

Factors influencing the maintenance of nicotine abstinence among the habitants of the region of Łódź and Kalisz in the years 1996-2003

Wiśniewska M¹, Kowalska A², Szpak A¹

¹ Department of Public Health, Medical University of Białystok, Poland

² Department of Social and Preventive Medicine, Medical University of Łódź, Poland

Abstract

The aim of the study was to determine the factors allowing non-smoking for the next 2 years after a 5-year period of non-smoking. A questionnaire study was performed in October 2003 among 449 of men and women chosen from among 1700 contest 'Quit & Win' Competition participants, which was ending in 1996 2nd International Anti-nicotine Campaign "Quit & Win" in Poland in the region of Łódź and Kalisz. Chosen people were respondents, who during studies conducted in the years 1998 and 2001 stated that they were not smoking at all since their participation in the contest. Filled-in questionnaires were sent back by 296 people (65.9%). The analysis showed that the surveyed with elementary education more rarely than people with other level of education could preserve in non-smoking habit for the next 2 years after a 5-year period of non-smoking. Further maintenance of nicotine abstinence was not dependent on: age, sex, the place of living, the marital status and the source of income.

Key words: nicotine abstinence, "Quit & Win" Competition, socio-demographic features.

Introduction

The problem of maintenance nicotine abstinence is a crucial element of the efficiency of health promotion programmes evaluation [1-3]. Publications show that some people comprised with health education regarding cigarette smoking can preserve

non-smoking habit while others cannot break it [4,5]. The efficiency of breaking the habit depends on the degree of nicotine – addiction of the smoker, which is measured with the use of Fagerström Test of Nicotine Dependence (FTND), and the period of time of being addicted [6]. The aim of this study was to determine the factors allowing non-smoking during the next 2 years after a 5-year period of nicotine abstinence.

Material and methods

The study using a mail questionnaire, was conducted in October 2003 among 449 men and women, of 1700, who took part in "Quit & Win" Competition, which was ending 2nd International Anti-nicotine Campaign "Quit & Win" in Poland. The questionnaire was addressed to those, who in the studies conducted in the years 1998 and 2001 had stated, that are still non-smokers. A questionnaire filled-in in 2003 was returned by 296 respondents and it was 65.9% of all sent questionnaires. Respondents living in the region of Łódź sent back 113 of 174 questionnaires sent to them and respondents from the region of Kalisz – 183 out of 275 of questionnaires sent to them. In both regions a similar percent of heavy smokers (those smoking more than 10 cigarettes per day and smoking for longer than 10 years) took part in the contest. All participants from the region of Łódź were large cities inhabitants, while most of the participants from the region of Kalisz lived in small towns or in the country.

To analyse the material gathered we used descriptive methods and the methods of statistical conclusions. To evaluate whether the relations between analysed features are statistically significant, we used the independence test χ^2 . The power of relation was established with ϕ -Yule index.

Results

After the analysis of answers of 296 respondents in October 2003 it turned out, that 274 people were still not smoking dur-

ADDRESS FOR CORRESPONDENCE:

Department of Public Health, Medical University of Białystok
15-089 Białystok, 1 Kilińskiego str.
Tel: +48 (085) 748 55 82

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Table 1. Factors having influenced on nicotine abstinence maintenance in a studied group

Socio-demographic features		Total	People, who did not preserve in a 2-year nicotine abstinence after a 5-year period of non-smoking		People, who preserved in a 2-year nicotine abstinence after a 5-year period of non-smoking		chi ² value and p value
			n	n	%	n	
Age	30-49	108	7	7.3	101	92.7	0.224 p=0.64
	50 and above	188	15	8.7	173	91.3	
Sex	Men	182	11	6.1	171	93.9	1.324 p=0.25
	Women	114	11	9.7	103	90.3	
Region	Łódź	113	12	10.6	101	89.4	2.001 p=0.16
	Kalisz	183	10	5.5	173	94.5	
Marital status	Married	245	19	7.8	226	92.2	0.22 p=0.45
	Single	51	3	5.9	48	94.1	
Education	Elementary	63	10	15.8	53	84.2	8.29 p=0.004
	Other	233	12	5.2	21	94.8	
Source of income	Professional work	153	12	7.8	141	92.2	0.078 p=0.78
	Other sources	143	10	7.0	133	93.0	

ing the next 2 years after a 5-year period of nicotine abstinence (7 years since the moment of participation in the competition, that is since 1996) – Tab. 1. Only 22 people, sending filled questionnaire stated, that they could not preserve in the abstinence within the next 2 years. Respondents stating in 2003 that they maintain the nicotine abstinence for the next 2 years, after a 5-year period of non-smoking, made up 92.6%. In the region of Łódź, people who sustained in nicotine abstinence in the analysed period of time, made up 89.4%, and in the region of Kalisz they made up 94.5%. The maintenance of non-smoking for the next 2 years after a 5-year period of nicotine abstinence was not depending on the place of living ($p=0.16$). Any significant relations between sex and the fact of nicotine abstinence for the next 2 years were not observed. Similar percent of men – 93.9% and women – 90.3% maintained nicotine abstinence in the analysed period of time. Age of the respondents has not had a significant influence on the fact of maintenance of nicotine abstinence. Both younger respondents (up to 49 year of age) and older (over 50 years old) in a similar percentage were not smoking for the next 2 years – 92.7% and 91.3%, respectively. The education level has had some influence on maintenance of nicotine abstinence for the next 2 years after a 5-year period of nicotine abstinence ($p=0.0041$). People with elementary education in a lower percentage (84.2%), in comparison to respondents having other levels of education (94.8%), who preserved in a non-smoking habit for the next 2 years. The relation was not very strong ($\varphi=0.165$). The analysis showed that there was not a statistically significant relation between the source of income and the fact of non-smoking for the next 2 years after a 5-year period of nicotine abstinence. After the next 2 years 92.2% of respondents whose source of income was professional work, still were not smoking and 93.0% of people, whose source of income was other than their profession. The marital status also did not have any influence on non-smoking for the next 2 years after a 5-year period of nicotine abstinence. Married people, as well as single people, in a similar percentage maintained non-smoking during the analysed period of time (92.2% and 94.1%, respectively).

Discussion

There are not many publications in Poland, showing the relations between different socio-demographic features and the fact of nicotine abstinence maintenance [7,8]. The conducted study shows that the maintenance of nicotine abstinence was connected with having a higher than elementary education level. Studies conducted in the years 1997-1999 showed that in Poland the percentage of people who preserved the nicotine abstinence was the highest in a group of respondents with uncompleted university education and full university education (75% of men, 84% of women) [7]. The relation between the level of education and the fact of smoking confirmed studies conducted in Great Britain and Wales among 1911 men and women. Most smokers were among uneducated people. People with low education had more problems with breaking the habit and were returning to smoking more often than educated people [8]. The same study showed, in contrary to studies performed between the region of Łódź and Kalisz, the dependence between sex and the fact of returning to smoking.

Zatoński shows, that the highest and the most systematic increase of number of people maintaining the nicotine abstinence in the last 25 years was observed among people with high socio-economic status [7]. All-Polish studies, conducted in 1999 showed that people from families with the highest income twice more often maintained the nicotine abstinence than the poorest ones [9]. Studies performed in United States of America on a population of 1323 men and 1484 women also confirmed the connection between nicotine abstinence and high socio-economic status [10]. Also other publications confirmed the connection between high socio-economic status and the fact of non-smoking maintenance [11-14]. On the other hand, Glendinning showed no relation between socio-economic status and the fact of nicotine abstinence maintenance [15].

Conclusions

1) The most important factor, which influenced a further 2-year nicotine abstinence maintenance after a 5-year period of non-smoking among the habitants of the region of Łódź and Kalisz was the level of education.

2) The influence of age, sex, the place of living, the marital status and the source of income on nicotine abstinence maintenance was not observed during the analysed period of time.

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