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Note

Social marketing of "mask-wearing", "physical distancing" and "staying at home" during the COVID-19 pandemic: a study from Turkey

Tevfik Bayram[a], Abdulhamit Enes Camcıoğlu[b], Gülcan Keskiner[c], İsmail Başıbüyük[d]

[a] MD, MPH, Head, Provincial Department of Communicable Diseases, Şırnak, Turkey.

[b] MD, Public Health Specialist, Cizre District Health Directorate, Şırnak, Turkey.

[c] MD, Deputy Director of Public Health, Şırnak, Turkey.

[d] MD, Director of Health, Şırnak, Turkey.

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Abstract

Objectives: To fight the Coronavirus disease 2019 in a district in Şırnak, Turkey, with a social marketing campaign, we aimed to reduce the number of people going out and increase the number of people wearing masks when out. **Methods:** We started the campaign in the beginning of June 2020. We first made a formative research using Health Belief Model to identify the perceptions in the community and made our messages to be delivered based on these perceptions and beliefs. Our main intervention was going to the main streets in the district daily, visiting the shops and advising people to wear masks and keep physical distance when they gather. We evaluated the program with the help of "diffusion of innovation" theory to determine how the target behaviors are spreading. For an objective evaluation we counted the number of people going out and wearing masks by checking CCTV footage of one of the main streets every day for one month. **Results:** In one month of the campaign, the number of people going out reduced by 30%, and the number of people wearing a mask increased by 69%. People first started to carry a mask, later, they started to wear it properly. The significant change started after one week of intervention. In around ten days it reached a critical mass and achieved saturation. **Conclusions:** Community participation is a vital component of response to communicable diseases and pandemics. Frequent stimulation and reminders can be effective ways to promote health behaviors.

Keywords: SARS-CoV-2, mask, social marketing, health behaviors, diffusion of innovation

Corresponding author: Tevfik Bayram, Provincial Department of Communicable Diseases, Aydınlıkevler, Merkez, Şırnak E-mail: bayramtt@gmail.com; Phone: +905444477549

COVID-19 pandemisi döneminde "maske", "mesafe" ve "evde kal" ürünlerinin sosyal pazarlaması: Türkiye'den bir çalışma

Öz

Amaç: Şırnak ilinin bir ilçesinde Yeni Koronavirüs Hastalığı (COVID-19) ile mücadele etmek için, bir sosyal pazarlama kampanyası ile dışarı çıkan insan sayısını azaltmayı ve maske giyen kişi sayısını arttırmayı amaçladık. **Yöntem:** Kampanyaya 2020 yılı Haziran ayının başında başladık. Öncelikle toplumdaki inanç/algıları belirlemek için çeşitli kaynaklardan elde ettiğimiz verileri Sağlık İnanç Modeli çerçevesinde sınıflandırdık. Kampanyamızda kullandığımız mesajları bu veriler üzerinden belirledik. Temel müdahalemiz günde iki defa ilçenin kalabalık caddelerine gidip dükkan dükkan gezerek insanlara maske, mesafe ve evde kalma ile ilgili önerilerde bulunmaktı. Hedef davranışların toplum içinde nasıl yayıldığını belirlemek için "yeniliğin yayılımı" teorisinden faydalandık. Objektif bir değerlendirme için ana caddelerden birindeki bir mobese kamerasından günlük olarak geçen kişi sayısını ve maske takma durumunu bir ay boyunca değerlendirdik. **Bulgular:** Bir aylık kampanyanın sonunda dışarı çıkan kişi sayısında %30 azalma ve maske takan kişi sayısında %69 artma tespit ettik. İnsanlar öncelikle maske taşımaya başladı, daha sonra gerçekten kullanmaya başladı. Bu davranışlardaki anlamlı değişiklik bir haftanın sonunda gerçekleşti. Yaklaşık 10 gün içerisinde önemli bir kitleye ulaştı ve daha sonra doygunluğa erişti. **Sonuç:** Toplum katılımı, bulaşıcı hastalıklar ve pandemi ile mücadelede hayati bir önem taşımaktadır. Sık uyarı ve hatırlatmalar sağlık davranışlarını teşvik etmede etkili yöntemler olabilir.

Anahtar kelimeler: SARS-CoV-2, maske, sosyal pazarlama, sağlık davranışları, yeniliğin yayılımı

Introduction

Social marketing is the notion of using commercial marketing concepts and techniques to promote socially beneficial behavioral change.[1] In other words, it is the notion of "selling" an idea, attitude or behavior rather than something physical. This notion puts people in the center of a voluntary exchange process in which they attempt to maximize the benefits and minimize the cost of the target behavior.[2] In this exchange process, social marketers use eight components, namely "8Ps of the marketing mix", for an integrated marketing strategy. These components are as follows.[1, 2]

Product refers to the desired behavior or the benefits related to the desired behavior, *Price* refers to the adopter's sacrifice or the cost exchanged for the promised benefits, *Place (and time)* refers to the location (and the time) the target market and the audience perform the desired behavior, *Promotion* refers to the communications marketers use to transfer product benefits, pricing strategies, and place components, *Public (or Personnel)* refers to the (external) target audience and the (internal) personnel who produce or deliver the service, *Partnership* refers to the teams built up with organizations in the community to help increase the effectiveness, *Policy* refers to the efforts to maintain discipline and environmental and other changes for the sustainability of the campaign, and lastly, *Productivity and quality* refers to the creativity and dynamicity added to the campaign through interaction with the target audience to increase the impact.

The use of social marketing in Public Health has grown in popularity in recent

years, however, it has not been commonly used in communicable diseases[1]. In this study we used social marketing techniques to promote "mask-wearing", "physical distancing" and "staying at home" to fight the Coronavirus disease 2019 (COVID-19) in the Cizre district of Şırnak, Turkey.

Cizre is the biggest district of Şırnak with a population of 148,697. [3] Having a large population and being on an important trading route between Iraq and various parts of Turkey makes the area more susceptible to infectious diseases and epidemics. This has been verified during the COVID-19 pandemic as well. The first case of COVID-19 in this district was seen on April 1, 2020. Until the end of May 2020, a small number of cases were seen in the district. Most of the cases up to this date were imported cases from big cities in Turkey or truck drivers working on the Habur Border Gate with Iraq. Shortly after, Eid-al-Fitr began and resulted in a significant increase in case numbers. Until this stage of the pandemic, national and local authorities had taken many preventive measures such as providing training to all health professionals on coronavirus; distributing information about the coronavirus using billboards, posters, and brochures in public areas; making regular municipality announcements about preventive measures; conducting contact tracing and symptomatic screening of people, quarantining some streets and residential areas, etc. However, after the number of cases started to increase, we, as the Provincial Directorate of Health, observed that a more intense program was needed to mitigate the spread of the virus. Therefore, we decided to start a social mobilization and social marketing campaign because community participation was necessary to stop the spread of the virus. With this campaign, we aimed to reduce the number of people going out; to increase the number of people wearing masks; and to increase the number of people keeping physical distances when they gather. The aim of this study is to determine whether the campaign was effective to spread these health behaviors in the public and how these behaviors diffuse among the population.

Methods

1.1. Initial planning and formative research

In this first step we collected data to identify the determinants of the ongoing behaviors and our objectives and strategies. We collected data from our teams in the field, such as family physicians and nurses, mobile teams, and other healthcare workers; also, our "rumor collectors" such as personal communications, community leaders, call center records, etc. Later, we classified the data into Health Belief Model concepts in order to address them in our program development. The main perceptions/beliefs among the population were as follows (Table 1).

Table 1. Components of the Health Belief Model and the main perceptions about the COVID-19 disease among the population before the campaign started

Concept	**Definition**[4] **(in terms of COVID-19)**	**Perceptions/beliefs in the society**
Perceived susceptibility	Belief about the chances of getting COVID-19	"It (COVID-19) will not infect us" "This virus is not real [it is fake]" "The country is going back to normal life, that is, the risk to contract the virus is very low"
Perceived severity	Belief about how serious COVID-19 can be	"Nothing will happen to us" "It's no different than seasonal flu" "It only kills the elderly"

Table 1, continuation

Perceived benefits	Belief in efficacy of "mask-wearing", "physical distancing" and "staying at home" to reduce the risk of getting COVID-19	"There is no benefit of these things [I know people who never went out and always wore masks but still contracted COVID-19]"
Perceived barriers	Belief about the tangible and psychological costs of "mask-wearing", "physical distancing" and "staying home"	"Shame [They make fun of us when we wear masks]" "Don't get so scared [those who wear masks were labelled as coward]" "If I put a sticker [do not enter without a mask] people will think that there is a positive case here"
Cues to action	Strategies to activate "readiness"	
Self-efficacy	Confidence in one's ability to act	

1.2. Strategy and program development

Based on the formative research, we decided that although the general population would be targeted, our main target audience would be young people because their risk perceptions were lower, and they were more likely to be mobile. After that, we prepared messages we would deliver to the target audience according to the beliefs/perceptions of the general public. In this step we also determined the 8Ps of social marketing. The *products* we would promote would be "mask-wearing", "physical distancing" and "staying home"; the *price* for these behaviors would be limiting people's freedom to hang out, limiting their social interactions, the unpleasant feeling of wearing a mask etc.; the *place* to deliver our messages would be the crowded areas of the city (mainly shopping and entertainment centers) and the time would be the times more people go out (mainly in the morning and evenings, because it was too hot during midday); the *promotion* of this would be continuous reminders to people and ensure they adhere to these behaviors; the *people* we would reach would be mainly the people going out for shopping and our *personnel* would be four teams of environmental health technicians to go door-to-door to the shops in the main streets in the district and warn people to avoid going out if not necessary, to wear a mask and to keep physical distancing when they gather; our main *policy* and strategy would be continuous reminders to people about the target health behaviors and *normalizing* "mask-wearing", "physical distancing" and "staying at home" in the community; although we did not have official *partners* in the community, we engaged community leaders to garner support for our campaign through social media; *productivity* in our campaign was regular meetings of our field teams to make proper changes according to the feed-back from the public.

1.3. Implementation

We started the social marketing campaign in the beginning of June 2020 with the support of the governor and the director of health. The governor and the director of health (together and separately) went to the main streets in the district and visited the shops and advised people to wear masks. These initiations were supported by local and social media. Later, our field teams started to visit the shops, markets, cafes, restaurants, etc. and advised people to comply with the target behaviors. In total, our four teams (8 people) visited 4 streets, 2 side streets, 1 bazaar and 1 square (two times daily). We supported our campaign with some more interventions. For instance, we changed the content of the Municipality announcement according to the progress of the pandemic, and in order to break the perception that "we are going back to normal life" we changed the general warning to "do not misunderstand normalization, we should continue to comply with preventive measures…". Additionally, we realized that in some streets people were hesitant to put

stickers on their storefronts indicating "do not enter without wearing a mask" because they were afraid that their shop would be stigmatized and they would lose their customers. Therefore, to get rid of the perception of stigma, we started to put those stickers on all the storefronts in the streets. We also contacted community leaders to reach the people they can influence to comply with the target health behaviors.

1.4. Monitoring and evaluation

In order to make necessary program revisions and identify the effectiveness of the program, we appointed a public health specialist to observe the program and to meet the four teams regularly. The timing, place, and messages to deliver were revised in these meetings and proper corrections were made. For the evaluation of the program, we benefitted from the "diffusion of innovation" theory[5] and we strove to determine how the target behaviors were spreading in the population. This theory refers to how people adopt a new idea, product, practice, etc. It stresses that in most cases, an initial few are open to the new idea and adopt it quickly. As these early innovators spread the new idea, more and more people become open to it and it leads to the development of a critical mass. Over time, the new idea or product spreads among the population until a saturation point is achieved. The theory classifies adopters into five categories: *innovators, early adopters, early majority, late majority, and laggard*[5]. In order to reach a critical mass, the critical point, which is also called the "chasm", is between early adopters and early majority. If the innovation spreads from early adopters to early majority, its chance to spread in most of the population increases drastically[6]. Therefore, this critical threshold should be crossed. In this study, we first evaluated the diffusion based on the observations of our teams in the field. After that, we counted the number of people going out and those who wore masks by checking CCTV footage of one of the main streets in the district. We chose this street because it was the longest shopping street in the district (around 3km) and all the other side streets, bazaars, and the square we intervened was connected to this street. We counted the number of people going out and their mask-wearing situation from 6:00pm to 6:05 pm every day for June 2020. We chose this time because it was one of the most crowded times in the day.

Results

We found that in the beginning of the campaign, many people were going out and few of them were wearing masks. Based on the CCTV footage of the street, in the beginning of the campaign around 70 people were passing by in those 5 minutes but at the end of the campaign this number went down to below 50 people. In other words, the number of people going out decreased by around 30%. Similarly, in the beginning of the campaign the percentage of carrying a mask was 51.61% and it increased to 91.49% in the end (77% increase). Likewise, the percentage of wearing a mask properly was 51.61% in the initial phases and it increased to 87.23% in the end (69% increase). As seen in Figure 1, in the beginning of the campaign, the gap between those who carried a mask and those who wore it properly was high, but at the end, the gap was closed. That is, in the beginning, more people were just carrying a mask (on their chin, ears, or hands), but in the end, most of those who carried a mask were wearing them properly (covering their mouth and nose).

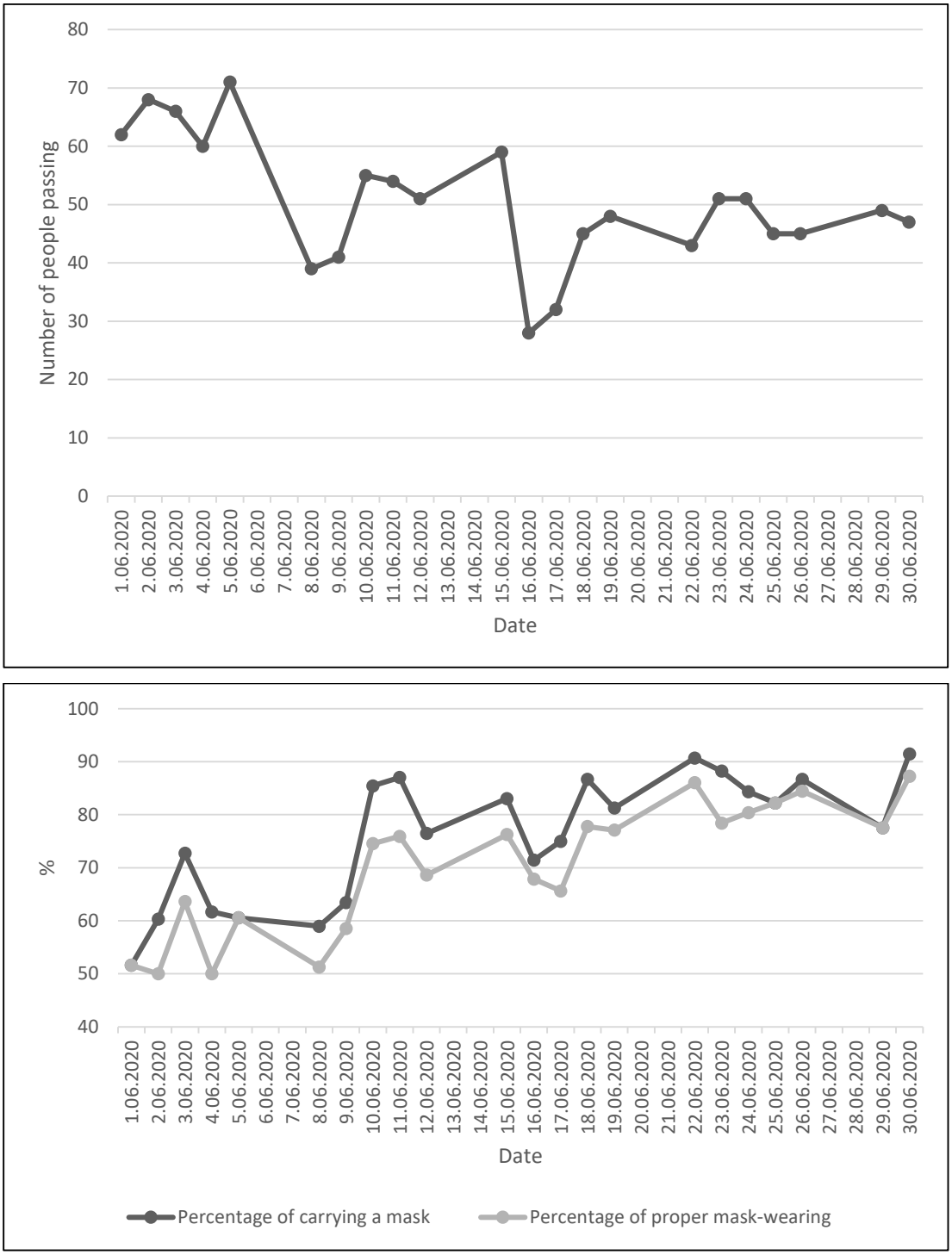

Figure 1. The change in the number of people passing a point on a main street in the district and the percentage of carrying and wearing a mask by date

Discussion

We found significant improvements in non-pharmaceutical preventive measures for the COVID-19 with our social marketing campaign. In the initial phases of the campaign, the first thing we observed was that people started to carry a mask, but not many of them were wearing it properly. From the information we collected from our teams in the field, the reason for this was the "shame" people were feeling because it had not been a "norm" among the general public. It is known that the behavior of individuals is regulated by moral norms and values and collective interests in communities.[7] In this phase only some innovators and early adaptors were wearing masks. In the following phases of the campaign, people started to wear masks properly and less people went out. One of the difficulties we had was spreading these behaviors to a critical mass. It took around ten days to spread the new behaviors to a critical mass. According to the theory of diffusion of innovation, community leaders play an important role in spreading the idea as early adopters to early majority[6], however, although we included them, it did not make a significant change. According to our observations, what caused the transition from early adopters to early majority was the frequent reminders from our teams in the field. We found that in the first week of the intervention there was not a significant improvement in gaining the target health behaviors. In the beginning of the second week there was a sharp increase in gaining the behaviors, and after around ten days it reached a critical mass and did not change significantly after that (achieved saturation). This progress is consistent with the theory of diffusion of innovation.[5]

The literature on COVID-19 shows that social marketing techniques and principles have been used to reduce the spread of the disease, however, not many of them have been labeled as "social marketing".[8] Despite not being labeled as "social marketing", an extensive analysis of a large dataset from 79 territories in the world shows that education and active communication with the public is one of the most effective 'early measures' in reducing the spread of COVID-19.[9] The most effective communication strategies include information campaigns (through various channels including the press, flyers, social media or phone messages) and warnings encouraging people to stay at home and to keep physical distancing.[9] In this respect, our campaign is one of the rare examples that is labeled as "social marketing" for reducing the spread of COVID-19 and can be considered as a successful one.

The main limitation of our study is that it is difficult to determine how much of the behavior change during this period is attributable to our campaign. We can evaluate this with taking other national and local policies during this period into account. In Turkey, particularly in April and May 2020, many strict restrictions were imposed nationally to reduce the spread of the virus. Some of these restrictions were day-long lockdowns, travel restrictions, restrictions for the elderly to go out and the closure of schools, cafes, restaurants, shopping malls, barber shops, and public gardens and parks. However, in the end of May, along with the decreasing number of COVID-19 cases in the country, the Ministry of Health (MoH) announced that a new phase of the pandemic which was called "controlled social life" or the "normalization process" had started. As a part of this process, starting in the beginning of June 2020, several restrictions were lifted by the MoH. For instance, the travel restrictions were lifted; cafes, restaurants, barber shops, public gardens and parks were opened; and restrictions for elderly people to go out were lifted. Considering these policies, in this period we would expect relief among the public and would expect less adherence to mask-wearing and physical distancing. However, despite this, we found an improvement in sticking to these health behaviors. This supports that the increase in healthy behaviors might be attributable to our campaign. Also, a mask-mandate in public places was imposed in the province by local authorities on April 3rd, 2020 which was two months earlier than our campaign. That is, the improvement in mask-wearing during the campaign period (June 2020) cannot be attributable to this mandate and this also supports the contribution of our

campaign. Furthermore, we used CCTV footage of a street at a time that our teams were not in the field so that we avoid the Hawthorne effect[10], in which the presence of our teams in the field could cause an overestimated improvement among the people. Taking all of this into account, we believe that an important part of the improvement in the target health behaviors in this period is attributable to our campaign.

In conclusion, we found that community participation is a vital component of response to communicable diseases and pandemics. In one month of frequent stimulation of the people to adopt the target health behaviors, we were able to reduce the number of people going out by 30% and increase the number of people wearing a mask by 69%. With the help of this intervention, the number of COVID-19 cases decreased significantly by the end of the month.

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