

## Effect of work activity on the prevalence of smoking and knowledge of its health consequences

Wpływ aktywności zawodowej na występowanie nikotynizmu oraz wiedza na temat jego następstw zdrowotnych\*

Katarzyna Dziubek<sup>1</sup>, Iwona Gorczyca-Michta<sup>1</sup>, Martyna Samiczak<sup>2</sup>, Ewa Maroszyńska-Dmoch<sup>3</sup>, Kamil Michta<sup>4</sup>, Beata Wożakowska-Kapłon<sup>1,2</sup>

<sup>1</sup>Department of Cardiology and Electrotherapy, Świętokrzyskie Cardiology Centre, Kielce, Poland

<sup>2</sup>Faculty of Health Sciences, Jan Kochanowski University, Kielce, Poland

<sup>3</sup>Cardiology Outpatient Clinic, Świętokrzyskie Cardiology Centre, Kielce, Poland

<sup>4</sup>Department of Cardiac Surgery, Świętokrzyskie Cardiology Centre, Kielce, Poland



Lekarz Katarzyna Dziubek jest absolwentką I Wydziału Lekarskiego Akademii Medycznej w Warszawie, obecnie w trakcie szkolenia specjalizacyjnego z kardiologii. Pracuje w I Klinice Kardiologii i Elektroterapii Świętokrzyskiego Centrum Kardiologii w Kielcach pod kierownictwem prof. dr hab. n. med. Beaty Wożakowskiej-Kapłon. Klinika specjalizuje się w diagnostyce i leczeniu zaburzeń rytmu serca (implantacja stymulatorów, ICD, CRT, badania elektrofizjologiczne, ablacje). W kręgu zainteresowań medycznych dr Dziubek pozostają: intensywne terapie kardiologiczne, diagnostyka i leczenie zaburzeń rytmu, echokardiografia. Pasje pozamedyczne to turystyka górską i gra na gitarze.

### Abstract

**Introduction.** Smoking is a major cause of mortality worldwide. Higher unemployment rates increase the risk of premature death and illness.

The aim of the study was to assess the prevalence of smoking and knowledge regarding health consequences of smoking among unemployed and working persons. We also evaluated the degree of nicotine dependence and motivation to quit smoking among smokers, and exposure to passive smoking among non-smokers.

**Material and methods.** The study included 203 respondents. In the study group, 101 subjects were unemployed and 102 subjects were employed. Evaluation was based on a questionnaire devised by the authors. A part of the questionnaire was designed for smokers and included the Fagerström Nicotine Dependence Test to evaluate the degree of nicotine addiction and the Schneider Motivation Test to evaluate motivation to quit smoking.

\*Praca powstała w ramach realizacji projektu: „Zakup wyposażenia I Klinicznego Oddziału Kardiologii i Pracowni Elektrofizjologii szansą na zwiększenie innowacyjności Wojewódzkiego Szpitala Zespolonego w Kielcach” współfinansowanego przez Unię Europejską ze środków Europejskiego Funduszu Rozwoju Regionalnego w ramach Regionalnego Programu Operacyjnego Województwa Świętokrzyskiego na lata 2007–2013

Address for correspondence: lek. Katarzyna Dziubek, I Klinika Kardiologii i Elektroterapii, Świętokrzyskie Centrum Kardiologii, ul. Grunwaldzka 45, 25–736 Kielce, tel.: 41 367 13 91/13 88, faks: 41 367 13 96, e-mail: dziubek.katarzyna@gmail.com

**Results.** The study included 113 women (56%) and 90 men (44%). The average age of respondents was 37.8 years. In the study group, there were 78 smokers (38.4% of all respondents). Cigarettes were smoked by 34 employed persons (33.3% of the employed), and 44 unemployed persons (43.6% of the unemployed). Among smokers, 27 women (26.7%) and 17 men (16.8%) were unemployed. Lung cancer as an effect of smoking was indicated by 84 unemployed (83.1%) and 90 employed (88.2%) persons. Atherosclerosis as a consequence of smoking was indicated by 40 employed (39.2%) and 44 unemployed (43.6%) persons. Most smokers in both groups were characterized by a moderate degree of nicotine dependence – 23 employed (67.6%) and 31 unemployed (70.4%) persons. Motivation to quit smoking was high in 26 employed (76.5%) and 26 unemployed (59.1%) persons.

**Conclusions.** Prevalence of smoking was higher among the unemployed persons. Knowledge about the health consequences of smoking was moderate and similar among employed and unemployed persons. Most smokers in both groups showed a moderate degree of nicotine dependence and a high degree of motivation to stop smoking.

Key words: smoking, professional activity, health consequences

(Folia Cardiologica 2014; 9, 3: 246–253)

## Introduction

Smoking is a leading cause of mortality worldwide. According to the World Health Organization, more than 5 million people die every year due to health consequences of smoking [1]. Smoking is also a major health and social problem in Poland. Since 1970s, the rates of smoking in Poland are among the highest in the world. Smoking has become the major cause of premature mortality among men, and to a lesser degree among women [2]. According to the 2000 data, smoking was the cause of about 69,000 deaths in Poland, including 43,000 premature deaths [3]. A 2007 nationwide Polish survey indicated that the rate of smoking was 34% among men and 23% among women [4]. A more recent national survey of risk factor prevalence and control in Poland, the NATPOL 2011 study, showed a reduction in the rate of smoking to 27% (by 7% compared to 2001), with a significant reduction of the prevalence of smoking by 12% among men and by only 3% among women. In the recent years, a reduction in the rate of smoking has been noted among men, while the downward trend in smoking among women has been modest [5, 6]. Persons who are economically disadvantaged and/or less educated, smoke more frequently than those who are better educated and/or have a better financial status [4].

Smoking is major modifiable risk factor for atherosclerosis and cardiovascular disease. It significantly increases the risk of myocardial infarction, stroke, numerous neoplasms including lung, laryngeal, and throat cancer, and chronic obstructive pulmonary disease (COPD) [7]. It has been estimated that the risk of myocardial infarction in smokers is at least twice increased compared to gender- and age-matched non-smokers. The risk of lung cancer in smokers is increased several times compared to non-smokers. Chronic exposure to tobacco smoke results in impaired immunity in both active and passive smokers [8]. Adverse health consequences of smoking are related

to the number of smoked cigarettes and the duration of smoking habit.

Smoking may lead to nicotine dependence, included as a mental and behavioural disorder due to smoking in the International Classification of Diseases (code F17 in the ICD-10). Nicotine dependence has biological and mental aspects. Mental dependence is manifested by a compulsion to use nicotine to induce its expected effects or avoid adverse effects of its lack. Physical dependence is related to the development of nicotine tolerance and occurrence of withdrawal symptoms including anxiety, irritation, impaired concentration, insomnia, depression, increased appetite, and an increase in body mass [2]. The Fagerström Nicotine Dependence Test is used to categorize smokers in regard to their degree of biological dependence which implies further therapeutic approach. A low degree of dependence indicates no biological nicotine dependence, and a high degree of dependence indicates the presence of biological dependence. Patients characterized by a high degree of dependence require pharmacological treatment for effective smoking cessation. The Schneider Motivation Test is used to evaluate motivation to quit smoking [7].

Unemployment increases the risk of health problems and premature mortality [9]. This is related to multiple factors that result in a poorer socioeconomic status of unemployed persons.

The aim of the study was to assess the prevalence of smoking and knowledge regarding health consequences of smoking among unemployed and working persons in the Kielce district. We also evaluated the degree of nicotine dependence and motivation to quit smoking among smokers, and exposure to passive smoking among non-smokers.

## Material and methods

The present survey was conducted from March till June 2011. It included persons registered as unemployed in the

District and City Labour Office in Kielce as well as persons working in Kielce and the Kielce District. The study groups of unemployed and employed persons were comparable in regard to age, gender proportions, and the place of residence. Evaluation was based on a questionnaire devised by the authors. A part of the questionnaire was designed for smokers and included the Fagerström Nicotine Dependence Test to evaluate the degree of nicotine addiction and the Schneider Motivation Test to evaluate motivation to quit smoking.

The Fagerström Nicotine Dependence Test consisted of 8 questions, and the maximum score was 11. Scores of 4 or less indicated a low degree of dependence, scores of 5–8 indicated a moderate degree of dependence, and scores of 9 or more indicated a high degree of dependence.

The Schneider Motivation Test included 14 questions on the self-awareness of smoking and the presence of factors promoting nicotine abstinence. Eight affirmative answers indicated a relatively strong motivation to quit smoking, and less than 8 affirmative answers indicated suboptimal readiness to quit smoking.

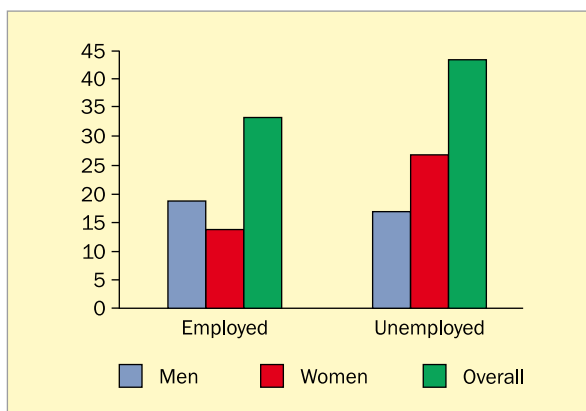
## Results

### Characteristics of the study population

The study included 203 respondents. In the study group, 101 subjects (49.7%) were unemployed and 102 subjects (50.2%) were employed. The study included 113 women (56%) and 90 men (44%). The employed group included 57 women (55.8%) and 45 men (44.2%), and the unemployed group included 56 women (55.4%) and 45 men (44.6%). The average age was 37.8 years in the overall respondent group, 38.2 years in the employed group, and 37.3 years in the unemployed group.

Primary education was reported by 8 employed (7.8%) and 11 unemployed (10.9%) persons. Vocational education was reported by 18.6% (n = 19) of the employed persons and 22.8% (n = 23) of the unemployed persons. Secondary education was reported by 25 employed (24.5%) and 27 unemployed (26.7%) persons. Higher education was reported by 50 employed (49%) and 40 unemployed (39.6%) persons.

Financial status was subjectively rated as very poor by 5 unemployed persons (4.9%) and none of the employed persons. Among the employed, 5 persons (4.9%) rated their financial status as poor and 44 persons (43.1%) rated it as moderate. Among the unemployed, 17 persons (16.8%) rated their financial status as poor and 68 persons (67.3%) rated it as moderate. Financial situation was rated as good by 42 employed persons (41.2%) and 10 unemployed persons (10%), and as very good by 11 employed persons (10.8%) and one unemployed person (1%).



**Figure 1.** Prevalence of smoking among the employed and unemployed persons in relation to gender

### Evaluation of the prevalence of smoking in the study group

The study group included 78 smokers (38.4% of all respondents) and 125 non-smokers (61.5% of all respondents). Thirty-four persons smoked in the employed group (33.3%) and 34 persons smoked in the unemployed group (43.6%). Thus, non-smokers comprised 66.7% of the employed group and 56.4% of the unemployed group. The mean duration of smoking was 12.8 years in the employed group and 14.3 years in the unemployed group.

Among smoking employed persons, there were 14 women (13.7% of the entire group) and 20 men (19.6%). Among smoking unemployed persons, there were 27 women (26.7% of the entire group) and 17 men (16.8%) (Figure 1).

In answer to the question regarding passive smoking, overall 25 employed persons (24.5%) and 38 unemployed persons (37.6%) reported they often stayed in smoky rooms. In addition, 48 employed persons (47.1%) and 32 unemployed persons (31.7%) reported they sometimes stayed in smoky rooms, and 24 employed persons (23.5%) and 25 unemployed persons (24.8%) reported they rarely stayed in smoky rooms. Five employed persons (4.9%) and 6 unemployed persons (5.9%) reported no exposure to tobacco smoke. Among non-smokers, 41 persons (32.8%) often stayed in smoky rooms, 47 persons (37.6%) sometimes stayed in smoky rooms, 31 persons (24.8%) rarely stayed in smoky rooms, and 5 persons (4%) never stayed in smoky rooms.

### Evaluation of the knowledge regarding consequences of smoking among employed and unemployed persons

Most respondents in both groups were aware that lung cancer is a consequence of smoking, including 84 unemployed persons (83.1%) and 90 employed persons (88.2%). Two

employed persons (2%) and 7 unemployed persons (6.9%) thought smoking did not cause this cancer. Lack of knowledge regarding the effect of smoking on the development of lung cancer was reported by 10 employed persons (9.9%) and 10 unemployed persons (10.1%).

Atherosclerosis as a consequence of smoking was indicated by 40 employed persons (39.2%) and 44 unemployed persons (43.6%). No relation between smoking and development of atherosclerosis was indicated by 26 employed persons (25.5%) and 17 unemployed persons (16.8%). Lack of knowledge on this issue was reported by 36 employed persons (35.3%) and 40 unemployed persons (39.6%). A relation between smoking and development of COPD was indicated by 27 employed persons (26.5%) and 57 unemployed persons (56.4%). A negative answer was given by 17 employed persons (16.6%) and 18 unemployed persons (17.8%). As many as 58 employed persons (56.9%) and 26 unemployed persons (25.7%) did not know whether COPD was related to smoking.

Nearly 80% of the respondents in both groups indicated that laryngeal cancer was related to smoking (80 employed persons and 79 unemployed persons). Ten employed persons (9.8%) and 8 unemployed persons (7.9%) did not know that laryngeal cancer was related to smoking.

According to 50 employed persons (49%) and 55 unemployed persons (54.4%), smoking impairs body

immune defences. Unexpectedly, 12 employed persons (11.8%) and 4 unemployed persons (4%) thought smoking might increase immunity. According to 18 employed persons (17.6%) and 21 unemployed persons (20.8%), smoking is not related to immunity. Lack of knowledge on this issue was reported by 22 employed persons (21.6%) and 21 unemployed persons (20.8%). Respondents' knowledge on diseases caused by smoking is summarized in Table 1.

Most of the respondents – 78 employed persons (76.5%) and 67 unemployed persons (66.3%) – indicated that harmful effects of smoking were related to the number of smoked cigarettes, while nearly 10% of the respondents in both groups (10 employed persons and 11 unemployed persons) thought there was no such relationship. More than half of the respondents – 54 employed persons (52.9%) and 56 unemployed persons (55.4%) – thought that harmful effects of nicotine were related to the type of smoked cigarettes. A negative answer to that question was given by 32 employed persons (31.4%) and 17 unemployed persons (16.8%). Most of the respondents – 85 employed persons (83.3%) and 67 unemployed persons (66.3%) – indicated that harmful effects of smoking were related to the duration of smoking habit. A negative answer to that question was given by 7 employed persons (6.9%) and 12 unemployed persons (11.8%) (Table 2).

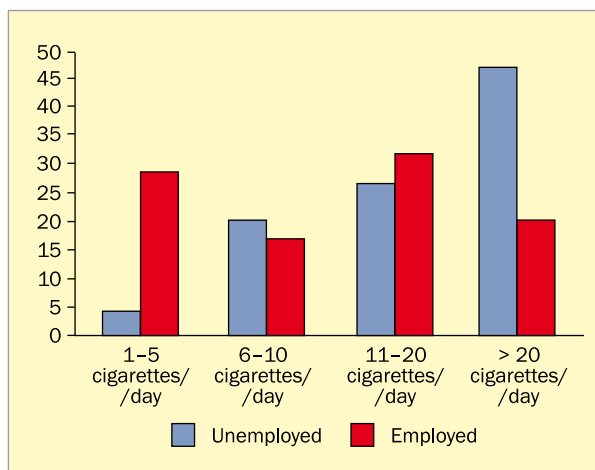
**Table 1.** Diseases caused by smoking as indicated by the respondents

Disease	Employed n = 102			Unemployed n = 101		
	Yes	No	I do not know	Yes	No	I do not know
Lung cancer	88.2%	1.9%	9.9%	83.1%	6.9%	10%
Atherosclerosis	39.2%	25.5%	35.3%	43.5%	16.8%	39.7%
COPD	26.5%	16.6%	56.9%	25.7%	17.8%	56.5%
Laryngeal cancer	78.4%	9.8%	11.8%	78.2%	7.9%	13.9%

COPD – chronic obstructive pulmonary disease

**Table 2.** Respondents' opinion regarding adverse health effects of smoking in relation to the type and number of smoked cigarettes and the duration of smoking habit

Question	Answers	Employed	Unemployed
		n = 102	n = 101
Are harmful effects of smoking related to the number of smoked cigarettes?	Yes	76.5%	66.3%
	No	9.8%	10.9%
	I do not know	13.7%	22.8%
Are harmful effects of smoking related to the type of smoked cigarettes?	Yes	52.9%	55.4%
	No	31.4%	16.8%
	I do not know	15.7%	27.8%
Are harmful effects of smoking related to the duration of smoking habit?	Yes	83.3%	66.3%
	No	6.9%	11.8%
	I do not know	9.8%	21.9%



**Figure 2.** The number of cigarettes smoked daily by the employed and unemployed persons

Disturbingly, 31 employed persons (30.4%) and 18 unemployed persons (17.8%) declared their acceptance to smoking by pregnant women. Even light smoking by pregnant women was considered unacceptable by 64 employed persons (62.7%) and 61 unemployed persons (60.4%). Lack of knowledge on this issue was reported by 7 employed persons (6.9%) and 22 unemployed persons (21.8%).

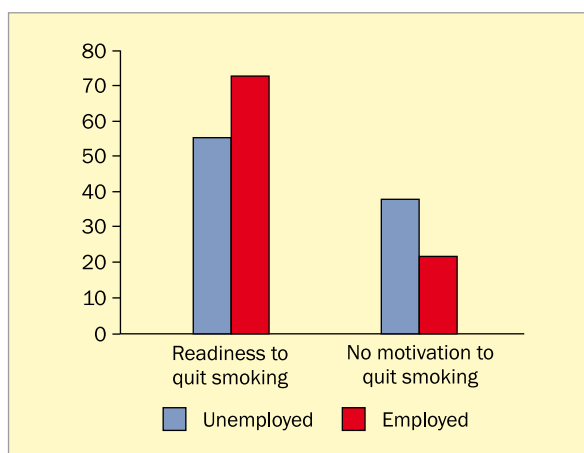
### Evaluation of the degree of nicotine dependence and motivation to quit smoking among employed and unemployed persons

Further questions of the survey were directed only to smokers. Eleven employed persons (32.3%) and 12 unemployed persons (27.2%) reported smoking 11 to 20 cigarettes daily. Twenty-one unemployed persons (47.7%) and 7 employed persons (20.6%) reported smoking more than 20 cigarettes daily. Ten employed persons (29.4%) and 2 unemployed persons (4.5%) reported smoking 1 to 5 cigarettes daily, and 9 unemployed persons (20.4%) and 6 employed persons (17.6%) reported smoking 6 to 10 cigarettes daily (Figure 2).

The analysis of the degree of nicotine dependence based on the Fagerström Nicotine Dependence Test showed that most smokers in both groups were characterized by a moderate degree of nicotine dependence – 23 employed (67.6%) and 31 unemployed (70.4%) persons. A low degree of nicotine dependence was found in 7 employed smokers (20.6%) and 7 unemployed smokers (15.9%). A high degree of nicotine dependence was found in 4 employed smokers (11.8%) and 6 unemployed smokers (13.6%) (Figure 3). The analysis of the Schneider Motivation Test showed that motivation to quit smoking was high in 26 employed (76.5%) and 26 unemployed (59.1%) persons, while 8 employed persons (23.5%) and 18 unemployed persons (40.9%) were inadequately motivated to quit smoking (Figure 4).



**Figure 3.** The degree of nicotine dependence among the employed and unemployed persons



**Figure 4.** Motivation to quit smoking among the employed and unemployed persons

### Discussion

In our study group, the prevalence of smoking was 38%, higher than the recent national Polish estimate of 27% [5]. A higher proportion of smokers was found among the unemployed (44%) than employed (33%) persons. Similar results were reported by Gromadecka-Sutkiewicz et al. [10] who found that 42.7% of the unemployed smoked. It was also shown that smoking is more common among men and in lower income and lower education groups [10]. In our unemployed group, women smoked more frequently than men. Our findings are similar to those reported by Kostrzewski et al. [11] who showed that unemployed persons were characterized by adverse health behaviours, particularly if unemployed for a long time. The highest proportion of employed smokers reported smoking 11–20 cigarettes daily, which is consistent with national Polish data indicating that the average number of cigarettes smoked daily is 17.2 [12].

A similar proportion of employed smokers reported smoking 1–5 cigarettes daily. The highest proportion of unemployed smokers reported smoking more than 20 cigarettes daily, i.e. above the national average.

Due to high economic cost of smoking, it is interesting to note that smoking was more prevalent among the unemployed, who in addition rated their financial situation as worse compared to the employed.

Overall, 36% women and 41% men smoked. The report on the health status of the Polish population in 2004 [13] found that the prevalence of daily smoking in the Świętokrzyskie voivodeship was 32% among men and 14% among women, and the 2007 national Polish data indicated that these proportions were 34% and 23%, respectively. In our study, the proportion of smokers was higher, particularly among women.

Disturbingly, nearly 70% of all respondents and 70% of non-smokers reported that they were frequently or sometimes exposed to passive smoking. The Global Adult Tobacco Survey (GAST) performed in Poland in 2009–2010 [12] found that 44% of the adults were exposed to tobacco smoke at home and 34% were exposed at work. Non-smokers were most likely to be exposed to tobacco smoke in eating places (72%) and night clubs (87%), and 10% of the adults avoided public places due to tobacco smoke. Current regulations that ban smoking in public places may contribute to better protection from exposure to smoky rooms and passive smoking [14] but further efforts seem necessary to protect from passive smoking.

The respondents' knowledge regarding health consequences of smoking was moderate. No differences in this regard were found between employed and unemployed persons. Most of the respondents were aware of the association between smoking and lung and laryngeal cancers. Less obvious consequences of smoking for the respondents included the development of atherosclerosis, ischaemic heart disease and COPD. In the GAST survey, more respondents (92% of the adults) were aware of the association between smoking and lung cancer. In that survey, 80% of the respondents also indicated that smoking caused myocardial infarction [12]. In our study, we evaluated the respondents' knowledge regarding the relation between smoking and the development of atherosclerosis and not myocardial infarction. The respondents' knowledge regarding this relation in our study was significantly lower compared to the knowledge on the relation between smoking and myocardial infarction in the GAST study, which indicates a lower level of respondent knowledge on clinical manifestations of atherosclerosis and its sequelae such as myocardial infarction.

Most respondents in both groups thought that even light smoking during pregnancy is unacceptable. However, this proportion was inadequately low, which may indicate

an insufficient level of respondent knowledge regarding adverse health effects of smoking during pregnancy.

A relatively high proportion of respondents thought that adverse effects of smoking were related to the number of smoked cigarettes and the duration of smoking habit. This respondent opinion is consistent with scientific data that confirm that the risks associated with smoking are related to the amount of smoked tobacco [15] and the duration of smoking habit [16]. The respondents showed a lower level of knowledge regarding the actual relation between adverse effects of smoking and the type of smoked cigarettes. Half of the respondents thought that the risks associated with smoking are related to the type of cigarettes, while scientific data indicate that adverse effects of smoking are in fact not related to the type of smoked tobacco [16].

The degree of respondent dependence to nicotine was moderate. Similar results were reported by Stokłosa et al. [17]. We found no difference in the degree of nicotine dependence between the employed and unemployed persons. In the study on the prevalence of smoking among university students, Wójtowicz-Chomicz et al. [18] showed a low degree of dependence in most smoking students (about 80%). The mean age in our study group was 37.7 years and thus it was higher than the average age in the population of university students. Older subjects are characterized by a higher duration of the smoking habit. The results of these two studies, showing different degree of nicotine dependence in relation to the age of the studied subjects, may suggest a relation between the duration of the smoking habit and the degree of nicotine dependence. However, such a relationship was not reported by other authors [19, 20].

Most of the respondents were adequately motivated to quit smoking (nearly 63% of the employed and 60% of the unemployed persons). When evaluating motivation test results among smokers who presented to a quitting smoking clinic with an intention to stop smoking, Stokłosa et al. [17] showed a relatively low patient motivation as evaluated using the motivation test which did not correlate with readiness to quit smoking declared by these patients.

## Conclusions

Prevalence of smoking was higher among the unemployed compared to employed persons. Among the unemployed, a high prevalence of smoking was noted among women compared to men.

Knowledge about the health consequences of smoking was similar among employed and unemployed persons, and the highest level of knowledge was noted in regard to the relation of respiratory tract neoplasms to smoking.

Most smokers showed a moderate degree of nicotine dependence and a high degree of motivation to stop smoking.

The employment status affects the prevalence of smoking and the degree of motivation to stop smoking, which should be taken into account in both preventive efforts and public campaigns addressed to smokers.

## Conflict of interest

The authors declare no conflicts of interest.

## Streszczenie

**Wstęp.** Palenie tytoniu jest wiodącą przyczyną umieralności na świecie. Bezrobocie zwiększa ryzyko wystąpienia problemów zdrowotnych oraz przedwczesnej śmiertelności.

Celem pracy były ocena częstości występowania nikotynizmu oraz ocena wiedzy na temat jego następstw zdrowotnych wśród osób bezrobotnych i pracujących. Oceniono stopień uzależnienia od nikotyny i motywacji do zaprzestania palenia wśród palących oraz stopień narażenia na bierne palenie osób niepalących.

**Materiał i metody.** Do badania włączono 203 osoby, w tym 101 osób bezrobotnych oraz 102 osoby pracujące. Technika badawczą był kwestionariusz ankiety. Część pytań była przeznaczona tylko dla osób palących i zawierała kwestionariusz tolerancji nikotyny Fagerströma oraz test motywacji do zaprzestania palenia według Schneider.

**Wyniki.** W badaniu wzięło udział 113 kobiet (56%) i 90 mężczyzn (44%). Średnia wieku badanych wynosiła 37,8 roku. W badanej grupie było 78 osób palących, co stanowiło 38,4% wszystkich ankietowanych. Wśród osób pracujących palących paliły 34 osoby (33,3% pracujących), a wśród bezrobotnych – 44 osoby (43,6% niepracujących). W grupie palących bezrobotnych było 27 kobiet, co stanowiło 26,7%, oraz 17 mężczyzn, czyli 16,8% bezrobotnych. Rak płuca jako skutek palenia tytoniu wskazało 84 bezrobotnych (83,1%) oraz 90 pracujących (88,2%). Miażdżycę jako następstwo palenia tytoniu podało 40 pracujących (39,2%) oraz 44 bezrobotnych (43,6%). Większość palących z obu grup – 23 osoby w grupie pracujących (67,6%) i 31 osób bezrobotnych (70,4%) – charakteryzował średni stopień uzależnienia od nikotyny. Silna motywacja do zaprzestania palenia cechowała 26 osób pracujących (76,5%) oraz 26 osób bezrobotnych (59,1%).

**Wnioski.** Występowanie nikotynizmu było częstsze wśród osób bezrobotnych. Wiedza na temat jego następstw zdrowotnych była umiarkowana, porównywalna wśród pracujących i bezrobotnych. Większość osób palących pracujących i bezrobotnych wykazywała średni stopień uzależnienia od nikotyny. Większość osób palących charakteryzował wysoki stopień motywacji do zaprzestania palenia.

Słowa kluczowe: nikotynizm, aktywność zawodowa, następstwa zdrowotne

(Folia Cardiologica 2014; 9, 3: 246–253)

## References

1. WHO Report on the Global Tobacco Epidemic, 2008. The MPOWER package. WHO, Geneva 2008.
2. Zatoński W. (Chairman). Konsensus dotyczący rozpoznawania i leczenia zespołu uzależnienia od tytoniu. Med. Prakt. (wyd. specj.) 2006; 7: 5–24.
3. Peto R., Lopez A., Boreham J. et al. Mortality from Smoking in Developed Countries 1950–2000, Oxford University Press, Oxford 1994; updated in 2006.
4. Program Prewencji Pierwotnej Nowotworów Złośliwych. Zakład Epidemiologii i Prewencji Nowotworów Centrum Onkologii – Instytut w Warszawie in cooperation with TNS OBOP; Nov 22–26, 2007.
5. NATPOL 2011 Report. Available at: [www.natpol.org](http://www.natpol.org)
6. Zatoński W., Przewoźniak K. Cel operacyjny nr 3 „Zmniejszenie rozpowszechnienia palenia tytoniu”. In: Goryński P., Wojtyński B., Kuszewski K. (ed.). Monitoring oczekiwanych efektów realizacji Narodowego Programu Zdrowia 1996–2005, Ministerstwo Zdrowia, Państwowy Zakład Higieny, Warszawa 2005: 64–76.
7. Górecka D. Leczenie uzależnienia od tytoniu. In: Szczeklik A. (ed.). Choroby wewnętrzne. Medycyna Praktyczna, Kraków 2005: 683–687.
8. Pirogowicz I., Gwiazda E., Hoffmann K. et al. Palenie papierosów a zaburzenia odporności. Przegl. Lek. 2007; 64: 10.
9. Wilkinson R., Marmot M. Social determinants of health: the solid facts. WHO, Geneva 2003: 20–21.
10. Gromadeczka-Sutkiewicz M., Kłos J. Palenie tytoniu przez bezrobotnych zarejestrowanych w Powiatowym Urzędzie Pracy w Poznaniu. Przegl. Lek. 2009; 66: 10.
11. Kostrzewski S., Worach-Kardas H. Zdrowotne i społeczno-ekonomiczne aspekty długotrwałego bezrobocia w środowisku wielkomiejskim. Probl. Hig. Epidemiol. 2008; 9: 504–510.
12. Globalny sondaż dotyczący używania tytoniu przez osoby dorosłe (GATS) Polska 2009–2010. Available at: [www.mz.gov.pl](http://www.mz.gov.pl)
13. Stan zdrowia ludności Polski 2004 r. GUS Zakład Wydawnictw Statystycznych, Warszawa 2006: 38.
14. Ustawa z dnia 8 kwietnia 2010 r. o zmianie ustawy o ochronie zdrowia przed następstwami używania tytoniu i wyrobów tytoniowych oraz ustawę o Państwowej Inspekcji Sanitarnej. DzU 2010 nr 81 poz. 529.
15. Prescott E., Scharling H., Osler M., Schnohr P. Importance of light smoking and inhalation habits on risk of myocardial infarction and all cause mortality. A 22 year follow up of 12 149 men and women in The Copenhagen City Heart Study. J. Epidemiol. Community Health 2002; 56: 702–706.

16. Center for Disease Control and Prevention. How tobacco smoke causes disease: the biology and behavioural basis for smoking-attributable disease. A report of the Surgeon General, 2010. Available at: <http://www.surgeongeneral.gov/library/tobaccosmoke/index.html>
17. Stokłosa A., Skoczylas A., Rudnicka A. et al. Ocena motywacji do rzucenia palenia u pacjentów poradni antynikotynowej. *Pneumonol. Alergol. Pol.* 2010; 78: 211–215.
18. Wójtowicz-Chomicz K., Borzęcki A. Problem nikotynizmu oraz palenia biernego występujący wśród studentów Uniwersytetu Medycznego w Lublinie. *Zdr. Publ.* 2009; 119: 64–67.
19. Targowski T., From S., Rożyńska R. et al. Wpływ niektórych czynników demograficznych i socjalnych na stopień uzależnienia od nikotyny oraz motywację do rzucenia palenia tytoniu u zdrowych. *Pneumonol. Alergol. Pol.* 2004; 72: 198–200.
20. John U., Meyer C., Hapke U. et al. The Fagerström test for nicotine dependence in two adult population samples-potential influence of lifetime amount of tobacco smoked on the degree of dependence. *Drug Alcohol Depend.* 2003; 71: 1–6.

## Komentarz



### dr n. med. Daniel Śliż, dr hab. n. med. Artur Mamcarz

III Klinika Chorób Wewnętrznych i Kardiologii II Wydziału Lekarskiego Warszawskiego Uniwersytetu Medycznego

Praca pt. „Wpływ aktywności zawodowej na występowanie nikotynizmu oraz wiedza na temat jego następstw zdrowotnych” dotyczy wyjątkowo ważnego problemu, a mianowicie występowania nikotynizmu oraz wiedzy na temat tego uzależnienia. Płynące z dotychczasowych analiz dane, dotyczące rozpowszechnienia nałogu, są rozbieżne. Autorzy, porównując własne wyniki z danymi przedstawianymi przez zespół NATPOL 2011, zauważają dysproporcje dotyczące odsetka osób palących. Większy odsetek osób deklarujących aktywny nikotynizm odnotowano również w wielu raportach statystycznych, między innymi w raporcie CBOS z 2012 roku, w którym 31% osób zadeklarowało czynny nikotynizm. Główną przyczyną istotnych różnic w jego występowaniu jest prawdopodobnie fakt, że populacja przedstawiona przez autorów omawianego badania pochodziła z jednego regionu geograficznego (powiat kielecki, woj. świętokrzyskie).

Kluczową i bardzo ciekawą część publikacji stanowi porównanie świadomości na temat szkodliwości palenia tytoniu w różnych grupach społecznych (bezrobotnych oraz osób pracujących). Ogólna wiedza na ten temat jest w obu grupach porównywalna i kształtuje się na średnim poziomie. W niniejszej analizie zabrakło natomiast porównania świadomości na temat szkodliwości palenia wśród osób palących i niepalących; z niecierpliwością będziemy zatem oczekiwać na dalsze publikacje, które obejmą tę część materiału.

Grupa osób bezrobotnych częściej deklarowała aktywny nikotynizm. Warto dodatkowo podkreślić, że w przypadku osób poszukujących pracy to właśnie czynne uzależnienie może być czynnikiem negatywnie wpływającym na atrakcyjność pracownika na rynku pracy. Jest to ściśle związane z mniejszą efektywnością pracy osób palących.

Zaskakującym wydaje się znaczne narażenie na dym tytoniowy w lokalach gastronomicznych i klubach nocnych, szczególnie, że od 15 listopada 2010 roku obowiązuje zakaz palenia tytoniu w wymienionych miejscach!

Uwagę zwraca fakt, że większość osób palących była dostatecznie zmotywowana, aby rozpocząć proces rozstawania się z nałogiem. Oczywistym rozwiązaniem dla tych osób byłoby podjęcie próby rzucenia palenia. Jednakże od rozpoczęcia badania aż do chwili pisania niniejszego komentarza nie ma refundacji leków zarejestrowanych w terapii antytytoniowej. Ponadto dostęp do poradni antynikotynowych jest znikomy i w związku z tym oferta lecznicza dla tej grupy pacjentów pozostaje mocno ograniczona.

Trudno oprzeć się wrażeniu, że realia opisywane w komentowanym badaniu daleko odbiegają od oczekiwań lekarzy, a także osób niepalących. Niestety, w rzeczywistości, w której do budżetu państwa wpływa rocznie około **60 miliardów** złotych z akcyzy ze sprzedaży papierosów, a koszty leczenia chorób odtytoniowych wciąż pokrywa się z budżetu NFZ (czyli ze składek ubezpieczenia zdrowotnego), trudno będzie znaleźć argumentację skłaniającą polityków do wdrożenia **skutecznych** mechanizmów walki z tym nałogiem.