

## ORIGINAL RESEARCH

# Mothers' Perceptions of Substance Addiction: A Research Design for Components of a Public Communication Campaign

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## Main Points

- Mothers did not associate the risks of substance addiction with their own children.
- Risk perceptions of substance addiction regarding the school environment, neighborhoods, and the city were higher in the group who are older, more educated and with high level incomes.
- Mothers could be the target population of a public communication campaign on substance addiction.

## Abstract

Based on data from mixed designed research, the purpose of this study was to develop design elements of a public communication campaign on the fight against substance addiction. A focus group was conducted with mothers from the city of İzmir, Turkey. Based on the focus group findings, a survey was conducted by distributing a questionnaire to 403 mothers in İzmir. Focus group qualitative data revealed that mothers were generally aware of the risks regarding substance addiction; however, they do not relate the issue to their own children. Further, mothers were shown to be the people closest the children in their families. Survey results revealed that mothers from higher socioeconomic backgrounds were more knowledgeable regarding substance addiction. A cluster analysis showed that mothers with less education and lower income levels had lower perceptions about substance addiction risk for school environments, neighborhoods, and the city, while mothers with more education and higher income levels had higher levels of such perceptions. Considering the results of our study, mothers were chosen as the main target for the public communication campaign. Additionally, increasing social awareness about substance addiction was decided as the campaign's main objective.

**Keywords:** Substance addiction, perceptions, public communication campaigns

## Introduction

Public communications campaigns are integrated communication campaigns aimed at addressing various public issues. The productivity and efficiency of public communication campaigns increase when they are based on scientific research findings. During the planning stage of public communication campaigns, the necessity to rely on scientific research data is often neglected, and campaigns are planned based on aesthetic related concerns and on the idea to solely persuade the public on certain is-

issues. Although, these concerns should be prominent during the design of audio-visual materials that make up essential campaign components, scientific research data are very important in determining targeted segments and designing a campaign's fundamental communication strategy. Therefore, design strategies specifically based on scientific research are needed when preparing a public communication campaign. Especially regarding audience segmentation and message design, qualitative and quantitative research are highly important (Palmgreen &

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Donohew, 2006). The approach of “establishing policies based on proof,” as adopted by the Ministry of Health in Turkey, is another sign of the necessity of basing public communication campaigns on scientific data. The process of establishing policy based on proof is a contemporary approach that emphasizes utilization of scientific research data (Arslan & Akbulut, 2017). The 2016 Public Communication Campaign on the Fight against Substance Addiction (Madde Bağımlılığı ile Mücadele Kamusal İletişim Kampanyası=MABAM-KİK) in İzmir, conducted by Yaşar University and the İzmir Commodity Exchange, with the support of İzmir Provincial Directorate of Security, was a campaign that fulfilled the necessity of utilizing scientific research findings. Within the scope of MABAM-KİK, the design and implementation of audio-visual materials were based on mixed-design, two-stage (i.e., focus group and field research) findings.

The objective of public communication campaigns, which typically include a series of organized communication activities, is to convey messages meant to inform and influence mass audiences, during a specified time period, through multiple channels (Rice & Atkin, 2012). Apart from advertising and public relations activities, public communication campaigns are usually organized for non-profit purposes, to benefit individuals and society. The role of individuals has been rapidly changing in modern societies. Public communication campaigns should therefore offer solutions that would fit these changing roles. Individuals pay particular attention to activities in which they can actively participate, and then adopt them. Social groups formed with this perspective acquire more effective social capital. The concept social capital, as promoted by Bourdieu (1980), has been widely discussed in literature, and can be defined as the achievement of objectives that cannot be achieved alone by utilizing certain personal relationships. Social capital-unlike the more widely known tangible capital-is the power individuals attain through their relationships and personal social networks. Likewise, organizations can also attain power as a result of their social relationships, and this can be explained with the concept of social capital. The concept of “the social capital of organizations” is more comprehensive than the current “relations management” concept, and is very important within the scope contemporary public relations (Ihlen, 2005). Within this context, public communication campaigns should aim at social groups in such a way that it enables the eventual emergence of social capital. Social capital is directly associated with the concepts of reputation and trust (Canel & Luoma-aho, 2019); thus, public communication campaigns should engage the attention of their target population segments and facilitate the emergence of social capital based on reputation and trust.

Public communication campaigns can be planned and executed in many different sectors. Health- and nutrition-related sectors generally make use of such campaigns. There are many examples of well-designed and well-performed campaigns for issues such as healthy diets, tuberculosis, cancer, sports, and maternal and infant health. International organizations, like the World Health Organization and Food and Agricultural Organization, also support and organize such campaigns. In Turkey, along with the Ministry of Health, some other organizations, such as the Turkish Red Crescent and Turkish Heart Foundation, carry out communication campaigns. Fighting against addiction is a common focus of public communication campaigns in Turkey. Notably,

the Turkish Green Crescent Society, as well as various other organizations, have conducted various public communication campaigns against cigarettes, alcoholism, drug addiction, etc. There are other awareness projects similar to MABAM-KİK, such as the “Drug Addiction Awareness on Adults Project” (DAWAP) coordinated by the Turkish Green Crescent Society in Turkey, Netherland, Lithuania, and Portugal in 2016, which was a public communication campaign that targeted parents of children under 18 years old. Additionally, projects such as “Günebakan Madde Bağımlılığını Önleme Eğitim Programı [Günebakan Education Program for Preventing Substance Abuse: GEPPSA],” “Kulaktan Kulağa Madde Bağımlılığını Önleme Eğitim Programı [Ear to Ear Education Program for Preventing Substance Addiction],” and “Bilgili Ol Bağımlı Olma (BOBO) Veli Eğitim Programı [Be Informed Don't Get Addicted Parent Training Program]” are further examples of public communication campaigns organized by non-governmental organizations.

Public communication campaigns play a preventive role in the fight against addiction. Neither judiciary nor medical interventions are sufficient in this fight; therefore, preventive activities are also needed. The primary objective of prevention activities is to raise awareness among individuals, while also providing moral and material support, before an individual actually starts using addictive substances (Özbay et al., 2018). Thus, public communication campaigns against addiction are an important part of preventive activities. Among prevention activities, public communication campaigns against addiction can be classified as “informational prevention interventions” (Foxcroft, 2015).

The necessity of basing public communication campaigns on scientific research data was the foundation of our study. Thus, the present study aimed at answering two research questions. A focus group study was conducted with mothers from the city of Izmir, in order to find out their perceptions and how they express them. The objective of the focus group study was to answer the first research question:

*Research Question 1:* What are mothers' perceptions regarding substance addiction and how do they express these perceptions?

In the study's second stage, by utilizing the findings from the focus group, a survey was conducted in the city of Izmir using a questionnaire designed especially for mothers. This field study aimed to answer the second research question:

*Research Question 2:* What are the levels of mothers' perceptions about issues related to substance addiction?

Finally, mothers were clustered into two groups, and our hypothesis (as stated below) was tested. Segmentation of target groups is important for campaign design efficiency. Testing this hypothesis would show if mothers could be separated into two groups-in terms of their age, education, and income-so that campaign content could be designed accordingly.

$H_1$ : Mothers' perceptions of risks regarding school environments, neighborhoods, and the city of İzmir will be higher in the group of mothers who are older, more educated, and have a high income level (Group 1), compared to mothers who are younger, less educated, and have a low income level (Group 2).

## Methods

This paper presents two studies with a mixed-design structure. In the first stage, a focus group study was conducted to obtain qualitative data. In the second stage, a survey was conducted with 403 mothers from İzmir to collect quantitative data.

Focus groups are dynamic, free flowing interviews, conducted by a moderator, with the participation of 6-12 people, on a specific subject (Zikmund et al., 2009). Each member of the group is encouraged to participate in the discussion with open-ended questions asked by the moderator (Demir, 2009). Additionally, participants are encouraged to interact with each other in order to obtain deep and detailed information about the topic of discussion. The moderator not only has a specific mission of enabling group members to participate in the discussion but also enables interaction between them (Puchta & Potter, 2004). The expectation is not to reach generalizations, but to reveal different perspectives (Çokluk, Yılmaz, & Oğuz, 2011). Focus group studies are generally done for exploratory purposes and provide qualitative data, and the concepts are reviewed and then enhanced with the aim of providing a basis for quantitative studies. In mixed-design research, focus groups function as a pilot study (Bloor et al., 2002).

In the first stage of our study, a focus group was conducted to reveal mothers' perceptions of substance addiction. All participants were from İzmir. Mothers' responses regarding the above-mentioned perceptions were recorded in the focus group study. Seven mothers with children between the ages of 12 – 18 years, from different socioeconomic and demographic backgrounds, were chosen using purposive sampling. Purposive sampling is a non-probability sampling method that is used to obtain the best possible diversification in representation of elements (Kothari, 2004; Yıldırım & Şimşek, 2000); the elements that will be included in the sample are determined according to the judgment of the researcher on typical element features (Cohen, Manion, &

Morrison, 2005). Socioeconomic and demographic characteristics of the focus group participants are shown in Table 1. The focus group study took three hours, was recorded and transcribed, and then the transcript was analyzed using NVivo qualitative software. NVivo is a useful software program for analyzing any kind of qualitative data, such as interviews, open-ended survey questions, focus group discussions, field observations, printed texts, audio-visual materials, and web pages (Bazeley & Jackson, 2013). Since only a single researcher performed the coding of the focus group transcript, taking precautions against inter-coder reliability was considered unnecessary.

In the second stage of the study, based on the findings of the focus group, a survey was conducted using a questionnaire to obtain data from the population of İzmir. The questionnaire included 33 questions, and was completed by 403 mothers who had children between the ages of 12 – 18 years. They were from various socioeconomic and demographic backgrounds, to represent the population with a 95% confidence interval and a  $\pm 5$  margin of error. The questionnaire was administered along with face-to-face interviews, and the quantitative results were analyzed using SPSS software. Socioeconomic and demographic characteristics of survey participants are shown in Table 2.

## Results

The focus group findings revealed mothers' perceptions and how they expressed themselves regarding those perceptions. The mothers especially concentrated on mother-child relationships, and emphasized that these relationships were more important than father-child relationships. The mother-child relationship issue was mentioned 29 times, and these mentions constituted almost 40% of the transcript. Nevertheless, father-child relationships were mentioned 22 times, and the relationships of children with each other was mentioned only five times.

Participants expressed that they mainly took care of their children, while the fathers usually took care of issues outside the

**Table 1.**  
*Distribution of the Focus Group Sample*

Marital Status	N	Education Level	N	Household Economic Status	N	Age	N
Married	6	Elementary	2	Low	0	Young	1
Single	1	Secondary	1	Lower- Middle	2	Middle-Aged	4
		High school	0	Middle	2	Old	2
		University	1	Upper- Middle	3	Mean Age	41.2
		Postgraduate	3	High	0		

**Table 2.**  
*Survey Sample Distribution*

Marital Status	N	Education Level	N	Household Economic Status	N	Age	N
Married	347	Illiterate	2	Low	58	Young	12
Single	49	Elementary or secondary	119	Lower-Middle	92	Middle-Aged	366
		High school	129	Middle	123	Old	25
		University	131	Upper- Middle	75	Mean Age	40.9
		Postgraduate	22	High	55		

home. A 40-year-old, married mother with a secondary school education and a mid-level income expressed this issue as follows: "Since my child refrains more from his father, he tells everything to me, he talks with me. He does not keep something secret; he tells me whatever he wants, but he asks me not to tell this to his father. He has some things that he refrains from, that he is afraid of. He is always around me, because I listen to him."

Another mother, a 47-year-old, married, university graduate and with a mid-level income, expressed the same issue, although with particular emphasis on her family's economic situation: "My

husband has a job in [the] private sector, goes out of [the] home at seven in the morning and comes back at eight in the evening. Therefore, I carry the responsibility of [the] home. In terms of communication with the children, I am also more responsible, because my husband comes home late and he does not have time to spend with [the] children. He sometimes has to work even [on] the weekends. Therefore, I mainly communicate with the children."

A 42-year-old, married mother with a postgraduate degree and an upper mid-level income discussed the gender aspect of the issue as follows: "If you react negatively to the child when he gives feedback, he bites...back; he does not tell the truth. Therefore, we try to find [a] balance...Somehow, finding the right balance seems to be the responsibility of mothers. Fathers, I do not know why, but is it because they are men or is it because they take the easy way out; they keep themselves away from their children by over-reacting."

In the focus group study, participants cited types of addiction other than substance addiction. Smoking was discussed 15 times, cell phone addiction 10 times, alcohol addiction 8 times, and gambling addiction only once. Participants stated they were particularly sensitive to alcohol addiction, and they tightly controlled their children on this issue. However, they were not very aware of the comorbidity of substance use with other addictions. A 30-year-old, married mother with a postgraduate degree and with an upper mid-level income expressed her sensitivity as follows: "I am also very sensitive to smoking. Therefore, just like my mom used to do, I smell my child when he comes home." Participants stated they checked their children's wallets, backpacks, and clothes' pockets as a precaution. A 49-year-old single mother with a graduate degree an upper mid-level economic status stated, "Both my children know that I regularly check all kinds of their belongings. I check their books, even their personal belongings. In some predetermined periods, with sampling, without any regret, I need to know; therefore, I check."

Participants stated they were worried, to a certain extent, about the possibility their children might smoke and drink alcohol; however, they also expressed they could show some tolerance for this. A 39-year-old married mother with a postgraduate degree and an upper mid-income level justified why she felt she had to be tolerant by stating, "He tasted some alcoholic beverages. This year, I said before, he also tried smoking [a] water pipe. I mean one way or the other, he will try. We have been expecting [this]."

A 42-year-old married mother with a postgraduate degree and an upper mid-level income described her child's smoking habit as "the good of the bad," stating she comforted herself by thinking, "at least my child is not hiding and he is not lying."

Participants stated their children were not addicted to any substances and, according to them, there was no such possibility. Consequently, they did not associate the risks of substance addiction with their own children. Nevertheless, all participants stated that substance addiction was common, and there could be some dealers around local schools. Additionally, they stated they knew many cases in which individuals began experimenting with drugs early in life.

When the moderator asked, "How do you talk to your children about the risks of substance addiction," participants stated they

**Table 3.**

*Participation Levels to the Questionnaire Statements*

<b>Statements about the relationship between mother and child</b>	<b>M</b>	<b>SD</b>
I take care of the children more than their fathers	3.83	1.218
Their fathers generally take care of tangible issues outside home	3.41	1.265
My children trust me	4.37	0.639
I am my children's confidante	4.15	0.794
My children tell me their problems with ease	4.09	0.831
I closely know my children's friends	3.98	0.879
I closely know the families of my children's close friends	3.88	0.916
<b>Statements about the information level of the mother</b>	<b>M</b>	<b>SD</b>
I monitor my children's behaviors regarding substance addiction	4.15	0.904
I monitor my children's posts in the internet and in social media regarding substance addiction	3.31	1.170
I have enough knowledge about substance addiction	3.71	0.918
I have enough knowledge about synthetic substances like Bonsai etc.	3.41	1.089
<b>Statements about mothers' level of trust</b>	<b>M</b>	<b>SD</b>
I think that the issue of substance addiction is becoming more common	4.51	0.680
The families have important responsibilities in prevention of substance addiction	4.53	0.645
Security forces are successful in preventing substance addiction	2.21	1.025
School administrators are successful in preventing substance addiction	2.41	1.088
The school environment is safe in terms of substance addiction	2.24	1.101
Our neighborhood is safe in terms of substance addiction	3.28	1.280
İzmir is a safe city in terms of substance addiction	2.46	1.235

M: mean; SD: standard deviation.

preferred not to talk about this issue. Mothers expressed that their children were well informed by their schools about the risks of substance addiction. A 30-year-old married mother with a graduate degree and an upper mid-level income gave an interesting answer to this question: "I do not even want to think about any types of addictions, other than smoking or alcohol addiction."

A 42-year-old married mother with a graduate degree and a high mid-level income answered as follows: "Actually, I am afraid. I mean, I cannot relate it to my child; therefore, I do not talk to my child about it." A 49-year-old married university graduate mother with an upper mid-level income described substance addiction by stating, "honestly, it is a very disturbing thing." A 47-year-old married university graduate and with a mid-level income criticized herself by saying, "we parents, do not want to face this. Especially, we think it won't happen to us, by no means, we do not want to face it. But actually, there is. There is a very serious problem right at this point. We need to face this."

The results of the field survey revealed the levels of perceptions stated in the focus group study. The participation levels for the statements in the questionnaire are shown in three groups in Table 3. Participants indicated their level of agreement on a five-point Likert-type scale (1 = completely disagree and 5 = completely agree).

The statements in the first group were related with the relationship between mother and child. Similar to the findings of the focus group study, the results of the field study also revealed that mothers had a belief that they took care of their children more than fathers ( $M=3.83$ ), and fathers generally took care of tangible issues outside home ( $M=3.41$ ). However, as the education and income levels of mothers increased, the participation level of the expression "I take care of the children more than their fathers" decreased; however, Spearman correlation values were quite low (for income level  $r_s=-0.254$ ,  $p=0.001$ ; for education level  $r_s=-0.227$ ,  $p=0.001$ ). It can thus be concluded that as the education and income levels of families increase, fathers take more responsibility for caring for their children.

Mothers stated that their children trusted them ( $M=4.37$ ), and they were their children's confidants ( $M=4.15$ ). Additionally, mothers expressed that their children told them their problems with ease ( $M=4.09$ ), they knew their children's friends ( $M=3.98$ ), and they also knew the families of their children's close friends ( $M=3.88$ ).

The statements in the second group were related to mother's information levels regarding substance addiction. Among these statements, participation levels for "I have enough knowledge about substance addiction" were notably high ( $M=3.71$ ). The information level of mothers increased as income level increased; however, Spearman correlation values, with respect to informa-

tion level, were low (for income level  $r_s=-0.210$ ,  $p=0.001$ ; for education level  $r_s=-0.211$ ,  $p=0.001$ ). Even though mothers thought that they had enough knowledge about substance addiction, they stated they had relatively less information about synthetic substances, such as bonsai ( $M=3.41$ ). Since synthetic substances are recent social issues, the awareness level about them might be generally low. The information level of mothers regarding synthetic substances increased as education and income levels increased (for income level  $r_s=-0.238$ ,  $p=0.001$ ; for education level  $r_s=-0.267$ ,  $p=0.001$ ). Thus, we decided to create a public communication campaign with short and simple content that would propagate basic information about substance addiction. By doing so, we thought the campaign would fulfill the informative function of communication. Rice and Atkin (2012) indicated that public communication campaigns can be classified into two groups: informative and persuasive campaigns. Our findings indicated this campaign could be designed as an informative one.

Furthermore, mothers showed a high rate of monitoring their children regarding substance addiction ( $M=4.15$ ). This result is congruent with the findings of the focus group study. Mothers had a tendency to monitor their children closely. Additionally, this tendency showed no difference based on age, income level, or education level. Therefore, almost all mothers stated they had been monitoring their children in one way or another. However, the statement "I monitor my children's posts on the Internet and social media regarding substance addiction" had a relatively low score ( $M=3.31$ ). The reason for this could be that mothers might have less experience and knowledge regarding the Internet and social media. In fact, as education level increased, so did the degree of monitoring children on the Internet and social media ( $r_s=0.282$ ,  $p=.001$ ).

The statements in the third group were related to mothers' levels of trust regarding substance addiction. Mothers highly agreed with the statement "I think that the issue of substance addiction is becoming more common" ( $M=4.51$ ). This result did not show a difference based on age, income level, or education level. This actually showed that mothers had high levels of social sensitivity. Additionally, out of all the statements, mothers agreed the most with "families have important responsibilities in the prevention of substance addiction" ( $M=4.53$ ), and this result did not show differences based on age, income level, or education level. This could be an indication that all mothers thought families bear some responsibility in coping with this social problem. Along with other results, these two findings revealed that mothers could be the targeted population segment of a public communication campaign on substance addiction. As suggested by Lewin (1947), one of the founders of social psychology, mothers have a "key role" in the family, and therefore should be the target of social campaigns regarding nutritional habits. Findings of both the focus group and field group studies indicated the important role of mothers regarding substance addiction issues. In the Turkish family structure, mothers are primarily responsible for both communicating with children and guiding them.

However, mothers also stated that neither security forces ( $M=2.21$ ) nor school administrators ( $M=2.41$ ) were successful in the fight against substance addiction. Mothers did not seem to agree with these statements, when compared with other statements. This was an indication of the fact that mothers were

**Table 4. Differences between the Two Groups' Mean Risk Perception Levels**

Location	M (Group 1)	M (Group 2)	Z	p
School	2.35	2.11	-2.252	0.05
Neighborhood	3.63	2.85	-5.954	0.001
İzmir city	2.75	2.10	-5.351	0.001

indeed worried about this social problem, especially when considering that mothers highly agreed with the statement, "I think that the issue of substance addiction is becoming more common." Likewise, mothers expressed that neither the school environment ( $M=2.24$ ) nor the city ( $M=2.46$ ) were safe in terms of substance addiction. However, they stated that their own neighborhood was relatively safe ( $M=3.28$ ). This result, as in the analysis of the focus group study, could be interpreted as mothers perceiving the risk as a general social problem, but not associating the risks with their children; therefore, they perceived their neighborhoods to be relatively safe.

In order to test  $H_1$  hypothesis, mothers were placed into two groups, according to their ages, education levels, and income levels. Group 1 (older, more educated, and with high income levels) and Group 2 (young, less educated, and with low income levels) were compared to determine differences in the risk perceptions for the school environment, neighborhood, and city. Clustering analysis was done using the k-means technique, which uses a simple, effective, and efficient algorithm (Wu, 2012). The results of ANOVAs between standardized Z-scores of age, education level, and income level were statistically significant ( $F(1)=140.850$ ,  $p<0.001$  for age;  $F(1)=343.772$ ,  $p<0.001$  for education;  $F(1)=439.287$ ,  $p<0.001$  for income). Our clustering analysis yielded two groups of mothers: Group 1 ( $N=219$ ) and Group 2 ( $N=183$ ). Table 4 shows the differences in means for Group 1 and Group 2, and Mann-Whitney U test results of risk perception for schools, neighborhoods, and the city (İzmir). The findings revealed that  $H_1$  could not be rejected. The risk perceptions of mothers regarding the school environment, neighborhoods, and İzmir were higher in Group 1 than Group 2. Mothers in Group 2 might have had less interest in the issue of substance addiction, since their risk perception was lower. Therefore, it would be wiser to target the public communication campaign regarding substance addiction in neighborhoods where mothers who are relatively less educated and with lower incomes live.

## Discussion

The participants' statements in the focus group showed that mothers usually take on the responsibility of communicating with their children. Despite the important changes taking place in the modernization process in Turkey, the family as an institution is still considered important in our country (Kagıtcıbası & Ataca, 2005; Yaşar Ekici, 2014; Yıldırım, 2005). The important role of the mother in the family still holds, and the trust between mother and child has a vital role in a child's development. The self-confidence level of children is more related to trust in their mothers than trust in their fathers (Dohmen et al., 2012). Mothers' roles in the development of their children's communication skills are also important. As children grow, their communication skills also improve; however, the role of mothers remains important for a long period of time. However, this process cannot be limited only to children's communication skills. The quality of communication between mothers and children determines children's development, to a large extent. Children report they are generally able to get in touch with their mothers more easily than their fathers. In a study conducted in 16 European countries, the percentages of individuals who stated they could not establish open communication with their mothers and fathers were 15.7% and 33.8%, respectively (Tabak et al., 2012). Further, children tend to show

risky behaviors when they have communication problems with their mothers. There are some research findings which indicate that young individuals who have communication problems with their mothers are more inclined to have smoking and drinking habits (Zambon et al., 2006). As a result of women's positions in families, mothers and children communicate more frequently. Women still pursue the idea of being "a good mother," and even mothers who have careers want to spend more time with their children (Segrin & Flora, 2011). All these findings indicated that our campaign should have content that encouraged and stimulated communication between mothers and their children.

Statements of the focus group participants also revealed that mothers generally underrated smoking addiction. However, there are several studies that reveal comorbidity between smoking, alcohol addiction, and other substance addictions (e.g., Grant et al., 2005; Lai et al., 2000).

Although participants stated that substance addiction was common and they knew many cases in which individuals began experimenting with drugs early in life, they did not associate the risks of substance addiction with their own children. Thus, we can say that participants' concerns regarding this issue were not far from reality. Some studies in Turkey concluded that using drugs or other addictive substances was common, and families from all segments of society could experience this issue (Öngel, Taner, & Eke, 2006). Although substance use rates are lower in Turkey compared to European countries, prevalence rates of certain substances increase annually (EMCDD, 2018). Lately, casualties due to drugs have been increasing among young people (Ünlü & Aksu, 2018). Participants were aware of these risks, but did not associate them with their children, and we can say that this also has some solid basis, to an extent. Studies show that young people who are addicted to substances often have problematic relationships with their families, and research has indicated that problematic relationships between children and their parents trigger or increase the incidence of substance addiction (Yaman, 2014). Thus, participants who believed they did not have problematic relationships with their children did not associate addiction risks with their children.

The findings of the focus group study revealed that although mothers were fairly aware of the risks of substance addiction, they interestingly did not associate those risks with their children, even though they made statements such as "these kinds of substances are becoming cheaper and cheaper," "those substances are being sold almost everywhere, and it is easy to reach them," and "even very young individuals can become addicted [to] such substances."

The results of the field survey regarding the strong relationships between mothers and children are congruent with previous study findings indicating close relationships between generations in Turkish families, similar to other Middle Eastern societies (Kagıtcıbası, Ataca & Diri, 2010). However, participation levels did not differ with respect to age, income level, or education level for the following statements: "my children trust me," "I am my children's confidant," "My children tell me their problems with ease," "I closely know my children's friends," and "I closely know the families of my children's close friends." Thus, we can say that in all types of families, mothers generally communicate well with their children.

## Conclusion

Aiming to establish the foundations of a public communication campaign about substance addiction, this study consisted of two stages. In the first stage, a focus group study was utilized with the participation of mothers (N=7) from İzmir, to find out their perceptions related to substance addiction and how they expressed those perceptions. In the second stage, a survey was conducted with a questionnaire distributed to mothers (N=403) from İzmir. The survey had two objectives: measuring mothers' perception levels regarding addiction and whether these perceptions changed with respect to some sociodemographic variables. The questionnaire was based on findings from the focus group. Additionally, by clustering mothers using the k-means technique, we tested a hypothesis that the risk perceptions of mothers about school environments, neighborhoods, and the city of Izmir would be higher in the group of mothers who are older, more educated, and had high income levels, compared to mothers who were younger, less educated, and have low income levels.

This mixed designed research guided the implementation of our public communication campaign. The design of the audio-visual materials for MABAM-KİK was based on our research findings. As suggested by the literature (e.g., Dohmen et al., 2012; Kagitcibasi, Ataca, & Diri, 2010; Kırman & Doğan, 2017), our qualitative and quantitative research data showed that mothers play a pivotal role in their families, and their relationships with children are crucial. Considering these findings, mothers were chosen as the main target, and increasing social awareness about substance addiction was chosen as the main objective of MABAM-KİK. Our research data also showed that mothers generally needed more information. Accordingly, the campaign design was based on an informative type defined by Rice and Atkin (2012). Therefore, audio-visual materials were designed with short and simple content that would propagate basic information regarding substance addiction. Furthermore, in compliance with cluster analysis results, this content primarily targeted mothers who were relatively less educated and with low income levels. In the light of these explanations, a panel study was conducted with the campaign creative team and the slogan of MABAM-KİK was determined as "In order to be sure, be aware" [Emin olmak için farkında ol].

Exam anxiety is one type of basic anxiety that families have; therefore, campaign posters were designed by linking this fact to get the attention of mothers. Hence information about substance addiction was presented as a multiple-choice exam question. A similar approach was also used for the production of radio and television spots. Along with this media content, an online web portal was designed that includes more detailed information about substance addiction. The portal included three distinct sub-portals targeting youth, parents and educators. The content was published at <https://farkindaol.yasar.edu.tr>.

## Limitations and Directions

Our study had some limitations, other than conducting the study only for the population of İzmir. Since the first three largest cities in Turkey have most of the substance abuse problems in the country, conducting the study in İzmir might be considered to be sufficient. Nevertheless, including some other big cities in the sample would be more ideal. However, our study was a fact-finding study, which did not have a longitudinal de-

sign. Therefore, the findings could not be evaluated within an historical perspective. It would be beneficial to perform this as a longitudinal study in order to examine changing issues and perceptions about substance addiction over time. Additionally, not measuring the effects of the audio-visual content on the audience could be considered another limitation. Although there is not a definitive media campaign assessment method (Ferri et al., 2013), an evaluation of results is important. For instance, Büyüköztürk et al. (2019) suggested a practical methodology for examination of the effectiveness of the Addiction Prevention Training Program of Turkey. Similarly, the success of MABAM-KİK could have been assessed by measuring the effects of the content of the web portal designed for three distinct groups. Nevertheless, all these limitations could lead to a new research agenda for further studies.

**Ethics Committee Approval:** The study was conducted according to the protocol agreement signed between Yaşar University and İzmir Commodity Exchange, therefore ethics committee approval was not sought (Date: 26<sup>th</sup> January 2015).

**Informed Consent:** Written informed consent was obtained from those who participated in the focus group study.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept – Ü.A., G.Ş.A.; Design – G.Ş.A.; Supervision – Ü.A.; Resources – A.G.A.; Materials – A.G.A.; Data Collection and/or Processing – G.Ş.A., A.G.A.; Analysis and/or Interpretation – Ü.A., G.Ş.A.; Literature Search – Ü.A., G.Ş.A.; Writing Manuscript – Ü.A., G.Ş.A., A.G.A.; Critical Review – Ü.A.

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