# MAGDALENA KANICKA<sup>1</sup>, ANDRZEJ SZPAK<sup>1</sup>, MARIA KARPIŃSKA<sup>2</sup>

# Rozpowszechnienie palenia tytoniu oraz działania ograniczające inhalowanie dymu tytoniowego wśród uczniów trzecich klas gimnazjów w Białymstoku

Streszczenie

Wstęp. Palenie tytoniu stanowi poważny problem zdrowotny. Inhalowanie dymu tytoniowego przez młodzież jest uwarunkowane różnymi czynnikami, w tym również polityką szkoły wobec palenia, wzorcami tworzonymi przez jej pracowników, edukacją zdrowotną oraz innymi działaniami dla ograniczenia palenia w szkole.

Cel. Poznanie rozpowszechnienia palenia tytoniu wśród gimnazjalistów, przestrzegania zakazu palenia w szkole przez młodzież oraz dorosłych oraz ocena edukacji zdrowotnej w zakresie ograniczenia rozpowszechnienia palenia tytoniu.

**Materiał i metoda.** Badaniem ankietowym objęto 685 uczniów klas trzecich w ośmiu losowo wybranych gimnazjach w Białymstoku w maju 2009 roku.

**Wyniki.** W badanej grupie 71,7% uczniów stwierdziło, że w kwietniu i maju 2009 roku nie zapaliło ani jednego papierosa, natomiast 27,7% ankietowanych przyznało sie do palenia. Do palenia tytoniu w szkole przyznało się 21,4% palących gimnazjalistów, a do palenia w pobliżu szkoły – 32,1% uczniów. W zajęciach edukacji zdrowotnej dotyczących szkodliwości palenia tytoniu realizowanych w szkole uczestniczyło 63,1% uczniów.

Wnioski. Wśród badanych uczniów klas trzecich papierosy paliło ponad 25% uczniów, a odsetek osób palących był wyższy wśród chłopców niż wśród dziewcząt. Ponad połowa gimnazjalistów była narażona na bierne palenie, a szkołę jako miejsce narażenia na bierne palenie wskazywało ponad 60% gimnazjalistów.

# Prevalence of tobacco smoking and measures preventing tobacco smoke inhalation among third grade secondary school students in Bialystok

**Abstract** 

**Introduction.** Tobacco smoking poses a serious health risk. Inhalation of tobacco smoke by young people is determined by various factors, including their school's smoking policy, examples set by school staff, health education and other measures undertaken to prevent smoking in schools.

**Aim.** To investigate the prevalence of smoking among secondary school students, adherence to school smoking control policy by youth and adults, and the assessment of health education on reducing the prevalence of smoking.

**Material and method.** The survey was conducted in May 2009 and included 685 third grade students from 8 randomly selected secondary schools in Bialystok.

**Results.** In the study group, 71.7% of the students stated that they did not smoke even one cigarette within the studied period of time and 27.7% of respondents admitted to smoking. Among the smoking students, 21.4% admitted to smoking in the school building and 32.1% admitted to smoking near their school. Sixty-three point one percent (63.1%) of the surveyed students attended school-based health education lessons on harmful effects of smoking.

Conclusions. Out of all the surveyed 3rd grade students, 25% smoked cigarettes and the percentage of smoking was higher among boys than among girls. Over half of the surveyed secondary school students were exposed to passive smoking and over 60% of them said the school was a place of exposure to passive smoking.

Slowa kluczowe: palenie tytoniu, gimnazjaliści, edukacja zdrowotna.

**Key words**: tobacco smoking, secondary school students, health education.

<sup>&</sup>lt;sup>1</sup> Department of Public Health, Medical University of Bialystok

<sup>&</sup>lt;sup>2</sup> Department of Biophysics, Medical University of Bialystok

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### INTRODUCTION

The last decade in Poland saw an increase in the number of young people (especially girls) who try smoking and continue tobacco smoke inhalation with different frequency [1-3]. Woynarowska found that around one third of 15-year-olds is at risk of becoming a regular smoker within the next years [4]. Youth smoking is influenced by a variety of factors [5-7]. The decision to start and continue smoking among young people is affected by school smoking control policy, examples set by the school staff, health education and other measures aimed at limiting the prevalence of smoking in school. These measures are supported by existing legislative regulations, e.g. statutory regulations [8] from central to local levels and organizational regulations which contribute to health, social and economic policy aiming at tobacco use prevention and its reduction in Poland.

### **AIM**

The aim of this study was to investigate the prevalence of tobacco smoking among secondary school students, adherence to school smoking control policy by youth and adults, and assessment of health education on limiting the prevalence of smoking.

## MATERIAL AND METHOD

The survey was performed in May 2009 and included 685 third grade students from 8 randomly selected secondary schools in Bialystok. Data were collected in a random student survey using a self-report questionnaire of our own design. The questionnaire included questions on prevalence of smoking among students and teachers, questions referring to school smoking ban and questions on implementing a health education program on smoking at school.

In order to verify if the correlation between the analyzed factors is statistically significant we used a chi-square test of independence, with assumed  $\alpha$ =0.05 level of significance.

## **RESULTS**

In the study group of 685 secondary school students, 71.7% stated that in April and May 2009 they did not smoke even one cigarette while 27.7% of respondents admitted to smoking (Tab. 1). Incidence of smoking by gender is presented in Figure 1. Within the discussed period of time 23.9% of girls and 32.2% of boys smoked cigarettes – a statistically significant difference (p=0.016).

In the study group, 86.9% of students declared they had seen youth smoking in the school building, while 85.5% of students had seen youth smoking near their school. At the same time, 21.4% of smoking students admitted to smoking in the school building and 32.1% admitted to smoking near their school (Tab. 2).

Over half of the surveyed students (56.1%) stated that teachers smoked on school premises.

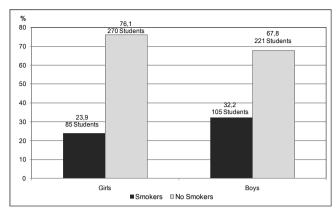


FIGURE 1. Smoking habits among secondary school students in April and May 2009 by gender.

Over half of the surveyed students (51.1%) were exposed to passive smoking. Sixty-five point one percent (65.1%) of respondents said the school was a place of exposure to passive smoking (Tab. 3).

FIGURE 1. Smoking habits among secondary school students in April and May 2009 by gender.

Smoking habits	Т	Total	
	n	%	
Smoker	190	27.7	
Non-smoker	491	71.7	
No answer	4	0.6	
Total	685	100.0	

TABLE 2. Places where respondents smoked (n=215 students).

Place	Total	
	n	%
At home	42	19.5
Friend's house	54	25.1
At the disco or concert	68	31.6
At a party	55	25.6
In a cafe/club/pub	49	22.8
Outside/in the park	156	72.6
At school	46	21.4
Near school	69	32.1
On vacation	60	27.9
Other	14	6.5

TABLE 3. Places where young people are exposed to passive smoking (n=350 students).

Places of exposure to passive smoking -	Total	
	n	%
At home	231	66.0
At school	228	65.1
At the disco/ concert	197	56.3
In a cafe/club/pub	203	58.0
Outside	258	73.7
Other	33	9.5

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In the survey, the respondents were asked about the effectiveness of methods used in their schools to prevent the students from smoking (Tab. 4). Among the obtained answers 35.5% stated that there are no methods able to prevent students from smoking. Only 4.2% of respondents recognized the existence and effectiveness of smoking prevention methods and stated that the undertaken measures would be more effective if the students received clear guidelines on smoking prevention. The study shows that 63.1% of the surveyed students attended the school-based health education lessons on harmful effects of smoking, whereas 36.9% did not attend them. Among the examples of measures undertaken to prevent tobacco smoking the students pointed to a series of lessons on smoking prevention - 85.8% (Tab. 5). Such lessons conducted by a specialist from outside the school had 100% attendance (Tab. 6).

TABLE 4. Students' opinions on the effectiveness of methods implemented in school to prevent.

Effectiveness	Tot	Total	
	n	%	
Effective	29	4.2	
Not very effective	184	26.9	
Ineffective	229	33.4	
No implemented methods	243	35.5	

students from smoking (n=685 students).

TABLE 5. Examples of measures undertaken in school to prevent smoking among surveyed students.

Measure -	Total	
	n	%
Series of lessons on smoking prevention	371	85.8
Lectures/talks	42	9.7
Videos	64	14.8
Competitions	39	9.0
Other	12	2.7
(n=422 students)		

TABLE 6. Persons conducting school-based lessons on harmful effects of smoking, attended by students (n=432 students).

Person	Total	
	n	%
Teacher	31	7.1
School Counsellor	68	15.7
School nurse	16	3.7
Specialist from outside a school	432	100.0
Other	51	11.8

TABLE 7. Usefulness of school-based lessons on harmful effect of smoking (n=221 students).

Usefulness	Total	
	n	%
Very useful	78	35.3
Rather useful	97	43.9
Rather unuseful	18	8.1
Completely unuseful	28	12.7

The usefulness of school-based lessons on harmful effects of tobacco smoking was assessed as 'rather useful' by 43.9% of students (Tab. 7).

### **DISCUSSION**

The prevalence of smoking among the surveyed secondary school students in Bialystok was high, considering that one in four students stated in the questionnaire that they smoked cigarettes within the analyzed period of time, i.e. April and May 2009. The results of this survey are comparable to these of a study on secondary school students in Gorzow Wielkopolski [7], but higher than the results from Gdansk [9] and the results of the international study on health behaviours of youth in schools performed in 2002 and 2006 (HBSC-Health Behaviour In School-Aged Children: A WHO Cross-National Study) [5,10]. Our results show that within the study group, boys tried smoking significantly more often than girls. The rate of smoking among schoolgirls was 10 percentage points lower than among schoolboys. Higher incidence of smoking initiation among boys as compared with girls was also observed in students from Cracow [1], from the Radom region [11] and confirmed in the HBSC study [10].

It should be acknowledged that smoking in school is a common phenomenon. In the study group, 86.9% of students declared they had seen youth smoking in school. At the same time, one in five students who smoked admitted to smoking in school.

This study shows that in the school environment of the surveyed secondary school students smoking among teachers is also a common practice, since over half of the students stated that their teachers smoke on school premises. In the HBSC study the percentage of teachers who smoked was notably lower [12]. Only 1% to 15% of students see teachers who smoke cigarettes almost every day or know that they smoke in different places in school.

Exposure to tobacco smoke, although decreasing, is still highly prevalent [13]. In this survey we show that every second student was exposed to passive smoking and over 60% of respondents said the school was a place of exposure to passive smoking. According to Zatoński, 80% of smokers happened to smoke in the presence of non-smokers, and 48% smoked in the presence of children.

The preamble to the core curricula of primary, secondary and upper secondary schools reads as follows: "Teaching health education by teachers of different subjects is also an important function of school. The purpose of it is to educate students on caring about their personal health and the health of others as well as about creating healthy environment". This statement makes teaching health education a very important task among all other ones that are assigned to school [14]. Our study shows that over 60% of respondents attended school-based health education lessons on youth smoking prevention. The most commonly used measure undertaken to stop smoking in school was a school-based series of lessons on smoking prevention. The lessons were most often conducted by a specialist invited from outside the school. Such methods are assigned to the concept of health

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promotion where health education and supporting actions of legal, organizational, economic, and socio-psychological character have their justified place in attending to the identified health needs such as smoking prevention.

### CONCLUSIONS

Out of all the surveyed 3rd grade students, 25% smoked cigarettes and the percentage of smoking was higher among boys than among girls.

Over 20% of smoking students admitted to smoking in the school building and over half of the surveyed students stated that their teachers smoked on school premises.

Over half of the surveyed secondary school students were exposed to passive smoking and over 60% of them said the school was a place of exposure to passive smoking.

Over 35% of the students stated that there are no methods at school suitable to prevent students from smoking.

60% of the surveyed students attended school-based health education lessons on harmful effects of smoking. They were mainly conducted by specialists from outside the school.

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### Informacje o Autorach

Mgr MAGDALENA KANICKA – asystent, dr hab. n. med. ANDRZEJ SZPAK – kierownik, Zakład Zdrowia Publicznego Uniwersytetu Medycznego w Białymstoku; Dr n. med. MARIA KARPIŃSKA – adiunkt, Zakład Biofizyki, Uniwersytetu Medycznego w Białymstoku.

## Adres do korespondencji

mgr Magdalena Kanicka

Zakład Zdrowia Publicznego Uniwersytetu Medycznego w Białymstoku ul. 1-szej Armii Wojska Polskiego, 15-103 Białystok e-mail:mkanicka@umb.edu.pl