

# The attitude of Gdańsk middle school students to the problem of smoking and use of tobacco products

## Stosunek gdańskich gimnazjalistów do problemu palenia tytoniu i używania wyrobów tytoniowych

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## Abstract

**Background.** Cigarette smoking among young people is a serious problem. Many young people reach for tobacco products and although there are teenagers they do not have problems with purchasing them.

**Objectives.** To test Gdańsk middle school students' knowledge about the dangers of smoking and tobacco use.

**Material and methods.** The study used a method of diagnostic survey. Data was collected using a survey developed by World Health Organization (WHO) – Global Tobacco Surveillance System (GTSS) Global Youth Tobacco Survey (GYTS) – Core Questionnaire with Optional Questions, to which the respondents gave answers themselves. The study involved 117 adolescents aged 14–17 years.

**Results.** Fifty-seven percent of respondents tried to smoke cigarettes and other tobacco products and had no problem with their purchase. Fifty-eight percent of respondents were exposed to passive smoking within the last week. Twenty-five percent of students agree with the statement that they might get to like smoking. Almost 82% are aware of the fact that giving up smoking is difficult. Twenty-four percent of respondents declared that their first contact with a cigarette was when they were less than 11 years old. For 56% of respondents obtaining cigarettes would not be a problem.

**Conclusions.** Smoking of tobacco products is a serious problem among teenagers. They are not only exposed to its negative consequences during active, but also during passive smoking. Young people experiment with the consumption of tobacco products and it is not a problem for them to acquire them. The results show that even very young people fall into addictions difficult to overcome.

**Key words:** smoking, teenagers, tobacco, human health

## Streszczenie

**Wprowadzenie.** Palenie tytoniu wśród młodzieży stanowi poważny problem. Wiele młodych ludzi sięga po wyroby tytoniowe i chociaż są nieletni, nie mają problemu z zakupem papierosów.

**Cel pracy.** Weryfikacja wiedzy uczniów z gdańskich gimnazjów na temat szkodliwości palenia i używania wyrobów tytoniowych, a także ukazanie ich postaw i przekonań.

**Materiał i metody.** W pracy wykorzystano metodę sondażu diagnostycznego. Zbieranie informacji odbyło się przy wykorzystaniu ankiety stworzonej przez WHO – Global Tobacco Surveillance System (GTSS) Global Youth Tobacco Survey (GYTS) – Core Questionnaire with Optional Questions, którą respondenci wypełniali samodzielnie. W badaniu wzięło udział 117 nastolatków w wieku 14–17 lat.

**Wyniki.** Aż 57% ankietowanych próbowało palić papierosy, a także inne wyroby tytoniowe i nie miało problemu z ich zakupem. Wśród badanych 58% osób było narażonych na bierne palenie w przeciągu ostatniego tygodnia. Jedna czwarta uczniów zgadza się ze stwierdzeniem, że mogliby polubić palenie. Prawie 82% zdaje sobie sprawę z tego, że rzucenie palenia jest trudne. Pierwszy kontakt z papierosem <11. r.ż. miało 24% badanych. Dla 56% ankietowanych zdobycie papierosów nie stanowiłoby problemu.

**Wnioski.** Palenie wyrobów tytoniowych stanowi poważny problem wśród nastolatków. Są oni narażeni na jego negatywne skutki nie tylko w trakcie czynnego, ale także podczas biernego palenia. Młodzi ludzie eksperymentują ze spożywaniem wyrobów tytoniowych i nie stanowi dla nich problemu zdobycie tych produktów. Wyniki badania pokazują, że już bardzo młodzi ludzie wpadają w trudne do pokonania uzależnienia.

**Słowa kluczowe:** palenie, nastolatki, tytoń, zdrowie człowieka

## Background

Smoking kills more than 6 million people worldwide every year.<sup>1</sup> According to the World Health Organization (WHO), every 6.5 s someone in the world dies from tobacco use. The health consequences of smoking include an increased risk of malignant tumors, cardiovascular diseases and respiratory diseases. The most common are lung, laryngeal, throat, and esophageal cancers. In women, smoking increases the risk of breast, cervical and ovarian cancer. Studies have also shown that smoking can lead to disorders in lipid metabolism, including increased cholesterol and triglycerides levels. There is also a strong correlation between smoking and coronary heart disease and heart attack. Smoking is also considered to be a predisposing factor for stroke, and quitting smoking clearly reduces the risk of a brain incident.<sup>2</sup> Importantly, smoking not only causes lung cancer or heart disease, but also cataracts, caries, hearing loss, wrinkles, hair loss, or osteoporosis.<sup>3</sup> Most adult smokers lit their first cigarette before they turned 18.<sup>4</sup> The Health Behaviour in School-Aged Children (HBSC) study shows that 13% of children aged 11–12 years have tried smoking, while in adolescents aged 13–14 this percentage increases to 32%.<sup>5</sup> People who start smoking in their teens and smoke for the next 2 decades die 20–25 years earlier than people who have never had a cigarette.<sup>6</sup> One of the main causes of premature death among adults in Poland is cigarette smoking.

The aim of the study was to verify the knowledge of Gdańsk middle school students about the harmful effects of smoking and tobacco use, as well as the characterization of their attitudes and beliefs.

## Material and methods

This study uses the diagnostic survey method. The information was collected using the Global Tobacco Surveillance System (GTSS) Global Youth Tobacco Survey (GYTS) – Core Questionnaire with Optional Questions, developed by WHO.<sup>5</sup> The survey was conducted in March and April 2014. The respondents answered the questions contained therein themselves. A total of 117 teenagers, aged 14–17, from the 2<sup>nd</sup> grade of middle schools in Gdańsk took part in the survey. The questionnaire included questions on socio-economic status, attitudes and beliefs about smoking and tobacco products, exposure to passive smoking, ways of acquiring cigarettes, and familiarity with advertisements and reception of anti-smoking campaigns, as well as an economic section containing questions about preferences for brands or flavors of cigarettes.

## Results

The respondents were aged 14 (26%), 15 (68%), 16 (3%), and 17 (2%). The proportion of boys to girls was 52% to 48%. Education level of the parents of the respondents is presented in Table 1.

When asked about the amount of the received allowance, 29%, i.e., the most numerous group of students, replied that they receive <20 PLN per week for their own expenses, 24% receive 20–30 PLN per week, while 7% have <100 PLN per week at their disposal (Table 2).

In the last month, 11% of respondents smoked daily, 4% smoked for 20–29 days in the last month and 68% did not smoke any cigarette. Over the same time, 9% of respon-

**Table 1.** Parents' level of education**Tabela 1.** Wykształcenie rodziców

| Education    | Father [%] | Mother [%] |
|--------------|------------|------------|
| Primary      | 3.42       | 0.85       |
| Vocational   | 26.50      | 22.22      |
| Secondary    | 20.51      | 24.79      |
| Higher       | 23.93      | 38.46      |
| I don't know | 25.64      | 13.68      |

**Table 2.** Amount of allowance**Tabela 2.** Wysokość kieszonkowego

| Amount of allowance                     | %     |
|-----------------------------------------|-------|
| I usually don't have that kind of money | 12.82 |
| PLN <20                                 | 29.06 |
| PLN 20–30                               | 23.93 |
| PLN 31–40                               | 11.11 |
| PLN 41–50                               | 5.98  |
| PLN 51–60                               | 3.42  |
| PLN 60–100                              | 6.84  |
| PLN >100                                | 6.84  |

dents smoked <1 cigarette per day, 13% – 2–5 cigarettes per day, 5% – 6–10 cigarettes, 2% – >20 cigarettes per day, while 69% did not smoke for the last month. Differences in the percentage of “I don't smoke” answers are due to the fact that respondents could indicate this answer in each question. As a result, each time it was selected by a different number of students.

The age of tobacco initiation is shown in Table 3.

Of the entire group, 66 people (56%) tried to smoke cigarettes, 37 of whom (56%) have been smoking to date. As many as 65% of teenagers who smoke cigarettes first tried smoking at the age of 12–13.

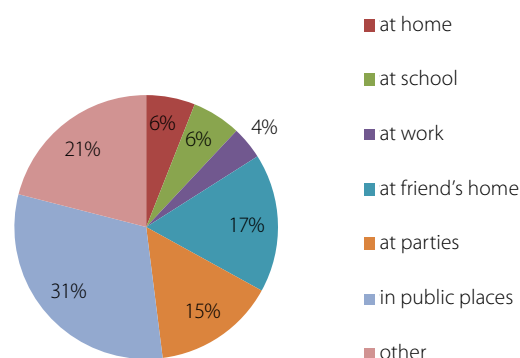
The breakdown of places where students smoke most often is as follows: 6% of the surveyed smokers indicated their home, also 6% the school, while the highest number of respondents – 31% – smoke in public places (Fig. 1).

More than a quarter (26%) of respondents declared that they experimented with smoking tobacco products other than cigarettes. As many as 32% of students who do not smoke cigarettes tried to smoke snuff, whereas among snuff smokers as many as 63% of the respondents tried smoking cigarettes as well. Twenty-four percent of respondents smoke but do not use other tobacco products.

In the section of the survey concerning the desire to stop smoking, 10% of respondents expressed such desire, 9% would not want to stop smoking, 22% said they did not smoke anymore, and 24% think they would be able to quit if they wanted to. When asked if they have ever received help or advice from someone that would help them quit smoking, 15% of the respondents answered that they received help from a friend, 2% from a professional (e.g.,

**Table 3.** The age of tobacco initiation**Tabela 3.** Wiek inicjacji tytoniowej

| Age of tobacco initiation | %     |
|---------------------------|-------|
| I never smoked cigarettes | 43.59 |
| <7 years                  | 2.56  |
| 8–9 years                 | 7.69  |
| 10–11 years               | 13.68 |
| 12–13 years               | 20.51 |
| 14–15 years               | 11.11 |
| >16 years                 | 0.85  |

**Fig. 1.** Places where students smoke most often**Ryc. 1.** Miejsca, w których uczniowie palą najczęściej

a doctor), 8% from a family member, 5% from professionals and friends or family members, while 31% of them have never received such help.

Questions about places where students can buy cigarettes were answered as follows: 13% bought them in a store, 7% in a kiosk, 3% from someone else, while 7% got them in another way. As many as 56% of middle school students said that buying cigarettes would not be a problem for them.

In the last 7 days, 58% of respondents were exposed to passive smoking and 88% said passive smoking was dangerous for them. Seventy-seven percent of students were in favor of a ban on smoking in public places.

The survey showed that 54% of respondents in the last month saw or heard an anti-tobacco message on TV or poster or heard it on the radio; however, 49% of them did not particularly think about the health warnings on cigarette packets. The results showed that 63% of middle school students came across cigarette ads in stores and 86% of students saw someone smoking in a film or TV series over the past month.

In the smoking attitudes and beliefs section of the survey, 27% of teenagers said they plan to use tobacco products in the next 12 months and, at the same time, 25% of teenagers asked the question: “If someone offers you a cigarette, will you smoke it?” gave an affirmative answer.

The last part of the survey included questions about access to cigarettes and teenagers' preferences regard-

ing the brand (Table 4) and type (Table 5) of cigarettes smoked. Students could select several answers. The vast majority of them smokes Marlboro and L&M cigarettes; students choose thick cigarettes, either regular or menthol ones. Forty-one percent of them think that cigarettes are relatively easy to buy and that they can be bought close to school.

The survey shows that teenagers are aware of the risk of becoming addicted to smoking (82% of respondents when asked if it is difficult to stop smoking gave a positive answer), yet 57% of them tried to smoke. Worse still, for 56% of respondents, getting cigarettes was not a problem, even though they are minors.

Table 4. Cigarette brands which are most often chosen by students

Tabela 4. Marki papierosów najchętniej wybierane przez uczniów

| Cigarette brand                                | %     |
|------------------------------------------------|-------|
| I don't smoke a particular brand of cigarettes | 0.00  |
| L&M                                            | 13.68 |
| West                                           | 4.27  |
| Camel                                          | 1.71  |
| Route 44                                       | 2.56  |
| Marlboro                                       | 15.38 |
| Chesterfield                                   | 5.98  |
| Red&White                                      | 1.71  |
| Other                                          | 7.69  |
| I don't smoke                                  | 70.94 |

Table 5. Types of cigarettes most often chosen by students

Tabela 5. Rodzaje papierosów najchętniej wybierane przez uczniów

| Type of cigarettes smoked | %     |
|---------------------------|-------|
| Slim                      | 8.55  |
| Thick                     | 24.79 |
| Regular flavor            | 17.95 |
| Mentholes                 | 10.26 |
| Duo                       | 5.98  |
| Vanilla                   | 3.42  |
| Chocolate                 | 1.71  |
| Fruit                     | 0.00  |
| I don't smoke             | 65.81 |

## Discussion

Among the hazardous health behaviors, smoking is the easiest to modify and therefore avoidable cause of illness and death.

In Europe, 16% of all deaths are caused by tobacco use.<sup>7</sup> Health behavior of young people is formed in adolescence, and smoking in adolescence increases the risk of becoming a regular smoker in the future. The UK studies show that 23% of respondents smoked their first cigarette when

they were 11–15 years old<sup>8</sup>; a similar result was obtained in this study. A study conducted in Poland in 2002 shows that 1/3 of 15-year-old smokers are likely to smoke in the future.<sup>9</sup> Part of the HBSC survey conducted in Poland in collaboration with WHO in 2010 showed that 13% of teenagers regularly smoke cigarettes, which means a 6% increase compared to 2002. A much higher rate (32%) was obtained among youth in the own research.

It should be considered whether this high score is due to the ever-increasing number of teenagers reaching for tobacco products, or whether it is due to the fact that young people have too easy access to tobacco products. The own study showed that teenagers have no problem buying cigarettes.

The study showed that 24% of students smoking cigarettes smoke >10 days per month, with >2 cigarettes per day. This shows that teenage smokers spend >40% of their allowance on stimulants (53% of students receive <30 PLN of allowance per week). A survey conducted by Ipsos in Poland showed that students receive an average of 82 PLN of allowance per month. According to parents, they spend it mainly on sweets (61%), drinks (37%) and magazines (27%).<sup>10</sup> Perhaps parents should pay attention to what their children spend their financial resources on. Lack of access to money without the supervision of parents or legal guardians would probably force some young people to stop smoking.

The Global Youth Tobacco Survey (GYTS) conducted in Europe shows that 40% of teenagers are exposed to passive smoking at home.<sup>11</sup> This is less than in the own study (58%). Teenagers are aware that passive smoking is dangerous for them (88%), which is why many of them have opted for a ban on smoking in public places (83%). Similar results were obtained in own study – 77%.

When asked whether they would smoke if one of their peers offered them a cigarette, 8% of non-smoking teenagers answered in the affirmative. Of the smokers, 35% declare their willingness to quit, and at the same time, they will not refuse if their peer proposes a cigarette. Influence of peer groups on the behavior of teenagers at the examined age is significant. In a 2007 study *The influence of a peer group in the process of socialization of youth*, as the people to whom they will turn for help, the young people put their friends 1<sup>st</sup>, their mother 2<sup>nd</sup>, followed by siblings, father and extended family.<sup>12</sup> These results suggest that consideration should be given to involving students in helping their smoking friends, e.g., by conducting classes on how to quit smoking or on the health effects of smoking, the so-called peer tutoring. "Peer tutoring also takes advantage of the fact that in some ways, the members of a peer group are closer to each other than students and teachers. [...] [I]t therefore presupposes that students share some kind of closeness, related to age and type of experience, in particular common meaning systems and similar ways of understanding and experiencing the world."<sup>13</sup> Among the students surveyed, 37% of

those who ever received help or advice to help them quit smoking received it from a friend. Only 48% of students have participated in classes on the dangers of smoking; unfortunately, the questionnaire does not include a question about the teachers or the impact of such classes on their desire to stop smoking.

It should be added that according to the *Act of 8 April 2010 amending the Health Protection Against the Effects of Tobacco and Tobacco Products Act and the State Sanitary Inspectorate Act*,<sup>14</sup> smoking is prohibited in and around schools, but as many as 49% of students have seen someone smoke in or around the school during the last month. However, the study does not show whether it was the students who had such a strong influence on their colleagues, or teachers and school employees.

Starting to smoke is very often associated with smoking by immediate family members or friends, but also with exposure to advertising from tobacco companies or the image of smoking in films or TV series. Eighty-six percent of respondents in the survey watched a film or TV series where tobacco products were used. According to research carried out by the American Cancer Society, in 2010 30% of films aimed at young people included smoking scenes. The Surgeon General Report showed that reducing smoking scenes in films aimed at young people (from 275 to 10) can reduce teenage smoking by up to 18%.

Unfortunately, the WHO GTSS GYTS – Core Questionnaire with Optional Questions does not include questions about smoking by immediate family members. Meanwhile, studies indicate that 19% of children of smoking parents reach for tobacco products.<sup>16</sup>

## Conclusions

Smoking is a serious problem among teenagers. They are exposed to the harmful effects of cigarette smoke not only during active smoking (32%) but also during passive smoking (58%). Young people experiment with the use of tobacco products. Research shows that even very young people develop difficult-to-overcome addictions. Respondents are willing to quit smoking, but at the same time 1/3 of them have never received any help or advice on how to do it. Teenagers are exposed to tobacco advertising, both in stores and while watching films and TV series. Peer group has significant influence on the behavior of teenagers.

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