

Original Article

Tobacco Containing Scenes in Some Selected Turkish Movies Released Between 1992 and 2016

Hanife Ece Erik¹D, Merve Colaklar¹D, Egemen Yildiz²D, Aişe Esra Gülçek³D, Bilgin Percin⁴D, Cağlar Aktas⁵D, Cağrı Özbeyaz⁵D, Fati Gözde Sebnem Tokmak³D, Mervenur Demir Çuha®D, Mustafa Doğru³D, Polat Ercan¹D, Aslı Kuzu¹¹D, Deniz Aral Özbek¹D, Eda Dölek¹¹D, Fadime Eda Koç¹²D, Büsra Solak¹³, Mahmut Yardım¹, Hilal Özcebe¹

¹Department of Public Health, Hacettepe University Faculty of Medicine, Ankara, Turkey

²Department of Emergency Medicine, University of Health Sciences Sultan 2 Abdulhamid Han Training and Research Hospital,

³Department of Family Medicine, University of Health Sciences Dışkapı Yıldırım Beyazıt Training and Research Hospital, Ankara,

⁴Family Medicine, Ceylanpınar Family Health Center, Şanlıurfa, Turkey

Department of Obstetrics and Gynecology, Konya State Hospital, Konya, Turkey
Department of Public Health, University of Health Sciences, Gülhane School of Medicine, Ankara, Turkey

Department of Anatomy, Ankara University Faculty of Medicine, Ankara, Turkey

⁸Department of Medical Microbiology, Hacettepe University Faculty of Medicine, Ankara, Turkey

Department of Physical Medicine and Rehabilitation, Ankara Training and Research Hospital, Ankara, Turkey

¹⁰Department of Internal Medicine, Hacettepe University Faculty of Medicine, Ankara, Turkey

Department of Pediatrics, Hacettepe University Faculty of Medicine, Ankara, Turkey

Department of Pediatrics, Dr. Sami Ulus Children's Health and Diseases Training and Research Hospital, Ankara, Turkey

¹³Department of Dermatological and Venereal Diseases, Ataturk University Faculty of Medicine, Erzurum, Turkey

Cite this article as: Ece Erik H, Colaklar M, Yildiz E, et al. Tobacco control laws and smoking in Turkish movies between 1992 and 2016. Turk Thorac J. 2021; 22(6): 432-438.

Abstract

OBJECTIVE: Movies are among the most widely used media for advertising, promotional, and sponsorship activities of the tobacco industry, and the industry has been making huge investments in this sector for many years. In this study, the effects of movie scenes depicting the use of tobacco products, and the possible effects of the laws governing such scenes, were examined.

MATERIAL AND METHODS: The sample of the study consisted of 50 films, the first 2 of which were the most watched each year, between the years 1992 and 2016, according to the data of the Center for Turkish Cinema Studies and the boxofficeturkiye.com websites. The scenes depicting the use of tobacco products were analyzed using the data collection form developed by the researchers. Each movie was evaluated separately by 2 researchers.

RESULTS: A tobacco product was used in 82% of the 50 films watched. Men (87%), individuals between the ages of 25 and 64 (78.0%), and leading actors (40%) used more tobacco products, and the most frequently used product was the cigarette (93.1%). The number and duration of scenes containing tobacco was greater by 1.6 times before the first law was passed, and between the passage of the first law and the passage of the second law (P > .05, P > .05). The number and duration of the scenes decreased between the passage of the first and the second laws and after the second law was passed, by 3.6 and 5.3 times, respectively (P < .05, P < .05).

CONCLUSION: Consistent and comprehensive tobacco control policies have been effective in reducing the number of scenes that contain tobacco in the movies produced in Turkey. A comprehensive and multidisciplinary approach is required to overcome the tobacco industry's impact on cinema.

KEYWORDS: Tobacco, smoke-free policy, movies

Received: December 14, 2020 Accepted: May 5, 2021

INTRODUCTION

Tobacco use kills more than 8 million people a year around the world, and is one of the biggest public health threats the world has ever faced. While policies and practices aimed at reducing the exposure to tobacco are maintained worldwide, the tobacco industry increases the visibility of its products through advertising, promotional, and sponsorship activities.

Turkey is a party to the WHO Framework Convention on Tobacco Control, which contains an article banning any form of commercial communication, recommendation, or action with the aim, effect, or the likely effect of promoting a tobacco product or tobacco use, either directly or indirectly. The convention also states that these measures must cover traditional media and all technologies, including the internet, mobile phones, and television. Among the issues that require policy changes in the convention, is the issue of "indirect tobacco product advertisements." In the MPOWER package, which includes the most effective strategies in the Tobacco Control Framework Convention in the fight against tobacco use, the intervention banning tobacco advertising, sponsorship, and promotion is included. The MPOWER package also includes intervention about the appearance of tobacco brands (product placement) or tobacco products in television and/or films, among the bans on indirect advertising.3

Policies have an important place in tobacco control. Studies show that many tobacco control policies are effective in fighting against tobacco.⁴⁻⁸ When legal regulations are implemented in tobacco control and restrictions are made in the areas of advertising, promotion, and sponsorship, the tobacco industry is directed toward different fields of activity.

Movies are among the important advertising, promotion and sponsorship domains of the tobacco industry, and the industry has been making huge investments in this sector for many years. Seeing the tobacco product being used in movies enhances viewers' perceptions of how socially acceptable smoking is, and the viewer does not perceive these images as tobacco advertising. In addition, the presence of smoking scenes in movies, and the exposure, especially of the adolescent age group, is of particular concern, in forming their attitudes toward smoking and prompting their intention to start smoking. The use of tobacco products in movies is also important because the movies are watched worldwide, and scenes depicting tobacco use effectively encourage its consumption. In this respect, the use of tobacco products in movies should be considered as an important public health problem. 11,12

Turkey is fighting against tobacco through tobacco control policies, as in many other countries. The first law related to tobacco control is the "Law on Prevention of Harms of Tobacco Products," passed in November 1996.¹³ In this law, the article opposed by the tobacco industry was the prohibition of the advertisements of tobacco and tobacco products. Direct and indirect advertisements are the most important avenues of visibility for the tobacco industry. This law was amended in 2008, and the ban on sponsorship of tobacco products was added to the law.¹⁴ However, Turkish movie viewers are exposed to the image of tobacco despite the legal regulations, and cinema screens are frequently used for tobacco advertising and promotions.

A study examining the 60 most-watched Turkish films between the years 2011 and 2015 in Turkey showed that tobacco and tobacco products appear visually in 34 of the films examined. Cigarette brands were featured visually in 3 of the films and verbally in 1 film. Verbal product placements were made on tobacco and tobacco products in 19 films. ¹⁵ In a study examining the 60 most-watched Turkish films during the second half

MAIN POINTS

- The image of tobacco is frequently encountered in cinema. At least one tobacco product is used in 82% of the examined films.
- Legal regulations affect the visibility of tobacco products in movies. The average number of scenes, and the duration of tobacco display, or the frequency of tobacco reminders in movies between 1997 and 2007 increased by 1.6 times, compared to films released before 1996. The average number of scenes with tobacco images or reminders in 2008 and later films decreased by 3.6 times, compared to the films between 1997 and 2007. The average stage time of tobacco images or reminders in 2008 and later films decreased by 5.3 times compared to films between 1997 and 2007.

of 2016, 60% of the films watched had tobacco products or images of smoking. ¹⁶ Although the brand of a tobacco product is not clearly seen in a Turkish movie which were viewed by 5 288 987 during 2017, the brand is understood from the package design, and it is seen that actress in the film uses tobacco products. ¹⁷ In the Global Youth Tobacco Survey (2017), 13-15 year old students who watched television, video, or movies in cinema theaters stated that they saw a tobacco smoker in 66.5% of the programs that they watched. ¹⁸

While research has been conducted related to the movie scenes that contain tobacco use in Turkey, there is no research on the impact of tobacco control interventions on scenes involving tobacco in movies. This study is conducted to evaluate the changes in scenes involving tobacco products in the domestic films that have been chosen among those that were watched in cinemas in Turkey between the years 1992 and 2016, within the scope of the laws in 1996 and 2008 that intervene in the display, advertising, and sponsorship of tobacco products.

MATERIAL AND METHODS

Study Design

The study is a descriptive epidemiological study. The research population is comprised of Turkish films which were viewed between the years 1992 and 2016. The sample films were selected from the data of the Center for Turkish Cinema Studies (tsa.org.tr), and boxofficeturkiye.com website. A total of 50 films, the first 2 of which are the most watched each year, constitute the sample of the research (Supplementary Table 1).

For the research on the movies released between 1992 and 1996, the number of movies watched was 10, and the average length of the movies was 101.9 minutes. Among the movies released between 1997 and 2007, the number of movies watched was 22, and they were on average 114.36 minutes long. Among the movies released between 2008 and 2016, the total number of movies watched was 18, and their average length was 114.39 minutes. In total, the analyzed films were watched by a maximum of 7 369 098 and a minimum of 20 155 people.

Sample Collection

A data collection form was developed by the researchers, which included scenes of tobacco use in movies and the characteristics of the people in those scenes. Two-person groups were formed to minimize the observer variation among researchers. The films were first watched individually, and then 2 people who watched the same movie evaluated the data collection form together, the inconsistent movie scenes were watched again, and a consensus was recorded on the data collection form.

In the data collection form, the scenes containing tobacco products were numbered, and the time point at which the scene occurred in the movie (minutes) and the duration of the scene were recorded. In the scenes containing tobacco products, the characteristics of tobacco use were evaluated, and the tobacco product used (cigarette, hookah, cigar/pipe) was recorded. If there was a reminder object, the details of the reminder object (smoke image, package image, match/lighter, ashtray, etc.) were recorded.

Hidden advertising (showing the brand of the tobacco product, showing the brand in giveaways), tobacco products on the poster, and the tobacco companies sponsoring the films were recorded. Some characteristics of the person/persons using tobacco products were also recorded, according to the scene number:

- 1. Gender (female/male)
- 2. Role (lead role, side role)
 - The role is evaluated according to the information in tsa.org.tr and boxofficeturkiye.com websites.
 - People who do not speak and do not have an important role are determined as extras.

3. Age

- The age of the performer was examined in 3 categories, according to the roles, professions, student or military status, and appearance in the films.
- Young actors were defined at an age limit of 24 years,
 24-65 years was the age limit for adult roles, and
 65 years was the age limit for the older characters.

Statistical Analysis

Data were evaluated on SPSS (Version 24.0, IBM Corp., Armonk, NY, licensed to Hacettepe University). Descriptive statistics are given as mean and standard deviation, maximum, minimum, and percentage. The normal distribution of numerical variables was evaluated by normality tests (the Shapiro–Wilk test and the Kolmogorov–Smirnov test), and it was found that they were not distributed normally. The duration and number of scenes containing tobacco products were evaluated by non-parametric tests, according to the 1992-1996, 1997-2007, and 2008-2016 year groups. The reason for choosing these periods was to evaluate the situation before the law dated November 26, 1996 (1992-1996), the situation before the regulation dated January 19, 2008 (1997-2007), and the situation after the regulation (2008-2016). A *P* value of <.05 was considered significant.

Ethical institutional permission was not required, as the data were publicly available. Ethical principles have been upheld at every stage of the study. The results of the research have not been not used out of purpose.

RESULTS

The Data Related with Consumption of Tobacco Products

Of the 50 films analyzed, 46 (92%) contain either reminders or direct pictures of tobacco products. The 4 films which do not involve any of them came to the big screen after 2008. Moreover, 82% of the examined films show at least one usage of tobacco product, the most popular being cigarettes (93.1%) (Figure 1).

The average number of scenes, duration of the display of tobacco or its reminders in movies between 1997 and 2007 increased by 1.6 times compared to films from before 1996 (P = .56 for number of scenes, and P = .88 for stage durations). The average number of scenes with tobacco images or reminders in films released in 2008 and later decreased by 3.6 times compared to the films between 1997 and 2007 (P < .05 for the number of scenes). The average stage time of tobacco images or reminders in films released in 2008 or later decreased by 5.3 times compared to films released between 1997 and 2007 (P = .016 for the duration of scenes) (Supplementary Table 2) (Table 1).

Among the analyzed films, the maximum number of scenes with tobacco images or reminders was 45, in a movie from 1998. Excluding films that do not contain tobacco scenes, the number of scenes with the least number of tobacco images and reminders is 1, and these films were released after 2008 (2011, 2013, 2016). In the analyzed films, the longest scene duration with a tobacco image or reminder is 21.46 minutes, and this film belongs to 1997. Excluding movies that do not show tobacco, the frequency of the number of scenes with tobacco is at least one every 0.08 minutes, and this movie is from 2009 (Table 1, Figure 2).

Men (87%), individuals between the ages of 25 and 64 (78%), and leading actors (40%) used more tobacco products in all the interval years. Considering the time periods, while the use

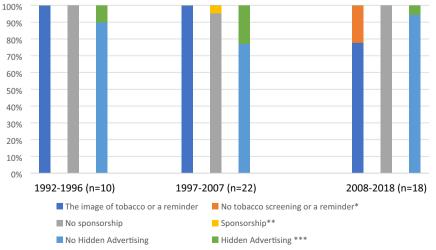


Figure 1. Tobacco images or reminders, sponsorship, and hidden advertising status in the analyzed films. *There are 4 movies that do not have tobacco scenes, and these movies belong to 2008 and later. *There is sponsorship for a movie released in 2003 (Movie code 23). The sponsoring company is Japan Tobacco International. ***Hidden advertisements are in 1 movie (Movie Code 7) from 1996 and earlier, 5 movies (Movie Codes 13, 15, 20, 25 and 32), between 1997 and 2007 and 1 movie (Movie Code 43) from 2008 and later.

Table 1. The Number and Duration of Tobacco Images and Reminders in the Analyzed Films						
	1996 and Earlier	Between 1997 and 2007	2008 and Later*			
The number of tobacco images and reminders						
Mean	12.4	19.91	5.43			
Standard deviation	6.24	10.61	3.48			
Median	12.5	17	5.5			
Minimum	4	4	1			
Maximum	21	45	11			
The duration of tobacco image and reminders (min.)						
Mean	4.51	7.58	1.43			
Standard deviation	2.76	4.63	1.36			
Median	3.86	7.38	1.1			
Minimum	1.61	1.38	0.08			
Maximum	9.5	21.46	5.31			
The number of films	10	22	14			

*Four films from 2008 and later that did not contain tobacco images and reminders, were excluded from the analysis.

of tobacco products by the leading actors was higher before 2008, the extras were more likely to use tobacco products in the movies that were released in 2008 and later (Table 2).

Tobacco Image on the Poster

There is an image of a cigarette on the poster of a movie from 1999 (Movie Code 15) and a movie from 2003 (Movie Code 24).

DISCUSSION

This study involves the usage and consumption of tobacco products in Turkish movies which were released between 1992 and 2016, and a total 50 films have been researched. The main concern at this point was that the films must be the most watched ones for each year. While researching them, the main aim was to investigate the effects of 2 laws, which were announced in 1996, numbered 4207 "To avoid of Harmful Effects of Tobacco Products" and one in 2008, which is more comprehensive, numbered 5727 "The control and avoid of Harmful Effects of Tobacco Products," on the screening of tobacco products in the Turkish movies.

Under the scope of this research, the targeted films included 92% tobacco scenes and 82% of them contain at least one

usage of a tobacco product (Figure 1). On the other hand, when we analyzed all the Hollywood films, we found that cigarette smoking scenes were in 44% of all films, and 36% of those were youth-oriented, in 2014.19 Moreover, another research conducted in 2018 in China showed that 89.9% of their films depict the usage of tobacco products.²⁰ The consumption or screening of tobacco products in the films strongly influences initiation to smoking, which is a serious problem, especially in the adolescence period. The adolescent age group is a group of special importance for the tobacco industry. A longitudinal study embracing 6 European countries in 2009-2010 with 9987 adolescents showed that if an individual is exposed to 1000 tobacco scenes, their tendency to begin smoking is increased by approximately 13%.21 When it comes to Turkey, we believe that the films now showing, or the top-rated ones, are extremely potent in directing adolescents and youth to start smoking, if they include the related scenes.

In the investigated films, which were detailed on the first paragraph, most tobacco-related products were shown to be consumed by men, particularly in the 25-64 age group (Table 2). According to the Global Adult Tobacco Survey,

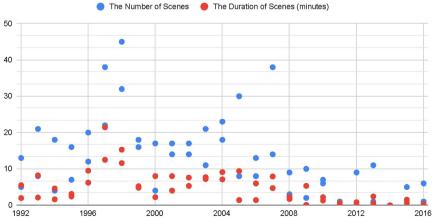


Figure 2. The Change in the number and duration of movie scenes with tobacco products and reminders.

Table 2. Some Characteristics Features of the Actors Using Tobacco Products in the Turkish Movies Analyzed

	1996 and Earlier	Between 1997 and 2007	2008 and Later*
Gender			
Male	97 (85.1%)	287 (88.6%)	28 (77.8%)
Female	17 (14.9%)	37 (11.4%)	8 (22.2%)
Age			
24 years and younger	7 (6.1%)	67 (20.7%)	1 (2.8%)
24-64 years	97 (85.1%)	239 (73.8%)	34 (94.4%)
65 years and older	10 (8.8%)	18 (5.6%)	1 (2.8%)
Role			
Lead role	49 (43.0%)	131 (40.4%)	9 (25.0%)
Side role	34 (29.8%)	95 (29.3%)	11 (30.6%)
Figurant	31 (27.2%)	98 (30.2%)	16 (44.4%)
The total number of actors	114 (100.0%)	324 (100.0%)	36 (100.0%)

44% of Turkish men and 19.2% of Turkish women consume tobacco products. Moreover, the consumption rate is especially the highest among men and the 25-64 age group.²² Viewed from this perspective, it is evident that the movie industry supports these undesired habits, deliberately or insensibly.

In this study, it was observed that the main consumers of tobacco in these films are the lead actors. However, after 2008, it was the figurants who were mainly shown consuming tobacco (Table 2). Adolescent fans of the popular actors see their movie idols as role models. In a study, the data show that the adolescents' tendency to use tobacco products is 3.1 times higher if their role models use them in their films.²³ This supports the idea that the adolescents and youth might be negatively influenced by the film actors and imitate their behaviors.

Based on the indications from researches, it is demonstrated that not only the number of scenes showing tobacco, but also their duration, increased after passage of the restrictive law in 1996, which is clear evidence that the tobacco industry targets the cinema sector. This situation later became worse, after the passage of the law in 2008 (Figure 2). In China, "The Law of Preventing the Dangers of Tobacco Products," in which both the promotion and advertisement of tobacco products have been restricted dramatically has been implemented from 1997. In contrast to such restrictions, this restrictive law in Turkey does not include any limitations about films. The impacts of this have been investigated in 119 films which have been begun to play between 1987 and 2007. While there is no observation about the extended time of scenes

until 1997, there has been a dramatic increase of such scenes this year. When restrictions have been applied in the film industry, tobacco producers have tried to find new ways to promote sales of their products. In a study conducted in the USA, the effects of the 1998 Master Settlement Agreement (MSA) were evaluated in the films released from 1988 to 2011. The data imply that while the number of scenes involving tobacco products was 79% in 1999, it regressed to 41% in 2011. Moreover, number of actors who used them had also decreased (P < .05). ²⁴

The manufacturer who became the target in this study was the sponsor of a film in 2008. Furthermore, posters of 2 films in 2003 and earlier involve the use of tobacco products. Yet, the 7 examined films signalize tobacco advertisement. In contrast, only 1 advertisement had been a tool for the same purpose after 2008. There is another study which includes dramatic numbers. The researchers analyzed 1400 films, and unfortunately, they have seen 500 tobacco manufacturer brands. While brand salience could be reached to 98% in the most-viewed 100 films, this value decreased to 22% per year after agreement of the Master Settlement Agreement in the USA.²⁵ The findings shows the people that the laws have a really important impact on advertisement, promotions and sponsorships of manufacturers. Not only all around the world but also in Turkey, the evidences support the same ideas. There is still a struggle to implement legislative regulations. In Article 3 of the law 4207 passed in 2018, the scope of it was extended, to banning not only the demonstration of tobacco products for the purpose of advertisements or commercial concerns in the works of art of cinema or theater, but also on the Internet, social media, and open areas for community.²⁶ Moreover, the law 5224 was revised in 2019, and emphasizes restrictive and precautionary rules on violence. dangerous activities, and sexuality, to protect the health and ethical values of the youth. Furthermore, it also comprises the distribution or publishing of such films, age restrictions, and parental controls.²⁷ However, in spite of all the restrictions, there is no evaluation directed at the change in attitudes of the youth toward the usage of tobacco products. By taking into account all of these, we suggest that the tobacco control policies must be comprehensive, and leave no loopholes that can be abused by the manufacturers. Moreover, their maintenance has to be checked continuously. These 2 points are undoubtedly very important in the struggle against tobacco products.

Limitations and Strengths of the Research

The research has some limitations. The study was planned in 2017, and therefore films up to 2016 were included in the study. The fact that films after 2016 were not analyzed is a limitation of the study. The researchers determining the year intervals themselves, not having an equal number of films for the periods examined, and examining only the 2 most watched films per year may lead to selection bias. The fact that the researchers did not watch all the movies may have caused interpersonal variation. On the other hand, due to the increase in movie viewership on the internet and the spread of the media in different areas, it is not possible

to reach the actual number of views of the movies that are released. In movies watched over the internet, audits on the implementation of laws require the development of new strategic interventions. For this reason, it would be appropriate to evaluate movies watched on the internet. However, considering the years of research, watching movies on the internet has increased in recent years. Therefore, the high probability of evaluating the movies that are most watched in cinemas in terms of tobacco product display is the strength of the research.

To sum up, consistent and comprehensive control policies have dramatic impacts on the decrement of tobacco scenes in the cinema. It is very significant to systematically check whether or not the restrictions regarding advertisement, sponsorship, and promotions are properly and correctly implemented, and properly maintained, arranged, and audited if necessary. In other words, susceptibility relative to this topic should be increased. After all these interventions, the tobacco industry will develop new marketing techniques to sell its products. Therefore, tobacco control strategies should be kept up-to-date, flexible enough to make the necessary changes, and be tailored to meet emerging needs. Finally, it could be said that there must be multidisciplinary and extended approaches in this struggle against the usage of tobacco products spreading into film industry.

Ethics Committee Approval: Ethical institution permission was not obtained for publicly available data. Attention has been paid to ethical principles at every stage of the study. The results of the research were not used out of purpose.

Informed Consent: The study was made with public movies, patients were not included in the study. For this reason, verbal or written consent was not obtained.

Peer Review: Externally peer-reviewed.

Author Contributions: Concept - H.Ö., M.S.Y., M.C., M.D.; Design - H.Ö., M.S.Y., H.E.E., M.C., F.E.K. B.S., B.P., A.E.G., C.A., D.A.Ö.; Supervision - H.Ö., H.E.E.; Resources - E.Y., F.E.K., B.S., M.D., B.P., A.E.G., C.A., D.A.Ö.; Materials - E.Y., M.C., F.E.K., B.S., M.D., B.P., A.E.G., C.A., D.A.Ö.; Data Collection and/or Processing - M.D.C., C.O., A.K., E.Y., P.E., E.D., F.E.K., B.S., B.P., A.E.G., C.A., D.A.Ö.; Analysis and/or Interpretation - H.Ö., H.E.E., M.C., E.Y., M.D.; Literature Search - H.E.E., E.Y.; Writing Manuscript - H.Ö., H.E.E., E.Y.; Critical Review - H.Ö., M.S.D., H.E.E., M.C.

Conflict of Interest: The authors have no conflict of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

REFERENCES

- World Health Organization (WHO). Tobacco 2020. 2020. (Available at: https://www.who.int/news-room/fact-sheets/detail/tobacco)
- World Health Organization (WHO). World Health Organization Framework Convention on Tobacco Control. 2003. (Available at: https://apps.who.int/iris/bitstream/handle/10665/42811/9241591013.pdf;jsessionid=38EEC636D9E3F0484A57421773A9FAA7?sequence=1)

- World Health Organization (WHO). World Health Organization report on the Global Tobacco Epidemic. 2019. (Available at: https://apps.who.int/iris/bitstream/handle/10665/326043/9789241516204-eng.pdf)
- Levy DT, Yuan Z, Li Y. The US SimSmoke tobacco control policy model of smokeless tobacco and cigarette use. BMC Public Health. 2018;18(1):696. [CrossRef]
- Levy DT, Nikolayev L, Mumford E. Recent trends in smoking and the role of public policies: results from the SimSmoke tobacco control policy simulation model. *Addiction*. 2005;100(10):1526-1536. [CrossRef]
- Levy DT, Huang AT, Havumaki JS, Meza R. The role of public policies in reducing smoking prevalence: results from the Michigan SimSmoke tobacco policy simulation model. Cancer Causes Control. 2016;27(5):615-625. [CrossRef]
- Chaloupka FJ, Yurekli A, Fong GT. Tobacco taxes as a tobacco control strategy. *Tob Control*. 2012;21(2):172-180. [CrossRef]
- Chung-Hall J, Craig L, Gravely S, Sansone N, Fong GT. Impact of the WHO FCTC over the first decade: a global evidence review prepared for the Impact Assessment Expert Group. *Tob Control*. 2019;28(suppl 2):S119-S128. [CrossRef]
- Lum KL, Polansky JR, Jackler RK, Glantz SA. Signed, sealed and delivered: "big tobacco" in Hollywood, 1927-1951. Tob Control. 2008;17(5):313-323. [CrossRef]
- 10. U.S. Department of Health and Human Services. Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2012.
- World Health Organization (WHO). Smoke-free movies: from evidence to action. 2015. (Available at: https://apps.who.int/iris /bitstream/handle/10665/190165/9789241509596_eng.pdf?se quence=1)
- Mekemson C, Glantz SA. How the tobacco industry built its relationship with Hollywood. *Tob Control*. 2002;11(suppl 1):181-191. [CrossRef]
- Law on the Prevention of Tobacco Products' Harms (Published in the Republic of Turkey Legal Gazette: 26.11.1996 No: 22829)
 Law Number 4207. (Available at: https://www.tbmm.gov.tr/t utanaklar/KANUNLAR_KARARLAR/kanuntbmmc080/kan untbmmc080/kanuntbmmc08004207.pdf)
- Law on the Prevention and Control of Tobacco Products' Harms (Published in the Republic of Turkey Legal Gazette: 19.01.2008 No:26761) Law Number 5727. (Resmi Gazete ile Yayımı: 19.01.2008 Sayı: 26761) Kanun No. 5727. (Available at: https://www.resmigazete.gov.tr/eskiler/2008/01/20080119-1.htm)
- Sari G. Product Placement in Popular Turkish Cinema: The Use of Tobacco and Its Products. Cumhuriyet University Faculty of Literature Social Sciences Journal. 2016;40(2):79-103.
- Bilir N, Ozcebe H, Akcay S, et al. Frequency and duration of smoking scenes in Turkish movies. *Eurasian J Pulmonol*. 2018;20(3):128. [CrossRef]
- 17. Ilicak Aydınalp SG, Tuna S, Rising Value in Cinema Brand Placement: Examining the Film "Aile Arasında" Regarding Brand Placement.
- 18. Republic of Turkey Minister of Health. General Directorate of Public Health, Tobacco Control Strategy Document and Action Plan 2018-2023. (Available at: https://hsgm.saglik.gov.tr/tr/bagim liliklamucadele-haberler/2018-2023-t%C3%BCt%C3%BCn-kontrol%C3%BC-strateji-belgesi-ve-eylem-plan%C4%B1.html)
- 19. World Health Organization (WHO). Films showing smoking scenes should be rated to protect children from tobacco addiction. 2016. (Available at: https://www.who.int/en/news-room/detail/01-02-2016-films-showing-smoking-scenes-should-berated-to-protect-children-from-tobacco-addiction)

- Chang YM, Chen B. Unregulated hazards to young people: smoking in films. *Tob Control*. 2018;27(1):117-118. [CrossRef]
- 21. Morgenstern M, Sargent JD, Engels RCME, et al. Smoking in movies and adolescent smoking initiation: longitudinal study in six European countries. *Am J Prev Med.* 2013;44(4):339-344. [CrossRef]
- U.S. Department of Health and Human Services. Centres for Disease Control and Prevention, global tobacco surveillance system data. (Available at: https://nccd.cdc.gov/GTSSDataSurveyResources/Ancillary/DataReports.aspx?CAID=1)
- 23. Tickle JJ, Sargent JD, Dalton MA, Beach ML, Heatherton TF. Favourite movie stars, their tobacco use in contemporary movies, and its association with adolescent smoking. *Tob Control*. 2001;10(1):16-22. [CrossRef]
- 24. Morgenstern M, Stoolmiller M, Bergamini E, Sargent JD. Did limits on payments for tobacco placements in US movies affect

- how movies are made? *Tob Control*. 2017;26(1):105-108. **[CrossRef]**
- Bergamini E, Demidenko E, Sargent JD. Trends in tobacco and alcohol brand placements in popular US movies, 1996 through 2009. JAMA Pediatr. 2013;167(7):634-639. [CrossRef]
- 26. Law on the Prevention and Control of Tobacco Products' Harms (Published in the Republic of Turkey Legal Gazette: 19.01.2008 No:26761) Law Number 5727. (Available at: https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=4207&MevzuatTur=1&MevzuatTertip=5)
- 27. Law on the Evaluation and Classification, and Support of Motion Picture Films. (Accepted Date: 14.7.2004, Published in the Republic of Turkey Legal Gazette: 21.07.2004 No: 25529) Law Number 5224. (Available at: https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5224&MevzuatTur=1&MevzuatTertip=5)

Supplementary Table 1. The List of the First Two Most Watched Films that were Released in Turkish Cinema between 1992-2016

	The number	Total number					
Year	of movies	of views	1st Film	2nd Film	3rd Film	4th Film	5th Film
1992	41	*	1 (33.324)	2 (29.735)	Tatar Ramazan Sürgünde	Denize Hançer Düştü	Ah İstanbul
1993	81	*	3 (53.720)	4 (28.325)	Tersine Dünya (23.996)	Beşinci Boyut (18.400)	Gece, Melek ve Bizim Çocuklar (13.274)
1994	85	*	5 (205.861)	6 (52.838)	Yumuşak Ten (23.817)	İş (22.178)	Aşk Ölümden Soğuktur (20.155)
1995	44	*	7 (136.120)	8 (44.618)	Ölümsüz Karanfiller (19.326)	Böcek (4.806)	Aşk Üzerine Söylenmemiş Her Şey (3.496)
1996	55	*	9 (2.572.287)	10 (474.571)	Tabutta Rövaşata (21.004)	Yaban	Hollywood Kaçakları
1997	37	*	11 (873.833)	12 (200.444)	Nihavend Mucize (79.883)	Mektup (73.385)	Masumiyet (49.410)
1998	30	*	13 (1.239.015)	14 (753.070)	Hoşçakal Yarın (260.471)	Karışık Pizza (142.652)	Güneşe Yolculuk (73.324)
1999	35	*	15 (1.238.128)	16 (357.467)	Duruşma (295.732)	Harem Suare (223.429)	Asansör (81.281)
2000	41	*	17 (2.472.162)	18 (1.275.967)	Abuzer Kadayıf (864.312)	Balalayka (427.580)	Oyunbozan (91.597)
2001	33	*	19 (1.331.462)	20 (1.308.320)	Deli Yürek Bumerang Cehennemi (1.053.685)	Hemşo (756.526)	Şellale (230.404)
2002	18	*	21 (737.006)	22 (401.599)	Mumya Firarda (318.655)	Kolay Para (71.190)	Uzak (63.845)
2003	22	*	23 (1.791.396)	24 (1.657.051)	Rus Gelin (657.546)	Gönderilmemiş Mektuplar (371.641)	İnşaat (263.481)
2004	22	*	25 (4.001.711)	26 (2.894.802)	Hababam Sınıfı Merhaba (1.581.457)	Neredesin Firuze (1.064.162)	Okul (836.521)
2005	29	11.461.246	27 (2.586.636)	28 (1.685.935)	Hirsiz Var (934.612)	Organize İşler (916.464)	Gönül Yarası (837.509)
2006	34	18.066.487	29 (4.256.567)	30 (2.067.661)	Hokkabaz (1.684.711)	Sinav (1.145.014)	Keloğlan Kara Prense Karşı (997.238)
2007	43	12.144.256	31 (1.702.144)	32 (1.487.991)	Maskeli Beşler Irak (1.238.823)	Son Osmanlı Yandım Ali (1.084.448)	Çılgın Dershane (783.199)
2008	51	22.882.355	33 (4.301.641)	34 (3.459.488)	Muro : Nalet Olsun İçimdeki İnsan Sevgisine (2.465.503)	Issız Adam (2.013.140)	Osmanlı Cumhuriyeti (1.401.503)
2009	92	18.850.366	35 (4.33.116)	36 (2.566.135)	Nefes : Vatan Sağolsun (2.419.136)	Neşeli Hayat (1.071.580)	Kurtlar Vadisi: Gladyo (862.992)
2010	99	22.185.976	37 (3.455.089)	38 (3.325.842)	Eyyvah Eyvah (2.459.815)	Yahşi Batı (2.323.061)	Av Mevsimi (1.800.243)
2011	75	21.226.563	39 (3.947.988)	40 (2.418.090)	Allah'ın Sadık Kulu : Barla (2.186.696)	Kurtlar Vadisi : Filistin (2.028.057)	Anadolu Kartalları (1.179.190)
2012	09	20.857.220	41 (6.565.850)	42 (2.602.366)	Berlin Kaplanı (1.982.762)	Sen Kimsin? (1.592:471)	Sümela'nın Şifresi Temel (1.044.902)
2013	88	29.042.078	43 (6.980.070)	44 (2.083.772)	Kelebeğin Rüyası (2.167.456)	Selam (2.145.545)	Hükümet Kadın 2 (1.530.071)
2014	112	35.777.989	45 (7.369.098)	46 (3.414.212)	Pek Yakında (2.184.636)	Unutursam Fisilda (1.705.963)	Deliha (1.591.920)
2015	136	34.273.257	47 (5.231.330)	48 (3.582.552)	Kocan Kadar Konuş (1.930.677)	Ali Baba ve 7 Cüceler (1.827.011)	Selam: Bahara Yolculuk (1.683.497)
2016	139	31.102.760	49 (2.859.173)	50 (2.070.692)	Dedemin Fişi (2.015.665)	Osman Pazarlama (1.983.777)	Görümce (1.628.513)
*The tota	al number of vie	ews for these years	*The total number of views for these years could not be reached.	ed.			

Films that were not released were not evaluated.

Movie codes.	Year	Tobacco Scene	The number of tobacco images or rimenders	The duration of the movie(min.)	The duration of tobacco images o rimenders (seconds)
1	1992	Yes	13	100	333
	1992	Yes	5	103	118
	1993	Yes	8	74	127
	1993	Yes	21	108	492
	1994	Yes	18	96	278
	1994	Yes	4	88	97
	1995	Yes	16	101	143
}	1995	Yes	7	115	186
)	1996	Yes	20	128	372
0	1996	Yes	12	106	571
1	1997	Yes	38	113	1288
2	1997	Yes	22	94	751
3	1998	Yes	45	105	920
4	1998	Yes	32	140	700
5	1999	Yes	16	104	312
6	1999	Yes	18	133	285
7	2000	Yes	4	97	134
8	2000	Yes	17	108	474
9	2001	Yes	14	116	238
:0	2001	Yes	17	110	480
1	2002	Yes	14	125	317
2	2002	Yes	17	107	454
3	2002	Yes	21	116	434
<i>3</i>	2003	Yes	11	115	461
:5	2003	Yes	18	127	426
6	2004	Yes	23	106	548
7	2004	Yes	8	110	84
.7	2005	Yes	30	112	566
o 9	2005	Yes	8	123	83
0	2006	Yes	13	98	304
1	2007	Yes	14	118	283
2	2007	Yes	38	139	474
3	2008	Yes	3	100	100
4	2008	Yes	9	127	140
5	2009	Yes	2	109	5
6 7	2009	Yes	10	115	319
7	2010	Yes	7	112	132
8	2010	Yes	6	93	81
9	2011	Yes	1	111	37
0	2011	No	0	118	0
1	2012	No	0	162	0
2	2012	Yes	9	100	52
3	2013	Yes	11	102	146
4	2013	Yes	1	110	30
5	2014	No	0	117	0
6	2014	No	0	105	0
7	2015	Yes	5	112	43
8	2015	Yes	5	136	90
9	2016	Yes	1	115	7
0	2016	Yes	6	115	23
		Total	638	5594	13937