

RESEARCH COMMUNICATION

Evaluation of Behavioural Change towards Smoking in Turkish Fathers having 0-1 Year Old Infants during Prenatal and Postnatal Periods

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Abstract

Objective: This study was conducted with the purpose of evaluating changes in fathers' behaviours towards smoking during the prenatal and postnatal periods. **Design:** A descriptive study conducted in primary health care centres in Kars. **Subjects:** Parents applying with their 0-1 year old babies in order to utilise such relevant services as vaccine and polyclinic were interviewed face to face by means of a semi-structured form between February the 25th and May the 15th 2009. **Results:** While 50.8% and 36.2% of the fathers admitted smoking near the mother and baby, and 26.9% said that they cut down cigarettes during pregnancy, according to mothers, the figures were 76.2%, 55.4% and 16.9%. According to Kappa coefficients it was apparent that there was limited consistency between mother and father statements regarding smoking. **Conclusion:** Environmental tobacco smoke exposure during pregnancy from a fathers habit remains an important issue.

Key Words: Cigarettes - passive smoking - infants - fathers behaviour - self-expression

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Introduction

Scientific evidence shows that environmental tobacco smoke (ETS) exposure is among the causes of preventable death and illnesses. Especially, ETS gets more important in terms of prenatal and postnatal mortality/morbidity during pregnancy (Jakakkola and Gissler, 2004; Venners et al., 2004; Kutlu, 2008). In several studies conducted, it is shown that ETS very important problem in home (Blackburn et al. 2005a; 2005b) and illnesses such as pneumonia, bronchitis, and night cough increase among children whose parents smoke (American Pregnancy Association, 2006; Patenden et al., 2006). Thus, national programme and campaigns continue increasingly in order to protect fetus and babies from ETS in developed countries. But, as policies in order to struggle with cigarette have just been developed in developing countries, baby and child exposition doesn't attract attention that much.

Although there is a stress on mothers' smoking behaviour during the delivery of healthcare services, fathers' smoking behavior can be disregarded. Medical personnel haven't been addressed any question about smoking during and after pregnancy toward fathers' smoking. In Turkey, the prevalence of smoking cigarette is at high levels especially in men (62.8%). (Sezer, 2002). In addition, it indicates a big potential threat that ETS exposition increases to 75% at home (Karakoç et al., 2008; Boyacı et al., 2004). However, fathers' smoking behaviour focuses on chancing a risk about their health to a large extent and enough attention can not be drawn on

environmental threats.

Smoking behavior of dad-to-be can affect progress of pregnancy and health of baby during postnatal period in various ways. In the studies conducted, it is realized that when the addiction of father increases, there is an increase in the risk of abortion, sudden death infant syndrome, childhood cancers and respiratory system problems (Lu et al., 2001; Sullivan and Barlow, 2001; Green et al., 2003; Venners et al., 2004). However, according to other studies, in case of not smoking home or smoking outside, there is a decline in ETS exposition among children and in addition, a decline in the proportion of kreatinin/kotinin in urine (Winkelstein, 1997; Wakefield, 2000; Blackburn et al., 2003). Despite the all potential threats mentioned above, father's smoking behaviour is disregarded in the delivery of medical services during either prenatal or postnatal period. Fatherhood can have a strong motivating effect upon the change of smoking behaviour among fathers. In the study of Blackburn and others, it is observed that 5.0% of fathers can give up smoking and 60% of fathers don't smoke at home (American Pregnancy Association, 2006). So, fathers can need motivation in order to question their smoking habits during prenatal services. In this process, if fathers giving up smoking or prevent passive smoking in home, they can easily adapting new roles, responsibilities and shaping communication dynamics in family. However, behaviour pattern and attitudes about this subject are not questioned and recognized together with substructure of change in father's smoking behaviour.

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In Turkey, although efforts toward protecting infants from ETS exposure requires focusing on fathers to a large extent during intrauterine period, fathers take part in this process much less. Because of these reasons, this study aims at evaluating changes in the smoking behaviour of fathers and comparing that with mothers' in order to understand whether these changes really exist.

Materials and Methods

Aim:

The aim of this study was to evaluate the behavioural change towards smoking in fathers having 0-1 year old babies during prenatal and postnatal period. This study planned as a descriptive type of research.

Sample

In the scope of the research, parents applying I. and II. Primer Health Care Center with their 0-1 year old babies in order to utilise such relevant services as vaccine and polyclinic were accepted to the interview. In order to carry out the interview, the criteria that the parents need to come together and father has smoked before pregnancy is respected.

Data Collection

The data is gathered by means of a semi-structured form and using face to face interviewing. In order for comparing the consistency of fathers' answer with mothers' answers, same questions were addressed to the mothers as well. During the interview, the questions to the mothers and fathers were addressed in different rooms to prevent mutual influences. For this purpose, the room out of use in the clinic was chosen to carry out the interview. Accordingly, the study was completed with 130 couples.

Data Analysis

After the data has been transferred to the SPSS database, the figures, percents and the consistency between mother-and father statements were evaluated using Landis and Loch's kappa scale (Landis and Koch, 1977). According to scale kappa rate evaluated this way: smaller than 0.20, "very weak adaptation", 0.21-0.40, "low level adaptation", 0.41-0.60, "medium level adaptation", 0.61-0.80, "adaptation is important" and greater than 0.80, "perfect adaptation". Father's smoking behaviour near baby and its relation with some variables was analyzed using chi-square test.

Ethical Considerations

The study was conducted with willing couples and it was conducted based on both sides' volunteerism. The interviewing was terminated by thanking to the couples unwilling about participation in the study.

Results

In Table 1 fathers' some features take place. When these features are examined, 42.3% of the fathers of having 35.24±7.59 average are between 31-40 ages; 39.2% is on the primary school level; 40.0% them have been smoking

Table 1. Distribution of Some Features of the Fathers

Feature	Category	Number	Percent
Father's Age	20-30 year old	41	(31.5)
	31-40 year old	55	(42.3)
	41-50 year old	31	(23.8)
	50 year and above	3	(2.3)
State of Education	Illiterate	8	(6.2)
	Literate	6	(4.6)
	Primary school	51	(39.2)
	Secondary school	19	(14.6)
	High school	28	(21.5)
Duration of Smoking	University	18	(13.8)
	1-10 year	44	(33.8)
	11-20 year	52	(40.0)
	21-30 year	32	(24.6)
The Number of Cigarette Smoked Daily	31 and above	2	(1.5)
	<Five in a day	6	(4.6)
	Half packet	26	(20.0)
	1 packet	61	(46.9)
	1.5 packets	25	(19.2)
	2 packets	11	(8.5)
	More than 2 packets	1	(0.8)

for 11-20 years. 46.9% of the fathers stated that they smoked a packet of cigarettes in a day.

In Table 2, mother-father statements related to fathers' smoking behavior were analyzed in a comparative way. When table was analyzed, the answers father gave about their smoking behavior were different from that of mothers. While 19.3% of the fathers state that he smoke over 1,5 packet of cigarettes in a day, according to mothers, this percent is 18.5%. Similarly; While 50.8% of the fathers state smoking near mother and 26.9% of the fathers cut down cutting down the cigarette during pregnancy, according to mothers, these percents are in turn, 76.2% and 16.9%. When father's smoking situation near baby was examined, while 36.2% of the fathers state that they smoke near baby, according to mothers 44.6% of the fathers smoke near baby.

The Kappa value was calculated as 0.40 for the consistency of answers fathers gave about ETS exposure resulting from fathers. Similarly, the consistency of the

Table 2. Comparison of Father-Mother Statements Regarding Father's Smoking Behaviour

	Mother statements		Father Statements	
	Number	%	Number	%
Cigarettes Smoked in a Day				
1-10	30	23.1	32	24.6
11-20	56	43.1	61	46.9
21-30	20	15.4	25	19.2
31 and above	24	18.5	12	9.3
Smoking Near Mother During pregnancy				
Smoked	99	76.2	66	50.8
Didn't smoke	31	23.8	64	49.2
Cutting Down Cigarettes During Pregnancy				
Cut down	22	16.9	35	26.9
Didn't cut down	108	83.1	95	73.1*
Smoking Near Baby After Birth				
Smokes	72	55.4	47	36.2
Doesn't smoke	58	44.6	83	63.8

*Ten of the fathers (7.7%) stated that they increased the amount of cigarettes they smoked during pregnancy

Table 3. Relations of Fathers' Smoking Near Baby with Other Variables

	Smokes		Doesn't smoke		Total	
	No.	%	No.	%	No.	%
How manyth child the baby is						
1	3	12.0	22	88.0	25	19.2
2	8	26.7	22	73.3	30	23.1
3 and above	36	48.0	39	52.0	75	57.7
Total	47	36.2	83	63.8	130	100.0
$\chi^2=12.048$ sd=2 p=0.02						
Father's State of Education						
≤Primary	33	50.8	32	49.2	65	50.0
≥Secondary	14	21.5	51	78.5	65	50.0
Total	47	36.2	83	63.8	130	100.0
$\chi^2=12.030$ sd=2 p=0.00						
Kind of Heating System of Home						
Stove-heated	46	48.4	49	51.6	95	74.2
Centrally-heated	1	3.0	32	97.0	33	25.8
Total	47	36.7	81	63.3	128	100.0
$\chi^2=21.717$ sd=2 p=0.00						

answers fathers gave about smoking near baby was calculated 0.57 as Kappa. According to the Kappa values gathered a mid-level consistency was observed between mother and father statements.

In Table 3, the relation of father's smoking situation with some variable takes place. When the table was looked over, in case of the fact that the baby is first child 12.0% of the fathers express smoking near baby whereas this percent arises to 48.0% when the baby is 3rd child. While 50.8% of the fathers on primary the school and under level express smoking near baby, 21.5% of the fathers on secondary school and above level state that they smoke near baby. In a similar way, while exposition resulting from fathers in stove-heated houses is 48.4%, in centrally heated houses, this percent decreases to 3.0%. In the statistical analysis conducted, it was observed that father's smoking situation near baby is correlated with birth order of infant, father's state of education and the heating system of the house.

Discussion

ETS exposure is among the important issues as the preventable cause of some diseases. Especially houses has an important potential danger for ETS and most important reasons is smoker father. In this study, in which most of the fathers have low level education, it can be observed that they have developed addiction on a critical level based on the number of years and the amount of cigarettes they smoke (see Table 1). Level of addiction can be determinative in terms of sustaining smoking behavior even on such special occasions as expecting baby. Especially, due to lack of familial rules about not smoking in the house, the behavior is sustained easily. Also parents' smoking in the house trigger other parents about smoking near their babies in house (Yeltekin et al., 2005). In the study of Everett and others, it was determined that 49.3% of the fathers expecting a baby smoke and this smoking behavior is related to low education level and lack of rules forbidding smoking at home (Everett et al., 2005). Low education level is closely related with lack of awareness.

Since the harms of ETS is not completely understood by parents, the attitude is sustained without questioning. In the study of Moffat and Stanton (2005), only 33.0% of the fathers stated that ETS exposure causes sudden death syndromes, 24.0% of them, ear infections and 65.0% of them problems in respiratory system. In same study, it was observed that the more father gets informed about passive smoking and believes in giving up smoking, the more he tries to give up. Particularly, as smoking is accepted as a social behavior in Turkey, mothers can not protect their child from ETS exposure adequately, even if they don't smoke. In this respect, it is important to establish familial rules in houses where control is particularly difficult.

We can confront self-declarations in a rationalized way given about child exposition from ETS. Particularly, the inconsistencies between mother-father statements can attract attention in self-declarations gathered during the delivery of medical services. In this study, how different, mother-father statements are, is tried to be understood. In the statistical evaluation, A mid level consistency was detected between mother-father statements about ETS exposure resulting from fathers during prenatal and postnatal period. Fathers tried to show the amount of cigarettes they smoked in a day much less. Similar situation is valid for the cases of smoking near mother during pregnancy, cutting down the amount of cigarette smoked during pregnancy and smoking near baby. For instance; while 50.8% of the father stated that they smoked near mother-to-be, mothers' answers to this question was 76.2%. Similarly, while 36.2% of the fathers stated that they smoked near baby, according to mothers, this amount is 55.4%. In other words, while fathers tended to hide their behavior, mothers could display their husbands' behavior. Father's anticipation about results of hiding his behavior can result from his anxieties for being criticized, as expected.

In this study, ETS exposition resulting from fathers is in a close relation with the number of child father has. While exposition in parents having their first child is on a low level, (12%), it raises to 48.0% in families having three or more child. Similarly, exposition was detected to be related with state of education. Fathers having primary school and under degree stated that they smoked much more near baby. Correlatively, a relation between heating system and ETS is on the point. In stove-heated houses, ETS exposition increases significantly (see Table 3). In the statistical evaluation conducted, father's smoking situation near baby shows a close relation with every three variables ($p>.05$). In the study of Bolte and others, a relation between the number of people in the house and ETS exposure was observed (Bolte et al., 2009). The study of Everett and others (2005), similarly, a close relation between state of education and ETS exposure (Yeltekin et al., 2005). Since this subject wasn't studied adequately, findings obtained couldn't be compared with the findings of other studies.

In conclusion, ETS exposure is still an important problem in homes where fathers create the biggest ETS danger. It was found that mid level consistency between father and mother statements about father's smoking.

Particularly, it is observed that ETS exposure is high in multi-child families, in the case of father's low state of education and stove-heated houses. According to this results there is need for developing policies about cigarette, increasing the measures in order to protect the foetus and young children from ETS exposure.

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