

# Portraying health-related behaviors in top-grossing Iranian films

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## ABSTRACT

**Introduction:** Imagery in movies gives impression of health-related behaviors, especially tobacco use. The aim of our study was to assess health-related behaviors promoted in top-grossing Iranian movies. **Methods:** The top 30 films ranked by box office gross in Iran (except one of them) and released within a Persian year (March 20th 2015 through March 20th 2016) were assessed from the aspect of displaying behaviors related to diseases and injuries. **Results:** 72 % of assessed films displayed at least one portrayal of cigarette handling or using by an actor/actress. The mean (SD) number of actor/actress with handling or using tobacco was 2.4 (1.6), among them 82% were male and 18% were female. Other risky health behaviors such as Shisha consumption, using carbonated non-alcoholic beverages, mobile phone use while driving, motor cycling without helmet, were displayed in 24%, 38%, 24%, and 28% of films, respectively. None of them promoted disease screening and breast feeding of neonates. **Discussion:** Our study demonstrates the high rate of displaying health risky behaviors such as tobacco use and lack of promoting healthy behaviors such as being physically active, and having an appropriate diet in Persian movies. High rate of promoting smoking behavior and verbal assault was surprising. The current situation is not satisfactory; therefore, a collaborative attempt should be made by different key stakeholders to change the conditions.

**Keywords:** Risk-taking, mass media, Iran, health behavior

## Introduction

With the global social, technological, and cultural developments in recent decades, health-related behaviors, such as smoking, being physically active, having appropriate diet, and alcohol consumption, have become the leading determinant of health problems, especially non-communicable diseases (NCD) and injuries [1, 2]. As NCD and injuries are responsible for more than 70% of the rate of global diseases, dealing with health-related behaviors has been recognized as a major concern of public health programs and has taken much more attention by health policy-makers in national and international levels [3, 4].

Dealing with health-related behaviors is a major challenge of

health systems [5]. Until recently, most of the countries have not been able to handle the problem of cigarette smoking, alcohol consumption and the increased rate of other health related risk factors such as diabetes and high blood pressure [4]. In response to these challenges, various policies, such as public education, law development and enforcement, and social marketing, have been recommended by International and national organizations. Among different ways in affecting the health-related behaviors of populations, media has been recognized as a major determinant. Prior studies have demonstrated the importance of media, especially movies, in affecting adolescents' behaviors such as unhealthy diet and consequently their overweight and obesity [6, 7]. Furthermore, a considerable amount of studies have supported the association between violence exhibition and subsequent aggressive behaviors [8]. In Addition, Initiation of other high risk behaviors, such as smoking and drinking alcohol, has been also related to exposure to film portrayals of these behaviors [9].

The role of movies as an important media, on promoting healthy or unhealthy behaviors, has convinced governments to set policies in order to prohibit production of media which promote smoking, alcohol consumption, violence and unhealthy

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diet <sup>[10]</sup>. For instance, based on World Tobacco Report 2008, 10% of countries all over the world have developed strict laws in order to prohibit advertisement and sponsorship of tobacco products of any kind <sup>[11]</sup>.

In Iran, the number of movie theatre audience has been dramatically increased during recent three years. It has increased from about 7 million audiences in 2014 to about 16 millions in 2016 <sup>[12]</sup>. However, there is still no enough information in the context of assessing healthy or unhealthy behaviors promoted in these movies. Therefore, the aim of this study is to assess several aspects of displaying health-related behaviors in top 30 films ranked by box office gross in Iran which have been released in Persian year of 1394 (March 20<sup>th</sup> 2015 through March 20<sup>th</sup> 2016).

## Methods:

In our study, in a descriptive approach, we have assessed released movies within a year (March 20<sup>th</sup> 2015 through March 20<sup>th</sup> 2016) in order to reveal the several aspects of displaying health-related behaviors. The top 30 films ranked by box office gross in Iran were selected. The DVD version of all of these films was provided, except one of them because of not being published. Consequently, 29 films were examined from the aspects of displaying behaviors related to non-communicable and communicable diseases; intentional and unintentional injuries. In order to assess behaviors, a conceptual framework based on related study was developed by authors and then it was checked again by three public health experts to confirm validity. In regard to smoking behavior, movies were assessed based on

sequences of displaying handling or using tobacco products. A movie sequence was defined as "A short piece of film or section of a longer film, depicting a particular action, event, etc." <sup>[13]</sup>. Occurrence, duration, and the actor/actress characteristics such as gender were recorded in information forms, by two medical students for cross check under supervision of a public health expert. Other behaviors were assessed from the aspect of occurrence and the number of characters with that behavior.

Descriptive data was generated from different displayed behaviors. Comparisons such as cigarette smoking by males or females were made using Independent t test. Significance level was set at the 5% level. Data management and analysis were performed using SPSS version 16. The procedures of the study were approved by both executive and ethical committee of Medical Faculty of Shahid Beheshti University of Medical Sciences.

## Results:

The focus of the assessment was on smoking as the most important high risk behavior. 72 % of movies displayed at least one portrayal of cigarette handling or using by an actor/actress. The mean (SD) duration of displaying smoking behavior was 123 (140) seconds. The mean (SD) number of actor/actress with handling or using tobacco was 2.4 (1.6), from the total of 50 actor/actress with handling or using cigarette, and among them 82% were male and 18% were female (PV<0.001). 50 % of portrayals of smoking implicated the smoking as a stress reliever behavior. Situation of portraying different health-related behaviors are shown in table 1.

**Table 1: Portraying different health-related behaviors in 29 assessed movies.**

The assessed behavior		N (%) of movies which displayed at least one portrayals of the behavior.	Mean (SD) of sequences which display the behavior (in movies which displayed at least one portrayals of the behavior).	Mean (SD) of number of actor/actress who do the behavior (in movies which displayed at least one portrayals of the behavior).
Tobacco use	Smoking	21 (72.4%)	3.1 (1.8)	2.4 (1.6)
	Shisha consumption	7 (24.1%)	1.0 (0)	2.3 (1.9)
Violence	Physical violence against adults	27 (93.1%)	3.8 (3.1)	3.9 (3.0)
	Verbal violence against adults	29 (100%)	17.8 (13.3)	7.4 (3.7)
	Physical violence against children	8 (27.6%)	2.5 (2.5)	2.3 (2.2)
	Verbal violence against children	9 (31.0%)	4.2 (4.1)	2.1 (1.8)
	Self harm	2 (6.9%)	1 (0)	1 (0)
	Suicide	2 (6.9 %)	1 (0)	1 (0)
	Harm to environment	7 (24.1%)	1.6 (1.1)	
Traffic accidents	Mobile phone use while driving	7 (24.1%)	1.7 (1.1)	1.3 (0.8)
	Motor cycling with helmet	3 (10.3%)	2.0 (1.0)	1.0 (0)
	Motor cycling without helmet	8 (27.6%)	2.9 (1.6)	3.4 (2.9)
	Using seat belt while driving	18 (62.1%)	2.8 (2.1)	2.6 (1.8)
	Not using of seatbelt while driving	21 (72.4%)	3.0 (3.5)	2.5 (1.3)
	Unsafe driving at high speeds	3 (10.3%)	1.0 (0)	1.0 (0)
Physical activity	Promoting physical activity	5 (17.2%)	2.2 (2.2)	4.2 (3.4)
Nutrition	Using carbonated non-alcoholic beverages	11 (37.9%)	1.7 (0.8)	0.6 (0.5)
	Using junk foods	2 (6.9%)	1.0 (0)	1.5 (0.7)
	Using sweetened juices	3 (10.3%)	1.0 (0)	1.7 (0.6)
	Using fast foods	6 (20.7%)	1.2 (0.4)	2 (1.5)
	Using milk powder	0	0	0
vaccination	Promoting vaccination	2 (6.9%)	1.0 (0)	1.0 (0)

Using medicine	Non-rational use of medicines	4 (13.8%)	1.0 (0)	1.0 (0)
Protection against UV	Using sunglass on a sunny day	13 (55.2%)	3.5 (3.2)	2.9 (2.2)

Additionally, 0 % and 17.2% of examined movies displayed the negative health effects of consuming alcohol and drugs, respectively. None of them displayed the negative social impacts of being HIV/AIDS positive. Promotion of disease screening and breast feeding of neonates was not shown in assessed movies.

## Discussion:

The released films in movie theatres are a powerful media that can modify the behaviors of the population <sup>[9]</sup>. Our study demonstrates the high rate of displaying health-related high risk behaviors and lack of promoting healthy behaviors such as being physically active, and having an appropriate diet. The most interesting finding of the study was the high rate of promoting smoking behavior and verbal assault.

Comparing the promotion of smoking behavior in recent years based on our study with previously implemented studies, shows the dramatic increase in displaying smoking portrayals in comparison to movies which was released in Iran in the 1980s and 1990s. The achieved rate is similar to the rates of the 2000s, but the average duration of smoking behavior has been increased from 99 to 123 seconds and percentage of females with this behavior has been increased from 10% in 2010 to 20% in 2016 <sup>[14]</sup>. Displaying Shisha consumption is also a newly emerged event which was almost absent in last decades.

The reason why the movie producers and directors choose the portrayals that promote disease risk factors should be discussed. First of all, the lack of effective regulation on movies as entertainment products is critical. For instance, in spite of legislation of the comprehensive law of smoking control in Iran in 2006, it seems there is no effective enforcement. Furthermore, in regard to other behaviors such as verbal and physical violence, there is no certain approved law to make movie producers to be cautious of displaying such behaviors. Another reason may be the inadequate knowledge of movie makers about health issues, and they may be not aware of the extent of the effects of their products on public health.

The new emerging epidemics of NCD and HIV and increasing injuries and violence have convinced the governments to take actions in order to control it, through different strategies, especially popular media. In Iran, the number of people who choose going to movie theatre as an entertainment is rising fast <sup>[12]</sup>. Movies can play an important role in orientating people to be healthy or unhealthy. The current situation is not satisfactory, therefore a collaborative attempt should be made by different stakeholders such as Ministry of health, Ministry of Communication and movie producers to change the conditions.

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