Abstract

Objective: The purpose of this research was to investigate the role of celebrities' attractiveness in the effectiveness of addiction prevention advertising. Method: This research falls within the category of applied studies and descriptive-survey methods. The required data were collected by random sampling method. In this research, a researcher-constructed questionnaire containing 17 questions was used. This scale enjoyed content validity and construct validity, and its Cronbach’s alpha coefficient was obtained equal to 0.91. Structural equation modeling in LISREL software was used to analyze the data and test the research hypotheses. Results: The results of this study showed that each of the components of honesty, familiarity, fame, and reputation of the celebrity had a positive and significant effect on addiction prevention. There was a significant positive relationship between celebrity’s attractiveness and the effectiveness of addiction prevention advertisement. Conclusion: The use of celebrities in preventive advertising is effective in addiction prevention. Keywords: celebrity, advertising, addiction, preventive advertising
**Introduction**

Today, the application of new concepts of marketing in advertising has become increasingly widespread and the use of effective propaganda tools for the enhancement and influentiality of audience perceptions is of great importance. In this domain, research has shown that 80% of decisions come to action through visual icons. Audiences need a reference for approval and guarantee. One of the special promotional tools is the utilization of prominent characters and pioneers that have received public attention in various aspects of advertising (Abdolvand, & Hosseinzadeh Imam, 2013). Advisers and advertising agents are aware of the high popularity of cultural and sports figures among the public and, thereby, they have oriented these figures into advertisements for years. In this context, one of the most important areas of the advertising industry is the promotion of health improvement and drug prevention messages. Unfortunately, in the last two decades, the world has faced shocking statistics about the prevalence of drug use. According to the United Nations Office on Drugs and Crime (2015), it is estimated that the total of 246 million people (2.5%) or one out of 20 people between the ages of 15 and 15 years old have been drug users around the world in 2013 (Jazini, 2015). Therefore, given the existing figures and statistics, neglecting this social problem will surely have irreparable harm and devastating consequences for families. In addition, narcotic drugs and related crimes are partly of global importance, which are referred to as organized crime. All countries in the world are involved in the curb, prevention, and dealing with this phenomenon by means of various programs and take different measures to achieve these goals. There are generally two different responses to crime, insecurity, and other threats to human security. The first is the response and suppression and the second is prevention. Many human experiences, statistics, and documented evidence highlight the effectiveness of prevention as compared to suppression (Shayegan, & Asgharzadeh, 2015). In addition to its higher effectiveness, prevention is both cost-effective and eliminates many of the problems arising from drug use.

The increasing prevalence of this social trauma indicates that the current prevention and control methods of addiction have undergone failure and requires more effort (Shayegan, 2010). One of the solutions in this area is the use of advertisements to improve health promotion messages and prevent drug use. Annually, significant resources are allocated to the preparation and production of programs and advertisements pertaining to prevention and control of drug use in the world. It is important to evaluate the effectiveness of these advertisements because many of these programs fail in doing their mission. This means that the effectiveness of propaganda and advertising in this domain is questioned (Massoudi Farid, Mirbeigi, Esfahani, & Rezakhani, 2014). Among the various advertising techniques, the use of celebrities, which has received attentions and public interests from various aspects, is a highly successful visual symbol that
directly and indirectly affects behavioral beliefs and attitudes (Feizi, Arefi, & Kahyari Haghighat, 2016). These characters are applied from a variety of perspectives, such as accreditation, audience persuasion, and confidence-building; and prominent personalities trigger awareness, persuasion, and, ultimately, decision-making in the audience about a specific subject by means of their images, credentials, attributes, and reputation (Abdolvand, & Hosseinizadeh Imam, 2013). The use of these characters for value creation will have different consequences due to their enjoyment of cultural and professional identity, age, and social acceptability (Mukherjee, 2009).

Addiction is referred to as a state in which one becomes physically and psychologically dependent on a chemical or natural substance, and feels relaxed and takes pleasure through the access to and consumption of that substance. Having no access to drugs and substances leads the individual to undergo hangover, physical pain, discomfort, and restlessness (Kouhi, & Gholizadeh, 2017). According to the World Health Organization (1957), addiction refers to the frequent consumption of one or more psychotropic substances to the extent that the consumer or addict suffers from chronic or periodic poisoning arising from the consumption and is compelled to consume the substance. In this situation, it is extremely difficult for him/her to quit or reduce using the substance according to his/her volition and s/he shows a clear determination to obtain the substance by virtually any possible means. In 1964, with the acknowledgment of the ambiguity of the above-mentioned definition, the World Health Organization propose using the term "substance dependence" without giving a clear definition of it. Finally, with the emergence of the classification proposed by American Psychiatric Association, the term dependence was accepted instead of addiction due to the derogatory nature of the term addiction and its ambiguity (American Psychiatric Association, 2000). Addiction in this article refers to "the process leading to addiction", including the drug use tendency, consumption for fun, occasional consumption, substance abuse, and dependence.

Prevention also means predicting, identifying, and assessing the risk of committing a crime, and taking steps to eliminate or reduce the risk or reduce the potential harm arising from the risk up to an acceptable level (Shayegan, 2010). Prevention of addiction refers to the primary prevention of the process leading to addiction, including tendency to drug use, consumption for fun, occasional consumption, drug abuse, and dependence. In other words, addiction prevention means to avoid converting people who have never consumed drugs to those who tend to consume, avoid converting them to consumers for fun, avoid turning them into occasional consumers, avoid turning them into drug abusers, and also preventing them from becoming addicted or dependent on drugs. The rest of this process from later dependence, including risky patterns (injection), aggravation of social functions, homelessness, and death is not the subject of this plan. In the past, prevention programs were divided into three primary,
secondary, and tertiary levels. This division was somewhat confusing and complex; therefore, since 1994, a newer classification has come into play, according to which, addiction prevention programs can be divided into three categories based on the level of involvement of the target community with drug use: "universal", "selective", and "case" (Robertson, 2006). Universal prevention involves the general population; for example, it entails all people in a country or neighborhood, or all students or all adolescents without any screening and, then, involves the provision of all the information and skills they need. Selective prevention is carried out only in high-risk groups, such as students with learning disabilities, mental discomforts, tense family environment or inappropriate friendship networks.

Advertising is an attempt to establish an indirect bilateral relationship with the audience. In other words, advertising means conveying a message to others through communication to create and change attitudes and also transform the audience's behavior and knowledge. In the Advertising Guide, advertising has been defined as the presentation of some controlled, well-defined, and convincing information by mass media. One of the most important issues in the realm of advertising is the evaluation of the effectiveness of advertising; in other words, determining the extent to which the advertising for which a high amount of money had been spent can meet the preset objectives. Measuring and evaluating the effectiveness of advertisement act as a feedback and reminds us of the weaknesses and strengths of our ads. To evaluate the effects of advertising, it is necessary to pay attention to a set of behavioral, psychological, communication, and sales factors. Advertising agencies in 21 countries have accepted some principles as advertising evaluation guidelines of advertising that outline the evaluation methodology. Now, several tests have been designed to evaluate the effects of communication and the sale of advertising. To have an effective advertising tool, care should be taken on the type of target customers and the choice of media tools (Uva, 2000). Since advertising is a one-way communication channel (Sanaye’ea, Mohammad Shaff’ea, & Amini Velashani, 2016), one of the stages in advertising is the evaluation of the effectiveness of advertising where the degree of the effectiveness of advertisements is measured at this stage with regard to the predetermined goals of the advertising.

Effective factors can be categorized into: 1) Spiritual effectiveness that makes the target audience's mentality react beneficially; 2) Psychological effectiveness that makes the target audience's react regarding psychological factors like needs, motives, feelings, personality, learning, etc.; 3) Physical effectiveness that influences the audience's physical body and limbs and that makes the target audience show beneficial reactions mentally and physically; and 4) Behavioral effectiveness. Since one of the most important goals of commercial advertising is to change the audience's behavior, it is very important to pay attention to the marketing variables that create behavioral effectiveness in audiences and customers (Feiz et al., 2016).
Each advertisement requires the following specific and special conditions for influencing the audience. 1. Belief in the subject matter and the specificity of its motive and purpose: If a person does not believe in the subject of advertisement, s/he does not have the initiative and does not strive for it. Even if s/he does an activity, s/he is afraid and duty-bound and, ultimately, she feels compelled. While if s/he believes in it, s/he plans and works with enthusiasm and passion. 2. Coordinating the advertiser's behavior with the purpose of the advertisement: The advertiser must act and practice what is advertised and introduced in order for his/her advertising to influence people. If a particular item is to be advertised inside a country, then the advertiser should have used the same product previously in order to increase the impact of the advertisement. 3. Sacrifice and defense of the advertisement: People who are closer to the head of each community should show more sacrifice to prove the legitimacy of the issue of advertisement and its credibility in the eyes of the public (Shahdoust, 1998).

Advertising can be divided into several categories based on the purpose of the advertisement. The purpose of advertising may be to inform, convince or remind. In the advertisement message, various elements, such as music, color, scene, advertising slogan, etc. are found.

The lexical meaning of the word celebrity is commonly known as a person with reputation and popularity in the fields of music, sports, media, dance, model, politics, literature, religion, and so on in a culture or society. Such a person is readily distinguished and recognized by people, especially by young people. It is added to such people's popularity through mass media, especially television, cinema, newspapers, and social networks. This is due to the fact that much attention is paid to the issues of celebrities in the media in order to feed the content of newspapers and news stories that will generate revenue for them. In other words, the ones who are superior in their field or activity and who are viewed as spokesmen for advertising and promote the product/service will be known as prominent sponsors (Banyte, Stonkiene, & Pilgrimiene, 2011). The use of celebrities in many propaganda campaigns is increasing in such a way that this rate has reached its pinnacle, i.e. 25 percent television advertising in Japan, Korea, and China; and it has significantly increased in the United States and Europe since 2000. Research has shown that 15 percent of the advertisements that are broadcast on television for the first time have used these characters, and 80 percent of the advertisements that have the highest reminder rates in the minds of the audience relate to ones that have used celebrities (Amos, 2008). The importance of this issue becomes clearer when it is attempted to cost for introducing a particular product in many advertising activities without paying any attention to the involved characters and products and to the audience's perceptions about trustworthiness and proper communication. This action, in addition to wasting advertising costs, sometimes creates a vague and disproportionate picture of the brand in the consumers' minds.
The traditional definitions of the motivational effects of famous witnesses (based on the theory of "source effects") have resulted in the following findings:

1. Using famous witnesses increases the amount of attention to advertising.
2. Since famous witnesses are generally attractive, they can be effective in encouraging consumers to be sensitive to social acceptability or can influence others' opinions and beliefs about using a product. This holds true when a product is related to the category of physical attractiveness.
3. Celebrities can be considered as a reliable reference if they are advertising related products in their professional field, such as an athlete's advertisement for sport shoes.
4. Celebrities have a higher acceptability and effectiveness when customers are to choose a product and, thereby, are searching for "establishing a kind of imitative relationship and alignment with certain prominent characters."
5. When making an advertisement by using a celebrity, attention must be paid to the target audience and, then, the appropriate decision about the choice of a celebrity should be made.

The celebrities' personality, popularity, likeness to recipients of messages, and similarity to perceived values of message recipients can influence the interpretation of attractiveness. People's thoughts, beliefs, and attitudes can affect celebrities' attractiveness (Zhang, & Au Yeung, 2012). The use of attractive people is a common practice in print-out and television advertising because they can have an impact on the audience's attitudes and beliefs (Ohanian, 1991). Most of the models presented to determine the effectiveness of celebrities are based on two theories of reference credit and attractiveness. In the theory of reference credit, it is believed that the effectiveness of a message is expressly dependent on the specialty, credibility, and trust of the selected characters (Gaied, 2010). On the other hand, the theory of attractiveness states that the success of celebrities is more than anything else dependent on the match, closeness, and proximity of the chosen characters (Simmers, Smith, Fisher, & Jensen, 2009). In fact, the source attractiveness model is derived from the "source credibility" model. This model considers attractiveness as the third component of the source credibility model. The attractiveness of the source is evaluated based on its apparent characteristics that are appealing to the audience (such as personality traits, lifestyle, etc.) (Al Zoubi, & Bataineh, 2011). Two other components of the credibility model are honesty and expertise.

Zipporah & Mberia (2014) concluded that the use of well-known advertisers was effective in the acceptance of advertisements. Consumers accept celebrities' claims in advertisements and purchase the advertised products because of their high interest in such characters. Ghotbi Vighan, Hosseinzadeh Shahri, & Ebrahimi (2013) have shown that young consumers in purchasing clothes are becoming more or less impressed with the advertisements in which well-known advertisers are used for fashion advertising. They also showed that young consumers have a positive attitude toward brands that use celebrities in
advertising. A research entitled "The Power of Celebrity Endorsement in Brand Choice Behavior: An Empirical Study of Consumer Attitudes" was aimed at identifying customers' attitudes toward the role of famous sponsors in television advertising in Jordan. It was revealed that people were generally interested in advertising in which celebrities appear, and most of people considered such an advertisement attractive, but they did not discern any good convincing reason for buying (Alsmadi, 2006).

Choi, & Rifon (2005) examined Celebrity/Product Congruence Effects and concluded that the use of an attractive celebrity increases the effectiveness of advertising. Another research entitled "Factors predicting the effectiveness of celebrity endorsement advertisements" was conducted with the aim of identifying the personality and physical characteristics of celebrities who would further contribute to the effectiveness of such advertisements. In this research, individuals were requested to express their attitude towards the advertisement, product, and popular sponsor after viewing the advertisement. The results showed that the celebrity's perceived knowledge about the product is not related to attitude towards the product; and the attitude towards the sponsor is measurable by admiration, type of feeling, perceived similarity, and the advertiser's physical attractiveness (H silvera & Austad, 2004). Goldsmith, Lafferty, & Newell (2000) evaluated the impact of renowned celebrities and credible companies on attitudes toward advertising, attitudes toward brand names, and purchasing incentives. The results showed that famous advertisers' had the greatest effect on attitudes towards advertisement, while the company's credit has the highest impact on the attitude toward the brand name.

Abdolvand, & Hosseinzadeh Imam (2014) conducted assessed and prioritized the effective components in the acceptance of popular characters in advertising programs from a consumer perspective. They evaluated eleven components of celebrities to identify consumers' beliefs and preferences and, finally, identify and rank the factors affecting the customers' attitude in accepting celebrities. The result of the research showed that customer prioritization is as follows: reputation, simultaneous presence in multi-product advertising, match with the product, credibility, attractiveness, celebrities' familiarity to customers, celebrities' use of the product, risk of quarrel, presence in various advertising, and celebrities' nationality. Also, three components of reputation, simultaneous presence in multi-cultural advertising, and nationality of the celebrities were found significant in terms of effectiveness. Regarding the related literature and background of the subject, the conceptual model of the research was designed as follows. In this research, we sought to respond to the following question: "Is there any significant relationship between the celebrity's attractiveness and the effectiveness of addiction prevention advertising?"
Method
Population, Sample, and Sampling Method
This research falls within the category of applied studies and descriptive-survey methods. Independent variables of the research included celebrity familiarity with the viewer, celebrity credibility from the viewer's perspective, celebrity's popularity to the viewer, and honesty and credibility of the famous person from the viewer's perspective; the mediating variable was the celebrity's attractiveness; and the dependent variable was the effectiveness of advertisement using celebrities. The whole population of Qom city constituted the statistical population of this research. According to the census in 2016 by the Iranian Statistics Center, there were 1,292,283 people living in Qom (Statistics Center of Iran). In general, the sample size in the methodology of structural equation modeling can be determined from 5 to 15 observations per measured variable (Davari, & Rezazadeh, 2013). According to the size of the statistical population and Krejcie and Morgan table, 384 individuals were selected as the sample units. A total of 450 questionnaires were distributed randomly among them and 416 questionnaires were finally analyzed.

Instrument
The measurement instrument in this research was a researcher-constructed questionnaire that included questions about demographic characteristics and questions pertaining to the variables of honesty and credibility (3 questions), familiarity (4 questions), popularity (2 questions), celebrity credit (2 questions), celebrity attractiveness (3 questions), and effectiveness of advertising (3
questions). After professors and experts' confirmation, the necessary amendments were made. A five-point Likert scale from very high to very low was used to score the items. Content validity method was used to go for the validity of the questionnaire. At first, expert opinion in the related companies was examined and, then, professors and experts were asked to comment on the content of the questionnaire and, accordingly, inappropriate questions were deleted. Thus, the remaining questions enjoyed content validity. In the next step, 40 questionnaires were distributed as a preliminary study among the audience and Cronbach’s alpha was measured, which was higher than 0.70 in all components. Cronbach’s alpha coefficients of the research variables are presented in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Cronbach’s alpha</th>
<th>Variables</th>
<th>Number of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>The celebrity's honesty and credibility in the viewer's eye</td>
<td>3</td>
<td>0.80</td>
<td>Celebrity's attractiveness</td>
<td>3</td>
<td>0.82</td>
</tr>
<tr>
<td>The celebrity's familiarity with the viewer</td>
<td>4</td>
<td>0.72</td>
<td>Effectiveness of advertising</td>
<td>3</td>
<td>0.89</td>
</tr>
<tr>
<td>The celebrity's popularity for the viewer</td>
<td>2</td>
<td>0.86</td>
<td>Whole questionnaire</td>
<td>17</td>
<td>0.92</td>
</tr>
<tr>
<td>The celebrity's credit from the viewer's perspective</td>
<td>2</td>
<td>0.73</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results
Descriptive statistics of demographic variables are presented in Table 2.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>Age</th>
<th>Education level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>50+ or above</td>
<td>Male's or above</td>
</tr>
<tr>
<td>Frequency Distribution percentage</td>
<td>198</td>
<td>3%</td>
<td>78</td>
</tr>
</tbody>
</table>

The model is presented in the standard estimation mode in Fig. 2.
Fig. 2: Model in Standard Estimation Mode

In Figure 2, symbol A represents the celebrity's honesty and credibility in viewer's eyes, symbol B denotes the celebrity's familiarity with the viewer, symbol C represents the celebrity's popularity, symbol D represents the celebrity's credit, and symbol G represents the effectiveness of advertising. The model has been presented in the mode of significant coefficients in Fig. 3.

Fig. 3: Model in the Mode of Significant Coefficients
The fitness indices of the model are presented in Table 3.

<table>
<thead>
<tr>
<th>No.</th>
<th>Fitness index</th>
<th>Index</th>
<th>Desired limit</th>
<th>Numerical fit</th>
<th>Conceptual fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X²/df</td>
<td>Relative Chi squared fit</td>
<td>X²/df &lt;3</td>
<td>1.34</td>
<td>Very good</td>
</tr>
<tr>
<td>2</td>
<td>GFI</td>
<td>Goodness of fit index</td>
<td>&gt;0.9</td>
<td>0.92</td>
<td>Very good</td>
</tr>
<tr>
<td>3</td>
<td>AGFI</td>
<td>Adjusted goodness of fit</td>
<td>&gt;0.9</td>
<td>0.92</td>
<td>Very good</td>
</tr>
<tr>
<td>4</td>
<td>CFI</td>
<td>Comparative fit index</td>
<td>&gt;0.9</td>
<td>0.91</td>
<td>Very good</td>
</tr>
<tr>
<td>5</td>
<td>RMSEA</td>
<td>Root mean square error of approximation</td>
<td>&lt;0.8</td>
<td>0.0049</td>
<td>Very good</td>
</tr>
</tbody>
</table>

According to the obtained results, there was a relationship between the celebrity's honesty and credibility from the viewer's point of view and the celebrity's attractiveness (P <0.001, t = 5.64, β = 0.34). Also, there was a relationship between the celebrity's familiarity with the viewer and the celebrity's attractiveness (P <0.001, t = 4.68, β = 0.28), between the celebrity's popularity and the celebrity's attractiveness (P <0.001, t = 7.86, β = 0.21), between the celebrity's credit and the celebrity's attractiveness (P <0.001, t = 6.37, β = 0.41), and between the celebrity's attractiveness and the effectiveness of advertising (P <0.001, t = 14.21, β = 0.37).

Discussion and Conclusion

The aim of this study was to investigate the role of celebrities' attractiveness in the effectiveness of addiction prevention advertising. According to the current research findings, it can be argued that the confirmatory factors in the viewer's mind makes it possible for a person to accept the basics provided in the framework of the theoretical basis. Confirmatory issues in this research include honesty and credibility, the level of familiarity, popularity, and credit of the celebrity who can play a key role as a motivator in making the viewers accept the advertisement. The effectiveness of the advertising in viewers takes place in two steps, namely during and after receipt of the message by the viewer. If the effectiveness in viewers is stabilized in the second step, we will witness that advertising by using celebrities has been effective in the prevention of addiction. Otherwise, the effectiveness takes only a formal manifestation because individuals do not need to accept the subject when the issue has already been tackled for them. The results extracted from this research confirm that each of the confirmatory dimensions has a positive relationship with the acceptance of the celebrity's attractiveness on part of the message recipients and provokes some kind of effectiveness in accepting the message by the listener. At the end, some suggestions are presented as follows:

1. One of the factors influencing the effectiveness of advertising issued by celebrities is the popularity of a well-known sponsor, but the effect of this
variable varies among different countries with different cultural values. It is better to choose variables that lead to attractiveness in any country depending on the diversity of cultures, races, age, and gender. It is suggested to identify the characteristics that create attractiveness from the target audiences' point of view when it comes to the effectiveness of advertising in addiction prevention. Therefore, we should pay more attention to those characteristics when designing the advertisements and selecting a celebrity.

2. With regard to the prevention of addiction, advertising should focus on education and training in order to provide the audience with information and awareness and this should be done continuously to create a positive mentality. As a result, it is possible to train the audience by celebrities’ presence and with the unique role that they can play in this regard.

3. Famous characters are in fact the means that are widely known among the vast majority of people, and they have a great deal of credit among people. As a result, advertisement messages about the prevention of addiction are motivated by trusted and attractive characters and it puts the message as a valid reference in the mind of the audience.

4. In selecting celebrities for advertising addiction prevention and creating a mentality in the audience, we should be very careful. The advertising spokesman must have similarity with the target audience in terms of lifestyle, ethnicity, and local roots. This increases the levels of confidence and credibility of messages and training on addiction prevention.

5. The media are communication devices and bridges between the message center and the receiver. They can include visual media, audio media, written media, electronic ones, press, television, and the like. Therefore, media, as the capable arm of any country, can inform its audience about the harmful effects of addiction. If this measure is taken by celebrities who are attractive to the people, it can come more influential in people’s minds and create a change of attitude.

6. Given the complexity of information on substance abuse and addiction, it is important to use such celebrities for the creation of effectiveness of advertisements that have enough information in this regard in addition to having attractiveness. In this case, they can convey key points to different groups through conceptual advertising designs and short but meaningful sentences.

7. Celebrities looking for taking part in advertising are recommended to care about their behavior in the community more than ever. They should be aware that people judge their personality by their behavior and this is their behavior that determines their credibility among the people.

Reference


