, prevalence ratio.

^aValues are given as number (percentage) unless otherwise indicated.^bAdjusted for all other factors presented in the table.

Table 3Barriers to Pap smear testing among the surveyed Georgian physicians, 2010 ^a

Parameter	Total number	Self-reported barrier to Pap smear testing			
		Cost	Technical limitations	Knowledge limitations	Not my responsibility
Overall	288	46 (16.0)	19 (6.6)	19 (6.6)	158 (54.9)
Age, y					
25–34	53	8 (15.1)	2 (3.8)	1 (1.9)	26 (49.1)
35–44	84	15 (17.9)	3 (3.6)	7 (8.3)	42 (50.0)
45–54	85	17 (20.0)	11 (12.9)	5 (5.9)	44 (51.8)
55	58	5 (8.6)	3 (5.2)	6 (10.3)	41 (70.7)
Gender					
Female	259	41 (15.8)	17 (6.6)	18 (7.0)	142 (54.8)
Male	29	5 (17.2)	2 (6.9)	1 (3.5)	16 (55.2)
Clinical specialty					
Pediatrics	91	7 (7.7)	3 (3.3)	7 (7.7)	71 (78.2)
Ob/Gyn	64	26 (40.6)	9 (14.1)	1 (1.6)	11 (17.2)
General practice	58	9 (15.5)	6 (10.3)	5 (8.6)	28 (48.3)
Other	71	4 (5.6)	1 (1.4)	5 (1.8)	48 (67.6)
Average number of patients per week					
<25	132	26 (19.7)	10 (7.6)	4 (3.0)	80 (60.6)
25–49	75	9 (12.0)	6 (8.0)	13 (17.3)	41 (54.7)
50	43	8 (18.6)	3 (7.0)	0 (0.0)	20 (46.5)
Pap smear testing					
Never performed	143	3 (2.1)	2 (1.4)	6 (4.2)	130 (90.9)
At least some testing	124	43 (34.7)	17 (13.7)	13 (10.5)	26 (21.0)

Abbreviation: Ob/Gyn, obstetrician/gynecologist.

^aValues are given as number (percentage).