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Smoking relapse prevention

intervention study for postpartum women in Lodz, Poland

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Introduction

- ◆ **The exposure to environmental tobacco smoke gives rise to an excessive risk of several diseases in infancy and childhood**
- ◆ **Approximately 30-40% of pregnant women who smoke prior to pregnancy tend to quit smoking by the first prenatal visit**
- ◆ **More than half of the women who quit smoking in pregnancy relapse to smoking after delivery**
- ◆ **Interventions to maintain quitting postpartum were so far rarely performed and their effectiveness is not well documented**

Aim

The aim of the study was to evaluate the effectiveness of smoking relapse prevention intervention for postpartum women

Risk factors for smoking relapse

- ◆ **Feeling an urge to smoke**
 - ◆ **Smoking as a big pleasure**
 - ◆ **Negative experience after quitting smoking**
 - ◆ **Partner and friends who smoke**
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Protective factors against smoking relapse

- ◆ **Positive experience after quitting smoking**
 - ◆ **Breastfeeding**
 - ◆ **Smoke-free environment**
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Methods

The study was conducted in 2004-2006 in Lodz district, Poland.

Study population

199 postpartum women who had quit smoking in recent pregnancy and maintained smoking abstinence within two weeks after delivery (confirmed by biochemical verification)

100 - intervention group

99 - control group

Smoking status was updated 6 and 12 months after delivery

Verification of smoking status cotinine in saliva

Saliva samples:

- ◆ at booking from all women who agreed to participate in the study
- ◆ At 6 and 12 months after delivery from the women who answered that they had not relapsed into smoking



Liquid Chromatography
(HPLC) with Tandem mass
spectrometry (MSMS)



Methods

Smoking relapse prevention

4 visit conducted by midwives trained in anti-smoking intervention techniques

Elements of the intervention

Diagnosis

Education

Control

Evaluation

Methods

Control group

Standard information about negative effect of smoking and methods how to keep smoking abstinence

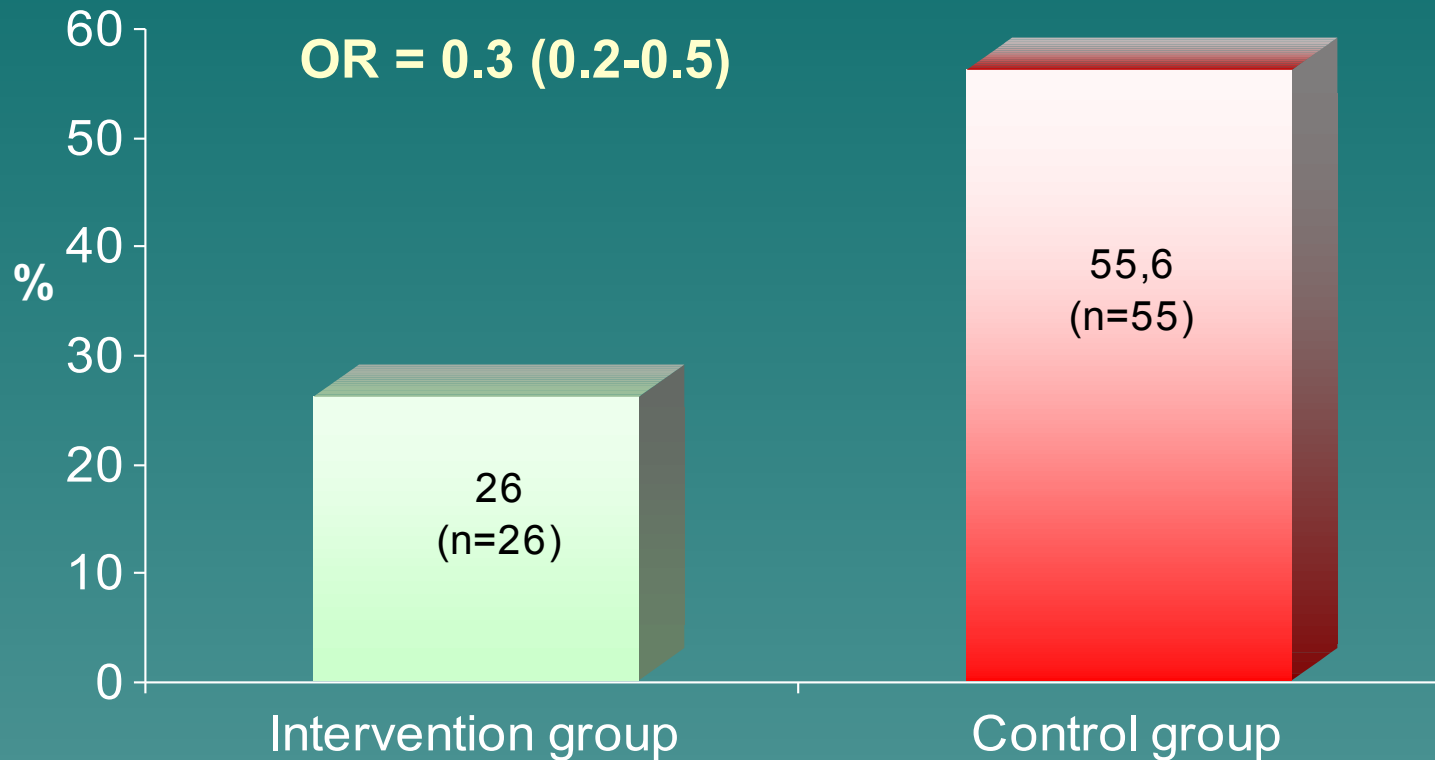
Characteristic of the women from the intervention and control group

Variable	Intervention N=100 Mean (\pm SD)	Control N=99 Mean (\pm SD)	p
Age	26.1 \pm 4.5	26.5 \pm 4.5	0.1
Years of smoking	6.4 \pm 2.7	7.1 \pm 4.2	0.2
Time of quitting smoking (month of pregnancy)	2.0 \pm 1.1	2.3 \pm 1.3	0.1

Characteristic of the women from the intervention and control group

Variable	Intervention N=100 %	Control N=99 %	p
Marital status			
<i>Married</i>	59	52	0.3
<i>Unmarried</i>	41	48	
Education			
<i>Primary or vocational</i>	26	38	0.07
<i>College or university</i>	74	62	
Employment status			
<i>Employed</i>	67	56	0.4
<i>Unemployed</i>	33	44	
Husband smoking			
<i>Yes</i>	74	72	0.8
<i>No</i>	26	28	
Number of cigarettes			
<i>≤10</i>	56	60	0.8
<i>11-20</i>	37	34	
<i>>20</i>	7	6	

Smoking relapse 6 months after delivery



The same proportions of women who returned to smoking were observed 12 months postpartum

Smoking relapse after delivery

Variable	Intervention N=26 Mean (\pm SD)	Control N=55 Mean (\pm SD)	p
Smoking relapse after delivery (weeks after delivery)	6.9 \pm 2.9	5.7 \pm 4.7	0.2
Number of cigarettes	5.0 \pm 1.3	6,7 \pm 4,4	0.06
10 or more cigarettes per day	0 (0%)	11 (20%)	0.01

Conclusions

- ◆ **Smoking relapse prevention intervention is an effective tool to help the women to maintain smoking abstinence in postpartum period**
- ◆ **Women who had returned to smoking did this later and smoked less cigarettes per day when they had participated in the program than the women from control group**

Thank you for your attention

