

THE PREVALENCE OF TOBACCO CONSUMPTION AMONG WOMEN IN TÂRGU MUREȘ AND ASSOCIATIONS WITH SOCIO-DEMOGRAPHIC AND CULTURAL FACTORS

Florina RUȚA*

florinaruta24@gmail.com

Oana Maria IACOB*

cboana@yahoo.com

Cristina NAȘCA**

nascacristina@yahoo.com

Anca Ileana SIN*

anka_sinn@yahoo.com

*UNIVERSITY OF MEDICINE, PHARMACY, SCIENCES AND TECHNOLOGY, TÂRGU MUREȘ, ROMANIA

**ROMANIAN NUTRITION AND DIETETICS ASSOCIATION, TÂRGU MUREȘ, ROMANIA

ABSTRACT

The habit of smoking is one of the most dangerous long-term behaviors affecting the health of a population, especially for young women, who will become the mothers to give birth to the future generations. In order to identify the prevalence of smoking among young women in Târgu Mureș, as well as other lifestyle-related risk factors, in this cross-sectional study we used a questionnaire to assess lifestyle among 964 women aged 15 to 49 years. The results showed that almost half of the interviewed women declared being smokers. The highest prevalence was found to be associated with the 21 to 30 year age group, no high-school education, non-Romanian ethnics, showing no interest for a healthy lifestyle, low resistance to stress and lack of proper rest and relaxation. This increased prevalence of smoking among women of childbearing age was identified alongside a low willingness for smoking cessation.

KEYWORDS:

Lifestyle, smoking, behavior

1. Introduction

Our country is in a good position in the European Union hierarchy based on how health messages on cigarette pack

inform about the effects of smoking, with a potential to influence smoking-related behavior, such as preventing the uptake of smoking, restarting smoking after cessation,

reducing the number of cigarettes smoked and encouraging smoking cessation. This statement is supported by the results obtained in a survey of the Romanian population, showing that 45.2 % of the surveyed persons consider these types of messages to be very effective in preventing post-cessation relapse (Negoescu, 2009). Given this background, a proper targeting of the anti-smoking educational campaign towards young and teenage women, health promoters can effectively influence public health and can successfully carry out an ethical mission towards a vulnerable target group on which future generations are heavily dependent (World Health Organization, 2003). The anti-smoking campaigns organized in recent years have aimed to raise awareness of the harmful effects of tobacco and simultaneously encourage the promotion of a healthy lifestyle. Thus, in 2010, the campaign to celebrate the National No Tobacco Day used the slogan: *"No Tobacco, for a Longer and Healthier Life!"*, while in 2011 the campaign's slogan was *"Say Yes to LIFE! Say NO to Tobacco!"* (Mihantan, 1994).

Methods and means of combating tobacco use are complex, on the one hand aiming towards smoking cessation in smokers and on the other hand striving to prevent this habit from being created in those who do not smoke. Anti-smoking strategies are acting on two levels: individual and social. Besides the individual decision, there's a need for legislative, economic and educational actions, all focused on influencing the behavior of individuals regarding smoking. Since tobacco consumption most often starts in pre-adolescence and the difficulty of smoking cessation later in the adult life is directly proportional to the age of onset, an intervention made as early as possible for the vulnerable population groups has to become a priority. The presence of nicotine addiction in adolescents and young women poses a threat to the health of future generations, by affecting these future mothers-to-be.

In Romania, experience in this field is not only limited, but also recent. Apart from a modest involvement in general health education performed in schools, where smoking prevention in the adolescent was just one of the components, there have been several national programs based on European models, such as *"Smokeless Classrooms"*, *"I don't smoke"*, *"Adolescents Quit Smoking"*, *"Quit smoking and win"*, etc. Campaigns geared towards the adult population included a TEL GREEN toll free phone number, where smokers could receive information on the territorial offices for smoking cessation. Further information on the subject is provided through the website of the Romanian Society of Pneumology, www.srp.ro. The routine identification of smokers at all levels of healthcare in Romania and the routine registration of smoker status in medical records, is the key to a proper clinical screening of smoking, with a potential to improve the rate of success for interventions regarding smoking cessation (Trofor, Mihălțan & Mihăițan, 2010).

2. Study objectives

Based on the fact that, despite the existence of over 50 functional specialized anti-tobacco therapy centers in Romania, a national Stop Smoking Program and other smoking prevention programs, there still is an underestimation of the consequences of tobacco use among the population of the Mureș area, with the involvement of childbearing age women, we aimed to evaluate the connections between the prevalence of smoking and socio-economic and lifestyle indicators in a group of women from Târgu Mureș.

3. Material and method

In this cross-sectional study, a lifestyle-assessment questionnaire was used in a group of 964 women aged 15 to 49 years. Data collection took place between July 2014 and February 2015. This number was

a sample of the population of Târgu Mureș based on a systematic sampling method (sampling interval $k = 5$) in order to meet the qualitative criteria and to be representative of the target population. A number of 2504 people were interviewed, from which the group of 964 women were selected for our study.

The questionnaire consisted of 106 questions mainly related to habits, knowledge and behavior regarding lifestyle, estimated consumption of tobacco. Based on this we could look at: smoking status (non-smokers or smokers), estimated tobacco consumption, demographic data (gender, ethnicity, age, level of education, environment), eating behaviors and habits (number of meals that include salads, fruits and cereals; coffee, alcoholic beverages and carbonated soft drinks consumption), practicing a sport and physical activity level, and preoccupation for a healthy lifestyle. The questionnaire contained open-ended questions, closed-ended questions with ordered choices and binary questions, but the majority were closed-ended questions with no ranking. The interviews were done in-person at the respondents' home, and took an average of 20 minutes. The header of the questionnaire informed the subjects about the purpose of the study, anonymity and the confidentiality of the answers. Data obtained from the questionnaires was centralized in an Excel database, and statistical analysis was performed using the SPSS 21.0 software (IBM Statistics) using the chi-squared test and logistic regression analysis, with a statistical significance threshold of $p = 0.05$.

4. Results

4.1. Smoking in association with socio-demographic and cultural factors, in the feminine population of the Mureș area

The average age of the group was 29.29 years, from a minimum of 15 years to

a maximum of 49 years, and the whole group was from an urban environment. The percentage of non-smokers – defined as those who have never attempted to smoke or smoked less than 100 cigarettes over the course of their life – represented more than half of the group (50.51 %), while smokers accounted for the rest of 49.48 % (women who over the course of their life have consumed over 100 cigarettes).

The percentage of smokers among those with no high school education (27.3 %) was significantly higher than that of non-smokers (15.20 %, $p = 0.01$). There were no statistically significant differences between smokers versus non-smokers for those with high school education and those with post-secondary school education (15.6 % and 16.6 %, versus 15.02 % and 16.8 %, respectively). A similar situation was found among university graduates where the prevalence of smoking was lower (40.5 %) than that of non-smoking (50.1 %), but the differences were not statistically significant.

Regarding marital status, over half of the respondents were married (52.17 %), while the rest of 47.87 % fell into one of the categories “*married without papers*” (cohabitation), “*unmarried*”, “*divorced*” or “*widowed*”. The percentage of married smokers was not much different from that of unmarried smokers (for all the subcategories listed above: 49.7 % and 54.48 % respectively).

In terms of ethnicity, the vast majority of interviewed women belonged to the majority Romanian population (65.56 %), followed by the Hungarian minority (33.19 %), while the percentage of Roma ethnic minority declared by the respondents in this group was very low. Consequently, we sought to highlight the prevalence of smoking in two ethnic groups: Romanian ethnics and non-Romanian ethnics, and identified a higher percentage of smokers in

the latter category (53.13 %) compared to the prevalence of smoking in Romanian ethnics (48.41 %). However, the differences did not reach statistical significance.

4.2. Smoking in association with lifestyle factors in the female population of the Mureș area

Data on the interviewees' interest regard nutrition was based on quantifying the answers to the question "*To what extent do you care about following a healthy diet?*" – the possible choices offered were "*not at all*", "*very little*", "*a little*", "*much*" and "*very much*". The data showed that more than half of the interviewed women, both smokers and non-smokers, declared they were preoccupied with having a balanced diet. Of the non-smokers, 27.5 % declared a very high interest in healthy eating compared to smokers, in whom only 17.0 % reported an increased interest.

The group's distribution based on frequency of physical activity revealed that smokers more often reported being physically active on a daily basis compared to non-smokers, in whom the percentage of women regularly practicing sports was lower (35 % vs. 28.5 %). We found another difference, also in favor of smokers, in terms of the percentage of women who do not practice any sport. Thus, 28.5 % of smokers reported not practicing sports, while among non-smokers the percentage of women with sedentary preferences was 35.3 %. There was also a difference between respondents who prefer lighter physical activities (such as "*walking*", 61.82 %) and those who prefer a more intense physical activity (for example fitness classes, 10.16 %), in both smokers and non-smokers. "*Physical work*" proved to be the least preferred type of physical exercise for 11.32 % of smokers and 7.39 % of non-smokers, while in the same time similarly high percentages of both smokers (74.85 %)

and non-smokers (85.84 %) felt they had a good physical condition.

Our results highlighted that the majority of studied women had insufficient hours of sleep (over 70 % of the respondents), and more than half (63.37 %) did not take time off on the weekends to rest. Additionally, the preference to and/or habit of spending time in the open air was reported only by less than 20 % of them, while the rest seem to prefer spending most of their time in closed spaces. Although for most women – smokers or not – we identified a tendency to neglect the principles of a healthy lifestyle, mostly through the lack of adequate rest and recreation, based on the answers to the question "*How preoccupied are you about a healthy lifestyle?*" with the possible choices being "*a lot*" and "*a little or not at all*", we found that smokers are less concerned about this aspect compared to non-smokers (12.52 % vs. 5.13 %).

The majority of respondents also reported high levels of mental stress. In order to assess their ability to cope with stressful daily situations, we analyzed the responses to the question: "*What is your usual behavior when faced with stressful situations of everyday life?*". The possible responses were: "*I don't care much*" and "*I have difficulties in adapting to stress*". An important percentage of smokers (71.45 %) reported that they find it difficult to adapt to stressful situations, while 41.29 % of non-smokers reported the same. Logistic regression analysis enabled us to identify statistically significant differences ($p < 0.05$) between smokers and non-smokers in terms of their lack of concern about lifestyle choices. A lower ability to cope with stressful situations proved to be an additional factor favoring the practice of tobacco consumption (OR = 1.73, 95 % CI [1.03-2.09], $p = 0.03$), and it can also represent a risk factor for continuing to

smoke in females (OR = 1.13, 95 % CI [1.87-3.47], $p = 0.04$) (Table no. 1).

5. Discussion

The year 1996 could be considered prolific by tobacco producers and sellers, as 35 billion cigarettes were sold in Romania. Other periods of very high sales on the tobacco market was registered both before and after 2001, with a 3.1 % increase as compared to 1996 (CPSS, 2004). Different comparative studies on students in schools from Bucharest and those from other regions of the country confirmed the increase in the number of smokers among female students, with a higher percentage in Bucharest (CPSS, 2007; Mihălțan, 1995).

The latest data on chronic smoking, made available by the Ministry of Health, following the launch of the first Global Adult Tobacco Survey (GATS) study in 2011, which followed trends of tobacco usage in Romania, showed that smoking is responsible for the death of over 33,000 people per year, 70 % of them being 35 to 69 years old. Maximum prevalence was found in the age group of 25-44 years (36.3 %), while the lowest prevalence was in the age group of ≥ 65 years (7.6 %) (GATS, 2011). Among men, the lowest prevalence was declared in 2011 by those with higher education (36.4 %), while among women the prevalence was higher among those with secondary or higher education (19.6 % and 20.0 % respectively) and the lowest amongst women with elementary education (14.7 %) (SRP, 2014). The data was reported in 2011 due to the inclusion of Romania in the GATS studies, and it was based on a representative sample of 4517 individuals aged ≥ 15 years (Mihantă, 1994). The continued high prevalence of smoking in the male population (37.4 %) is

still a worrying phenomenon, as this is influencing the 16.7 % of female smokers (SRP, 2014) in a major way, given the known influence of the partner and the social environment on the attitude of women towards smoking.

The 49.50 % prevalence of smoking identified in our study group is much higher than that found for the general population of Romania (30 %) (MS & IPMN, 2011; Mihantă, 1994; SRP, 2014; Negoescu, 2009). It is highly probable that this difference was caused by the conditions of data collection – only from a restricted area and limited only to the urban population. Despite a Romanian political environment that is still unprepared for the adoption of completely restrictive legislation, we believe that with the support and efforts of the civil society (non-governmental organizations with activities of lobbying, advocacy and education of the population, as well as professional societies and individual experts) there might be a tobacco-free future. However, the Romanian legislation on tobacco control is still in a moment of growth and development, placing our country among those with a comprehensive legislation (Negoescu, 2009).

6. Conclusions

We identified an increased prevalence of smoking among women of childbearing age, alongside a low willingness for smoking cessation. Besides smoking as a risk factor for health, we also identified high values of prevalence for other lifestyle-related risk factors such as increased levels of stress, inadequate hours of sleep and of time spent in relaxing activities, low levels of education, and no interest for a healthy lifestyle.

Table no. 1
Association of risk factors and tobacco consumption in women

n = 964	Smoker n (%)	Non-smoker n (%)	Smoker		Non-smoker
			Odds ratio	95% Confidence interval	p value
Age group 21-30 years	171 (35.84)	146 (29.97)	1.30	0.99-1.70	0.52
Unmarried	179 (37.52)	193 (39.63)	1.47	0.89-2.42	0.12
No high school education	130 (27.30)	74 (15.20)	1.39	1.92-2.10	0.01
No interest for a healthy lifestyle	61 (12.52)	25 (5.13)	1.73	1.03-2.90	0.03
Lack of physical activity	136 (28.50)	172 (35.30)	0.99	0.76-1.293	0.96
Insufficient rest	310 (64.98)	301 (61.80)	1.10	0.68-1.80	0.68
Insufficient relaxation	374 (78.39)	398 (81.71)	0.85	0.56-1.29	0.46
High levels of mental stress	354 (74.2)	378 (77.41)	0.99	0.72-1.37	0.99
Failure to adapt to stress	348 (71.45)	197 (41.29)	1.13	1.87-3.47	0.04

* Multivariate logistic regression analysis of the binary dependent variable: 1-smoker vs. 0- non-smoker

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