

KAZIMIERA GROMYSZ-KAŁKOWSKA, ANETA UNKIEWICZ-WINIARCZYK,  
EWA SZUBARTOWSKA

## Problem palenia tytoniu wśród studentów w świetle badań ankietowych

### Streszczenie

**Wstęp.** Palenie tytoniu przez młodzież jest wciąż aktualnym problemem niosącym za sobą poważne skutki zdrowotne. Niestety, nałóg ten nadal wciąż nowe ofiary, pomimo licznych akcji antynikotynowych.

**Cel.** Problemem podjętym w niniejszej pracy było poznanie skali palenia papierosów przez studentów oraz odniesienie otrzymanych wyników do wcześniej przeprowadzonych przez nas badań ankietowych dzieci i młodzieży na tym samym terenie Polski i porównanie ich z wynikami innych autorów uzyskanymi na uczelniach w różnych regionach Polski. Studentom postawiono ten sam, co we wcześniejszych grupach wiekowych, szereg pytań w 9 blokach tematycznych.

**Materiał i metoda.** Badaniem objęto 344 mężczyzn i 487 kobiet z terenu południowo-wschodniej Polski w wieku 20-25 lat, studiujących na lubelskich wyższych uczelniach. Zastosowano anonimową ankietę.

**Wyniki.** Wśród objętych badaniami studentów odsetek palących wynosi 34,9% wśród mężczyzn i 26,9% wśród kobiet. Pierwszy kontakt z papierosem miał miejsce w wieku 5-23 lat. Największa liczba studentów rozpoczęła palenie w wieku 13-18 lat. Bardzo wysoki procent palaczy stwierdzono w przypadku, gdy oboje rodzice palą i gdy rodzice są fizycznymi pracownikami. Największy procent studentów pali w towarzystwie. Stwierdzono, że kilkanaście procent studentów wypala do 5 sztuk/dobę, a poniżej 5% więcej aniżeli 20 papierosów/dobę. Silną motywacją do zaprzestania palenia tytoniu jest dla badanych własna choroba, a dla studentek w jeszcze większym stopniu ciąży.

**Wnioski.** 1. Wśród przyczyn rozpoczęcia palenia tytoniu przed okresem studiów największą rolę odgrywa przykład palących kolegów. Natomiast w czasie studiów jest nią stres związany z tym okresem życia młodych ludzi. 2. Palenie papierosów przez studentów w dużym stopniu uwarunkowane jest czynnikami społeczno-ekonomicznymi. 3. Kontynuacja palenia wynika przede wszystkim ze względów towarzyskich. 4. Badane osoby mają wysoką świadomość o szkodliwości palenia. Rzetelna wiedza ma największy wpływ na decyzje o zerwaniu z nałogiem.

**Słowa kluczowe:** palenie tytoniu przez studentów, przyczyny palenia tytoniu, wiedza o szkodliwości palenia, motywacje do zerwania z nałogiem.

## The problem of tobacco smoking among high school students under the survey research

### Abstract

**Introduction.** Cigarette smoking by adolescents is still an ongoing problem exerting serious health effects. Despite numerous anti-tobacco campaigns, a great number of new victims fall into the habit.

**Aim.** The problem undertaken in this study was to investigate the scale of smoking among students and comparison of the results obtained to the results of our previous survey research performed among children and teenagers in the same region of Poland. We also aimed at comparing our results to those obtained by other authors in higher education institutions in various regions of the country. Likewise in the other age groups, university students were asked the same questions referring to 9 thematic sections.

**Material and method.** The study involved 344 men and 487 women from the south-east of Poland who were aged 20-25 and studied at universities in Lublin. An anonymous questionnaire was designed.

**Results.** The student survey revealed 34.9% of smoking men and 26.9% of women smokers. The initiation of smoking took place at the age of 5-23. The largest number of students started smoking at the age 13-18. A very high percentage of smokers was constituted by students whose both parents smoke and when the parents are manual workers. The largest percent of students smoke when in company. It was reported that several percent of the students smoke up to 5 cigarettes a day, and less than 5% - more than 20 cigarettes per day. Illness and pregnancy in the case of women students were strong motivation to give up the habit.

**Conclusions.** 1. The example set by smoking friends turned out to play the greatest role in initiation of the habit. However, at the time of study it is the stress associated with that period of students' lives. 2. Cigarette smoking by students is largely determined by socio-economic factors. 3. Continuation of smoking is primarily related to social reasons. 4. The individuals surveyed exhibited full awareness of the dangers of smoking. Profound knowledge has the greatest impact on the decision to quit the habit.

**Key words:** teenage smoking, reasons for smoking, awareness of the dangers of smoking, motivations to give up the habit.

## INTRODUCTION

Stress related to the specificity of living in a student group plays a significant role in undertaking and continuation of smoking by these teenagers; stress relief and relaxation is often achieved by smoking a cigarette [1-3].

It is widely known that psychological and social motives for taking up the habit are reinforced by the pharmacological effects of nicotine on the central nervous system [4]. This action is visible, among others, in the so-called “nicotine craving” sensation during withdrawal, which is an expression of psychoactive addiction to tobacco. It should be noted, however, that cigarette smoking is a behaviour that can be changed by sufficiently strong motivation to quit the habit. The question arises whether and to what extent student smoking can be prevented. In order to answer this question, it is necessary to know the incidence of this phenomenon and attitudes towards smoking.

## AIM

The present work was aimed at: 1. determination of the age of students in south eastern Poland who start smoking; 2. identifying the social and cultural bases of initiation of smoking; 3. answering the question of the rate of tobacco smoking and its conditioning; 4. recognition of stimuli to give up the habit; 5. determination of student’s knowledge about the deleterious effects of cigarette smoking on human health.

## MATERIAL AND METHODS

Survey research concerning the problem of cigarettes smoking among the secondary and technical school students involved 828 people (361 boys and 467 girls), aged 16-18, coming from different regions of southern Poland and from different environments.

While conducting research the focus was on maintaining constant proportion between sexes in order to obtain the most objective material, which guaranteed comparable results. The obtained data was presented in percentage and presented in tables.

The survey included 24 questions involving factors, which possibly influence taking up smoking by students, such as the place of residence and socio-economic reasons, the causes leading to giving up the habit and the level of knowledge about the harmful effects of smoking.

## RESULTS

The survey results demonstrated that the percentage of smokers among the student- respondents was 34.9% of men and 26.9% of women.

The age of the first contact with cigarettes ranged between 6 to 23 years, with the highest number of the respondents having started to smoke between 13 and 17 years of age. Women students had their first contact with cigarettes at the age of 5 years, with 21 being the oldest age. The majority of them started smoking at the age of 13-18. It should be men-

tioned here that 52.7% of the men and 40.1% of the women of the group do not continue smoking.

A positive answer to the question “Does anyone in your family smoke?” was given by 65.2 % of male students and 64.6 % of female students. This indicates that the majority of the teenage respondents had contact with cigarettes in the family environment; they also had easy access to cigarettes and the example was set by their parents or other relatives.

The survey demonstrated that the lowest percentage of student smokers came from small towns – 17.5% of the men and 16.0% of the women. The percentage of male students smoking who came from towns with population below 100 thousand inhabitants was 25.0%, which was lower than the percentage of female student smokers, the percentage of whom amounted to 32.8%. The differences were observed also between men and women coming from villages – here the percentage of male student smokers was lower than that of female student smokers (26.7% and 35.9%, respectively). A reverse situation can be observed in big cities, where the number of male student smokers is two-fold greater than that of female smokers (30.8% and 15.3%, respectively) (Figure 1).

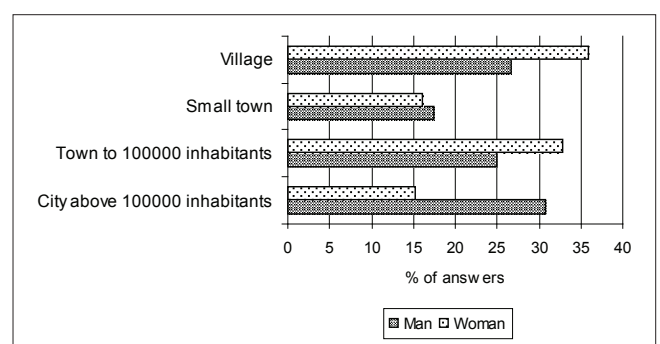


FIGURE 1. Percentage of smoking student’s depending on the place of residence.

On the basis of the survey conducted, it can be claimed that there is a certain correlation between the students’ smoking habit and the level of education of their parents. The lowest percentage of smoking teenagers is observed in families in which both parents have completed primary education. For men, it is 14.2% in the case of the father and 8.3% in the case of the mother, while for women, the percentage amounts to 16.0% and 11.5%, respectively. The highest proportion of smoking students was observed in the case of both parents having completed the secondary level of education – for the men: 67.5% and 64.2%, and for the women 69.5% and 68.7%, respectively. Intermediate percentages of smokers are characteristic for the students, whose parents have a higher education. They are 18.3 % and 27.5% for the men, and 14.5% and 19.9 % in the case of the women, respectively (Figure 2).

The analysis of the relationship between the students’ habit of cigarette smoking and their parents’ profession reveals a high percentage of smokers among students whose fathers are non-agricultural manual workers. It is 53.3% of the male students and 39.7% of the female students. Relatively high percentages, 36.7% and 31.3%, respectively, were noted in the case of male and female students whose

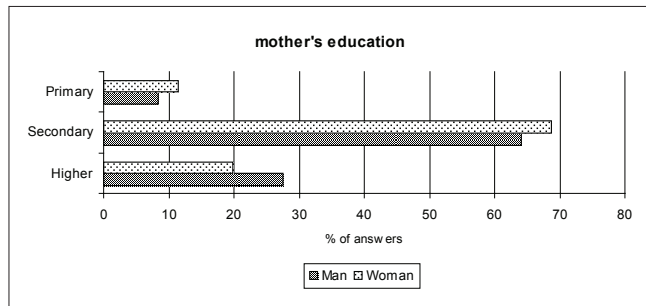
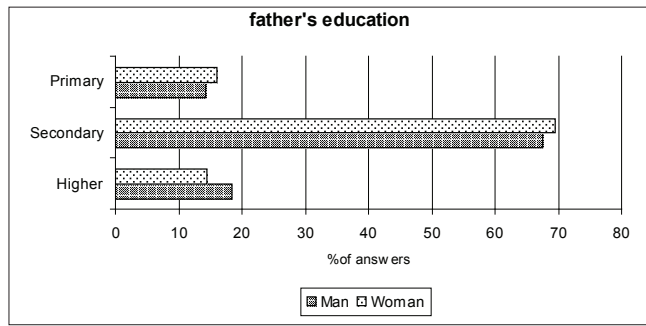


FIGURE 2. Correlation between student's smoking and the level of parents' education.

mothers are white-collar workers. A low number of smokers was observed among female students whose mothers do freelance jobs (6.9%) (Figure 3). The percentage of male students smoking only in social events amounts to 27.4%; while in the case of female students it is 39.8%. This indicates that female students are more likely to be influenced by their friends, compared to their male peers. The percentages of those who smoke only outside home are 18.8% for men and 30.7% for women; 14.1% of male students and 12.1% of female students chose the answer "I smoke only in smoking-permitted areas". As much as 39.8% of the male students and 17.5% of the female students smoke tobacco in spite of prohibition (Figure 4).

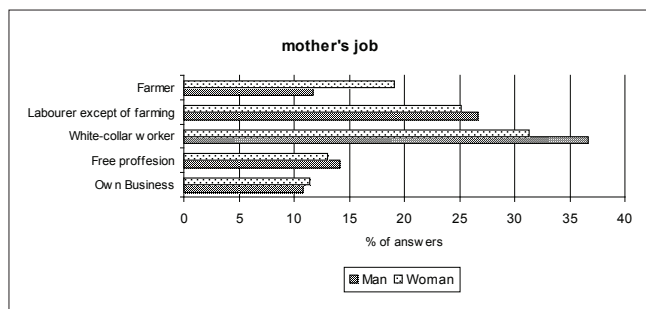
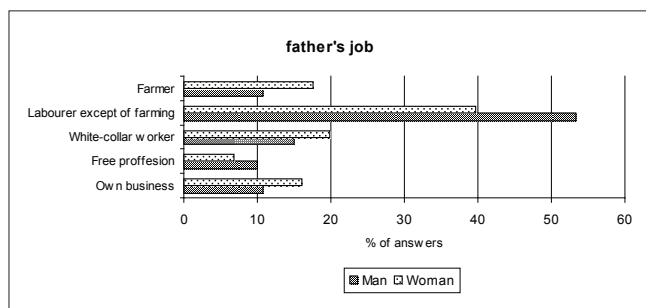


FIGURE 3. Correlation between smoking by students and the parents' job.

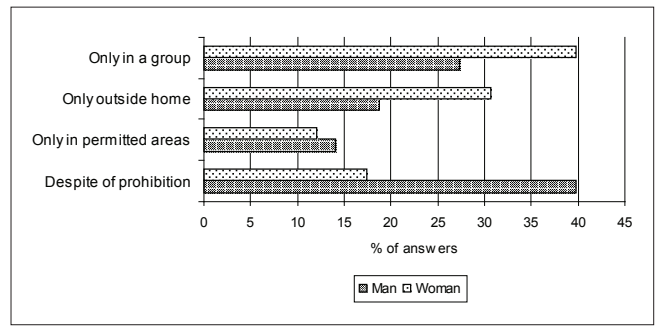


FIGURE 4. Circumstances of smoking.

The results obtained indicate that considerably more female students (49.4%) than male students (29.9%) admit they smoke only occasionally. Several percent of the respondents smoke more than 5 cigarettes daily – 10.7% of the men and 13.5% of the women; 28.9% of the male and 24.7% of the female respondents smoke up to 10 cigarettes daily, and 26.7% of the males and 10.1% of the women admit smoking up to 20 cigarettes every day; 4.8 % of the male students and 2.3% of the female students smoke more than 20 cigarettes a day (Figure 5).

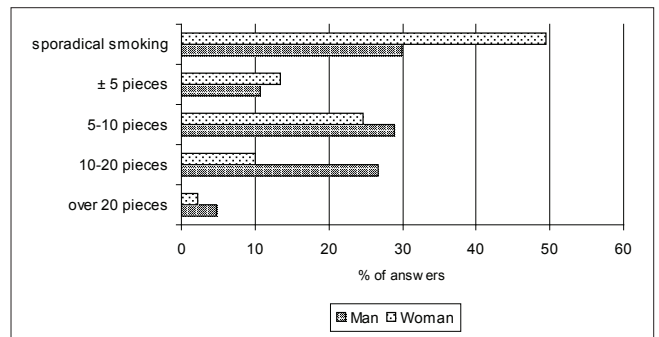


FIGURE 5. Number of cigarettes smoked by students.

The example set by smoking friends is the most prevalent reason for taking up the habit. The decision to start tobacco use taken under the influence of friends amounts to 64.4% of the men and 74.9% of the women. The parents's example had a relatively small influence; it was the cause of taking up the habit by 8.7% of the male students and 2.6% of the female students. The data obtained indicate that tobacco advertising has little importance in starting tobacco smoking; it is mentioned as the cause of starting smoking by 4.4% of the men and merely 2.2% of the women. A significant influence is exerted by defying prohibition – the percentage of such responses is 22.4% of the men and 20.4% of the women (Figure 6).

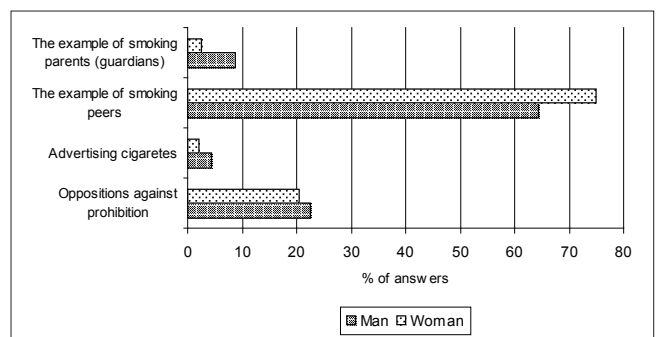


FIGURE 6. Reasons for taking up smoking cigarettes.

The number of male students who wish to quit the habit constitutes 75.0% of the respondents, and of female students – 74.0%. The main reason behind this decision for 50.3% of the men and 53.7% of the women is awareness of the deleterious effects of smoking. Pregnancy is a very important stimulus to give up the habit in the case of the female students – 46.0%. However, only 0.9% of the surveyed men regard pregnancy as an important reason to stop smoking. Reasons that are highly significant in decisions to give up tobacco use include respondents' illnesses (32% of the men and 20.9% of the women), the influence of non-smoking friends (26.1% and 26.9%, respectively) and death of a close person caused by smoking (13.6% and 12.8%, respectively). Media prevention campaigns would persuade 14.6% of the male students and only 4.0% of the female student smokers to give up the habit. Lack of money is the reason for quitting the habit in the case of 13.6% of the male students and 3.4% of the female students. The data obtained show that the percentage of male students who were not convinced by any argument to stop smoking was two-fold higher in male (20.9%) than in female students (9.4%). The reasons classified as "other" were chosen by over twice as many men (19.2%) than women (7.7%) (Figure 7 and 8).

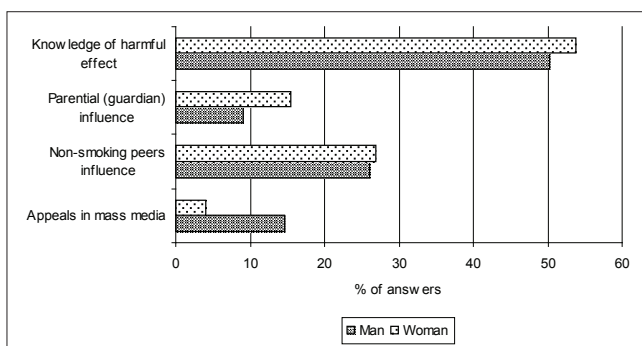


FIGURE 7. Suggestions in the decision to stop smoking.

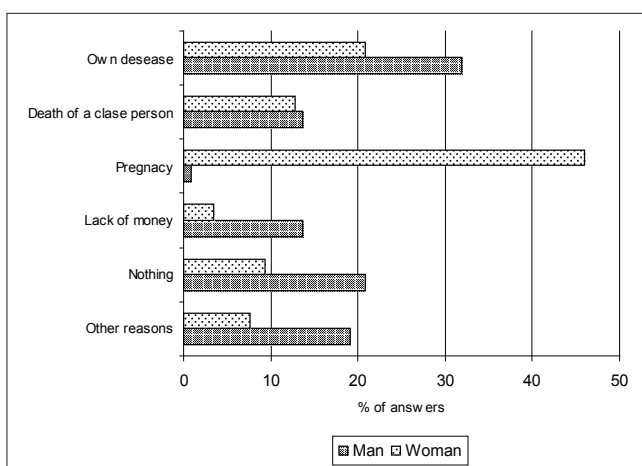


FIGURE 8. Reasons for cessation of smoking.

Only few students believe that active smoking exerts no influence on health. The percentage of men who hold this opinion is only 3.0%, and of women merely 1.5%. An inconsiderable effect of smoking on health is pointed out by 19.9% of the male students and 8.8% of the female students. The proportions of positive answers to the question of serious health hazard posed by smoking were very high – 77.2% of

the male students and 89.7% of the female students share the opinion of extreme harmfulness of tobacco use.

Students are highly exposed to passive smoking – 77.3% and 76.9% of the surveyed men and women, respectively.

Students' opinions on the effect of passive smoking on health differ from their views of the effect of active smoking; 8.9% of the men and 3.4% of the women believe there is no effect. A slight effect is mentioned by 38.5% of the males and 33.5% of the females. Only 52.6% of the men and 63.1% of the women surveyed are convinced that passive smoking results in serious health hazards (Figure 9).

High awareness of harmfulness of smoking is demonstrated by the low percentage of answers to the question "should a pregnant woman smoke?" A positive response was provided by 10.4% of male and 6.9% of female students. Almost 50% of the male respondents (47.9%) attempt to convince smokers that their habit is dangerous for other people staying in the same smoke-filled room. Considerably more positive responses were given by the female students – 62.8%.

Students' knowledge about tobacco-induced illnesses is relatively high. They mention not only cancer diseases of many organs, but also problems with cardiovascular and urinary-reproductive systems; they also emphasize the deleterious effect of tobacco use on baby's prenatal development.

Approximately 30% of the students express the opinion that anti-nicotine campaigns produce the expected results. This opinion is shared by 29.6% of the men and 28.1% of the women.

## DISCUSSION OF THE RESULTS

The conducted study demonstrated that the percentage of student smokers was lower in comparison with that of secondary school teenagers assessed in our previous study [5]. This apparently stems from the fact that pupils consider tobacco smoking to be a sign of adulthood [6], while students, who are adult indeed, do not have to demonstrate it by smoking.

The percentage of smoking students in our study (34.9% of the men and 26.9% of the women) was similar to the data obtained at the Higher Vocational School in Tarnów [6] and Gdańsk University; it was higher than the percentage of students of the Medical Academy, considerably higher than that of Academy of Physical Education in the same city, and lower compared to the number of student smokers from three other universities in Gdańsk: The Higher School of Administration and Business, The Academy of Fine Arts and the Maritime University [7]. The percentage was considerably higher than the values obtained at Poznań universities (Medical University and Adam Mickiewicz University) [3]. Greater numbers of smokers were noted among the students of the Academy of National Economy in Kutno than of the Medical University in Poznań. More men than women smoked in both study groups. The data mentioned indicate unequivocally that the smoking habit is less prevalent among students of medical universities and health care-related faculties [8]. The lower percentages of smokers among the medical university students may result from a relatively vast knowledge of the deleterious effect of smoking on health and from better health habits in this group of young people.



However, the percentage of smoking medical students is much bigger in Poland than in other countries [2].

Tobacco use has often a socio-cultural context. It is visible in the survey conducted by the WHO of the prevalence of tobacco use among the students of 51 world medical universities. The results obtained demonstrated considerable differences. In some universities, the percentage of student smokers was extremely low, for instance 2% of Australian male medical students had the habit, whereas in the previous Soviet Union as many as 48% of students smoked. The percentage of female students who smoked ranged from 0% at several Asian universities to 22% in one of the surveyed European higher schools [9,7].

The significant effect of socio-cultural factors on the level of tobacco smoking is illustrated by the fact that smoking practically does not exist among female students of Chinese medical universities, while the percentage of male student smokers is 38%. This is connected with both the cultural tradition and sanctions towards smoking women [2].

Regardless the respondents' gender, it may be claimed on the basis of the obtained survey data that the biggest percentage of student smokers come from villages and small cities, and the smallest number – from small towns. It may be assumed that relatively little attention is paid to upbringing of teenagers living in the countryside, whereas teenagers from small towns have apparently less access to cigarettes due to modest financial resources of the families. However, on the basis of a study on smoking prevalence among students of the Medical University, Wójtowicz-Chomicz et al. [10] report that students coming from cities smoke nearly twice as much than students from the village environment. In their study of students at the Higher Vocational School in Tarnów, Kołpa et al. [6] also observed a higher proportion of smokers coming from the city, and Siemińska [2] reported a very low percentage (8%) of smoking students at the Medical Academy of Gdańsk who came from villages.

The family status may presumably be an essential element that shapes teenagers' attitudes towards the smoking habit and decisions whether to smoke cigarettes or not. Teenagers whose mothers had completed primary education constituted the least numerous group among the surveyed students and the percentage was only slightly higher in families where the father had completed primary education; the highest percentage of smoker students was reported in the case of both parents having secondary education. Our previous study of primary, pre-secondary and secondary school pupils [11,12,5] indicated that also in this group smoking was prevalent in the families where the parents had secondary education.

Our study demonstrates that parents' occupation is a significant factor determining students' attitudes towards smoking. The largest number of student smokers was reported when both parents were non-agricultural manual workers and when the mother was a white-collar worker. A relatively small proportion of smokers was noted among students, whose parents have their own businesses or do freelance jobs. Also Kleszczewska et al. [13] reported a relatively low proportion of smokers among students from families characterised by a good financial status – both among students from Białystok and Grodno. According to the author, this may be explained by the fact that parents with a higher income care

for their children's healthy lifestyles, hence, young people are less likely to reach for a cigarette.

The highest percentage of the surveyed students only smoke in company. A large proportion of women reach for a cigarette outside home, and numerous men smoke despite the ban.

We observed in our study that a large percentage of female students smoke only occasionally and from 10.1% to 28.9% of them smoke 5 to 20 cigarettes, while less than 5% of the respondents smoke over 20 cigarettes. The problem of the number of cigarettes smoked by students received considerable attention of Chodorowski et al. [7]. These authors investigated this problem in 7 universities in Gdańsk.

Among the reasons for starting smoking by the students surveyed, the predominant factor is an example set by their friends (64.4% and 74.9%), smoking parents had an insignificant effect (2.6-6.8%) and so did tobacco advertisements. We obtained similar data in our previous surveys of children and youth [11,12,5].

According to Wójtowicz-Chomicz et al. [10], parents set a negative example for the Medical Academy students. The results obtained by Kołpa et al. [6] indicate an equal effect of a smoking father and friends.

As mentioned in the Introduction, one of the main reasons why students reach for a cigarette is also the stress accompanying young people in this specific time in their lives, and smoking a cigarette is sometimes taken as a remedy [13]. It enables the smoker, depending on individual susceptibility and emotional state, to calm down or get agitated by the pharmacological action of nicotine [4]. The circumstances of reaching for tobacco mentioned by students of Poznań universities mostly included stressful situations, and to a lesser extent social considerations [3]. The motive for smoking among students, except for social purposes, is sometimes willingness to relax [14]. Stressful situations, such as a large number of classes and frequent tests, promote not only smoking, but can also cause a fixation of this addiction [10].

The age at which the respondents smoked their first cigarette ranges widely from 6 to 23 years. Among the girls, the first contact with a cigarette took place at the age of 5 years and no later than 21 years. The largest number of the male and female students began smoking at the age of 13-17 and 13-18, respectively. Also Chmiel-Poleć and Cybulska [15] found that the largest proportion of young people made the first attempts at smoking between 13 and 17 years of age. Similarly, Sojka-Krawiec and Mękowski [16] reported that secondary school was the period when the decision to start smoking was made by a high proportion of young people (66.7% -85.7%).

The statistical analysis conducted at the end of the last century shows that 1% of girls and 6% of boys started smoking at the age of 7-10, and 9% of girls and 23% of boys start when they are aged 11-13 [17]. Thus, a significant proportion of young people start smoking when they are most prone to the influence of their smoking friends; it is obvious that opinions shared by their peers are very important.

The decision to give up the habit was significantly influenced by students' knowledge of the deleterious effects of smoking (slightly above 50%). In addition to health considerations, the influence of their non-smoking friends is impor-

tant. However, media campaigns are not significant determinants of the decision to quit. Still, at least for some teenagers, they may be a vital stimulus to refrain from smoking. The problem of quitting the habit was studied by Sojka-Krawiec and MękarSKI [16], who report that 2/3 of the students of the Faculty of Physical Education and Physiotherapy at the Opole University of Technology try to stop smoking. The research carried out by Siemińska et al. [2] demonstrated that a high proportion of the first year students at the Medical University of Gdańsk are willing to quit the habit.

Strong motivation to stop smoking for the male students surveyed is their own illness, and for the female students, even to a greater extent, pregnancy. The data obtained allow for concluding that the students have a high awareness of the harmful effects of active and passive tobacco smoking.

It seems that anti-nicotine education and prevention of tobacco use based on a thorough knowledge of the mechanisms of addiction and the harmful effects of smoking could be more effective.

The results of the study carried out by Wójtowicz-Chomicz et al. [10] raise concerns that medical students, who will be future doctors, are not sufficiently prepared to promote the correct model of health behaviour among patients. Since many graduates of other faculties, who will be future teachers, have unhealthy habits themselves, they may not be able to create a climate for effective pedagogical and educational work to promote health among school students [16].

Mojs et al. [3] emphasize the need for intensification of educational health-promoting activities. Dziankowska-Zaborszczyk et al. [8] propose introduction of courses of health promotion and prevention of chronic non-communicable diseases into the curriculum for nursing. The need to increase involvement of doctors in anti-nicotine actions is mentioned in their research by Kaleta et al. [18].

## REFERENCES

- Kawczyńska-Butrym Z. Zachowania wynikające z osobistego wyboru. Palenie papierosów. In: Kawczyńska-Butrym Z (ed). Uczelnia promująca zdrowie. Lublin: Wydawnictwo UMCS; 1995.
- Siemińska A, Jassem JM, Uherek M, Wilanowski T, Nowak R, Jassem E. Postawy wobec palenia tytoniu wśród studentów pierwszego roku medycyny. *Pneumonol Alergol Pol.* 2006;74:377-82.
- Mojs E, Cybulski M, Strzelecki W, Gajewska E, Głowacka MD, Samborski W. Motywy palenia wśród studentów poznańskich wyższych uczelni. Analiza porównawcza. *Przeg Lek.* 2008;65(10):560-1.
- Krechniak J. Nikotynizm. In: Seńczuk W (ed). Toksykologia. Warszawa: PZWL; 1990.
- Gromysz-Kałkowska K, Unkiewicz-Winiarczyk A, Zwierzyk-Karłowska A. The problem of tobacco smoking among the young people under the survey research. III. Secondary and technical school students. *Annales UMCS sectio D.* 2009; 64(1):38-46.
- Kołpa M, Grochowska A, Kubik B, Schlegel-Zawadzka M. Palenie tytoniu wśród studentów Państwowej Wyższej Szkoły Zawodowej w Tarnowie kierunku pielęgniarstwo i informatyka. *Probl Hig Epidemiol.* 2007;88(supl.3):75-80.
- Chodorowski Z, Sein Anand J, Salamon M, Waldman W, Wnuk K. Ocena nikotynizmu i picia alkoholu przez studentów wyższych uczelni Gdańska. *Przeg Lek.* 2001;58(4):272-5.
- Dziankowska-Zaborszczyk E, Polańska K, Bąk-Romaniszyn I, Drygas W, Kaleta D. Rozpowszechnienie palenia tytoniu i biernej ekspozycji na dym tytoniowy wśród pielęgniarek. *Przeg Lek.* 2009;60(10):738-40.
- Waalkens HJ, Cohen-Schotanus J, Adriaanse H, Knol K. Smoking habits. *Euro-Resp J.* 1992;5:49-52.
- Wójtowicz-Chomicz K, Kowal M, Wójtowicz M, Borzęcki A. Próba oceny zachowań anty-zdrowotnych studentów Akademii Medycznej w Lublinie. *Probl Hig Epidemiol.* 2007;88(1):108-11.
- Osińska E, Gromysz-Kałkowska K, Zwierzyk-Karłowska A. The problem of tobacco smoking among the young people under the survey research. I. Primary school pupils. *Annales UMCS sectio D.* 2006;61:500-7.
- Osińska E, Zwierzyk-Karłowska A, Gromysz-Kałkowska K. The problem of tobacco smoking among the young people under the survey research. II. Grammar school students. *Annales UMCS sectio D.* 2008; 63(1):125-32.
- Kleszczewska E, Jaszczuk A, Szpakow A. Badania wiedzy oraz postaw wobec nałogu palenia papierosów wśród studentów wybranych kierunków w Polsce i na Białorusi. *Przeg Lek.* 2008;65(10):580-4.
- Motyka A, Adamek R, Kurzępa-Hasan E, Bochenek K. Motywy, świadomość zagrożeń oraz rozpowszechnienie palenia tytoniu wśród studentów Uniwersytetu Medycznego w Poznaniu oraz Wyższej Szkoły Gospodarki Krajowej w Kutnie. *Przeg Lek.* 2008;65(10):562-4.
- Chmiel-Połać Z, Cybulska I. Palenie papierosów oraz inne czynniki ryzyka chorób układu sercowo-naczyniowego związanych z miażdżycą tętnic wśród młodzieży. *Przeg Lek.* 2008;65(10):437-45.
- Sojka-Krawiec K, MękarSKI B. Wybrane zachowania antyzdrowotne na przykładzie studentów I i IV roku Wydziału WFIF Politechniki Opolskiej. *Annales UMCS sectio D.* 2003; 58(Suppl 13):145-51.
- Korczak C.W. Higiena. Warszawa: PZWL; 1998.
- Kaleta D, Polańska K, Dziankowska-Zaborszczyk E, Drygas W. Antytytoniowe poradnictwo lekarskie. *Przeg Lek.* 2008;65(10):432-6.

## Informacje o Autorkach

Prof. dr hab. KAZIMIERA GROMYSZ-KALKOWSKA – emeryt; dr ANETA UNKIEWICZ-WINIARCZYK – adiunkt; dr EWA SZUBARTOWSKA – emeryt, Wydział Biologii i Nauk o Ziemi, Instytut Biologii, Uniwersytet Marii Curie-Skłodowskiej w Lublinie.

## Adres do korespondencji

Aneta Unkiewicz-Winiarczyk  
ul. Akademicka 19, 20-033 Lublin  
e-mail: aneta\_uw@wp.pl  
tel. 691371819