

The Determination of the Smoking Exposure and Affecting Factors in Pregnant Women in Sanliurfa, Turkey

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Abstract: The study is conducted in the city of Sanliurfa as a descriptive study, and the aim of the study is to determine the smoking exposure and affecting factors in pregnant women. Sample size is calculated as 256; the estimated smoking cessation rate is 4.4%, the error limit is 2.5% and confidence interval is 95.0%. In the study, it was reported that 9.8% of pregnant women smoke and the average amount of cigarettes smoked per day during pregnancy is 5.3 ± 4.4 . For the pregnant women; the mean duration of smoking before pregnancy is 4.6 ± 3.8 years and the average amount of cigarettes smoked per day is 8.9 ± 7.0 . Of the women; 41.8% are exposed to secondhand tobacco smoke at home, since their husbands smoke; 55.1% are exposed to secondhand tobacco smoke at home due to their relatives; and 27.3% are exposed to secondhand tobacco smoke at work. In univariate analyzes, the smoking exposure is found to be higher in the Turkish speaking families than in the Kurdish and Arabic speaking families and in the families in which the husbands earn money than in which husbands don't earn money ($p < 0.05$). Although the rate of pregnant women who smoke is lower than the total value of Turkey; the rate of passive exposure to tobacco smoke is higher. In the light of these results, it is suggested that antenatal care health personnel should provide counseling services regarding harms and passive smoking should be provided to pregnant women, their spouses and their family members and that these informing, counseling and prevention activities for smoking should be performed and generalized throughout Turkey.

Keywords: Pregnancy, smoking, smoking exposure, passive smoking.

INTRODUCTION

Today, the rate of smoking is increased among women, and it is also gradually increasing during pregnancy [1]. In addition to this, pregnant women can also be exposed to smoke at home, work and other environments, where other people smoke. Smoking habits and exposure to smoke of the pregnant women can lead to negative consequences during perinatal period and for infant health [2].

It is reported that the prevalence of smoking in pregnant women is between 10 and 20%, depending on the social, cultural and ethnic origins of the countries [3]. However, a more concerning situation is that the rate of exposure to smoke of pregnant women is 75% [4]. Smoking does not only harm the smoker, but also other individuals in the same environment [5].

Multiple epidemiological studies and meta-analyzes suggest that smoking during pregnancy has serious negative consequences during pregnancy. These include stillbirth [6], congenital anomalies [7], low birth weight [5], preterm birth [8], and neonatal mortality [5]. Children of women who smoke during pregnancy are

also at risk for many problems, such as sudden infant death syndrome [9], respiratory tract infections [10], asthma [11], overweight and obesity [12], cognitive delays, and behavioural problems [13]. Moreover, it is indicated that children of women who smoke during pregnancy has higher risk of starting smoking [14]. It is reported that there is a common belief that exposure to passive smoking during pregnancy is associated with less negative effects on child's health than actively smoking, and that there is a strong association with low birth weight and childhood asthma [15,16].

Although there are several studies showing that smoking and passive smoking during pregnancy have negative effects on baby health; this problem has not yet arisen enough attention. However, it is reported that cessation of smoking at any stage of pregnancy has significantly positive effects on newborn health [17].

Giving prenatal care in First Step Health Services in Turkey is one of the compulsory services. Besides, pregnant follow-ups can be done by specialist physicians in private or public institutions. Prenatal care is indispensable in terms of the protection and

development of the health of the mother and the baby and also includes the fight against the negative effects of smoking. Determining smoking exposure in pregnant women and identification of the needs for education and counseling is vital. For this reason, the research was carried out to determine the smoking exposure and affecting factors in pregnant women in Sanliurfa, Turkey.

METHODS

Study area

The city of Sanliurfa is located in the Southeast Anatolia region of Turkey. The State Planning Organization ranked it as 73th in 81 cities in terms of socio-economic development rank, which includes education, health and social indicators [18]. The majority of the people living in the region, where the study was conducted, has poor economic status and earns their livelihood by making livestock or working as agricultural worker. In terms of education, literacy rate is low, and the majority of people living in the region speak Kurdish or Arabic.

This descriptive study was conducted in center of Sanliurfa province between February and March 2016. The study population consists of the pregnant women who presented to Sanliurfa Gynecology and Obstetrics Outpatient clinic. The sample size is calculated as 256; 4.4% is prevalence of smoking during pregnancy; 2.5% is error limit and 95% is confidence interval.

Ethical Dimension of Study

For the study to be conducted; written consent was obtained from the Ethics Committee of Harran University and the General Secretariat of the Sanliurfa Public Hospitals Association and informed consent was obtained from pregnant women, who will participate in the study.

Collection of Data and Tools

Data were gathered by means of face-to-face interviews via the Data Collection Form created by the researcher through literature review. The Data Collection Form consists of 26 questions, including questions regarding socio-demographic characteristics, fertility characteristics and characteristics related to smoking status of the pregnant women. The application phase of the study was conducted between the 22nd of February and 05th of March 2016. The researcher visited outpatient clinics of Sanliurfa Gynecology and Obstetrics Hospital three days a week between 09.00 and 17.00. The interviews took approximately 20 minutes.

Research Variables

The dependent variable is exposure of pregnant women to smoke. Independent variables include the socio-demographic characteristics (age, place of birth, education level, economic status, working status,

whether the spouse is disabled or not, education level of spouse, working status of spouse, social security, most spoken language at home and family type, fertility characteristics (week of the pregnancy, number of pregnancies, number of living children), smoking habits (current smoking status, for how long she is smoking, how many cigarettes her spouse or relatives smoke next to the pregnant woman per day), behaviors and attitudes when they are exposed to smoke.

Evaluation of Data

The data obtained from the research were evaluated by the researcher using the Statistical Package for Social Sciences (SPSS) for Windows 16.0 statistical package program. In the evaluation of the data, the percentage, mean, standard deviation from the descriptive statistics; chi-square and t-test were used for univariate analyzes. The findings were interpreted with significance level of 0.05 and 95% confidence interval. In the research, smoking of pregnant women; smoking exposure by husband or relatives at home or co-workers in the workplace are assessed as smoking exposure.

Limiting Factors of the Study

The data were collected in accordance with the statements of the women participating in the study. No measurements were made. Among the pregnant women participating in the research; two were communicated via a translator, because they did not speak Turkish and speak Arabic.

RESULTS

The average age of pregnant women was 28.4 ± 6.5 and 56.2% of the women did not finish basic education. Only 4.3% were employed and 64.8% rated their economic situation as moderate. 65.6% live in nuclear families. The most spoken languages at home are Turkish (34.8%) and Arabic (33.6%). In addition, 21.4% of the spouses did not complete their basic education, but 77.7% of the spouses work.

Of the pregnant women; the average week of pregnancy was 22.3 ± 9.6 , the average number of pregnancy was 3.6 ± 1.9 , and the average number of living children was 2.3 ± 1.7 .

9.8% of pregnant women were smoking. Of the smokers; the mean duration of smoking was 4.64 ± 3.86 years, the daily amount of cigarette consumption before pregnancy was 8.90 ± 7.07 and the amount of daily cigarette consumption during pregnancy was 5.32 ± 4.46 (Table 1). 61.3% of the pregnant women have someone smoking in their families, and this person is generally the spouse (84.7%). In addition, 41.8% of the spouses continued to smoke, while with the pregnant woman. The relatives of 55.1% of the pregnant women and co-workers of 27.3% of the pregnant women continued smoking, while they are with her and therefore, they are exposed to smoke (Table 2).

Amongst the pregnant women; those with a middle school or higher education level (58.3%), those speaking mostly Turkish at home (55.1%), those who assess their economic status as moderate (50.0%), whose spouse have a level of education of middle school or above (43.9%), those living in nuclear families (48.8%) and when the women (54.5%) or their husband (51.8%) have a job have higher rates of smoking exposure. Statistical evaluation revealed statistically significant difference ($p < 0.05$) between the smoking exposure and the most commonly spoken language at home and the working status of the spouse,

and the difference between economic status, educational status of spouses and pregnant women, type of family and working status of pregnant women was not significant ($p > 0.05$) (Table 3).

While 28.5% of the subjects who were exposed to cigarette smoke by their relatives or co-workers indicated that they did not want anybody to smoke around them, 23.8% of them reported reacting by saying that smoking next to a pregnant woman is dangerous and 19.1% were unresponsive to this situation (Table 4).

Table-1: Smoking Habits of Pregnant Women

Features	Mean ± SS	Median (Min-Max)
Smoking duration (years)	4.64 ± 3.86	3 (1-18)
Daily amount of smoking before pregnancy (unit)	8.90±7.07	5 (2-20)
Daily amount of smoking during pregnancy (unit)	5.32 ± 4.46	3 (1-20)

Table-2: Smoking Exposure of Pregnant Women

Features	Number	%
Individual who smokes in the family		
Present	157	61.3
None	99	38.7
Spouse's smoking status		
Smokes	133	52.0
Doesn't smoke	123	48.0
Smoking status of spouse nearby the pregnant women		
Smokes	107	41.8
Doesn't smoke	26	10.2
Smoking status of relatives nearby the pregnant women		
Smokes	141	55.1
Doesn't smoke	115	44.9
Smoking at work place nearby the pregnant women		
Yes	3	27.3.
No	8	72.7

DISCUSSION

Smoking rate is increasing worldwide among women [1,2]. In addition to affecting woman health negatively, it also has an adverse effect on the health of future generations, due to fertility. For this reason, reducing smoking rate in pregnant women is extremely important in terms of public health.

In this research, 9.8% of pregnant women smoke cigarettes. This rate is lower than Turkey (12.9%) [22] and many various countries in the world [1-5]. This situation is thought to have originated from the sample and cultural differences.

It has been determined that pregnant women continue to smoke during pregnancy but decrease the daily amount of cigarettes smoked per day during pregnancy. This conclusion suggests that pregnant women are actually aware that smoking is harmful to pregnancy, but that they are experiencing problems with

quitting. Many studies have indicated that pregnant women have high rate of quitting smoking during pregnancy, and the most important reason for this is that the cigarette harms the infants [17, 20, 21]. It is also important that the result of the research shows that pregnant women, who smoke, are in need of smoking cessation counseling.

In the research, it is favorable that the pregnant women have low smoking rates, but on the other hand, higher rate of smoking exposure is alarming. Approximately half of pregnant women are exposed to cigarette smoke by their husbands and relatives, and about one-fourth in the workplace by co-workers. Exposure to passive smoking in the prenatal period negatively affects the health of the baby as much as smoking. In many studies, exposure to passive smoking has been shown to cause many developmental and growth problems of fetus [4,11,16].

Table-3: Some Descriptive Characteristics of Pregnant Women and Smoking Exposure

Features	Smoking Exposure				X ²	P
	Yes		No			
	Number	%	Number	%		
Most spoken language at home						
Turkish	49	55.1	40	44.9	5,433	0.011
Kurdish	44	54.3	37	45.7		
Arabic	30	34.9	56	65.1		
Economic situation						
Good	18	41.9	25	58.1	0942	0624
Moderate	83	50.0	83	50.0		
Poor	22	46.8	25	53.2		
Educational Status						
Not literate	44	43.1	58	57.9	3,367	0.338
Literate	18	42.9	24	57.1%		
Elementary school	54	54	46	46		
Secondary education and above	7	58.3%	5	41.7		
Family type						
Nuclear family	82	48.8%	86	51.2	0.114	0793
Extended family	41	46.6	47	53.4%		
Occupation						
Employed	6	54.5	5	45.5	0194	0.762
Unemployed	117	47.8	52.2	15.2		
Educational Status of the Spouse						
Not literate	11	40.7	16	59.3	3,837	0.280
Literate	10	35.7	18	64.3		
Elementary school	84	52.5	76	47.5		
Secondary education and above	18	43.9	23	56.1		
Occupation of the Spouse						
Employed	103	51.8	96	48.2	4.933	0.035
Unemployed	20	35.1	37	64.9		

Table-4: Behaviors and Attitudes of Pregnant Women Exposed to Smoking towards Smokers in the Family, Nearby or in the Work Place

Behavior and attitudes	Number	%
I tell them I don't want smoking nearby me	73	28.5
I say that I'm bothered	27	10.5
I can't do anything	49	19.1
I warn them by saying that it is harmful	61	23.8
I tell them angrily not to smoke	28	10.9
I leave the place	4	1.6
I recommend them not to smoke	14	5.5
Total	256	100

It has been determined that pregnant women in the research are similar in terms of smoking exposure; but the exposure rate is higher for pregnant women, who live in houses, where mostly Turkish is spoken and who have working spouses. This suggests that there may be cultural differences for smoking habits and gestation and work stress and purchasing power of cigarettes may increase cigarette smoking in people. Studies have also shown that socio-demographic and economic factors such as age, education level, and income level affect smoking or cigarette exposure rates [23,24]. As can be understood from this, especially the

level of education of individuals is an important factor in the attainment of healthy living behavior. Considering these results may play crucial role for determination of potential and risk groups in smoking and exposure to cigarette smoke.

It has been determined that most of the pregnant women in the research do not find smoking next to them appropriate and they show negative reaction to the smokers. This suggests that pregnant women are aware of the consequences of passive smoking. In this respect, counseling for the relatives of

the pregnant women and studies to be carried out against the passive smoking problem in the society is gaining importance.

CONCLUSIONS AND RECOMMENDATIONS

Smoking rates in pregnant women in the research appear lower than Turkey although smoking exposure rate is determined to be higher. In addition, pregnant women are aware of the harms of passive smoking but are insufficient to prevent exposure. According to these results, it has been proposed to include especially spouses and other family members in the education about cigarettes, especially passive smoking, planning for prevention and protection from exposure, and counseling for pregnancy. It may also be advisable to apply and disseminate all of this information, counseling, and prevention efforts throughout the country.

In order to prevent passive exposure in the workplace, it is necessary to increase the audits to enforce the laws in force.

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