UNIVERSITY OF MEDICINE AND PHARMACY TIRGU MUREȘ
SCHOOL OF DOCTORAL STUDIES

PHD THESIS SUMMARY

STUDY OF THE SMOKING AND RISK FACTORS AFFECTING SMOKING CESSATION IN PREGNANT AND YOUNG WOMEN IN THE AREA OF TIRGU MURES COUNTY

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Introduction. Tobacco addiction, considered lately as belonging to chronic diseases, is the cause of nearly half a million premature deaths recorded annually in the US only, and nearly 6 million globally, causing economic losses of hundreds of billions of dollars. It is expected that smoking will be responsible for about 1 billion deaths along the XXI century. For 2020 it is estimated that smoking will cause 10 million deaths worldwide. Tobacco use in low and middle income countries was increasing until 1970 while in high-income countries has stagnated or even declined. While the smoking rate has declined over the last decades in high-income countries, there are differences in the practice of smoking, these differences manifested as a result of socio-economic inequalities that persist in the population of the mentioned countries. Smoking cessation at any age reduces the risk of global morbidity. Article 14 of the Framework Convention on Tobacco Control, states the need to develop and implement an assistance program for smoking cessation by each country. Giving up tobacco strategies include increasing motivation behavioral counseling and support to abandon attempts with pharmacologic interventions designed to reduce nicotine dependence and cessation of tobacco use related symptoms. Providing a simple advice on the benefits of stopping smoking would significantly contribute to the increase of cessation rate and anti tobacco counseling should increase the rate of abstinence, the latter being directly related to the amount of time spent with the patient smoker.

The study objectives were to identify behavioral attitudes towards smoking, behavioral risk factors in the lifestyle sphere during pregnancy, in a sample of recently given birth moms from Mures County, and the actions of healthcare professionals specialized in family medicine for identifying pregnant women from county area, voluntarily smokers and/or involuntarily smokers and also the actions to combat tobacco as primary prevention against smoking, along with the identification of passive smoking exposure and statements sincerity by salivary cotinine tests on interviewed patients. Also, this research aimed to highlight relapse rates on tobacco, three months post-partum and in the last part of the study, the objective was to identify the prevalence of smoking among the young female in Tg. Mures County along with identifying the age group in which most smokers are found.

Methods. The studies were cross-sectional, conducted by application of questionnaires. In the first study were questioned a total of 1278 recently given birth moms hospitalized in three maternity hospitals of Tg. Mures on smoking behavior in the period prior and druring the pregnancy, as well as socio-demographic risk factors and lifestyle sphere behaviors such as alcohol consumption, increased amounts of coffee, sedentary life. The second study was addressed to a sample of 205 pregnant women, interviewed during visits to the family doctor, from the all family medicine cabinets , were surveyed a total of 50. For pregnant women in this sample, post-polls, were subjected to a salivary cotinine testing levels. To identify the resumption postpartum smoking rate, it was resorted to a telephone questioning of women selected from the database of young mothers interviewed in the first part of the research and which have said thae they were abstinence during pregnancy. In the last part of this paper were analyzed the data collected during implementation of an lifestyle evaluation questionnaire and some behavioral risk factors in the population of Tirgu Mures, from which we extracted data on the female of fertile age, with direct reference to tobacco use in combination with other socio-demographic factors and behavior. Data interpretation was done using SPSS software version 21.0.

Results. In the first study from 1278 women surveyed, 30.04% (384) said they were active smokers before pregnancy, 43.75% of them (168) remained active smoking during pregnancy while the other women have given up smoking after hearing the news that they are pregnant. After applying logistic regression, we identified that the socio-demographic risk factors, low education levels, inadequate housing conditions represent an increased risk of smoking, family income less than 500 Lei/person, rroma etnicity and lack of information on the continuing smoking dangers in pregnancy.

Among behavioral risk factors that influence smoking before pregnancy and during pregnancy were regular alcohol consumption and increased consumption of coffee. The results of the second study showed that from the total number of 205 surveyed pregnant when presenting to the family doctor, 15.12% continued to smoke during pregnancy, of these, almost half (41.93%) smoked the same number cigarette and during pregnancy, without changing anything compared to the ante-pregnancy, while 18 of them (58.06%) have reduced the number of cigarettes smoked. Contributing factors to continuing smoking in pregnancy and involuntary exposure to smoke were represented by smoking partner, smoking family and smoking friends. From the women self-reported nonsmokers tested to identify active/passive exposure to smoking, a percentage of 57.35% had presented salivary cotinine values compatible with passive exposure while for a rate of 6.55% were identified cotinine levels compatible with active smoker status. Phone interview highlighted an relapse rate on tobacco, post-partum, of 61.34%. Smoking prevalence in the general population, women of fertile age, was 49.5% with the damage greatest extent in the age group of 21-30 years.

Conclusions. From the three studies in this research through which we followed attitudes of young women, most of them aged between 25-30 years, towards tobacco consumption, we identified that it continues to be present in this population in elevated percentages, issue which becomes even more worrying when smoking is continued by women and during pregnancy. By consuming tabacco in pregnancy, was identified an increased damage in a lowest socio-educational level but also among the class of disadvantaged ethnic (Roma ethnic) where smoking was not the only behavioral risk factors identified, it is frequently accompanied by daily intake of large amounts of coffee, alcohol, , lack of attention to avoiding potentially unhealthy food. Although pregnancy is the main motivation for women to stop smoking, the percentage who fail to remain abstinent after childbirth is low, the major influence in determining the recidivism is represented by the ambient and social environment of the family of the woman, the stronger is this influence, as the number of smokers in the entourage of women is higher. Positive appreciation from pregnant women regarding smoke-free intervention, provided at the offices of family medicine, the trust that women have with the doctor, manifested willingness for information materials (printed or audio-video) represents orientations for future interventional programs at this level. Therefore, family doctors and nurses need to be trained theoretically and practically that besides giving a minimal advice, they have to offer a plan to abandon, self-aids anti-withdrawal, they have to support attempts to abandon, establishing appropriate treatments complemented by brochures , flyers and orientation towards specialist advisors or specialized centers to assist smokers. In the general population, intervention for smoking cessation should be made in the context of promoting a healthy lifestyle, early implemented by developing educational programs for children, adolescents and young people and enriching the school curriculum giving plenty of increased hours to health education without neglecting the female population group of childbearing, on which smoking prevalence was manifested in the highest percentages. Direct association of abandon failure on smoking and/or abstinence mentaining at adult age with smoking initiation at young ages and mantaining for large periods of time, justifies the development component of interventional programs implemented during preadolescence and early adolescence. Global risk management of tobacco use during pregnancy by addressing simultaneously to all factors with trigger role and its maintenance, is represented by the interventional action, to be applied rather than isolated measures against one or another of the risk factors identified. An anti-smoking intervention plan addressed the young women of reproductive age, which cover as much as the combined approach of risk factors outlined in the literature, may be the key to success in fighting chance with a chronic illness prevention.

Key words: Smoking in pregnancy, risk factors, smoking cessation, tobacco relapse, cotinine