

Short Report

The prevalence of and knowledge about tobacco use among physicians in the Odessa region, Ukraine

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We investigated prevalence of and knowledge about tobacco use among physicians, and their counselling of patients in the Odessa region (Ukraine). Paediatricians (40), family doctors (40) and interns (70) were selected from the physician population of the Odessa region. The proportion of smokers was unacceptably high for health care professionals: paediatricians, 32.5%; family doctors, 37.5%; and interns, 50%. Majority of smokers were men. Less than half of smokers had considered quitting or seriously attempted to quit. Interns least frequently asked their patients about smoking (52.5 vs. 80% paediatricians and 72.5% family doctors). Ukrainian universities need to better educate medical students on tobacco control measures.

Introduction

In Ukraine, smoking prevalence is increasing. The age-standardized prevalence of current smoking in Ukrainian men was 54.8% in 2001 and 66.8% in 2005. Among Ukrainian women, prevalence increased from 11.5% in 2001 to 20.0% in 2005.¹ On average, 3–4% of men and 1–2% of women living in Ukraine join the smoking population each year.¹

The physician can especially play an important role in tobacco control among children and young people.² The efforts of health care professionals in tobacco control should include detecting tobacco usage and motivating and encouraging smokers to quit, and also encouraging young people not to start smoking.³

A study of the prevalence of tobacco use among physicians is of special interest because they are traditionally viewed as role models for the public in terms of adopting a healthy lifestyle.^{3,4} In many developed countries, the cessation of smoking among physicians preceded the reduction in tobacco use in the general populace.^{5,6} As shown in research by Henningfield⁵ and McEwen et al.⁶; a similar pattern would be expected for Ukraine.

One study that examined primary care physicians' smoking prevalence in several regional administrative centres of central and eastern Ukraine showed it to be high (57% of male physicians and 15% of female physicians).⁷

Previous research⁸ among Ukrainian physicians reported smoking to be at 13.9% in 2003 in the Kiev region. The study did not investigate differences in specialties training. This current study expands that previous work to investigate the prevalence of smoking among physicians in three specialties (family doctors, paediatricians and interns) in the Odessa region and to evaluate their efforts in assisting patients to stop using tobacco. We hypothesize that there would be a difference in the three groups of physicians based on the level of training in medicine, with paediatricians having the most training, followed by family doctors and then interns, and the level of training would decrease the prevalence of smoking in the group and increase their help for patients.

Methods

The project complied with the Helsinki Declaration on ethics in human research and was approved by the Ethics Committee of the Odessa Regional Children's Clinical Hospital.

One hundred and fifty doctors (40 family doctors, 40 paediatricians and 70 interns) were randomly chosen from the entire population of doctors in the Odessa region. This represents 6.8% of paediatricians, 6.9% family doctors and 11.3% of interns, as well as 8.4% of all physicians in the region. These specialties were selected, as they represent a diverse group of physicians treating different groups in the community with different levels of medical training. Physicians were personally interviewed by medical students to obtain their responses to survey questions. Invitation to participate came from the Odessa National Medical University, where most of the physicians were trained and yielded a >90% response rate.

The questionnaire was based on standard questions recommended by the Center for Disease Control.^{9,10} It included 66 questions that covered tobacco use of the physician (frequency and duration of smoking and attempts to quit); physician's knowledge about tobacco-related diseases; and physician's efforts to assist in cessation of tobacco use among patients based on the 5A's.¹⁰

On the basis of the answers to the survey questions, the activity of physicians in tobacco control was evaluated on aggregate according to a self-developed 'Activity Scale'. The scale included (i) information about knowledge of problems with tobacco use, (ii) the level of counselling offered to patients based on 5A's,¹⁰ (iii) supportiveness of legislative tobacco control measures and (iv) the physicians' own nicotine addiction (physical and psychological). The scale ranged from a low of 1 to a high of 8. Activity was considered 'high' if the specialist group scored 7–8 points, 'low' if the score was 5–6 points and 'unsatisfactory' if the score was 1–4 points.

The data were processed using statistical software (STATISTICA 7.0)¹¹ and the statistical component of Microsoft ExcelTM 2003 with the integration program AtteStat 13.5, Internet-calculator SISA (Simple Interactive Statistical Analysis). In addition, 95%

confidence intervals (CIs) are presented. In all procedures of statistical analysis when testing the null hypotheses, critical level of significance of P was taken equal to 0.05. Check for normal distribution was carried out by three methods: graphics, Kolmogorov–Smirnov and Shapiro–Wilkie. Study of the relationship between pairs of discrete quantitative features was performed using analysis of paired contingency tables, where the estimated values of the statistic Pearson chi-square (χ^2) achieved the level of significance (P) and odds ratio (OR) with 95% CI.

Results

Demographic data

The sex/age distribution in the recruited sample was similar to that in the total population of physicians within the three chosen speciality areas in the region. Briefly, the average age of paediatricians and family doctors was comparable in the younger age bracket, with physicians <35 years of age accounting for slightly over one-third of the sample. Physicians aged >60 years of age were more often registered as paediatricians than as family doctors. All interns were aged <35 years of age. Women formed the majority of paediatricians (78%) and interns (74%), while the numbers of men and women were equal among family doctors. Paediatricians (59%) and family doctors (58%) had work experience of >10 years, with the remainder having between 2 and 10 years experience. Overall, paediatricians (70%) and interns (64%) worked at inpatient institutions, while 70% of family doctors practiced at polyclinics. Paediatricians (60.0%) and family doctors (57.0%) had the highest educational qualifications.

Tobacco use, knowledge of health effects and patient interactions

A larger proportion of interns (50%) smoked than did either family doctors (38%) or paediatricians (33%; $P < 0.05$; table 1). Both male family doctors (73%) and male paediatricians (70%) smoked. The proportions of male and female interns who smoked were not significantly different (53% men vs. 47% women $P > 0.05$). Less than one-third of all smoking physicians had thought about the benefits of quitting this habit or had seriously tried to quit smoking.

The groups of specialist physicians varied considerably in their answers about querying patients on their smoking habits and about counselling their patients against smoking. Interns asked their patients about smoking, and recorded this history 35%

(24–46%), significantly less ($P < 0.05$) frequently than did paediatricians 68% (53–82%).

According to the Activity Scale for tobacco control, the most active among the comparison groups were paediatricians, who scored an average of 7.2 ± 0.3 points compared with the 5.6 ± 0.3 points scored by family doctors and the 3.2 ± 0.6 points scored by interns. The higher score achieved by paediatricians was related to the low prevalence of smoking among this group, their knowledge about the risks of tobacco use and their support for tobacco control measures.

Discussion

This study provides the first analysis of the prevalence of tobacco use among specialist groups of physicians in the Odessa region, and of their counselling efforts aimed at prevention and control of tobacco use among adult patients, children and young people. There were a number of limitations to this study. Firstly, it was only conducted in the Odessa region and we cannot make reference to the rest of Ukraine; however, medical education does not differ greatly between regions in Ukraine. The study also only investigated three areas of medicine. As stated previously, the selection was based on level of training and population served.

The survey revealed an unexpectedly high prevalence of smoking among these health care practitioners: about one-third of surveyed family doctors and paediatricians and half of the interns were smokers, and the majority of the smokers were men. Unfortunately, less than half of the smokers in each specialist group had thought about the benefits of quitting smoking or had seriously attempted to give up smoking. This was substantial higher than what was previously reported a decade earlier by Squier et al.⁶

The lack of counselling provision by the physicians may be influenced by their own smoking behaviour, insufficient professional experience or gaps in graduate and postgraduate training on this health issue. The survey results agree with those of studies in UK, which showed that only 43–50% of physicians gave advice to quit smoking.⁶ Furthermore, a survey of 122 medical colleges and universities in the USA revealed that the number of academic hours allocated to train students on prevention of tobacco use is insufficient, and the students' awareness of this important problem is unsatisfactory.²

Our survey revealed the insufficiency of efforts by these physician groups in implementing methods for tobacco control. In the study, few physicians provided the patient with materials about quitting. In comparison, 57% of British physicians provided antismoking

Table 1 Smoking status of survey respondents

| Smoking status | Paediatricians (n = 40) (%/n) (95% CI) | Family doctors (n = 40) (%/n) (95% CI) | Interns (n = 70) (%/n) (95% CI) |
|--|---|---|--------------------------------------|
| Smokers | 33/13 (17.98–47.01) | 38/15 (22.49–52.5) | 50 ^a /35 (34.5–65.49) |
| Men | 70 ^b /9 (55.79–84.2) | 72 ^b /11 (62.59–83.40) | 53/19 (42.17–65.52) |
| Women | 30/4 (15.79–44.2) | 27/4 (16.59–37.4) | 47/16 (35.30–58.69) |
| Psychological tobacco addiction | 27/3 (16.59–37.4) | 34/5 (23.08–45.31) | 42 ^a /15 (27.18–57.81) |
| Physical tobacco addiction | 72/10 (62.59–83.40) | 65/10 (54.57–76.82) | 57/20 (42.18–72.81) |
| Thought about the benefits of quitting smoking | 40 ^b /5 (24.81–55.18) | 37 ^b /7 (22.49–52.5) | 22/8 (9.55–35.44) |
| Seriously tried to quit smoking | 42 ^b /6 (27.18–57.81) | 35 ^b /6 (20.21–49.78) | 20/7 (10.62–29.37) |
| Believe that physicians should not smoke | 58 ^b /23 (47.03–70.1) | 57 ^b /23 (42.18–72.81) | 27/19 (16.5–37.4) |

a: Significantly different from both other groups ($P < 0.05$).

b: Significantly different from interns ($P < 0.05$).

materials in the form of brochures and leaflets and 4% of them even provided information in video format.⁶

We recommend that the counselling of patients on tobacco use and methods to assist in quitting smoking be improved. While the hypothesis was correct that level of medical training would determine the prevalence of smoking in the speciality, the level of smoking should be considered unacceptable for all specialities. This needs to be addressed in medical training and professional development. The methods that can be used by physicians of various specialties when counselling patients on tobacco use and smoking are indispensable components of control and prevention that must be promoted in medical universities and among the professions.

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Conflicts of interest: None declared.

Key points

- The level of smoking among physicians in the southern part of Ukraine is varied among different specialities of physicians.
- The percentage of smokers who believed that physicians should not smoke owing to their status as health care professionals was unacceptably low.

- Training in the area of tobacco control and prevention in Medical School in Odessa is required and policies should direct Medical training to include this information.
- Public health campaigns need to continue to be developed to address physicians stopping smoking in Ukraine.

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