RESEARCH COMMUNICATION

Why are Turkish Children at Risk of Exposure to Environmental Tobacco Smoke in Their Homes?

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Abstract

Objectives: Children are at greater risk than adults to the effects of inhaling environmental tobacco smoke (ETS) especially in their homes. The aim of this study was to assess parents' knowledge regarding the risks of ETS to the health of their children and the barriers to reducing children's ETS exposure. Methods: Qualitative research was performed for 50 households in which children were to exposed ETS were selected randomly from the questionnaire respondents for home-based interview. We conducted a total of 53 home-based interviews and collected information from parents regarding their knowledge of ETS effects, smoking behavior at home, barriers to quitting smoking or reducing ETS exposure, social attitudes toward parents who ban smoking, and the impact of the smoke-free legislation. Results: Passive smoking was not a well recognized term but parents recognized that it causes harmful health effects. Some parents reported that their health care professionals did not inform them about the dangers of ETS. Parents restricted smoking in their homes, with a range of spatial restrictions which were frequently modified by family relation factors, the desire to be seen to act in socially and morally acceptable ways. The meaning of hospitality as social habits and traditions were important underlying factors. Conclusion: Knowledge levels, relationships with family and friends and the social and cultural context in which families live play important roles in the management of smoke exposure in Turkish homes. Despite these factors, awareness of the risks of ETS and smoke free legislation can provide opportunities to support people attain smoke-free homes.

Key Words: Turkish children - environmental tobacco smoke - passive smoking - interview research

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Introduction

Chronic exposure to environmental tobacco smoke (ETS) in children is associated to increased risk of lower respiratory infections, ear disorders, severity of asthma symptoms, and sudden infant death syndrome (Kegler and Malcoe, 2002; Robinson and Kirkcaldy, 2007). Additionally, ETS is a known carcinogen increasing the chance of developing in the longer term health conditions as cancer and heart disease. Children are at greater risk than adults to the effects of inhaling ETS as they breathe more quickly and have smaller, less developed airways. However the majorities of pediatricians do not routinely address smoke exposure at office visits (Halterman et al., 2006) or offer cessation counseling to parents.

There is a growing recognition that the real health risks may be experienced by children who are exposed to cigarette smoke in their homes (Ashley and Ferrence,1998; Halterman et al., 2006). Thus, one method to help reduce children's ETS exposure requires parents to completely ban smoking in their home. The prevalence of household smoking restrictions varies by state, as well as by race/ethnicity, income, and age. Higher household income, being a nonsmoker, and having children in the home were related to smoking bans in the home and car (Koepke et al., 1990; Gilpin et al., 1999; Norman et al., 1999).

The aim of this study was to assess knowledge regarding the short and longer term risks of environmental tobacco smoke (ETS) to the health of their children and the barriers to reducing children's ETS exposure in order to better understand why parents still smoked in the home before a smoking ban. An increased understanding of health messages are interpreted by and acted upon by mothers will assist the future development of strategies to work with parents to try to reduce the exposure of their children to ETS. This research was conducted as a part of a wider study. In this paper, we present the findings from interviews with parents.

Materials and Methods

The study place "Burhaniye" is a district in Balıkesir Province, Turkey, as well as the central city of that district, on the west coast of Turkey, not far from the Greek Islands.

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31,227 of 43,199 population live at the centre. Burhaniye, especially around Kazdagı known also as Mount Ida, is largely covered with forests. Its economy relies largely on the production of olives, as well as on tourism.

Two health centers, one mother and child health and family planning centre, provide Ministry of Health Primary Care Services at the centre of Burhaniye. Health centers provide preventive care, health promotion, community-based health service, and primary diagnostic and curative care. The health centre in the region of the study was realized serves a population of 21,156.

We calculated the sample size by using the list of 0-5 years-old children living in the health center's region through health center enrollment. This led us to a sample size of 300 children with a confidence interval 95%, accepting a sample error of 1‰, design effect is 1, non-response rate is 1.2. Random sampling method was used. Data collected through face to face questionnaire with the mothers. This questionnaire was used to obtain basic demographic, smoking data and if their children expose tobacco smoke or not. ETS exposure was described as a child being physically close to or in the same room with someone who was smoking cigarettes. Fifty of household in which children exposed environmental tobacco smoke were selected randomly from the questionnaire respondents for the home-based interview.

We informed parents of the study by telephone and scheduled a home-based interview if they were interested in participating. We conducted interviews in December 2008. The interviews were conducted until we felt that no new information was being discussed or brought forth. After interviewing 48 mothers and five fathers living at 48 houses, the interviews proved to be sufficient for data saturation and provided common perception and smoking patterns within families.

We conducted most of the interviews in the homes of families. We conducted three interviews at the health center. Three trained facilitators (M.Ç., Z.Ö. and T.G.) conducted the interviews. We prepared interview discussion guides for households. An observer accompanied the facilitator to each interview. The observer tape-recorded the interview, documented written notations based on the discussion (such as participant body language), and recorded observations of the home and neighborhood environments.

Interviews

After eliciting informed consent, a few "ice-breaker" questions were included (e.g., How are you?, Thanks for the participation) to make participants feel more comfortable. All participants agreed to have the interviews tape-recorded. Each interview lasted approximately 45 minutes to one hour. Mothers were respondents in 48 interviews, while fathers responded in 5 cases.

Interview Themes

We asked participants several open-ended questions. The facilitator used firstly broad questions such as "If you range everything in your life according to the importance, what will be the rank of your childrens' health?", "What do you understand by the term 'second hand smoke'?" . Others questions are about their smoking behaviors (e.g., Why do you smoke?, Where do you smoke?, Who else smoke at home?...), their beliefs about secondhand smoke (e.g., Is it harmful?), the social attitudes toward the parents who ban smoking in their child's environment, and the strategies to reduce ETS exposure the barriers front of these strategies and the knowledge about smoking legislations.

Analysis

The interviews were tape-recorded and transcribed verbatim. Study data included participant statements regarding their attitudes and beliefs about secondhand smoke as well as observations of their homes and neighborhoods. Five study personnel read the transcribed interviews, and themes were grouped by agreement and group consensus.

Results

Participants

No one refused to participate. The mean age was 27.4± 5.42 (min 18-max 41) years. The majority received health insurance but six families (12.5 %) were uninsured. Seven mothers were nonsmokers, but their husbands were.

Home and Neighborhood Environments

All of the participants lived in semi- urban Burhaniye, Balıkesir. There are play areas for children, and many children were observed to be playing outdoors. The participants' homes are average sized houses and apartments. All of the homes were very clean and tidy. Most of the houses have two-three rooms and a saloon. The saloon is the largest living room and is not used in daily life. When the guests visited, all the family were gathered at the saloon. All the houses were warmed by stoves. Only the kitchens were warmed at most of the houses we visited. The families were living in the kitchen in winter. All children we visited clearly were exposed to ETS in various locations.

Interview Themes

Several distinct themes emerged from the interviews and are described for each topic.

Knowledge of Effects of ETS. Everyone recognized smoking causes harmful health effects. "Cigarette is the most hazardous innovation for human maybe like nuclear energy. Most dangerous enemy of us…." (Father, 41 years) Passive smoking was not well recognized term. Only half of them explained the term exactly, while most of them were aware of harmful effects. Six respondents described passive smoking as "lip smoking" (smoking without inhaling)."Passive smoking means smoking few cigarettes (Father, 37 years). "I think I am a passive smoker because I don't inhale; I am just a "lip smoker" (Mother, 33 years).

Most participants realized that secondhand smoke is harmful to people's health. Some of them reported that the children would have asthma attacks and other respiratory disease if present in the room with a smoker. Only two participants realized that their children have

diseases because of ETS at home. While recognizing physical manifestations of ill health in children, alternative explanations were given of the reasons for the illness. When the child was coughing during the interview, the smoker mother mentioned "He is coughing, because he has just came back from his grandma".(Mother, 21). On the other hand, ten participants said that they know children who got chronically ill because their parents smoke beside them.

Participants identified health effects such as respiratory diseases (32), cancer (25), and asthma (7). Three of them told that ETS causes recurrent infections. 22 respondents said that the children, whose parents smoke, should have desire to smoke more since the parents are the role models. "My daughter put pretzel stick cracker between her fingers like smoking a cigarette while playing"(Mother, 27). Nine of the participants reported that the health care professions did not inform them about the dangers of ETS and smoking even during pregnancy and child bearing. Television (23), health care professions (12) are the most common sources. "There are always programs on TV about smoking hazards, immediately I am zapping. I can not resist hearing the smoking hazards. Any way I know what the hazards are, but I can not quit smoking."(Mother, 34)

Smoking Behaviors in Homes: Although most parents understood the harmful effects of ETS for a child, all children were exposed to ETS in their homes while only one reported that they smoked directly in front of their children. All of the smoking parents reported smoking inside the home to some extent. 18 participants expressed they smoke everywhere at home. However, the majority of smoking parents attempted to reduce their child's exposure to ETS. 34 of them stated that they wish smoke free houses. While 37 have desire to quit smoking, 31 participants described a struggle with the desire to quit smoking and their addiction to cigarettes.

Patterns of Restrictions: Smoking at the kitchen or toilet (34), smoking at the balcony when the door open (8), opening a window (26), using fragrance sprays to mitigate the odor of smoke (1), using a fan to vacuum the smoke (1), burning a candle (1) are the strategies to reduce children's ETS exposure. Except one family, there were no complete smoking restrictions in the homes of these families. "I have a friend who brings her head out of the window while she is smoking"(Mother, 32). "Only in the kitchen under the aspirator in winter, in balcony in the summer" (Mother, 29). "I am smoking indoors but I exhale the smoke into the coal stove"(Father, 30). "My husband sit armchair next to the door in the room and keeps the door open"(Mother, 27). "In winter, when it is cold I go to the bathroom to smoke (Mother, 32)

Barriers to Quitting Smoking or Reducing ETS Exposure:Parents described several barriers to quitting smoking or reducing the child's ETS exposure. One of the most commonly mentioned barriers to quitting smoking was addiction to cigarettes. Nineteen of participants stated they knew smoking cigarettes had a negative impact on their own health and their child's health and that they would like to quit smoking. "I want to quit smoking for my health. I could not tell a lie to say quitting for my child's health, for god sake. I have sensation problem on my feet and hands." (Mother, current smoker, smoke during pregnancy and breast feeding, 28). However, most felt that they could not stop smoking cigarettes because of the lack of will power. During Ramadan, we do not smoke for hours and hours. But after breaking the fest, I jumped down the cigarettes (Father, 37).

Some parents told how they began smoking. A father from a village explained that smoking was the sign of "being a man". A young mother, with a head scarf, mentioned that she smoked during her pregnancy and although she was followed regularly by health personal, any question about smoking was asked her. Ironically, she said that smoking was seen as an act of modernity even by health professionals, that nobody thought she could smoke. " I began smoking when I was eleven; it was the first day of a religious fest, an uncle put a packet of cigarettes in the pocket of my white shirt and said –now you are a handsome man; in my village, all my friends began in this way..."(Father, current smoker, 40)."Nobody asked me if I was smoking during the visits, so no information was given. They have never thought I could smoke because I am veiled so I am not a modern woman... " (Mother, current smoker, smoke during pregnancy and breast feeding, 28)

In addition, many participants especially housewives stated that they continue to smoke cigarettes to help deal with troubles, loneliness, and other unfortunate circumstances in their lives. Most of the smokers stated that smoking helps reduce the stress in their lives and helps to calm their nerves. Many of the parents described extremely stressful lives due to financial troubles. Another barrier to quitting that frequently was mentioned is stress. 26 participants mentioned that the strategies are not enough to protect the children from ETS. In addition, some parents stated that they lacked resources to allow them to obtain professional counseling or nicotine replacement therapy.

Respect and Social Attitudes: The participants were asked about the social attitudes of people toward the parents who ban smoking in their child's environment. While three smokers thought that these parents exaggerated the issue, thirteen participants admitted that these parents have right on their side. Participants stated that they had difficulties to ask respect and cooperation from friends and family who were visiting in order to keep the home smoke free. "During bairam, my uncle visited us. I told him not to smoke at home. He said that; he would blow the smoke through the coal stove, that smoking was his unique pleasure in his life, it was none of my business." (Mother, 28). In my opinion, the parents who have no smoking house rules take care of their children. But I do not know how many people in my surroundings……..They would say: we both grew up with parents who smoked; my grandpa smoked 3 pockets of cigarettes near me. One cigarette is nothing" (Father, 40).

"When we have a guest like an uncle or grandpa that I

can't control, I am keeping my child out of the living room" (Mother, 34)

Social relations are based on home visits in traditionalist communities. According traditions, it is attached an important value to the hospitality. Make them comfortable, no critics; no comments are the essentials of the hospitality. Twenty-two allowed smoking by their guests includes relatives and friends. Especially these are spouse's friends, not so close ones; ones rarely visited and valued elderly relatives. "It is disgraceful to say friends or relatives not to smoke here. They are our guests." (Mother, 34)."If I asked them to follow my rules, they will be offended"(Mother, 23). "Hard to tell grandpa not to smoke at home. I can not tell him what to do" (Mother, 21). "If I don't allow smoking, my friends will get angry and they won't visit me at all" (Mother, 27)."Some (guests) will not stay longer (Mother, 18).

Legislation about smoking - Impact of the smoke-free legislation: Nearly all interviewees agreed that smoking bans will have a positive impact on reducing second-hand smoking but most of them don't believe that the restrictions could be implemented. "When I was a child, everyone was smoking in the buses, now it is banned, the travels are better…"(Mother, 34)."I don't believe that smokers will obey the rules. Our society doesn't matter any law, there is a statement which says –the laws are made to be destroyed" (Mother, 28)."In our environment (a village) the implementation can be achieved but the citizens should be informed, trained; it is difficult in the cafés because in general those who frequent are from low education level…" (Father, 40). Lots of current smoker parents want to give up smoking and many of them welcome this ban because they think it will help them."We are tradesmen so men from lower classes…we are not well informed, I think the punishment will help us to quit smoking…so we support with all our heart the laws…"(Father, 41).

Discussion

The study showed that the passive smoking isn't recognized by some of the parents but most of them are aware of the harmful effects of ETS on their children. It was important to determine whether the parents know about the health risks of ETS, since the previous studies reported that higher levels of knowledge are associated with more negative attitudes toward ETS (Helgason and Lund, 2001). Few parents attributed recurrent infections to ETS and some alternative explanations as to why children may be ill included environmental factors. The attribution to other causes may offer a means of reconciling their continued smoking with their role as parents caring for children (Robinson and Kirkcaldy, 2007).

Although they rank their children health first, the majority of smokers are not ready to quit smoking at home. Parents articulated their desire to do what is in the best health interests of their children but the management of smoke exposure is based on their knowledge of smoke exposure, and the social and cultural context in which they exist (Yousey, 2007).

In this study, the parents who smoke know that it will be difficult to advise their children on making decisions about smoking because they are role models and the children even imitate them. Furthermore, in Robinson's study, the mothers believed that if their child did go on to smoke, it was because this was child's own individual choice, and not to do with exposure to their parents' smoking during childhood (Robinson and Kirkcaldy, 2007).

However the risks to the health of children from exposure to secondhand smoke became widely known with the publication of the SCOTH Report in 1998, there was some evidence to suggest intensive counseling to change parental smoking behavior health care providers, Berridge (1999). As source of knowledge, in Robinson's study, it was evident from the discussions that the mothers were at times drawing on conversations with healthcare professionals but mostly from articles in the media (Robinson and Kirkcaldy, 2007). In this study, television was the most cited as source of knowledge. The fact that in nine interviews, the parents reported not to be informed by health care professionals supports the findings of Jill's study declaring that the majority of pediatricians do not routinely address smoke exposure at office visits (Hopper and Craig , 2000; Morkjaroenpong et al., 2002; Halterman et al., 2007) or offer cessation counseling to parents.

Despite awareness of the harm caused by smoking in the presence of their children, some caregivers continued to smoke in closed environments, because they felt it was sufficient protection to smoke in another room, with doors and/or windows open or by ensuring that visible smoke did not reach the child directly, whilst some smoked in the home or car only when children were not present (Jochelson et al., 2003).

When parents describe the smoking behavior at home, they try to show acceptable partial restrictions, and to be seen as "considerate" smoker. Except one family whose father treated alcoholism, there were no complete smoking restrictions in the home. Some of the parents expressed concern about smoking in front of children thus acting as a role model. The strategies to decrease ETS in the homes are relatively ineffective but reflect the normative discourses of acceptable moral and social identities (Philips et al.,2007). Although the protection of children is priority, relational factors, the desire to be seen to act in socially and morally acceptable ways make the parents modify the spatial restriction. This can be related to the fact that the evidence and education about the health risks of passive smoking is relatively recent compared with that on active smoking. The parents who try to restrict smoking in their home described how spatial restrictions on smoking were temporarily modified in some circumstances; these modifications were due to the desire to be sociable and hospitable (Jochelson et al., 2003).
On the other hand, cultural traditions regarding issues of respect for parental authority and parenting practices discourage banning smoking to grand-parents or elderly relatives.

Most parents expressed their willingness to quit smoking but the conflicts as stress, financial troubles, and addiction are the main barriers over decision making. It

was also told that smoking was seen as an act of growing in adolescence (Vogel et al., 2003), Sachs (2001).

It was cited that in most Muslim countries publicity is quite liberal and more aggressive than in the West, presenting smoking as a socially desirable habit and relating it to success in life (Islam and Al-Khateeb, 1995). In Turkey, where smoking is highly prevalent, children's ETS is becoming a real public health problem (Ekerbicer et al., 2007) and the introduction of smoke free legislation is very recent. The views expressed by the parents about smoke-free legislation were mostly positive but some were ambivalent on the implementation of the law. Most parents think that there are many real and perceived barriers for the enforcement of smoke-free regulations, (Shipley and Allcock,2008), (Philips et al.,2007). Overcoming these barriers is an important area of research to guide successful implementation of smoking policy.

In conclusion, the findings of this study, different from past research, show that parents are now aware of information which mentions that exposure to tobacco smoke can harm their children as well as themselves. Parents stated they wanted to stop smoking but most of them feel they are barely coping with existing responsibilities. In addition, some parents stated that they lacked resources to allow them to obtain professional counseling or nicotine replacement therapy. All parents were attempting to reduce their children's exposure to tobacco but the strategies they used were in general ineffective. The knowledge, relationships with family and friends and the social and cultural context in which they live play an important role in the management of smoke exposure in the homes.

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