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## DOROTA ŻOŁNIERCZUK-KIELISZEK

Knowledge of health consequences of nicotinism among secondary school pupils. Young people's attitudes towards passive smoking and their opinions about anti-nicotine act's regulations

Wiedza uczniów liceum ogólnokształcącego na temat skutków zdrowotnych nikotynizmu. Postawy młodzieży wobec palenia biernego i opinie o przepisach ustawy antynikotynowej

The aim of the paper was to examine the level of knowledge of health consequences of nicotinism among secondary school pupils. It was also intended to determine what attitudes towards passive smoking and towards anti-nicotine act that is presently in force, they have. The results of the survey were analysed according to sex, class that the subjects attended and the fact if they were active smokers.

#### INTRODUCTION

Smoking tobacco is a common phenomenon in Poland. It is estimated that 39% of adult men and 19% of adult women smoke cigarettes every day. Although the percentage of smokers is systematically falling down in the course of the last few years, the number of the children and teenagers who begin the habit of smoking is quickly increasing. Most of the smokers become addicts before the age of 20. If a man does not start smoking in his youth, the chance to become addicted in subsequent years is small. Therefore children and teenagers are subjects to special attention of tobacco industry that directs its commercial action towards them e.g. by means of organising pop concerts (8).

Thus it is extremely important to spread the knowledge of destructiveness of the addiction to cigarettes especially among young people. Equally important is the attitude of non-smoking youth – if they avoid exposure to tobacco smoke being aware of the consequences of passive smoking.

Legislative policy of the state plays a significant role in the reduction of tobacco use in the society. In Poland, in 1996 the "Act about health protection against consequences of use of tobacco

and tobacco products" was passed. It introduces among others: ban on smoking indoors in public places excluding places that are specially marked out to smoking, ban on selling tobacco products to children and youth under 18 and restriction in tobacco products advertising. It was interesting to get acquainted to young people opinions about these regulations.

#### MATERIAL AND METHODS

The research in form of auditorial questionnaire included 3<sup>rd</sup> and 4<sup>th</sup> class pupils of the Hugo Kołłątaj Memorial Secondary School number six in Lublin. The choice of the school was preceded with the analysis of the socio—demographic framework of secondary school pupils in Lublin. The research was carried out in March 1999. Altogether 178 correctly filled questionnaires were collected, which constitutes about 50% of the population of 3<sup>rd</sup> and 4<sup>th</sup> class pupils of the school. Women constituted 69.1% of the group, and 4th class pupils – 62.9% of surveyed group.

#### RESULTS AND DISCUSSION

Most of the subjects were non-smokers (61.8%). 16.9% of the pupils admitted to every-day smoking; 21.3% smoke cigarettes only sometimes. Nearly twice more women than men included themselves in the group of every-day smokers. This fact is in odds with earlier statements that in each age group boys smoke more often than girls (6). The percentage of pupils who smoke every day is twice higher in 4th classes than in 3rd classes, which can be explained by means of stress and period of intensive studying before maturity exams and entrance exams. Figure 1 illustrates these differences. The survey among 4th and 5th class pupils of Lublin secondary schools and technical schools that was carried out by Kulik in 1995 (4) showed much higher percentage of smokers. In her research only 41.5% of the subjects claimed that they had no contact with cigarettes.

53.9% of the pupils confirmed that there is at least one smoker in their family home. The percentage of pupils smoking every day was three times higher among those who come from smoking fami-

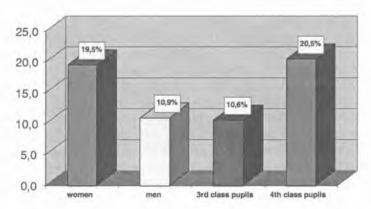


Fig. 1. Pupils smoking cigarettes every day according to sex and class

lies than among pupils whose family members do not smoke. This statement confirms thesis that pupils often follow patterns of their parents and siblings who smoke cigarettes when they begin to smoke (2).

53.1% of the subjects claimed that they usually avoid staying in the tobacco smoke environment i. e. in smoky places or in company of smokers, but they admit, they stay in the company of smokers when they like them very much. 17.7% of the pupils decidedly avoid exposure to tobacco smoke and 29.2% does not care if they are passive smokers or not. Women declared consequent avoidance of exposure to tobacco smoke three times more often than men.

Another question of survey was addressed only to the pupils who smoke. They were asked if they avoided smoking in presence of others in order to protect others' health. The prevailing answer was:

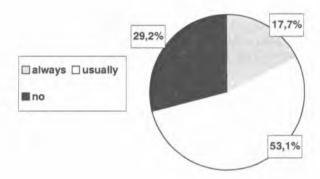


Fig. 2. Do you avoid staying in tobacco smoke environment?

"only if non-smokers have any objections". 42.6% of the smokers chose this answer. As many as 27.9 % of the smokers admitted that they smoked whenever they felt like doing it no matter what others think about it.

Afterwards pupils were asked to express their opinion about the ban on smoking in public places that is presently in force. Half of the subjects recognised the pertinence of the ban. 37.6% claimed that

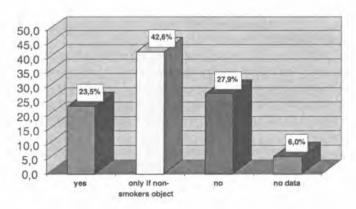


Fig. 3. Do you avoid smoking cigarettes in presence of others?

this ban should be more rigorously obeyed by means of more frequent controlling and punishing for breaking it. On the other hand, 12.4% of the subjects considered this ban to be a limitation of freedom and rights of smokers and a sign of discrimination of smokers. The opinions against the ban were more frequently expressed by smokers than non-smokers.

Similar distribution of answers was obtained when the pupils were asked to give their opinions about the ban of the sale of tobacco products to people under 18. In this case 6.2% of the surveyed youth regarded this ban as a sign of discrimination of smokers. This view was twice more often expressed by men.

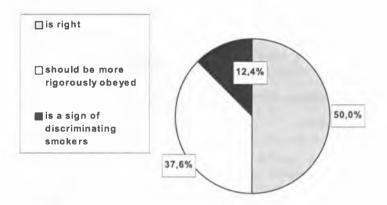


Fig. 4. Ban on smoking cigarettes in public places...

Most of the subjects support the regulations of anti–nicotine act concerning advertising tobacco products. 59.6% proclaim themselves in favour of limiting tobacco products advertisements and commercials in the extent that is presently in force; i. e. ban on TV and radio commercials as well as children's and teenager's press commercials, but affording possibilities to adverse them on billboards and in adult press. 28.7% of the pupils were for total prohibition against advertising tobacco products. The opposite opinion was expressed by 11.8% of the youth – they were against any limitation on the cigarette's commercials. Among the adherents of this claim there were more boys, 4<sup>th</sup> class pupils and tobacco smokers. On the other hand, non–smokers much more often supported the need of the total prohibition against advertising tobacco products.

The next figure illustrates the opinions about present prices of cigarettes. Nearly half of the pupils think that cigarette prices are too low and they should be raised, so as to limit their consumption in the society. This claim is more often represented by non–smokers. 17.4% of the subjects claim that present–day prices of cigarettes are to high and they should be lowered so that more people who want to buy cigarettes could afford them. This opinion is given by more than a half of every–day smokers, and only by 7.3% of non–smokers.

The following set of questions referred to pupils' knowledge of health consequences of nicotinism. Almost all the subjects (98.3%) confirmed that smoking cigarettes has negative influence on health. The only ones who had some doubts about it were men and every—day smokers.

Figure 7 presents sources of knowledge about negative health consequences of using tobacco. It was a multiple-choice question. About 3/4 of surveyed group find out about negative influence of

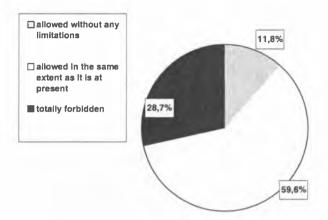


Fig. 5. Advertising tobacco products should be...

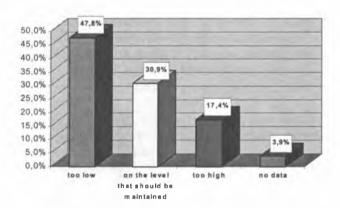


Fig. 6. Cigarettes prices are presently...

smoking on health from newspapers and magazines. 59.6% – from TV and radio and 52.2% from inscriptions on advertisements and cigarette wrappings. Parents explain negative consequences of smoking to 43.8% of young people. School is the source of knowledge only for 1/4 of the pupils. Non-smokers more frequently mentioned mass media as the source of knowledge of negative health consequences of nicotinism. Tobacco smokers, on the other hand, more often find out about them from their parents and from the inscriptions on cigarette wrappings.

Only 37.6% of the subjects admitted smoking cigarettes to be a chemical addiction similar to alcoholism and drug addiction. In the view of 56.9% of the pupils smoking is merely a fixed, long-lasting habit, which can be given up owing to one's strong will. This view was supported by as many as 80% of every-day smokers.

81.5% of the subjects correctly named cancer of the lungs as the most frequent neoplasm caused by smoking cigarettes. 12.9% wrongly claimed that it is a larynx cancer and 3.4% – that it is a pharynx cancer.

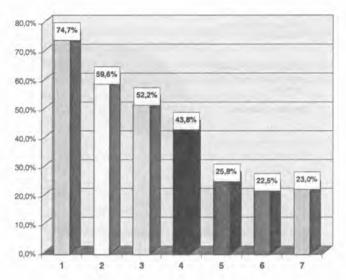


Fig. 7. Sources of knowledge of negative health consequences of nicotinism; 1) newspapers, magazines, 2) TV, radio, 3) inscriptions on cigarettes' advertisements and wrappings, 4) parents, 5) teachers, school books, 6) medical staff, 7) siblings, friends

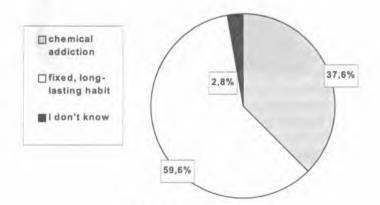


Fig. 8. Smoking tobbaco is...

53.9% rightly claimed that in case of joint influence of smoking cigarettes and other cancergenic factors, synergism i. e. multiplication of intensity of influence of each cancergenic factor occurs. 33.7% represented the opinion that joint influence of the factors does not multiply and 12.4% did not decide which answer to choose. False answer was more often given by men.

More than a half of the subjects guessed that on the average every eleventh smoker fall ill with cancer of the lungs (3). 29.8% were of the opinion that this disease concerns on the average every hundredth smoker and 12.4% of the total number were not able to answer this question. This question

turned out to be especially difficult for the pupils who smoke cigarettes every day – every third of them chose the answer 'I don't know'.

Another question concerned the extent of danger of cancer development among long-time, intensive smoker who gives up this addiction. 91.6% of the subjects chose the correct answer that the danger of cancer of the lungs among such people reaches the level equal to the level of non-smokers

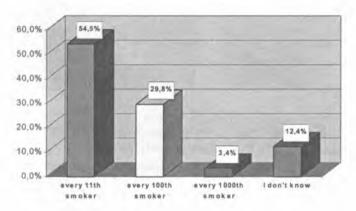


Fig. 9. On the average lung cancer concerns...

only after dozen or so years after giving up smoking (5). 3.9% of the pupils claimed that the danger becomes the same as for a non–smoker right after giving up smoking, and 4.5% were not able to answer this question.

Nearly all the subjects (97.8%) were aware of the fact that smoking cigarettes by pregnant women does have a negative influence on the development of an embryo, triggering among others the danger of innate defects and low birth weight of a new born child. False answer that smoking cigarettes by a mother does not have any influence on an embryo was chosen by one man, three pupils admitted that they did not know.

The next question was if smoking tobacco quickens the decay of the skin and the occurrence of wrinkles. Answer "yes" was given by 92.1% of the pupils. Incorrect view that smoking has no influence on the quickness of getting old, was represented by 4.5% of the subjects. This view was almost four times more often represented by men and five times more by every—day smokers.

88.2% of the pupils chose the correct answer that passive smoking is almost as harmful as active smoking. 8.4% of them were of the opinion that passive smoking is definitely less harmful, and 1.1% – that passive smoking has no effect on health.

63.5% of the pupils confirmed that smoking is especially harmful to young people in the period of growing—up and development of an organism. In the opinion of 30.9% of the subjects smoking cigarettes is equally harmful to everybody irrespective of the age and 5.6% of the pupils could not decide which answer to choose.

In the next question of the survey six names of diseases were mentioned. Pupils were asked to name those that occur much more often among tobacco smokers than among non-smokers. It turned out that the disease that is most often linked with tobacco smoking is heart attack – as many as 93.3% of the pupils maintains that smoking increases the risk of going down with this disease. About 1/4 of the subjects indicated gastric ulcer as the one that is in some extent connected with nicotinism and

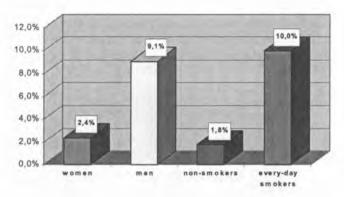


Fig. 10. Percentage of pupils claiming that smoking cigarettes does not influence the speed of getting old

only 2.2% indicated the cancer of the urinary bladder as tobacco-related neoplasm. 6.2% of the young people chose the wrong answer "eyeballs refraction defects". It was the answer more frequently chosen by men and non-smokers.

The subjects were also asked which method of giving up the habit of smoking is more efficient one: immediate, complete giving up or gradually reducing the number of cigarettes smoked during the day. The former, which is the true answer, was chosen by 42.1% of the group, the latter answer was chosen by 53.4% and 4.5% did not know which answer to choose.

The last question referred to the size of the average body weight increase that occurs among about 38% of intensive smokers who give up the habit (2). It appeared that more than a half of the subjects think that the increase is bigger than it really is in fact. The correct answer, which is 5 kg was given by every third person. The question proved to be too difficult for 12.9% of the subjects.

### **CONCLUSIONS**

- 1. Only 17.7% of secondary school pupils consequently avoid passive smoking. Pupils who smoke cigarettes usually decide not to smoke in the presence of non-smokers if they expressed their objection. However, 27.9% of the smokers smoke whenever they want, no matter if they are in the presence of non-smokers.
- 2. Most of the subjects are in favour of the anti-nicotine act's regulations concerning the ban on smoking in public places and the sale of cigarettes to young people under 18 as well as restrictions on advertising tobacco products. These regulations are most frequently rejected by tobacco smokers. They are also more often in favour of lowering present-day prices of cigarettes.
- 3. The youth under the examination find out about negative consequences of the use of tobacco mainly from the mass media and from the inscriptions on the

advertisements and wrappings of cigarettes. The role of the school in this matter is too limited.

4. Most of the pupils gave correct answers to the questions concerning health consequences of nicotinism. Incorrect answers of more than a half of the subjects appeared only in question concerning the ways of getting addicted to nicotine, efficient methods of giving up the habit and the size of the average body weight increase after giving up smoking.

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#### **STRESZCZENIE**

Celem pracy było poznanie poziomu wiedzy uczniów liceum ogólnokształcącego na temat skutków zdrowotnych nikotynizmu. Zamierzano też określić postawy młodzieży wobec palenia biernego oraz poznać opinie uczniów o przepisach obowiązującej obecnie ustawy antynikotynowej. Badaniem, w formie ankiety audytoryjnej, objęto 178 uczniów klas trzecich i czwartych VI Liceum Ogólnokształcącego im. Hugona Kołłątaja w Lublinie. Badanie zostało przeprowadzone w marcu 1999 roku.

Wyniki analizy wskazują na to, że zaledwie 17,7% uczniów liceum konsekwentnie unika palenia biernego. Uczniowie palący tytoń zazwyczaj rezygnują z palenia w obecności innych osób, gdy osoby te wyrażają sprzeciw. Jednak 27,9% palaczy pali, gdy ma na to ochotę, nie zwracając uwagi na obecność innych osób.

Większość ankietowanych popiera przepisy ustawy antynikotynowej dotyczące zakazu palenia tytoniu w zamkniętych obiektach użyteczności publicznej, zakazu sprzedaży wyrobów tytoniowych młodzieży poniżej 18 roku życia i ograniczenia reklamy wyrobów tytoniowych. Przeciwko tym przepisom częściej wypowiadają się palacze tytoniu. Oni także częściej pragną obniżenia obecnych cen papierosów.

Badana młodzież dowiaduje się o ujemnych następstwach używania tytoniu głównie ze środków masowego przekazu i z ostrzeżeń na reklamach i opakowaniach papierosów. Rola szkoły w uświadamianiu młodzieży w tym zakresie jest zbyt mała. Większość uczniów udzieliła prawidłowych odpo-

wiedzi na pytania dotyczące skutków zdrowotnych nikotynizmu. Błędne odpowiedzi ponad połowy badanych pojawiły się tylko w pytaniach dotyczących możliwości uzależnienia się od nikotyny, skutecznego sposobu porzucania nałogu palenia tytoniu i wielkości przeciętnego przyrostu masy ciała, pojawiającego się u intensywnych palaczy porzucających nałóg.