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TOBACCO CONTROL WITHIN THE SCOPE OF SOCIAL MARKETING: A STUDY IN TURKEY

ABSTRACT

Smoking is one of the most common social habits in the world and the leading cause of many diseases such as cancer. It is known that deaths caused by tobacco can be prevented. Anti Smoking campaigns are conducted around the world in order to prevent damages of cigarette and support people to quit smoking. Social marketing activities have been used effectively against tobacco products which constitute a danger to the community health and especially to the young population with the applications of commercials, public spots, the establishment of informational links and free medical assistance. The harms of tobacco products are being explained to the society and action plans are carried out to reduce or even remove the addiction of smoking. The main purpose of this study is to evaluate the perceptions of Turkish people about "Smoke Free Zone" law to determine whether there are differences according to the gender of participants. The study is a descriptive research. Questionnaire was used as a method of data collection. The sample of group is 528 people living in Isparta selected by using simple random sampling method. All the people participated in the study are smokers. The frequency and percentage distributions were calculated and Chi-square test was used for comparison of categorical data. $P<0.05$ was considered statistically significant. It is found that the average age to start smoking in women was 19.94 and 16.99 in males and averagely 17,13 cigarettes were consumed daily. It was seen that the law had an impact on smoke cessation and the average amount spent for tobacco products in a month is nearly 150TL(65,2€). %93,5 of the participants stated that they approve the prohibition of smoking imposed by Ministry of Health indoor and in public areas.

Keywords: Cigarette, cigarette addiction, anti-smoking campaigns

INTRODUCTION

Smoking is one of the most common social habits in the world. Cigarette containing more than 4000 harmful substances, is the reason of serious damages on human health and usually causes hundreds of thousands people's death. The most known fact is that the deaths caused by tobacco can be prevented.

Even though rapidly developing tobacco industry takes its place in countries' economies, in recent years wide studies have been initiated against smoking. Starting with the studies of prohibition of tobacco products for those under the age of 18, over time it extended to wider and higher enforcement campaigns towards the prohibition of smoking indoor and in public areas. The case is similar for Turkey in serious reform process. The "Smoke Free Zone" studies, initiated by MoH and other related agencies, have made a progress on the limitation of using tobacco products and these studies have been proceeding continually. This study evaluates the perceptions of Turkish people about "Smoke Free Zone" law.

1. SMOKING AND TOBACCO USE

The materials which are totally or partly produced by tobacco leaf as a raw material and used for "smoking, absorption or sniffing" are named as tobacco products. Cigarettes are the most commonly used tobacco products and therefore the words "tobacco" and "cigarette" are often used interchangeably.

According to the World Health Organization (WHO); the use of tobacco is the most important reason of premature deaths and preventable illnesses. It causes more than 5 million deaths worldwide each year. Most of these deaths are observed in low-and middle income countries. In case current trends continue, tobacco will cause more than 8 million deaths worldwide each year until 2030. Whether urgent precautions are not taken, tobacco will kill more than 1 billion people at the end of this century (WHO, 2009). In a year, the cigarette causes the death of 400.000 people in the United States, 100.000 people in the United Kingdom and almost 100.000 people in Turkey. Considering these data; smoking causes more deaths than traffic accidents, work accidents, fires, suicides, murders, drug and alcohol use, and AIDS-related deaths. If the use of cigarette proceeds in this way, it is predicted that smoking-caused deaths will increase in the future, especially in the developing countries. Therefore, it is required to show the effort to reduce the use of cigarettes. Also a matter of concern in recent years, non-smokers' deaths by lung cancer, heart disease and stroke have

increased due to the effects of cigarettes (passive exposure). Thus, the efforts on controlling the use of cigarette are important not only for smokers but also on non-smokers (Bilir & Yildiz, 2008).

In developed countries, anti-smoking efforts such as; private smoking cessation campaigns, public awareness about the harms of smoking, and some legal regulations on this subject have decreased the amount of cigarette consumption, still in general, there is an increase in the amount of cigarette consumption all over the world. 1,686 billion cigarettes consumed in the world in 1950 but this amount approaches 4,388 billion in 1980 and 5,500 billion in 2000 (Aslan & Bilir, 2006). According to WHO's tobacco atlas published in 2002; approximately 1 billion men and 250 million women all over the world have been reported as smokers. In developed countries, 35% of males and 9% of females are smokers, and this rate changes in developing countries as 50% of males and 22% of females. The sequence of smoking among males is higher in the world. In countries, where consumption of cigarettes is higher, it is observed that smoking prevalence in males is also higher. For example; approximately more than 300 million men in China are smokers. However; in some countries such as Norway, Denmark, Sweden, and New Zealand, women smoke as much as men (WHO, 2002).

In Turkey, studies that investigate the prevalence of tobacco use, are usually local studies and these remained limited with specific regions and cities as local studies of some universities and high schools. There are only a few researches representing whole country but many local researches. As an example; 707 participants from Istanbul involved in the research of Ogel et al., (2001) conducted in 2000 and 76.9 % of these people have smoked at least once in a life time. The rate is 88,2% among men while 65.0% among women. In the same study it is stated that the prevalence of regular smoking decreased among males and females. 55,6% of females and 63,6% of males reported as smokers on a regular basis. A regional study with 343 people from 10 to 59 age in “Cay Boyu” district of Sivas indicated that 42,5% of males and 8,5% of females are smokers. In parallel with other local studies, the number of cigarettes consumed per day and level of addiction evaluated by Fagerstrom Test for Nicotine Addiction has been found out to be lower for females (Guler et al., 2004). These results are supported the aspects of Ogel et al. (2001)’s research results. Another regional study in Eastern Black Sea region was conducted between 2003 and 2005 investigated the prevalence of smoking in cities Trabzon, Giresun, Rize, Artvin and Gumushane. The study on 6.103 people showed that 18,3% of females and 50,7% of males are smoking at least one cigarette daily and the

percentage of lifelong nonsmokers are 69,7% for women and 27,9% for males (Can et al., 2007).

Studies show that tobacco use is more common among males even in different occupational groups in general. A study on primary and secondary school teachers about prevalence of smoking indicated that 32,5% of participants are smoking and this ratio is 61% for males and 39% for females (Fidan et al., 2006). Among occupational groups especially for physicians and medical staff, the tobacco use is indicated to be quite a lot. A literature review evaluating the prevalence of smoking among physicians evaluated the results of studies made on physicians from different provinces and almost all indicated that the tobacco use among females is lower than among males (Yorgancioglu & Esen, 2000). A study conducted in 2004 indicated that the prevalence of smoking among male nurses is 89,4% and among females is 48,4%, in total 56,5% among all nurses (Kutlu et al., 2005).

In a study in USA showed that the tobacco use decreases as the income level increases. 35,4% of those in 9-11 years education level, 28,4% of those in 12 years education level, 25,1% of those in 13-15 education level and 11,6% of those in more than 16 years education level are reported to be smokers (CDC, 1999). A study by Can et al. (2007) in Eastern Black Sea region indicated that the prevalence of smoking varies according to level of education. 6.103 participants were divided into groups having no formal education, primary school graduates, secondary school graduates, high school graduates and college graduates and the most tobacco usage had been found to be among high school graduates (46.3%). In addition 15,3% of those having no formal education (only those who are capable of writing and reading), 30,5% of primary school graduates, 38,3% of secondary school graduates were reported to be smokers. These results suggested that the tobacco usage was declining as the income and education level increases over the world but in Turkey, the situation was just the opposite.

Studies with high school and college students generally aim either specific provinces and regions or specific high school and college so the number of studies reflecting the whole country is quite limited. According to a study, it was found that 27,9% of 3.533 students registered to Ege University between years 1999-2000 are consuming tobacco and they had started consuming tobacco latest between the ages of 15-17 (Gunduz-Telli, 2004). 81,1% of 557 male and 223 female, in total 780 students registered to Harran University in 2002-2003 are indicated to have consumed tobacco at least once in a lifetime. It is found out that 43,3% of the students are consuming tobacco daily, 22,7 of the students are consuming tobacco occasionally and 66% of all students are consuming tobacco (Ceylan et al., 2005). As a

conclusion the studies above about tobacco usage prevalence showed that tobacco usage is quite common among high school and college students and majority of these young people started using tobacco during elementary school.

In Turkey tobacco use among children and adolescents is known to be quite common. According to WHO data ¼ of young population of the World has their first smoking experiences before age of 10. The regions where tobacco use is most common among young population are presented as Central and Eastern Europe, some regions of India and some Western Pacific Islands (WHO, 2002). According to Smoking, Alcohol and Drug Prevalence Survey made in 2001 by Re-Health and Education on 12.270 elementary school students from 9 different provinces, the rate of smoking at least once in a lifetime among 10-12 age group children is found out to be 15.9% (Ogel & Erol, 2005).

The latest research that represents whole country in Turkey about the prevalence of smoking was Global Adult Tobacco Survey and conducted in May 2010 by MoH of Republic of Turkey General Directorate of Primary Health, Presidency of the Department of Tobacco and Addictive Substances. The 9.030 individuals participated in the research. According to the Global Adult Tobacco Survey (2010), 31,2% (approximately 16 million people) of adults above the age of fifteen were current smokers. Prevalence of smoking in males (47,9%) is higher than in females (15,2%). Approximately 12 million males and 4 million females are smokers. Almost half of males (43,8%) and 11,6% of females are consuming tobacco daily. More than 9 of 10 people who are consuming tobacco (92,6% for males, 98,0% for females) smoke manufactured cigarettes. Two thirds of daily smokers (66,1%) consume more than half a pack (11 cigarettes) and 15,5% consume more than one pack. Averagely in last month, they have bought 31,3 cigarettes and spent 86,7TL. Under the current legislation the minimum age limit to buy cigarettes is 18. However more than half (58,9%) of daily smokers started smoking before the age of 18. Average age of starting smoking is 16,6 among men and 17,8 among women.

1. Risk Factors and Health Problems Related With Tobacco Use/Smoking

Tobacco usage is the leading cause of preventable premature deaths and diseases. Tobacco includes thousands of substances and carbon monoxide, nicotine and tar are its basic components. Tar contains many carcinogenic substances. Some of these substances are arsenic (rat poison), ammonia (toilet cleaner), acetone (nail polish remover), butane (bottled gas), cadmium (battery metal), DDT (insecticide), hydrogen cyanide (gas chambers poison), methanol (rocket fuel), naphthalene (moth repellent), toluene (thinner) (WHO, 2002).

Nicotine is the main component that causes addiction to tobacco use, right after it's absorbed by the arterial circulation rapidly affects the brain and firstly creates habit then addiction by its effect on central nervous system functions from day one (Pomerleau, 1992). Especially central nervous system all other body systems are adversely affected due to these substances found in tobaccos. Tobacco usage is known to be among the causes of diseases such especially lung cancer and many kinds of cancer, respiratory system diseases, digestive system diseases, cardiovascular diseases, skin diseases, rheumatic diseases, endocrine diseases, kidney diseases, oral diseases, tooth and gum diseases, male reproductive system diseases, gynecological diseases and birth abnormalities (Yildiz&Kilic, 2000). In addition tobacco usage is reported to be responsible of 90% of lung cancers, 75% of chronic bronchitis and emphysema and 25% of heart diseases on the world (WHO, 2002).

In the literature many factors are mentioned to be effective onset of smoking. Risk factors gathered under certain situations as Parents and the family environment, friend groups, individual factors, biological factors, and socio-cultural factors. These factors will be briefly outlined in this part.

a. Family Environment

Several studies showed that the existence of tobacco consumers in family of young people who has not started smoking yet, does not constitute a good model and consequently the tobacco use is significantly higher in young people whose family members consume tobacco than whose do not (Kutlu et al., 2005). In addition parents quitting smoking are found out to be effective on their children not to start or quit smoking (Andersen et al., 2004). Another risk factor that dealt with family is their socio-economic level (Tyras & Pederson, 1998). Studies show that the tobacco use is more common among children whose parents have low educational and financial level (Yildirim, 1997).

b. Individual Factors

People who are angry and frustrated, unable to control stimulations and anger, have difficulty in dealing with stress, unable to counteract the pressure of the environment and cannot stand to delayed reward during their childhood are reported to have a high risk of drug use and addiction (Ogel & Erol, 2005). Individual characteristics of a person such as inborn rebelliousness, risk-taking and actions undertaken for pleasure are mentioned to be significant risk factors of starting to smoke in future (Burt et al., 2000).

c. Biological Factors

Studies made with families of smokers shows that the existing genetically tendency is effective on starting to consume tobacco, formation of tobacco addiction or quitting smoking (Carmelli, et al., 1992). It's found out that the children of women who consumed during pregnancy are more inclined to smoke and even they have higher addiction level (Hellstorm-Lindahl & Nordberg, 2002).

d. Friend Environment

Young people during adolescence especially those who are in an identity seek may take smoking as a specific behavior of adults and for this reason they may start smoking to be admitted to their friend group and prove that they have grown up (Kulaksizoglu, 2001). Most studies indicated that the tobacco use is more common among young people whose friends are consuming tobacco than those whose friends are not and smoking is considered as a desired behavior among the group that those people wish to be involved (Kutlu & Civi, 2006).

e. Socio-Cultural Factors

Young people from the developing countries where drug use is accepted by the society, the highness of population, the poor physical conditions and the high rate of crime are mentioned to have higher risk level (Ogel & Erol, 2005). For this reason a difference between the prevalence of tobacco use among different ethnic groups has been identified (Leischow et al., 2000).

1.2. Legal Regulations on Regulations of Tobacco Usage in Turkey

The most important and serious legal intervention against smoking in Turkey is on “Prevention of Damage of Tobacco and tobacco products” # 4207, dated 11.07.1996. The prohibition of tobacco and tobacco products in Health, education and culture services, indoor sports halls, making all kinds of public transportation vehicles and their waiting rooms, public workshops has been invoked. Furthermore, with additional regulations, the sale of tobacco and tobacco products to people under the age of 18 and the sale of cigarettes near schools are also prohibited. However, provisions of this law are not sufficient when applied on the relevant areas. Because of these sanctions envisaged in the law, only 49 people had to pay the penalty. For this reason, in June 2005, with No. 4207, the proposal for a shift in the law is presented to the Turkish Grand National Assembly. With the change of this law, some arrangements are made on incentive campaigns of advertisements, presentation and promotion. In 2008, law #5727 was published in Official Gazette and radical amendments

have been made to the law #4207. It is invoked to consume any kind of the tobacco products indoor and in public areas except the houses. These provisions went in to effect in July 2009, after 1,5 years later than being published, it is banned to smoke in indoor public areas and Turkey became the third country in Europe to go hundred per cent smoke free.

The passing of Law 4207 in 1996, ratification of the WHO FCTC in 2004, amendment of Law 4207 in 2008 to make all closed places smoke-free, including the hospitality sector, and the formation of a working group by the MoH to assist in developing a National Tobacco Control Program are important milestones for tobacco control in Turkey. The MoH now needs to move forward in implementing the provisions of Law 4207 and developing effective enforcement procedures (GATS, 2010: 77).

2. THE CONCEPT AND THE PLACE OF SOCIAL MARKETING IN THE STRUGGLE AGAINST SMOKING

According to Kotler & Zaltman (1971), social marketing is the application of marketing and its' theories used to achieve social objectives (Katariaa & Larsen, 2009: 429). It is the design, implementation, and control of programs seeking to increase the acceptability of a social idea or practice in a target group. Social marketing tactics persuade individuals to alter their individual behavior in order to improve their own health and welfare (Wymer, 2010: 99). The term emerged in the early 1970s inspired by Wiebe's suggestion that social goods like brotherhood might be 'sold' like commercial goods (Wiebe, 1952), and it has since been used to describe a wide range of programs and projects aimed at pro-social behavior change – especially in the health domain (Corner and Randall, 2011: 1007). It can be described as an organized effort aiming to convince the target group to accept, modify, or abandon certain opinions, attitudes, habits or behaviors. Social marketing is characterized by the use of commercial marketing strategies with focus on the consumer. The information provider is generally well-informed about the target group and packages its social message so that it will attract the target group (Katariaa & Larsen, 2009: 429).

Social marketing is really more of a framework for designing behavior change programs than a behavior change program in and of itself. It offers a method of maximizing the success of a particular project. Darnton (2008) has described social marketing as 'explicitly trans theoretical', while Hastings (2007), in a recent general textbook on social marketing, claimed that there is no theory of social marketing. Rather, according to National Social Marketing Centre (2006) it is a 'what works' philosophy, based on previous experience

of similar campaigns and programs. Social marketing's Trans theoretical status means that it is flexible enough to be applied to a range of different social domains, and this is undoubtedly a fundamental part of its appeal (Corner and Randall, 2011: 1006). The disjunction from conventional commercial marketing is that the final objective is not to increase the sales or the profit of a product. Instead, the aim is to influence peoples' behavior in the way desired by the information provider (without implying economic advantages for the latter) (Katariaa & Larsen, 2009: 429). The linguistic distinction between enactment and non enactment word concepts is particularly important in social marketing contexts wherein the ultimate goal of most campaigns involves promoting a binary behavioral outcome, rather than a frequency or quality of behavior (Freeman et al., 2009: 630). For example, social marketing campaigns may promote enactment behaviors such as wearing seatbelts, getting breast cancer screenings, or wearing sunscreen; or they may promote non-enactment behaviors such as refraining from smoking cigarettes, littering, driving while intoxicated, or unprotected sex. This binary view of behavior implies that social marketers often face a basic managerial choice in message strategy: should messages be designed to address the enactment or non-enactment of the target behavior (Freeman et al., 2009: 630)?

Five factors are mentioned in order to do social marketing successfully. First, the opinions of the target audience about the subject should be found out. Then, the target audience should be directed to show a certain behavior and mechanisms should be established to allow the individual's demands. Adequacy and effectiveness should be provided on completing the tasks of the mechanisms and the costs on applying the behavior should be reduced (Wiebe, 1952). Some variables such as environmental factors, the skills and image of an individual can be effective on Social Marketing (Bayraktaroglu & Ilter, 2007: 125-126).

Social marketing is the fastest way to reach large masses and an important tool on the struggle against smoking. Social marketing activities can be used effectively to influence target groups by the help of commercials, public spots, the establishment of informational links and free medical assistance. MoH has used social marketing activities to support the success of "Smoke Free Zone" law, to reduce cigarette consumption and to motivate people to quit smoking. The harms of smoking are being explained to the society and action plans are carried out to reduce or even remove the addiction of smoking. Channels such as public spots, social media, internet, TV, radio, press, sms and calling services, billboards etc. were mostly used to increase the awareness of people about the hazards of smoking and to convince smokers about visiting a smoking cessation clinic and receiving counseling services to quit.

Different messages serving the same purpose with a high delivery rate in different channels seemed to motivate people in terms of smoking cessation. The main purposes of such practices are to grow more healthy generations and to increase the protective health care services. Today, the cost of treatment of an individual who has cancer due to smoking is higher than the costs of activities made for the purpose of public awareness. Considering that healthy individuals contribute more to their country in labor and social life, the necessity of such campaigns comes out.

3. METHODOLOGY

3.1. Objectives and Methods

The main purpose of the research is to evaluate the views, attitudes and behaviors of individuals towards “Smoke Free Zone" law legislated by the MoH in July 2009 and to determine whether there are differences according to the gender of participants. This research aims to enhance the direction for new implementations that are in the framework of the struggle against smoking by determining the attitudes and behaviors of the society. The research is important to reduce risk factors caused by smoking and to protect the health of community and to increase the health level of community.

The study is a descriptive research. Assuming that the law "Smoke Free Zone” concerns the whole society, people’s opinions about law and the implementation of the law were evaluated in Isparta province. The data was collected by questionnaire method technique. Previous studies in literature and expert opinions were imposed for the composition of the questionnaire. The questionnaire consists of two pages, 20 questions in total. 4 questions asked about demographic characteristics and 16 questions examining the effects of "Smoke Free Zone”. The survey was conducted between the months of March and April in 2012. Survey questions applied to a large portion of the sample group face to face.

3.2. Sampling

The scope of the research is determined as the province of Isparta by taking transport, the constraints of time and cost into account. According to the address-based population registration system, the population of the province of Isparta was determined 411.245 with

205.423 males and 205.822 females (TUİK, 2011). The sample of group is 528 people living in Isparta selected by using simple random sampling method. Number of sample was determined by using Yamane's (2001) Formula and it was determined that at least 384 people were sufficient for sample. The following formula was used to determine the number of people to represent the universe.

This equation;

N: The number of individuals in the stack,

n: The number of individuals sampled,

z: A certain degree of freedom and determination of the level of error in the theoretical value of the t table,

d: Sensitivity

p: The individual rate with the desired property in the stack (p+q=1) ,

(p = q: 0.50 can be accepted to maximize the diameter of the sample.)

3.3. Data Collection Techniques and Methods

Questionnaire was used as a method of data collection. The questionnaire has been revised by pilot application to 20 people living in Isparta and selected by simple random sampling. Thus, shortcomings, mistakes and expressions that are difficult to be understood by the interviewers in the questionnaire were identified and resolved and the interview form has been finalized. The study includes the results obtained only from Isparta province. The limitation of the study is that all the interviewers are smokers. The questionnaire has been fulfilled by pollsters who have been trained earlier about questionnaire and their verbal approvals were received before application in March in 2012. The questionnaire was carried out in face to face and each took approximately 3 minutes.

The data obtained from the study were coded and recorded on a computer by the researcher and the frequency and percentage distributions were calculated via SPSS 17.0 statistical package program. Chi-square test was used for comparison of categorical data and $P<0.05$ was considered statistically significant.

4. FINDINGS

Research was conducted to investigate the effects of the "Smoke Free Zone" law in the province of Isparta in 2012 March-April months. The chi-square method has been applied to the obtained data and evaluations of obtained results are listed below.

Table 1. *Demographic Information*

GENDER	**Frequency**	**%**
Female	176	33,3
Male	352	66,7
Total	528	100,0
OCCUPATION	**Frequency**	**%**
Government official	218	41,3
Housewife	22	4,2
Worker	174	33,0
Tradesman	66	12,5
Student	38	7,2
Retired	10	1,9
Total	528	100,0
INCOME (TL/Month)	**Frequency**	**%**
0-500	66	12,5
501-1000	182	34,5
1001-1500	128	24,2
1501 and over	152	28,8
Total	528	100,0

The mean age of the participants was calculated as 34,49 and standard deviations of the mean was calculated as 9.393. The majority of participants in the study were males (66,7%). The occupational groups of participants are, 41,3% of officers, 33% of workers, 12,5 % of tradesmen and 7,2 % of students. It has been found that around one third of those participants (34,5 %) have 500-1000 TL monthly income. The rate of individuals who have 1.501 TL and above income is 28,8 per cent and the rate of individuals who have 500 TL and below income is only 12,5 per cent.

Table 2. *Age to start smoking according to the genders of the participants'*

	Gender				
Age to start smoking	Female	%	Male	%	Total
<=10,00	0	0	18	5	18
11-20	128	73	288	82	416
21-30	42	24	46	13	88
31-40	6	3	0	0	6
Total	176	100	352	100	528

The earliest age to start smoking among males was 8 and the latest age to start smoking was 29. The earliest age to start smoking among females was 13 and the latest age was 37. According to the analyses, the average age to start smoking in women was 19.94 ± 4.245 and 16.99 ± 3.559 in males. The relationship between participants' gender and age to start smoking has been examined and a significant difference between gender and age of onset of smoking was found as a result of the chi-square tests (P<0,05). The most frequent age range to start smoking was between 11 and 20, and %73 of females and%82 of males started smoking at this range.

Table 3. *The amount of cigarette consumption according to the genders of the participants*

The amount of daily cigarette consumption (Pieces)	Gender					
	Female		Male		Total	
	Frequency	%	Frequency	%	Frequency	%
1,00	4	2	0	0	4	0,7
2,00	2	1	0	0	2	0,3
3,00	6	3	4	1	10	1,8
4,00	2	1	0	0	2	0,3
5,00	10	5	10	2	20	3
6,00	10	5	0	0	10	1,8
7,00	4	2	4	1	8	1,5
8,00	2	1	10	2	12	2,2
10,00	48	27	30	8	78	14
12,00	2	1	2	0,5	4	0,7
13,00	0	0	6	1	6	1,1
14,00	0	0	2	0,5	2	0,3
15,00	10	5	32	9	42	7,9
17,00	2	1	0	0	2	0,3
18,00	2	1	2	0,5	4	0,7
19,00	0	0	4	1	4	0,7
20,00	64	36	184	52	248	46,9
25,00	2	1	2	0,5	4	0,7
27,00	0	0	2	0,5	2	0,3
30,00	2	1	20	5	22	4,1
35,00	0	0	4	1	4	0,7
40,00	4	2	30	8	34	6,4
50,00	0	0	2	0,5	2	0,3
60,00	0	0	2	0,5	2	0,3
Total	176	100	352	100	528	100

According to evaluation of the analysis of cigarette consumption amounts by gender, it was determined that daily cigarette consumption among men was in minimum 3 pieces and 60 in maximum. This numbers were minimum 1 piece and maximum 40 pieces among women. As a result of evaluation it was found that the average consumption of cigarettes among women was 13.99 ± 7.637 and 20.27 ± 9.222 among men. As a result of the chi-square tests examined the relationship between participants' gender and cigarette consumption by gender, significant difference between the amounts of cigarette consumption by gender was determined ($P<0,05$). This difference is caused from the gender of participants who consume 20 cigarettes a day. The ratio of males (%74) who smoke 20 cigarettes a day is much higher than females (%36).

Table 4. *The opinions of the participants about cigarette*

	Yes		No		Total		Standard
	Frequency	%	Frequency	%	Frequency	%	Deviation

Do the changes in your mood increase the amount of cigarette you consume?	418	79,2	110	20,8	528	100,0	2,419
Does the smoke free zone affect the rate of your cigarette consumption negatively?	310	58,7	218	41,3	528	100,0	,493
Have you ever been fined due to you didn't obey the law of smoke free zone?	30	5,7	498	94,3	528	100,0	,232
Do you think do the sellers obey the prohibition of selling tobacco to the people under the age of 18?	182	34,5	346	65,5	528	100,0	,476
Do you approve the smoke free zone?	494	93,5	34	6,4	528	100,0	,253
Do you know the problems of health caused by smoking?	500	94,7	28	5,3	528	100,0	,224
Have you ever had any health problems due to smoking?	156	29,5	372	70,5	528	100,0	,457
Do you know any people having problem as passive smokers due to smoking in closed areas?	512	97,0	16	3,0	528	100,0	,172

79,2 % (n:418) of participants indicated that changes in their moods increase the amount of their cigarette consumption. The increasing amount of cigarette consumption has started to decrease with the smoke free zone. 58,7 % (n:310) of individuals stated that the amount of cigarette consumption in closed areas decreased within the scope of this prohibition. According to this result, it is predicted that the amount of individuals' cigarette consumption will decrease when more stringent precautions are taken. 5,7% of those answered the question of 'Have you ever been fined due to you didn't obey the law of smoke-free zone?' as they were fined. In Turkey, the prohibition of smoking in closed areas is applied effectively. There is an authority gap on applying fines. Besides, lots of service sectors (restaurant, cafe, bar, etc) have found different solutions and they create appropriate conditions to smoke. As a result; if this authority gap is removed and precautions are taken, the aims will be succeeded.

Approximately two of every three participants (65,5%; n:346) think that tobacco shops don't obey the prohibition of selling the tobacco under the age of 18. If this prohibition is applied effectively, the age of starting to smoke will increase. If more serious enforcements and controls are applied, the aimed success can be formed. 93,5% (n:494) of participants answered the question of 'Do you approve the smoke free zone?' as they approved and 6,4% of participants don't approve this prohibition (n:34). They think that this prohibition is meaningless and contrary to the democracy. It provokes people more, reduces the efficiency of business, and restricts their freedom.

Although 94,7% of the participants (n:500) know the harms of smoking on human health, they still keep on smoking. Although the consumers of tobacco products are conscious of the harms on health, the rates of smoking is high in the society. 70,5% of participants (n:372) answered the question of' 'Have you ever had any health problems due to smoking?'' as they didn't have any health problems due to smoking and 29,5% of participants (n:156) answered as they had some. The rates of health problems show that smoking endangers their lives. 97 % of participants (512 people) answered the question of ''Do you know any people having problem as passive smokers due to smoking in closed areas?'' as they know people having problem as passive smokers due to smoking in closed areas but they still continue smoking.

Table 5. *The effects of the prohibition of tobacco use on smoking cessation according to their gender.*

The effects of the smoke free zone on smoking cessation	Gender				Total
	Female		Male		
	Frequency	%	Frequency	%	
Yes	70	39,77	134	38,07	204
No	106	60,23	218	61,93	324
Total	176	100	352	100	528

The people are asked whether they think of giving up smoking due to smoke free air zone law, or not. %61,4 (n:324) of those think that this law doesn't have any effect on their cigarette consumptions. Analysis of the effects on gender shows that %38.07 of the males and %39.77 of the females have been impressed by new regulations and these help them to give up smoking; whereas, %61.93 of the males and %60.23 of the females' state that the law has no effect on their smoking habits. The evaluations indicate that the law 4207 impacts on smoking cessation. Moreover, the results of analyzed chi-square tests show that there is no strongly-related relationship between gender and smoking cessation.

Table 6. *The range of the frequency of cigarette consumption according to the seasons*

	Yes		No		Total	
	Frequency	%	Frequency	%	Frequency	%
Does the frequency of your cigarette consumption change according to the seasons?	192	36,3	336	63,7	528	100,0

63,7% of participants (n:336) answered the question of ’Does the frequency of your cigarette consumption change according to the seasons?’ as they don’t change smoking habits according to the seasons and 36,3% of participants (n:192) answered as they change .The cigarette consumption frequency increases most in summer with the amount of 15,2% (n:80) and in winter with the amount of 12,1% (n:64). In autumn this rate decreases to 3,4% (n:18).

Table 7. *Monthly Expenditure for Smoking*

The Budget for Smoking? (TL/Month)	Frequency	%
100,00 (43,5€)	64	12,1
150,00 (65,2€)	124	23,5
200,00 (87€)	80	15,2
250,00 (108,7€)	36	6,8
300,00 (130,5€)	26	4,9
Total	528	100,0

Most of the participants (%23,5; n:124) spent nearly 150 TL (65,2€) for tobacco in a month. Individuals create a budget of at least 10 TL(4,3€) (1,1%; n:6) and the highest budget for smoking is stated as 480 TL(208,7€) (0,4% ; n:2).

Table 8. *The Effects of Law on Giving up Smoking*

Have you ever think about giving up smoking because of the law?	Gender				Total
	Female		Male		
	Frequency	%	Frequency	%	
Yes	82	47	156	44	238
No	94	53	196	56	290
Total	176	100	352	100	528

%45,1 of participants stated that smoke free zone encouraged them to give up smoking. Nearly half of the participants were under an effect of the law for giving up smoking. But this rate still can be increased by using social marketing activities more frequently and in different and more channels to reach all smokers. According to the results of chi-square tests, there is no significant difference between gender and smoking cessation (P>0,05).

Table 9. *The participants' reasons for smoking*

What is your reason for smoking?	Frequency	%
Family reasons	36	6,8
Socio Economic reasons	54	10,2
Friends Environment	144	27,3
Individual reasons	134	25,4
Others	160	30,3
Total	528	100,0

27,3 % of the participants are affected by friends environment, 25,4% by individual reasons and only 6,8% by familial reasons. 30.3% (n = 160) of the participants reported their different reasons such as habits, pleasure and hankering.

5. RESULTS AND CONCLUSIONS

The health consequences of active and passive smoking have been suspected for many years. In recent decades evidences of the links with disease and higher mortality was established. Smoking is the main reason of preventable disease and deaths all over the world, and it is the major public health problem in both adults and children. Despite the well known harms, smoking is still considered as an acceptable behavior among community in developing countries.

Turkey became the third country in Europe to go hundred per cent smoke free zone with the law 4207 in 2009 and, since, tobacco use is declining at unprecedented rates. Among the adult population, data from the *Global Adult Tobacco Survey (GATS)* 2012 which will shortly be released will show a decrease in tobacco use in the last three and a half years. The same positive trend is evident amongst health professionals according to the latest *Turkish Health Professionals Survey* (2011). When compared with 2007, smoking prevalence among specialist physicians decreased to 12,7% with 42.5 % reduction and 23.9% among general practitioners with 22.6 % reduction. The highest decrease occurred among health managers with 55.5% reduction (WHO, 2012).

Smoke free zone increased the effect of law and lowered cigarette consumption. We can mention about three positive impacts of smoke free zone. First, the law encourages smokers to stop smoking; second, protects non smokers from passive smoking, and third, prevents non smokers from starting to smoke. The survey is applied on 528 smokers living in Isparta. The average age of participants is 34.49 and the dominant gender is man with a ratio of 66,7%. It was indicated by %46,59 of females and %44,32 of males that smoke free zone was effective on smokers to start thinking of smoke cessation. In the study, it is found that the age to start smoking is lower than 15 and smoking habit is mostly seen between the ages of 15-20. Surprisingly, seven of ten participants believe that the tobacco shops do not obey the prohibition of selling cigarettes under the age of 18 people In the light of these findings; we can say that some tobacco shops don't totally obey the prohibition. Smoke free zone has positive effects on to reduce cigarette consumption of individuals and it is observed that four of ten people believe in the positive impacts of the law on smoking cessation. Almost half of the participants stated that the law pushed smokers to think about quitting smoking. Nine out of ten people approve and support the prohibitions against smoking even they are smokers.

Suggestions

- Tobacco shops should be monitored and controlled more frequently and strictly. Dealers in these shops should be trained to behave more sensitive and conscious about prohibition of tobacco products sales under 18.
- Serious and effective education should be given about the harms of smoking in secondary and high schools and these harms should be explained with educational programs through press and broadcasting.
- It is recommended that role models (parents, teachers etc.) shouldn't smoke at any place where they can be seen and they shouldn't let their children/students to buy cigarettes.
- Providing high pricing and taxation on tobacco products.
- Sales of tax-free or duty-free tobacco products should be prohibited
- All taxes and prices of tobacco products should be adapted so that replacing one tobacco product with another can be prevented.

Social marketing plays an important role on providing changes of some behaviors and opinions. The target in social marketing is market selection and campaigns which are appropriate to socio-cultural characteristics of target audience in market and more channels

which link with different audiences can be used to reach smokers more frequently and the motivation of smokers on to stop smoking can be provided by social marketing activities such as public spots, radio and tv ads, social media activities, sms and calling services, internet and any campaigns against tobacco use. The given messages have an high importance for the success of campaigns. For this reason, target audience should be defined by pre- studies, the necessary data must be collected and campaigns should be directed in the light of corresponding data. It will be possible to reach the expected goal with the help of high effects of social marketing activities carried out in details on society.

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