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Circumstances of tobacco smoking by pregnant women

Smoking tobacco by pregnant women is extremely unfavourable due to the harmful effect of tobacco smoke components both on the mother's organism and the course of pregnancy, as well as on the development of the foetus. One of unquestionable negative effects of smoking cigarettes by pregnant women is the delayed intrauterine growth of the foetus. It has been found that tobacco-smoking women give birth to babies, whose average body mass at birth is approximately 250 g less than that of children born by non-smoking women (6).

The newborns of smoking mothers are three times more at risk of the occurrence of congenital defects than the ones whose mothers do not smoke. Tobacco smoking causes more frequent occurrences of miscarriages and premature labours, as well as states of anoxia in newborns during labour (2).

The aim of the paper was to determine the frequency and intensity of tobacco smoking by pregnant women as well as to find out the relationship between tobacco smoking during pregnancy and socioeconomic variables (education, marital status, professional career, smoking partner, number of children) as well as health variables (severe ailments during pregnancy period, taking medicines, using medical care).

MATERIAL AND METHODS

100 pregnant women, aged 18–38 were included into a study pursued in the form of a distributed questionnaire. The study was carried out at the gynecological-obstetric ward of the Specialist Hospital in Jasło and in the Women's Outpatient Clinic of the Independent Public Health Care Institution in Skołyszyn (province of the Carpathian Mountains) from July to September 2002.

The arithmetic mean of the examined women's age was 27.23 years, standard deviation – 4.84 years. 76.0% of the respondents permanently resided in the country, 24.0% came from the town. 93% of the women remained in marriage, unmarried women and those living in informal relationships constituted 7% of the examined subjects. The most numerous group was formed by women with secondary education (54.0%), vocational education was reported by 30% respondents, university education – by 14.0%, and primary – by 2%. 36% of the polled women worked full time, 4% were seasonal workers, 49% were unemployed, and 17% of the examined subjects were exclusively homemakers. Women studying in evenings or in extra-mural schools constituted 3% of the polled group.

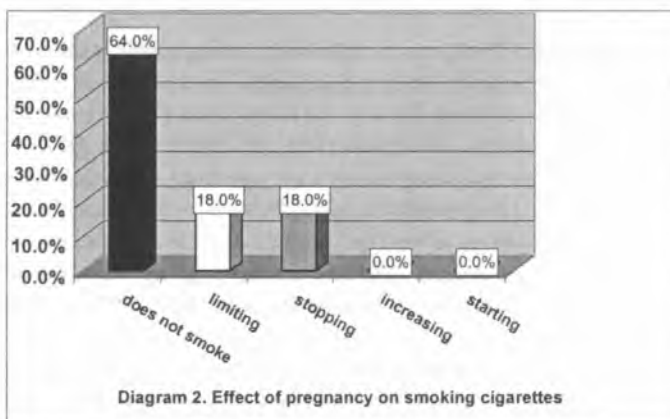
The survey was carried out by means of distributed questionnaire. The questionnaire was completed by pregnant women. It contained 41 questions, among which there were closed, open, half-open and multiple-choice ones.

RESULTS



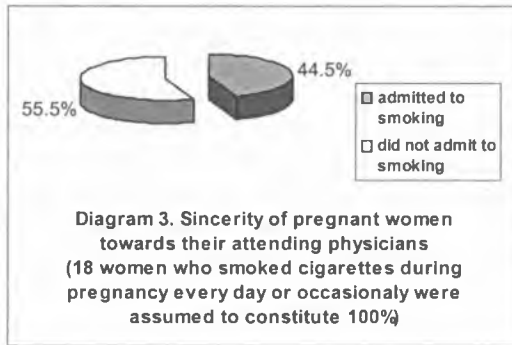
Diagram 1 presents the prevalence of nicotine among pregnant women. As it reveals, 6% of women smoked cigarettes every day, 12% smoked occasionally, and 82% of pregnant women did not smoke cigarettes at all. Almost all smoking pregnant women smoked up to 10 cigarettes a day, none of the polled subjects smoked more than 20 cigarettes a day.

Diagram 2 illustrates the responses of the examined women concerning the fact of becoming pregnant. 18% of the women stopped smoking cigarettes at the news of having conceived, 18% of them cut down on smoking. None of the examined women increased the number of cigarettes smoked, nor started smoking when they learned that they had conceived. The most frequently reported cause of stopping or cutting down on smoking tobacco during pregnancy was the awareness that smoking tobacco damaged the baby's health (32%), less important were not feeling like smoking (16%) and awareness that smoking tobacco harmed mother's health (14%) as well as influence of the community (5%). It was a multiple-choice question, so the obtained percentages did not amount to the total of 36%.



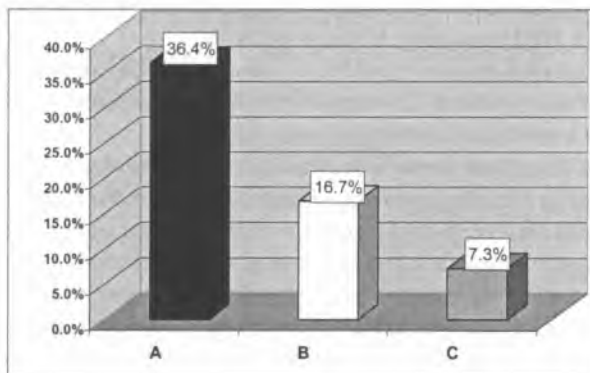
More than two thirds of women who quit or limited smoking cigarettes during pregnancy made this decision on their own. 19.4% of women claimed that their husbands or partners influenced their decisions concerning smoking during pregnancy, 5.5% of women reported that it was someone else close to them, and 5.5%, that these were health care workers.

Almost half (44.5%) of the smoking pregnant women admitted to their attending physicians to smoking cigarettes, while the rest kept this fact secret. 16% pregnant women reported that the members of their families often smoked cigarettes in their presence. 36% of the polled women are sporadically



exposed to tobacco smoke at home. For the remaining women their family houses are tobacco smoke-free environments. 12% of the total polled population of women reported that at their workplaces cigarettes were sporadically smoked in their presence when they were pregnant, and 2% of the women claimed that it was a frequent practice. One fourth of the examined women was never exposed to tobacco smoke at their workplaces, whereas 60% of women did not hold their jobs during pregnancy.

When analyzing the conditionings of tobacco smoking by pregnant women, it was revealed that women remaining in relationships with smoking partners smoke actively significantly more often. ($p < 0.01$). This relationship is shown by diagram 4.



- A. Pregnant women in a relationship with a man smoking cigarettes every day
- B. Pregnant women in a relationship with a man occasionally smoking cigarettes
- C. Pregnant women in a relationship with a non-smoking partner

Diagram 4. Smoking tobacco during pregnancy (every day or sporadically) depending on the status of smoking by husband or partner of a pregnant women; $\text{Chi}^2=11.84$; $p < 0.01$

Another factor that predisposed pregnant women to tobacco smoking turned out to be passive exposure to tobacco smoke in their family homes. 25% women exposed to passive smoking at home smoked cigarettes themselves in comparison to 10.4% of women in whose presence their family members never smoked cigarettes ($p < 0.05$). The pregnant women exposed to passive smoking at their workplaces also smoked significantly more often (5.7%) than those who worked in an environment free from tobacco smoke (4%, $p < 0.05$).

An interesting interdependence was revealed when analyzing tobacco smoking by pregnant women depending on whether they took advantage of family doctor's advice during pregnancy. It turned out that pregnant women who took advantage of family doctor's advice smoked cigarettes significantly more often (35%) than those who were not treated by a general practitioner (13.8%, $p < 0.05$).

Other factors conducive to tobacco smoking during pregnancy were: lower education standards, extramarital pregnancy, permanent residence in town, poor living conditions, being unemployed (not working in their job) during pregnancy, the fact that the pregnant woman had already had two or more children, abnormal course of pregnancy, suffering from such ailments as weepiness, problems with relaxation, lack of appetite and not taking any medicines during pregnancy. In the case of above-mentioned "risk factors" related to tobacco smoking by pregnant women the percentage differences were revealed, however, no statistically significant interdependences were found, which could have resulted from the fact that the examined population was not too numerous.

DISCUSSION

In our study, the percentage of tobacco-smoking pregnant women was 18%. It is definitely lower than the data published by Z a t o ń s k i (6, 7), who estimated this percentage to be 33% in the scale of the whole country. A greater popularity of tobacco smoking among pregnant women, (28.6%), was also revealed by B i l a r et al. (3), who evaluated the occurrence of nicotineism among patients giving birth in the Pregnancy and Labour Pathology of the Pomeranian Medical University in Szczecin. The above differences may result from the prevalence of women permanently residing in the country among the participants of our study. In the rural environment nicotineism among women has a much narrower scope than among the inhabitants of cities and towns. The data obtained by us, concerning tobacco smoking by pregnant women are close to the popularity of tobacco smoking among pregnant women in Sweden (19.3%) (1) and in the USA (15–20%) (4).

It seems worth noticing that merely 44.5% of tobacco smoking pregnant women admitted to doing it to their attending physicians. The reason for such behaviour might be the increasing lack of social acceptance for smoking, especially during pregnancy.

In our study 52% of pregnant women were exposed to passive smoking at their homes and 14% of women were threatened by it in their workplaces, so the exposure was higher than in the studies of B i l a r et al. (3), who estimated the percentage of pregnant women exposed to passive smoking to be 38.1%.

The conditionings of tobacco smoking by pregnant women revealed by us mostly confirm the results of studies concerning this issue performed by other Polish and foreign authors. (1, 3, 4, 7, 8). According to Z a t o ń s k i (7), the "high risk" groups of women smoking cigarettes during pregnancy may include: women whose partners smoke cigarettes, single women, women of low education level, women from large cities, women with a pathological course of pregnancy, and women with low family income. Our study fully confirms the existence of above-mentioned risk factors of smoking tobacco by pregnant women.

CONCLUSIONS

1. 18% of the women under survey smoked cigarettes during pregnancy, including 6% daily smokers and 12% occasional smokers. Almost all smoking pregnant women smoked up to 10 cigarettes a day.

2. 18% of the women quit smoking when they found out that they were pregnant, and 18% of them limited smoking.

3. The most frequently reported cause of quitting or cutting down on smoking tobacco during pregnancy was the awareness that smoking tobacco is harmful to baby's health, less important were: not feeling like smoking, the awareness that smoking tobacco damages mother's health, and the community pressure. More than two thirds of women who quitted or limited smoking cigarettes during pregnancy, took this decision on their own. Others claimed that their husbands, other persons close to them, or health care workers influenced them in this respect.

4. More than half of smoking pregnant women admitted to their attending physicians that they smoked cigarettes, while the rest kept this fact secret.

5. Exposure to passive smoking at their family home was declared by more than a half of the surveyed pregnant women, while 14% of them mentioned passive exposure to smoke at their workplace.

6. The socioeconomic variables that most clearly showed positive correlation with active smoking by pregnant women were: smoking tobacco by a husband or steady partner, smoking tobacco in the presence of a pregnant woman in her workplace and at home, as well as taking advantage of a family doctor's advice.

7. Smoking tobacco during pregnancy was also enhanced by: lower level of education, extramarital pregnancy, permanent residence in a town or a city, poor living conditions, not working professionally during pregnancy, having two or more children, abnormal course of pregnancy, suffering from such ailments as: weepiness, problems with relaxation, lack of appetite and not taking any medicines during pregnancy.

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SUMMARY

The aim of the paper was to determine the frequency and intensity of tobacco smoking by pregnant women as well as to find out the relationship between tobacco smoking during pregnancy and socioeconomic variables (education, marital status, professional career, smoking partner, number of children) as well as health variables (severe ailments during pregnancy period, taking medicines, using medical care). The research was carried out at the department of gynecology and obstetrics of the Specialist Hospital in Jasło as well as at the Women's Outpatient Clinic of the Public Independent Health Service Institution in Skołyszyn (Podkarpackie Voivodship). The research was conducted by means of the questionnaire distributed from July to September 2002 among 100 pregnant women. The results of the analysis indicate that 18% of the women under survey smoked cigarettes during pregnancy, including 6% daily smokers and 12% occasional smokers. 18% of women quit smoking when they found out that they were pregnant, and 18% of them limited smoking. Exposure to passive smoking at their family home was declared by more than a half of the pregnant women, while 14% of the surveyed women mentioned passive exposure to smoke at their workplace. The socioeconomic variables that most clearly showed positive correlation with active smoking by pregnant women were: smoking tobacco by a husband or steady partner, smoking tobacco in the presence of a pregnant woman in her workplace and at home, as well as taking advantage of a family doctor's advice. Smoking tobacco during pregnancy was also enhanced by: the lower level of education, extramarital pregnancy, permanent residence in a town or a city, poor living conditions, not working professionally during pregnancy, having two or more children, abnormal course of pregnancy, suffering from such ailments as: weepiness, problems with relaxation, lack of appetite and taking no medicines during pregnancy.

Uwarunkowania palenia tytoniu przez kobiety ciężarne

Celem pracy było ustalenie częstości i intensywności palenia tytoniu przez kobiety ciężarne, a także poszukiwanie związku między paleniem tytoniu podczas ciąży a zmiennymi socjoekonomicznymi (wykształcenie, stan cywilny, praca zawodowa, pałący partner, liczba dzieci) i zdrowotnymi (przykre dolegliwości podczas ciąży, przyjmowanie leków, korzystanie z opieki medycznej). Badanie przeprowadzono na oddziale ginekologiczno-położniczym Szpitala Specjalistycznego w Jasle oraz w Poradni „K” Samodzielnego Publicznego Zakładu Opieki Zdrowotnej w Skołyszynie (województwo podkarpackie). Badanie zrealizowano metodą ankiety, rozdawanej w okresie od lipca do września 2002 roku, objęto nim 100 kobiet ciężarnych. Wyniki przeprowadzonej analizy wskazują na to, że 18% badanych kobiet paliło papierosy w ciąży, w tym 6% codziennie, a 12% okazjonalnie. Na wiadomość o zajściu w ciążę 18% badanych kobiet przestało palić papierosy, a 18% kobiet ograniczyło palenie. Narażenie na palenie bierne w domu rodzinnym deklarowała ponad połowa kobiet ciężarnych, a 14% ankietowanych podało bierne narażenie na dym tytoniowy w swoim miejscu pracy. Zmiennymi socjoekonomicznymi, które wykazywały najwyraźniej korelację dodatnią z czynnym paleniem tytoniu przez kobiety ciężarne, były: palenie tytoniu przez męża lub stałego partnera ciężarnej, palenie tytoniu przez inne osoby w obecności ciężarnej w jej miejscu pracy i domu rodzinnym, korzystanie przez ciężarną z porad lekarza rodzinnego podczas ciąży. Paleniu tytoniu podczas ciąży sprzyjały również niższy poziom wykształcenia, ciąża pozamałżeńska, stałe miejsce zamieszkania w mieście, złe warunki mieszkaniowe, brak pracy zawodowej podczas ciąży, posiadanie przez ciężarną dwojga lub więcej dzieci, nieprawidłowy przebieg ciąży, odczuwanie przez ciężarną takich dolegliwości, jak: trudności w odprężeniu się, płaczliwość, brak apetytu i brak przyjmowania jakichkolwiek leków podczas ciąży.