



www.turkishstudies.net/turkishstudies

**Turkish Studies**

eISSN: 1308-2140

*Research Article / Araştırma Makalesi*



INTERNATIONAL  
BALKAN  
UNIVERSITY  
Sponsored by IBU

## **Coronavirus Disease (COVID-19): The Impact and Role of Mass Media During the Pandemic**

*Koronavirüs Hastalığı (COVID-19): Pandemi Sırasında Kitle İletişim Araçlarının Etkisi ve Rolü*

Esra Pamuk\* - Fadime Çınar\*\* - Kerem Toker\*\*\*

**Abstract:** The 2020 coronavirus (COVID-19) pandemic has created a global health crisis that profoundly impacts how we perceive our world and daily lives. The mass media plays a significant role in shaping the public's perception of the risks, influencing the public's level of participation in preventive measures. False information should never be shared, but sharing disinformation during a pandemic is especially egregious as it can impede efforts to prevent the disease from spreading. Non-experts in the media should not be making and publicizing false statements. This study designed a COVID-19-specific tool to examine the role of the mass media in disseminating accurate health communication and stopping the flow of misinformation, especially as this relates to the sustainable adoption of preventive measures to curtail the pandemic in Turkey. The outcomes will guide policymakers toward a more effective correct management of human behavior in current and future epidemics. In the study, data were collected with a questionnaire prepared through online Google forms, using the snowball sampling method, in line with the ethics committee decision of Istanbul Sabahattin Zaim University dated 29/07/2020-2020/07 between 4-9 April 2021. The survey combined the "Perception of Health News Scale," which was developed by Çınar (2018) and modified to be specific to the COVID-19 pandemic to create the "Perception of COVID-19 News Scale," and a bespoke scale for the current study to measure personal avoidance behaviors in the pandemic: the "COVID-19 Avoidance Behavior Scale." The collected data were analyzed using IBM's SPSS 25.0 software. The "Perception of COVID-19 News Scale" focused on four dimensions of mass media health coverage during the pandemic: accuracy, comprehensibility, significance, and interestingness. The scale was valid and reliable (Kaiser–Meyer–Olkin 0.921; variance 58.065%; total score average  $3.715 \pm 0.64$ ). The "COVID-19 Avoidance Behavior Scale" focused on personal avoidance behavior and preventive behavior. The scale was also valid and reliable (KMO .0804; variance 63.251%; total score average  $3.919 \pm 0.71$ ). The mass media health coverage of the pandemic could explain 59.9% of the participants' change in avoidance behavior. A regression analysis using the stepwise method among the

\* Sorumlu Yazar: Yüksek Lisans Öğrencisi, İstanbul Sabahattin Zaim Üniversitesi, Sağlık Bilimleri Enstitüsü, Sağlık Yönetimi Bölümü

Corresponding Author: Master's Student, Istanbul Sabahattin Zaim University, Institute of Health Sciences, Department of Health Management

ORCID 0000-0002-4329-7161

esrapamuukk@gmail.com

\*\* Doç. Dr., Nişantaşı Üniversitesi, Sağlık Bilimleri Yüksekokulu, Hemşirelik Bölümü

Assoc. Prof. Dr., Nisantasi University, School of Health Sciences, Department of Nursing

ORCID 0000-0002-9017-4105

fadime.cinar@nisantasi.edu.tr

\*\*\* Doç. Dr., Bezmialem Vakıf Üniversitesi, Sağlık Bilimleri Fakültesi, Sağlık Yönetimi Bölümü

Assoc. Prof. Dr., Bezmialem Vakıf University, Faculty of Health Science, Department of Health Management

ORCID 0000-0002-1904-1406

ktoker@bezmialem.edu.tr

**Cite as/ Atf:** Pamuk, E., Çınar, F. & Toker, K. (2022). Coronavirus disease (COVID-19): The Impact and role of mass media during the pandemic. *Turkish Studies*, 17(1), 79-100. <https://dx.doi.org/10.7827/TurkishStudies.53879>

**Received/Geliş:** 18 October/Ekim 2021

Checked by plagiarism software

**Accepted/Kabul:** 25 February/Şubat 2022

© Yazar(lar)/Author(s) | CC BY-NC 4.0

**Published/Yayın:** 28 February/Şubat 2022

variables showed that the mass media's COVID-19 coverage that the participants considered truthful and significant had the most considerable effect on their precautionary behavior. In addition, news they perceived as understandable, compelling, and engaging had a substantial and positive impact on their avoidance behavior. The results suggest that pandemic-specific health training provided to the public through mass media could contribute to more effective early case detection and positively change precautionary and personal avoidance behaviors leading to more positive biological and psychological consequences.

**Structured Abstract:** Individuals need to protect themselves with various measures when faced with a possible pandemic or health crisis, but they need to have information about it to take any precautions (Bozkanat, 2021). In this crisis period, the most needed by individuals and necessary to manage the crisis is to meet the need for status information (Canöz & Öndoğan, 2015). In this period, societies may accept the mass media as a source of assurance and accurate information. Being under the influence of mass media, they are very likely to trust the information they see, hear and read (Ball-Rokeach & Defleur, 1976). It should be prevented that people who are not knowledgeable and experts make false and misleading statements in the media. The advantages of getting information from the right information sources and experts in the field in the use of mass media; to alleviate the state of fear, not to cause the society to panic and to keep them calm, and to help take the right precautions with the right information (Van der Meer & Verhoeven, 2013). When individuals encounter an epidemic situation, the precautions and precautions they will take and the health behaviors they will display may cause a change in the course of the epidemic. Health behaviors play an important role in reducing the loss of life and reducing the rate of spread (Hekler et al., 2008). This study aimed to determine the role of mass media, which is necessary for effective health communication, on the behavior of individuals. The research population consisted of individuals living in 81 provinces within the borders of Turkey between 4-9 April 2021. In the study, 748 people living in 81 provinces of Turkey, who responded to the questionnaires prepared on the internet and Google forms, using the snowball sampling method, one of the purposeful sampling methods, formed the sample of the study since the population limits and the target audience could not be determined exactly. The data were collected online using Google forms on the internet, considering the existence of quarantine status due to the epidemic, reducing the random error in the population - sample size and geographical boundaries do not constitute an obstacle. The explanation regarding filling out the data collection forms was made in the first part of the forms, and it was stated that the questionnaire should be answered within five days between 4-9 April 2021. In the study, it was determined that the response time of the questionnaires was approximately 5-7 minutes. "Descriptive Characteristics Form" developed by the researchers, "Perception Scale for Mass Media in the COVID-19 Pandemic" and "Avoiding Behavior Scale during the COVID-19 Pandemic Process" was used to collect the data. person joined. When the introductory information form was analyzed, the age of the youngest participant was 16, and the age of the oldest participant was 74. In addition, the mean age of the participants was 39.61, and the standard deviation was  $\pm 10.23$ . When the educational status of the participants is examined, 28 (3.7%) high school graduates, 37 (4.9%) associate degree, 308 (41.1%) undergraduate, and 375 (50.1%) graduate graduates. In addition, 450 (60.2%) of the participants were married, and 298 (39.8%) were single. However, the participants reflect a broad segment of society regarding their occupation/working status. Such that, 272 people (36.4%) are civil servants, 17 people (2.7%) are public workers, 187 people (25%) are private-sector employees, 52 people (7%) are self-employed, 46 (6.1%) are retired, 60 people (8.7%) are housewives, 89 people (11.9%) are students and 20 people (2.7%) are unemployed. Finally, 221 participants (29.5%) have a chronic illness. In addition, the frequency of use of mass media by individuals is as follows, according to the lowest 1 point and the highest 4 points: Facebook, Twitter, Whatsapp, etc. social media tools (3,467), internet news sites (3,440), television ( 3,364), newspapers (2,198) and radio (1,940). These results revealed that individuals mostly use internet-connected resources and their derivatives from mass media. When individuals are asked about their trust in these resources, respectively; Internet news sites (1,869), newspapers (1,857), radio (1,792), television (1,769), and social media tools (1,632) received average trust scores. It is a striking result that social media, the most frequently used resource, is also the least trusted resource. In addition, confidence in all mass media, in general, is below average. In the pandemic process, individuals have a problem with trust in information/news sources. However, the main hypothesis of the research (H 1 ) suggests that the positive perception of individuals towards mass media in the COVID-19 process will positively affect their virus avoidance behavior. As a result of the regression analysis conducted in line with this hypothesis, it was determined that the perception towards mass media explained 59.9% of the change in avoidance behaviors, and the  $\beta$  coefficient was 0.754. Thus along with H1 confirming the hypothesis and the perception of the information presented in the media, it was found to influence individuals' avoidance behavior significantly. After this verification, the test results of the sub-hypotheses of

the research also provided meaningful and important outputs. It was determined that individuals' perception of the importance of mass media had the most important effect on both common space and personal avoidance. Thus, the H1c and H1g hypotheses were accepted. This result shows that when individuals follow the pandemic news that they perceive as important, they transform the information they receive from this news into avoidance behavior. At this point, Girgin (2014) defined the news as showing the level of importance of the news if it causes a new development or change on a subject. These issues can be political, social problems, economic events, and issues that will affect life. When this definition is evaluated with the research results, it can be stated that individuals give more importance to news aimed at improving their virus avoidance behaviors. If the news content and discussions are organized within this framework, the avoidance behavior of individuals will develop so that fewer people will get sick during the pandemic process. However, while the truth variable did not affect personal avoidance behavior, it affected common area avoidance behavior. Ahmed and Bates (2013) stated that scientificity and evidence should not be strayed from reaching the right information and sources. The research results revealed that when individuals perceive news or information presented as correct, they transform this information into avoidance behavior from the common area but not into personal avoidance behavior. Encouraging the public to follow these suggested preventive actions unconditionally by the mass media is a health communication issue. People's perception of pandemic risk is one of the factors contributing to the increase in public participation in taking preventive measures (Cowling et al., 2010; Van Der Weerd et al., 2011; Whelan, 2018; Ibuka et al., 2010). When the effect on avoidance and personal avoidance was examined, it was found that both variables were significant. Accordingly, the H1d and H1h hypotheses were accepted. It can be stated that individuals convert the information they obtain from the news they are interested in more easily into their behavior. Therefore news content should have interesting content. Finally, it was determined that while the variable of intelligibility had a positive effect on personal avoidance behavior, it did not significantly affect avoidance from the common area. According to this determination, while the H1b hypothesis was rejected, the H1f hypothesis was accepted. One of the most important problems in health news is the heavy use of medical terminology in news presentations and the decrease in understanding by society. However, to establish effective health communication with the target audience, the characteristics of this audience should be considered (Çınar et al., 2018; Kreslake et al., 2019). When individuals follow the publications they can understand, a positive development is observed in their avoidance behaviors. However, there is a significant change in avoiding the common area, even if they understand the news. For this reason, to change the behaviors of avoiding the common area, it is necessary to think once again about the presentation of the publications about the pandemic to the masses in a more understandable way. It is expected that policymakers redesign their mass media strategies, taking into account the research results, to increase the effectiveness of the pandemic management process. This research is limited to only one country. In addition, the questionnaire forms delivered only via the internet prevented individuals who do not use the internet or social media from being reached. Therefore, it is recommended that future researchers repeat the research in different countries and include individuals who do not use the internet/social media.

**Keywords:** COVID-19, Pandemic, Mass Media, Health News, Avoidance Behavior

**Öz:** COVID-19 pandemisi, günlük yaşantımızda etkisi derin olan küresel bir sağlık krizi yarattı. Toplumun pandemi riskini algılaması ve önleyici tedbirlerin alınmasında katılımının artmasına katkıda bulunan kitle iletişim araçları salgın döneminde önemini göstermiştir. Bu çalışmada, COVID-19 pandemisinde önleyici ve koruyucu tedbirlerin sürdürülebilmesi, yanlış bilgi kaynaklarına ulaşımın azaltılması ve etkili sağlık iletişimi için gerekli olan kitle iletişim araçlarının bireylerin davranışları üzerindeki rolünün belirlenmesi amaçlandı. Elde edilen sonuçlar şimdiki ve gelecekteki salgın hastalıklarda insan davranışlarının doğru yönlendirilmesine katkı sağlayarak, politika yapıcılara yol gösterecektir. Çalışmada 4-9 Nisan 2021 tarihleri arasında İstanbul Sabahattin Zaim Üniversitesi 29/07/2020-2020/07 tarih ve sayılı etik kurul kararı doğrultusunda kartopu örnekleme yöntemi kullanılarak, çevrimiçi Google formlar üzerinden hazırlanan anket ile veriler toplandı. Türkiye'deki 81 ilden, 748 kişi araştırmanın örneklemini oluşturdu. Çevrimiçi anket, araştırmacılar tarafından oluşturulan tanıtıcı bilgilere yönelik sorular, son 14 gün içindeki COVID-19 pandemi sürecinde bireylerin kitle iletişim araçlarını kullanma sıklıklarının, bu araçlara karşı tutumları ve bunun sonucunda ortaya çıkan davranış değişikliklerini değerlendiren ve bu amaçla geliştirilen "COVID-19 Pandemisinde Kitle İletişim Araçlarına Yönelik Algı Ölçeği" ve "COVID-19 Pandemi Sürecinde Kaçınma Davranış Ölçeği" kullanıldı. Verilerin değerlendirilmesinde SPSS 25.0 istatistik programı kullanılarak analizler yapıldı. Verilerin analizine göre,

COVID-19 Pandemisinde Kitle İletişim Araçlarına Yönelik Tutum Ölçeği doğruluk, anlaşılabilirlik, önemlilik ve ilgi uyandırma olmak üzere toplam 4 boyuttan oluşmaktadır. Ölçeğin Kaiser-Meyer-Olkin (KMO) değerinin 0.921 ve varyansının %58.065 olduğu belirlendi. COVID-19 Pandemi Sürecinde Kaçınma Davranışı Ölçeği'nin, tedbirli davranış ve kişisel kaçınma olmak üzere iki boyuttan oluştuğu, toplam varyans %63.251 ve KMO değerinin 0.804 olduğu saptandı. Katılımcıların, COVID-19 Pandemisinde Kitle İletişim Araçlarına Yönelik Tutum Ölçeğinin toplam puan ortalaması  $3.715 \pm 0.64$  ve COVID-19 Pandemi Sürecinde Kaçınma Davranışı Ölçeği toplam puan ortalaması  $3.919 \pm 0.71$  olarak yüksek düzeyde bulundu. Değişkenler arasında Stepwise yöntemiyle yapılan regresyon analizi sonucunda, katılımcıların kitle iletişim araçlarına yönelik doğruluk, önemlilik, ilgi uyandırma algılarının tedbirli davranış üzerinde anlamlı ve pozitif yönde etkisi saptandı. Anlaşılabilirlik, önemlilik, ilgi uyandırma algılarının, kişisel kaçınma davranışı üzerinde anlamlı ve pozitif etkisi saptandı. Elde edilen sonuçlar doğrultusunda, topluma pandemi hakkında kitle iletişim araçları üzerinden alanında uzman kişiler tarafından sağlıkla ilgili bilgilerin verilmesinin tedbirli davranış ve kişisel kaçınma davranışlarını olumlu yönde değiştirerek, olumsuz biyolojik ve oluşabilecek ruh sağlığı ile ilgili sıkıntıları en aza indirilmesinde etkili olacağı öngörülmektedir. Hastalıklardan korunma, tedbir alma ve salgınla mücadele esnasında doğru bilgiye ulaşmak çok önemlidir. Yanlış bilgi kaynakları ciddi problemlere neden olabilir. Salgınla mücadelede, konuyla ilgili bilgi sahibi, bu alanda uzman kişilerin güvenilir açıklamalarda bulunması en doğrusudur. Yanlış bilgi kaynaklarının önüne geçilmelidir.

**Anahtar Kelimeler:** COVID-19, Pandemi, Kitle İletişim Araçları, Sağlık Haberleri, Kaçınma Davranışı

### Introduction

COVID-19 was first detected in Wuhan City of Hubei province of China at the end of November 2019 (Ma, 2020). It quickly spread throughout the world, creating an urgent public health crisis (Jiang et al., 2020; Mahase, 2020; Nishiura, 2020; Toker & Gözübol, 2020; WHO, 2020). While COVID-19 appears to have a lower mortality rate (virulence) than some other members of the coronavirus family, such as SARS-CoV and MERS-CoV, its high transmission rate and the lack of any vaccine or treatment pose severe challenges for controlling the disease's spread. The response has included mandatory travel restrictions and the promotion and implementation of personal protection practices (e.g., face masks, frequent hand-washing) and social distancing (Abdulmir & Hafidh, 2020; CDC, 2020; Lai et al., 2020; Xu et al., 2020). Since these are primarily voluntary preventive measures proposed by public health authorities, general willingness plays an essential and decisive role in ensuring their successful implementation. However, unconditionally, getting the public to follow these recommended preventive actions requires effective health communication. Mass media represents an essential platform from which to address this problem.

The quality and quantity of the health communication information available contribute to people's perceptions of the risks from the pandemic and can influence their level of participation in taking preventive measures (Cowling et al., 2010; Ibuka 2010; Van der Weerd et al., 2011; Whelan, 2018). However, at war with the information based on evidence is the combination of misinformation (incorrect information unwittingly passed on) and disinformation (false information deliberately communicated to mislead; propaganda) spread by people who are not epidemiological experts. Misinformation comes from incomplete or erroneous information, and disinformation comes from people with a plan, such as provocation or inciting actions that will benefit their interests. Mixed in with sound medical recommendations and evidence-based status reports are wrong information and useless and even dangerous advice, rapidly communicated to the masses through such media as television, newspapers, radio, and social media. When it comes to health communications, only correct information and scientific evidence should be shared, and the source of all such information should be checked and filtered appropriately (Ahmed & Bates, 2013). Presenting sound scientific knowledge is the only way to achieve the effective health management strategies that are critical for ending a pandemic.

---

This research sought to determine the effect of the mass media on epidemic prevention behaviors during the COVID-19 pandemic. Governments and health authorities need such information to effectively respond to the current crisis and be prepared for future outbreaks. Few studies have been conducted on this field, and this study is expected to fill a gap in the relevant literature.

### **Mass Media Perception**

Communication is the process of the transfer of information, thoughts, and behaviors, and mass communication is the widespread transmission of a message. The mass communication type known as health communication involves the widespread dissemination of information through the mass media on matters concerning public health. Health communication aims to raise the awareness of individuals, institutions, and societies about public health issues; creating that awareness requires eliminating the information vacuum, providing correct information, and improving health literacy (Schiavo, 2014; Centers for Disease Control and Prevention, 2018). Hence, the effectiveness of the health communication process also supports preventive health services.

Technological innovations, traditional mass media, the internet, and social media all have an important place in health communication. The mass media is an important influence on the attitudes of individuals. Mass media comprises the many technical communication tools used to distribute and publish written, audio, or visual information to a large audience: newspapers, radio, television, email, social media, and the internet (De Jesus, 2013; Naveena, 2015; Odorume, 2015). The mass media's quality and quantity of health communication can shape interpersonal health communication, changing the nature and potency of what the people share about health services, news, behaviors, and attitudes (Van Slooten, Friedman, & Tanner, 2013). Health is a valuable component of the news that becomes invaluable during a pandemic. Still, studies have shown that people have become increasingly doubtful of the accuracy, validity, and reliability of health reporting (Çapar & Çakmak, 2019). Health reporting typically covers disease prevention, health protection, education, and health promotion efforts. Still, in 2020, there has been an understandable emphasis on health issues relating to the pandemic. This information is delivered to its audiences through the written word, videos, graphic representations, and audio messages (Friedman, Tanner, & Rose, 2014, Hodgetts et al., 2008). Health reporting has an ethical responsibility to protect the public trust and provide accurate health information and reliable journalism. The ubiquity of electronic communications technology means that people everywhere can instantly take in and follow the developments covered in the media, and what they learn can shape their behaviors. Other factors affect people's health behaviors as well, including demographic characteristics (e.g., education, gender, age, culture, etc.), socioeconomic factors (e.g., the healthcare system, access to insurance, etc.), and personal factors (e.g., self-perceptions, beliefs, etc.). The factors should be considered when establishing guidelines for effective health communication for a target audience (Çınar et al., 2018; Kreslake et al., 2019). Otherwise, the communication could be ineffective or even counterproductive. Considering the impact of health journalism in society, the people engaged in mass media health communications should have sufficient knowledge and experience to inform the public correctly (Friedman, Tanner, & Rose, 2014; Kaya, 2019). Professional and citizen journalists alike are engaged in distributing newly received, interesting, and noteworthy information to people without firsthand knowledge of that information. Whether they report on events, ideas, people, or other newsworthy subjects, they aim to provide information precisely and without bias. News, by nature, should be shared rapidly and be updated dynamically. Definitions of what constitutes "news" in health communication typically touch on five basic characteristics (Girgin, 2014):

- **Reality (truthfulness):** The news must be based on accurate and objective information, and the writing and reflections should present an objective perspective without hype or exaggeration.

It should offer only simple, straightforward, complete, and accurate expressions of present circumstances or informed inferences and hypotheses based on evidence.

- Innovation (actuality): The content can be new, newly revealed, or updated information.
- Interesting (arousing curiosity): Adults generally focus on problems that concern them personally. “Interesting” news is any news that subjects respond to personally or socially.
- Significance (consideration): News directly affects people’s social, political, economic, and cultural lives, and it can stimulate development and change.
- Understandability (meaningfulness): The language of the news should include simple, known, understandable words arranged in clear, easy-to-understand sentences. Strong news journalism answers questions (the classic 5WH of who, what, where, when, why, and how) and provides salient details.

If the content and presentation of health news meet these criteria, the community can consider the recommendations about taking precautions and show behavioral changes such as avoidance behavior.

### **Avoidance Behavior**

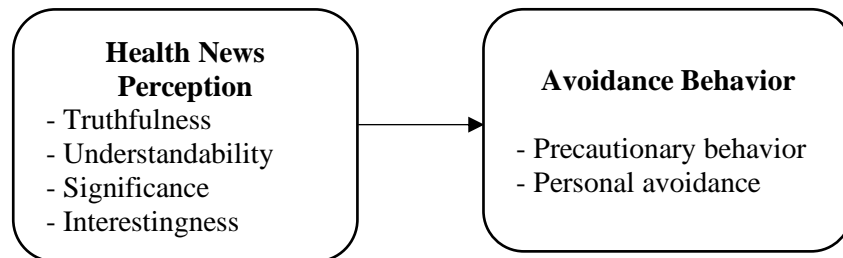
Little attention is paid to the psychological and behavioral impact of COVID-19 on the individual (Balkhi et al., 2020). However, the fear caused by the pandemics and the legal or normative pressures from the environment pressures people to avoidance behaviors. Adopting avoidance behaviors can reduce the harmful effects of the pandemic and support individuals to survive. Precautionary behavior is defined as protective actions that people take to reduce potential adverse effects (Wu & Li, 2017). Precautionary actions such as avoiding public transport or avoiding gatherings can have potential epidemiological effects and are expected to have economic consequences. If people avoid work or social interactions and the consequent purchasing of goods, the demand for certain goods and services may decrease, and output may decrease (Sadique et al., 2007). Protection from pandemics depends on individuals showing some avoidance behaviors. These avoidance behaviors may manifest as prudence or individual avoidance. According to Ibuka et al. (2010), precautionary behavior can also be affected by the perceived costs and benefits of such behavior and the perceived impact of one individual’s behavior on the health outcomes of another individual. Quarantine of infected persons, social distancing (e.g. self-isolation, closure of schools, workplaces, and markets, cancellation of large gatherings, etc.), and personal hygienic practices (e.g. frequent hand washing with soap, use of face masks, use of hand sanitizers, etc.), are among the precautionary behaviors that help reduce the spread of infections (Iorfa et al., 2020). As learned after SARS, knowledge, perceived susceptibility, emotional responses, and precautionary behavior about COVID-19 among ordinary people are necessary for controlling epidemics (Shinan-Altman & Levkovich, 2020). For this reason, it is critical to institutionalize avoidance behaviors in society during pandemic periods.

### **The Relationship between Mass Media Perception and Avoidance Behavior**

Health psychology literature confirms that the news heavily influences people’s health behaviors. In the face of a pandemic, one goal of those health behaviors must be to minimize the disease’s geographical extent, spread rate, and casualties. There is a relationship between how a condition is presented to individuals and their responses; people’s health beliefs affect their compliance and self-regulation behaviors (Hekler et al., 2008). Life-threatening outbreaks can impact social life by increasing individuals’ anxiety levels and avoidance behaviors. Organisms retreat from unpleasant stimulating environments to avoid aversive outcomes (Garcia, Hankins, & Rusiniak, 1974). Avoidance is the self-reinforcement of the organism (negative reinforcement). The organism

strengthens itself by removing itself from unwanted situations. Many studies have shown that the avoidance behaviors of threatened individuals increase in anxiety-triggering conditions such as different types of flu outbreaks (Goodwin et al., 2010; Leppin & Aro, 2009). In addition to the medical methods used to control public outbreaks (e.g., vaccines), nonmedical approaches such as public education, home quarantines, frequent hand-washing, and the use of masks to prevent the spread and prevention of the outbreak may be involved. To halt the spread of the disease, you must also halt the spread of false information about the disease. Song et al. (2016) found that while trust in expertise-based information sources was universal, people are strongly affected by the health information provided by the mass media. Therefore, the media have an ethical responsibility to help contain the pandemic. So, the role and power of mass media should be discussed in developing the behavioral change expected from individuals to be protected from the COVID-19 pandemic.

In line with this theoretical framework, this study used a cross-sectional COVID-19 specific to examine the mass media's role in the sustainable curtailment of the pandemic and health misinformation in Turkey and determine the impact of the citizens' avoidance behavior. An overview of the research model developed for this purpose is shown in Figure 1.



**Figure 1:** The research model

Within the conceptual framework described in Figure 1, the hypotheses of the research were as follows:

*H1:* Individuals' perceptions of health news in mass media positively affect their avoidance behaviors in the COVID-19 pandemic.

The sub-hypotheses of the research within the framework of the dimensions of the variables are as follows:

*H1a:* The truthfulness perception of individuals in the health news positively affects their precautionary behaviors.

*H1b:* The understandability perception of individuals in the health news positively affects their precautionary behaviors.

*H1c:* The significance perception of individuals in the health news positively affects their precautionary behaviors.

*H1d:* The interestingness perception of individuals in the health news positively affects their precautionary behaviors.

*H1e:* The truthfulness perception of individuals in the health news positively affects their personal avoidance behavior.

*H1f:* The understandability perception of individuals in the health news positively affects their personal avoidance behavior.

*H1g*: The significance perception of individuals in the health news positively affects their personal avoidance behavior.

*H1h*: The interestingness perception of individuals in the health news positively affects their personal avoidance behavior.

By using data collected through measurement tools were empirically tested the research hypothesis.

### **Materials and Methods**

This section describes the study sample, the data collection tools and methods used, and the ethical aspects of the study. An evaluation of the data follows it.

#### **Sample Subjects**

The study, data were collected with a questionnaire prepared through online Google forms, using the snowball sampling method, in line with the ethics committee decision of Istanbul Sabahattin Zaim University dated 29/07/2020-2020/07 between 4-9 April 2021. The snowball sampling method, a purposeful sampling method, was selected because the population boundaries and the target population could not be determined precisely.

#### **Measurement Tools**

The study used a questionnaire survey that combined the “Perception of Health News Scale” developed in an earlier study by the researchers (Çınar et al., 2018), modified to be specific to the COVID-19 pandemic (the “Perception of COVID-19 News Scale”) and a bespoke scale to measure personal avoidance behaviors in the pandemic (the “COVID-19 Avoidance Behavior Scale”). The survey gathered the following data:

*Demographic information* (9 items): The following data were collected about the respondents: age, gender, education level, marital status, employment status, health history vis-à-vis chronic disease, health information sources.

*“Perception of COVID-19 News Scale”* (43 items): This part of the survey was the “Perception of Health News Scale” developed in an earlier study by the researchers (Çınar et al., 2018), modified to be specific to the COVID-19 pandemic. The modifications were based on insights gained from the literature review, the opinions of academicians who are experts in their fields, and the researchers’ own experiences and understanding. These questions aimed to evaluate individuals’ perceptions of the mass media’s health coverage during the COVID-19 pandemic. First, the researchers’ and their colleagues’ experiences and insights were used to test the surface validity and the understandability of the items in the scale (Çınar et al., 2018). The scope validity of the draft scale form was tested through an examination and evaluation by five members of the health sciences faculty of Istanbul Sabahattin Zaim University. The expert assessment used the Davis technique. The scope validity index (SVI) was calculated to be 0.87.

A draft scale consisting of 43 items was prepared by making changes and additions to the “Perception of Health News Scale” based on the expert evaluations. A pilot version of this portion of the survey was conducted with 30 participants at two-week intervals, after which the researchers clarified any questions that the participants had trouble understanding. Construct validity, item, and internal consistency analyses were performed to calculate the reliability coefficient of the scale.

The preliminary scale categorized the participants’ perceptions of mass media health coverage into four dimensions, which the study used as independent variables—*truthfulness*, *understandability*, *significance*, and *interestingness*. These were assessed with two different five-point Likert scales: positive statements were ranked from “1: strongly disagree” to “5: strongly agree”; negative statements were ranked from “1: strongly agree” to “5: strongly disagree 5.” The highest possible



score was 115, and the lowest was 23. (The 20 items with factor load values below 0.50 were removed from the scale.) Higher scores indicated more positive perceptions of the participants' perceptions of mass media health coverage. The scale's Kaiser–Meyer–Olkin (KMO) sample suitability value was significant at the level of 0.921, and Bartlett's test yielded a sphericity value that was significant at  $p < 0.000$ . The dimensions of the scale that explain 58.065% of the total variance, the factor loads, the total variance, and the Cronbach's alpha value are shown in Table 1.

**Table 1:** Perception of COVID-19 News Scale

Items	Truthfulness	Understandability	Significance	Interestingness	% of Variance	Cumulative % of Variance	Cronbach's Alpha
F1a	0.809						
F1b	0.793						
F1c	0.773						
F1d	0.670				16.589	16.589	0.870
F1e	0.631						
F1f	0.546						
F2a		0.754					
F2b		0.731					
F2c		0.719			15.295	31.883	0.806
F2d		0.715					
F2e		0.647					
F2f		0.611					
F3a			0.765				
F3b			0.710				
F3c			0.704		13.961	45.845	0.819
F3d			0.679				
F3e			0.670				
F3f			0.669				
F4a				0.758			
F4b				0.754			
F4c				0.677	12.220	58.065	0.709
F4d				0.589			
F4e				0.572			
Total explained % of variance and reliability					58.065		0.906

“COVID-19 Avoidance Behavior Scale” (11 items): The items in this section of the survey questionnaire explicitly related to the respondents' avoidance behaviors related to the COVID-19 pandemic. As with the “Perception of COVID-19 News Scale,” the items were based on insights gained from the literature review, the opinions of experts, and the researchers' own experiences and understanding. The draft versions' tests for surface validity and scope validity were the same as those of the “Perception of COVID-19 News Scale.” The scope validity index (SVI) was calculated to be 0.91. According to expert evaluations, the draft scale of 11 items was prepared and corrected. A pilot version of this portion of the survey was conducted with 30 participants at two-week intervals, after which the researchers clarified any questions that the participants had trouble understanding. Construct validity, item, and internal consistency analyses were performed to calculate the reliability coefficient of the scale. The preliminary scale consisted of 11 items assessed on a five-point Likert scale in two dimensions: precautionary behavior and personal avoidance (Three of the items with a load value below 0.50 were removed from the scale.) Positive statements were ranked from

“1: strongly disagree” to “5: strongly agree”; negative statements were rated from “1: strongly agree” to “5: strongly disagree.” The highest possible score was 40, and the lowest was 8. Higher scores meant that the respondent exhibited more frequent precautionary behaviors and personal avoidance. The total variance explained by the scale was 63.251%. The KMO sample suitability value was 0.804, and Bartlett’s test yielded a significant sphericity value at  $p < 0.000$ . Table 2 shows the factor distribution of the scale, explained variance, and Cronbach’s alpha value.

**Table 2:** COVID-19 Avoidance Behavior Scale

Items	Precautionary Behavior	Personal Avoidance	% of Variance	Cumulative % of Variance	Cronbach’s Alpha
F5a	0.845		36.086	36.086	0.844
F5b	0.750				
F5c	0.738				
F5d	0.662				
F5e	0.653				
F6A		0.887			
F6b		0.854	27.165	63.251	0.838
F6c		0.536			
Total explained % of variance and reliability			63.251		0.856

The exploratory factor analysis of the measurement tools showed that the scales were highly reliable, the factor structures were strong, and the levels of explanation were strong.

### Data Collection Method

While collecting the data, the presence of quarantine status due to epidemic disease was considered, but the geographical boundaries did not constitute an obstacle. The sample size was reduced by random error because it was gathered online using Google forms. The questionnaire survey was prefaced with explaining how to fill in the data collection forms. Potential respondents were advised that only answers received between April 4 and April 9, 2020 (time zone UTC+3 (FET)) would be included in the study. The average response time for completing the questionnaires was 5–7 minutes.

### Ethical Aspects of the Research

All participants were volunteers who gave their online approval for their responses to be included in the study. The research was carried out following the Helsinki Declaration Principles.

### Data Analysis

The collected data were analyzed using IBM’s SPSS 25.0 statistical software. The distribution of the questions in the personal information forms was evaluated as frequency, percentage, and scale scores as the mean, standard deviation. The percentage, mean, Cronbach’s alpha, Spearman-Brown correlation, and factor analysis tests (KMO, Bartlett’s, anti-image correlation, principal component analysis, varimax rotation) were used to test the validity and reliability of the scale. Content validity analysis was performed to determine whether the number of items on the scale could be reduced. Before the analysis, the normal distribution of the data was analyzed with the Kolmogorov-Smirnov test, and it was determined that it showed a normal distribution. Multiple regression analysis using the stepwise method was used to compare quantitative data. The results were evaluated at the 95% confidence interval and the  $p < 0.05$  significance level.

### Findings

Among the 748 participants, the youngest participant was 16, and the oldest was 74; the average age of the participants was  $39.61 \pm 10.23$ . Analysis of the participants' educational status revealed the following maximum attainments: 28 (3.7%) high school, 37 (4.9%) associate degree, 308 (41.1%) bachelor's degree, and 375 (50.1) graduate degrees. In addition, 450 (60.2%) of the participants were married, and 298 (39.8%) were single. The participants reflected the diversity of Turkish society in terms of their professional or working status, with 272 (36.4%) civil servants, 17 (2.7%) public workers, 187 (25%) private-sector workers, 52 (7%) self-employed workers, 46 (6.1%) retired people, 65 (8.7%) homemakers, 89 (11.9%) students, and 20 (2.7%) unemployed people. Finally, 221 participants (29.5%) reported having at least one chronic illness.

With respect to the respondents' mass media health coverage sources, the analysis revealed that individuals relied most heavily on internet-related resources; using a scale from 4 (most frequent) to 1 (least frequent), the favored sources were these: social media such as Facebook, Twitter, WhatsApp, etc. (3.467), internet news sites (3.440), television (3.364), newspaper (2.198), and radio (1.940). Strikingly, when the respondents were asked about their level of trust in these resources, their most frequently used resource (social media) was also their least trusted resource: internet news sites (1,869), newspapers (1,857), radio (1,792), television (1,769), and social media (1,632) all received an average confidence score. Overall, the respondents' trust in all mass media was below average. The means, standard deviations, and correlations between the variables examined in the research model are shown in Table 3.

**Table 3:** Mean of Variables, Standard Deviation, and Correlations

Variables	Mean	Sd	1	2	3	4	5	6
1. Truthfulness	3.743	$\pm 0.999$	1	0.380 **	0.620 **	0.517 **	0.566 **	0.307 **
2. Understandability	3.347	$\pm 0.810$		1	0.357 **	0.291 **	0.338 **	0.240 **
3. Significance	3.709	$\pm 0.859$			1	0.469 **	0.740 **	0.421 **
4. Interestingness	4.054	$\pm 0.674$				1	0.435 **	0.317 **
5. Precautionary behavior	3.645	$\pm 1.019$					1	0.467 **
6. Personal avoidance	4.125	$\pm 1.033$						1

\*\*  $p < 0.01$

Table 3 shows that the variable with the highest average was *personal avoidance* (4,125 points). This means that the participants frequently conducted hand-washing and used protective masks and gloves during the COVID-19 pandemic. The next-highest variable was *interestingness* (4.054 points), relating to the mass media health coverage regarding the pandemic. Thus, it can be inferred that the participants were interested in mass media health coverage about the pandemic. However, the highest correlation rate was between the variables *significance* and *precautionary behavior* ( $R = 0.740$ ;  $p < 0.01$ ). This suggests a strong relationship between individuals following the mass media's health coverage during the pandemic and their engagement in such precautionary behaviors as stocking up on food and cleaning agents, using immune-enhancing medicines and herbal products, and social distancing by relying on virtual platforms. Table 3 shows the relationship between the perception variables and the avoidance behavior variables and mass media. However, a regression analysis had to be done to determine the effect of the independent variables on the dependent variables, so in the next step, the impact of the perception variables on the avoidance behavior measures was examined using multiple regression analyses. The results are summarized in Table 4.

**Table 4:** Models: Independent Variables (Truthfulness, Understandability, Significance, and Interestingness) x Dependent Variable (Precautionary Behavior)

Models	R	Adjusted R <sup>2</sup>	F	Std. Error	p	Durbin-Watson
1	0.566 <sup>a</sup>	0.320	351.359	0.840	0.000	1.318
2	0.582 <sup>b</sup>	0.337	190.927	0.830	0.000	1.360
3	0.756 <sup>c</sup>	0.569	329.428	0.669	0.000	1.731
4	0.757 <sup>d</sup>	0.571	249.623	0.667	0.000	1.720

a. Predictor: Truthfulness

b. Predictors: Truthfulness, Understandability

c. Predictors: Truthfulness, Understandability, Significance

d. Predictors: Truthfulness, Understandability, Significance, Interestingness

e. Dependent variable: Precautionary behavior

Model 1 of Table 4 shows that the participants' perceptions of the mass media's *truthfulness* could explain 32% of the change in the participants' *precautionary behavior* (adjusted R<sup>2</sup> = 0.320;  $p < 0.000$ ). Model 2 shows that the participants' perceptions of the mass media's *truthfulness* and *understandability* could explain 33.7% of the change in the participants' *precautionary behavior*. Model 3 shows the combination of *significance*, *truthfulness*, and *significance* could explain 56.9% of the change in the participants' *precautionary behavior*. Finally, Model 4 combines all four of the independent variables (*truthfulness*, *understandability*, *significance*, and *interestingness*), and this combination could explain 57.1% of the change in the participants' *precautionary behavior*. These results suggest that the participants' perceptions of the mass media's health coverage during the pandemic caused changes in their precautionary behavior, although the variables of *understandability* and *interestingness* had a weaker effect than the other two. To better analyze this result, the  $\beta$  values that measure the effect of independent variables on precautionary behavior were determined. The results are shown in Table 5.

**Table 5:** Truthfulness, Understandability, Significance, and Interestingness with Precautionary Behavior  $\beta$  Coefficients

Model	B	Std. Error	$\beta$	<i>t</i>	<i>p</i>
(Constant)	-0.164	0.164		-1.004	0.316
Truthfulness	0.143	0.034	0.140	4.259	0.000
Understandability	0.062	0.033	0.049	1.856	0.064
Significance	0.721	0.038	0.607	19.197	0.000
Interestingness	0.097	0.044	0.064	2.225	0.026

Dependent variable: Precautionary behavior

The analysis of the  $\beta$  coefficients of the variables in Table 5 shows that the *understandability* variable is meaningless at the level of  $p < 0.05$  ( $p = 0.064 > 0.05$ ). With the low contribution of *understandability* to the explanation in the models shown in Table 4, we can infer that the variable had no significant effect on the participants' likelihood of precautionary behavior. The variable with the largest effect on this behavior was *significance* ( $\beta = 0.607$ ;  $p < 0.01$ ). The variable with the second-largest effect was *truthfulness* ( $\beta = 0.140$ ;  $p < 0.01$ ). Finally, the variable with the third-

largest effect was *interestingness* ( $\beta = 0.064$ ;  $p < 0.05$ ). These results suggest the mass media health coverage most likely to increase the participants' precautionary behavior was information that they considered significant and truthful. Another dependent variable examined in this study was *personal avoidance behavior*. The research questions were concerned with whether people's perceptions of mass media health coverage would affect this behavior. We performed a multiple regression analysis using the stepwise method to answer these questions. The results are shown in Table 6.

**Table 6:** Models: Independent Variables (Truthfulness, Understandability, Significance, and Interestingness) - Dependent Variable (Personal Avoidance Behavior)

Models	R	Adjusted R <sup>2</sup>	F	Std. Error	<i>p</i>	Durbin-Watson
1	0.307 <sup>a</sup>	0.093	77.694	0.984	0.000	1.554
2	0.337 <sup>b</sup>	0.111	47.754	0.974	0.000	1.608
3	0.436 <sup>c</sup>	0.187	58.073	0.932	0.000	1.634
4	0.451 <sup>d</sup>	0.199	47.300	0.925	0.000	1.636

a. Predictor: Truthfulness

b. Predictors: Truthfulness, Understandability

c. Predictors: Truthfulness, Understandability, Significance

d. Predictors: Truthfulness, Understandability, Significance, Interestingness

e. Dependent variable: Personal avoidance

A comparative analysis of the four different models shown in Table 6 reveals that the participants' perceptions of the mass media did not significantly affect their personal avoidance behavior. In Model 4, combining the independent variables of *truthfulness*, *understandability*, *significance*, and *interestingness* with the dependent variable *personal avoidance* could explain 19.9% of the change in behavior (adjusted R<sup>2</sup> = 0.199;  $p < 0.01$ ). However, during a pandemic, the basic *personal avoidance* behaviors to improve the odds of evading infection are behaviors such as hand-washing, disinfection, and the use of protective masks and gloves. The results suggest that the participants' perceptions of the mass media's COVID-19 coverage had only a weak effect. To better identify the sources of this effect, the  $\beta$  coefficients of the variables were examined. The results are shown in Table 7.

**Table 7:** Truthfulness, Understandability, Significance, and Interestingness with Personal Avoidance  $\beta$  Coefficients

Model	B	Std. Error	$\beta$	<i>t</i>	<i>p</i>
(Constant)	1.441	0.227		6.354	0.000
Truthfulness	0.008	0.047	0.007	0.163	0.871
Understandability	0.102	0.046	0.080	2.226	0.026
Significance	0.391	0.052	0.325	7.523	0.000
Interestingness	0.212	0.060	0.138	3.511	0.000

Dependent variable: Personal avoidance

Table 7 shows the analysis of the effects of the independent variables on *personal avoidance*. The effect of the *truthfulness* variable was meaningless at the  $p < 0.05$  level ( $p = 0.971 > 0.05$ ). The largest effects were the *significance* variable and as the *precautionary behavior* variable ( $\beta = 0.325$ ;  $p < 0.01$ ). The second-largest effect was the *interestingness* variable ( $\beta = 0.138$ ;  $p < 0.01$ ), and the third-largest was *understandability* ( $\beta = 0.080$ ;  $p < 0.05$ ). The findings showed that the mass media's pandemic broadcasts had a low impact on personal avoidance behaviors but a slightly greater effect on precautionary behavior. The results revealed that mass media health coverage with more speculative or editorial content (e.g., stories about stockpiling and consuming addictive products) had no significant effect on prevention or personal avoidance behaviors. Finally, the relationship between general perception of mass media and general avoidance behavior during the pandemic process was examined. The obtained mean, standard deviation, R, standardized R<sup>2</sup> value, and  $\beta$  coefficient are shown in Table 8.

**Table 8:** PC-19NS<sup>1</sup> and C-19ABS<sup>2</sup> Mean, Standard Deviation, and Regression Analysis

Variables	$\bar{x}$	Std. Dev.	R	Adjust. R <sup>2</sup>	F	$\beta$
Independent variable: PC-19NS	3.715	±0.640	0.754	0.599	984.179*	0.754*
Dependent variable: C-19ABS	3.919	±0.713				

\*  $p < 0.01$ ; <sup>1</sup>PC-19NS = Perception of COVID-19 News Scale; <sup>2</sup>C-19ABS = COVID-19 Avoidance Behavior Scale

Table 8 shows that the total average score of the “Perception of COVID-19 News Scale” was 3.715 and the total average score of the COVID-19 Avoidance Behavior Scale was 3.919. The mass media health coverage of the pandemic could explain 59.9% of the participants' change in avoidance behavior (Adjusted R<sup>2</sup> = 0.599;  $p < 0.01$ ). However, the  $\beta$  value of the relationship between the variables was calculated to be 0.754, suggesting that the participants' perceptions of information and news in the mass media had an important effect on their pandemic behavior.

### Discussion

Analysis of the data revealed that for their mass media health coverage during the pandemic, most of the participants used social media tools such as Facebook and Twitter. At the same time, they named social media as the least trustworthy mass media source. In other words, they had the least trust in the sources they used most, and the most trust in sources they used least, confirming that Turkey's most important mass media platform for health communication is social media—a news communications mode that is easier, less costly, and more effective than traditional mass media. Similar to our findings, Çerçi et al.'s (2020) research with 764 people found that individuals use social media for informed them about the COVID-19 crisis in Turkey. The authors similarly found that social media is one of the minor reliable sources. In Aydın's (2020) research on social media disinformation during the COVID-19 process, it was seen that the information spread on social media was primarily wrong. It has been revealed that almost all of the news that emerged within a week from March 11, 2020, when the first coronavirus case was detected in Turkey, and that set the agenda, were false. In addition, it was determined that most of the news that was found to be false fell into the category of “fake,” which is one of the types of incorrect information. This suggests the need to ensure that social media is delivering the correct information. Likewise, Dhanani and Franz (2020) found that social media use is associated with several adverse outcomes, including confirmation of misinformation about COVID-19, less knowledge of how the disease is treated, and more prejudice against Asian Americans. According to the authors, this may be because social media allows for the easy and widespread distribution of information and has minimal standards for assessing the reliability of such information.

---

Citizens' trust in news is vital to the media and political systems (Kalogeropoulos et al., 2019). Therefore, decision-makers must develop methods to ensure confidence in news in times of social crisis. Sterrett et al. (2019) stated that when people consider news on social media, who shares the information is a critical criterion. Hence, social media use can also mean exposure to mainstream brands that present their content on social media. Thus, citizens have the opportunity to interact with journalists and news organizations and shape the discussion about a particular news topic using social media platforms. This experience is the advantage of social media compared to other media channels (Kalogeropoulos et al., 2019). For this reason, opinion leaders who provide reliable information on social media in times of crisis can positively contribute to the solution of the issue. For example, strategic use of social media influencers can effectively promote peer-led outreach among adolescents to encourage the adoption of protective behaviors and increase support for testing. In the UK, the government is actively working with social media influencers to promote testing for COVID-19, especially among adolescents (Jalloh et al., 2021). People with high reputations have an essential role in producing policies that transform to reliable information sources that society provides easy and fast access to reliable channels.

The *most* trusted mass media was found to be websites, which underscores the importance of ensuring that websites that offer professional and scientific information that will instill and reinforce positive preventive and avoidance behaviors during the pandemic. According to Durmuş (2021), it is crucial to provide an environment of trust in the pandemic. The establishment of confidence by individuals or society facilitates compliance with the directives and regulations of the government, the adoption of protective measures, compliance with restrictions. It allows the accuracy of the information circulating about the pandemic to be investigated. Van Aelst et al. (2021) found that the increase in media use was especially evident for people who had high confidence in old news in the pre-crisis period and stated that this result was an indicator of a behavior pattern that could increase media trust later on media use. Consequently, citizens' trust in media channels during social unrest periods is based on past experiences. The sense of confidence develops due to positive interactions in the past. The findings showed that positive avoidance behaviors could become more prevalent through the dissemination of correct, reliable, understandable, fast, and interesting COVID-19-related information, and this would mean fewer infected people, which would reduce the burden on the healthcare system by "flattening the curve." The healthcare system would be less likely to be overwhelmed and could provide the required care to patients, save lives, and reduce the number of deaths from COVID-19.

In modern societies, the public can interact with each other or their communities through various mass media. Mass media can significantly influence public perceptions of societal problems by improving public perceptions of social norms on media issues; this perception then shapes public behavior towards these issues (Thanh and Tung, 2021). Clearly, the mass media can play a strategic role in how Turkey manages the pandemic. The main hypothesis (H1) of the research posited that the positive perceptions of individuals toward mass media health coverage during the COVID-19 pandemic would positively affect their virus avoidance behaviors. The analysis showed that positive perceptions toward the mass media could explain 59.9% of the change in avoidance behavior ( $\beta$  coefficient 0.754), confirming the hypothesis: the positive perception of mass media COVID-19 coverage had a significant effect on the participants' avoidance behaviors. Analyses addressing the sub-hypotheses also provided significant and important findings. One result found that when individuals perceived the coverage as important (*significance*), that had the greatest effect on both their precautionary and personal avoidance behaviors; thus, Hypotheses H1c and H1g were supported. An example that supports the rapid effect of mass media on behavioral changes in society is the permission to visit a bar, cafe or restaurant, museum, library, theme park, cinema, hotel, hairdresser, or barbershop in the United Kingdom on July 4, 2020. Society appeared to be giving a

strong signal in the easing of the Shutdown. Because these decisions were heralded as “freedom” and “end of isolation” in mass media. Therefore, surveys reported a short drop in people’s adherence to physical distancing (Drury et al., 2021). This case supports the research findings in showing the power of mass media on significant audiences. Mass media is a critical policy and strategy tool to reduce or eliminate the devastating effects of the pandemic.

When the participants followed pandemic news that they perceived as important, they translated the information into avoidance behavior. Girgin (2014) reported that news directly affects social, political, economic, or cultural life and causes developments and changes in these areas. Thus, it can be stated that the participants considered the COVID-19-related news important, and this drove their virus avoidance behaviors. If news content and discussions are cognizant of this framework and present significant news, this will develop the avoidance behavior of individuals, and fewer people will fall ill during the pandemic. Notably, the participants’ perception of the accuracy of the coverage (*truthfulness*) did not affect their personal avoidance behavior, although it did increase their precautionary behavior. This meant that Hypothesis H1a was supported but H1e was rejected. According to Yaou et al. (2020), the individual who avoids illness avoids death and survives to pass on the same idea to his children. The individuals do this idea within their network of relations varies from individual to individual. The individual may take drastic steps to avoid physical illness or avoid worrying about illness. Another person may work with others to face the disease despite the cost of death. This idea of illness and death plays a vital role in shaping the behavior and actions expressed by individuals during the COVID-19 era.

Ahmed and Bates (2013) stated that to encourage audiences to pay attention to necessary information, overly scientific descriptions of the evidence should be avoided to improve *understandability*, and the source of all transferred information should be checked and filtered. This study’s research revealed that when individuals perceive that the mass media’s presentation of the news or information is correct, this encourages their precautionary behavior but not their personal avoidance behavior. The mass media could influence people to increase their preventive actions unconditionally; that they have not doing so comprehensively and consistently is a health communication problem. People’s interest in learning about the risks during pandemic is high, and this has contributed to increased public participation in taking preventive measures (Cowling et al., 2010; Ibuka 2010; Van der Weerd et al., 2011; Whelan, 2018). This requires effective communication on the current state of knowledge regarding the outbreak and the practical and actionable measures that people can take to mitigate transmission risk. Society is informed by behavioral insights data and constructed by localized two-way interpersonal communication and community engagement approaches that build on existing trusted networks and address community concerns and needs (Jalloh et al., 2021). Social and behavioral plans and policies like communication design are as crucial as technical efforts such as vaccines and treatment methods in health crises.

People with higher levels of health literacy are likely to have a better perception of health information (Nguyen et al., 2020). For this reason, it is crucial to discuss the presentation style of news in research on mass media and health communication. The *interestingness* factor was found to have a significant positive effect on both precautionary behavior and personal avoidance behavior, supporting hypotheses H1d and H1h. The participants found the COVID-19-related mass media coverage interesting; therefore, based on the information they got from the news, they increased their preventive behaviors (e.g., frequent hand-washing, face masks) and avoidance behaviors (e.g., social distancing).

Finally, while the *understandability* variable had a positive effect on personal avoidance behavior, it did not have a significant effect on avoidance behavior. Thus, hypothesis H1b was rejected, and hypothesis H1f was supported. One problem with much of the mass media’s health coverage is how it presents (and often misrepresents) medical terminology, research, and



implications. Therefore, health literacy is not only access knowledge of facts but also the transformation of acquired knowledge into the ability to adopt supportive health behavior, critically analyze background reasoning, and access reliable health information to improve or maintain health status (Gautam et al., 2021). Such that, false and garbled messages can spread quickly, gaining acceptance by the medically illiterate public before the misinformation can be debunked or clarified by knowledgeable professionals (e.g., the public's erroneous belief that vaccinations cause autism based on one flawed and misrepresented "study"). Establishing effective health communication with a target audience requires an understanding of the medical literacy of that audience (Çınar et al., 2018; Kreslake et al., 2019); lay audiences cannot be expected to understand the same depth of information as scientifically and medically trained audiences. For example, Germany has implemented a very successful health communication strategy based on easy-to-understand and easy-to-use health information on COVID-19 (e.g., hand washing, physical distancing, wearing masks) that is low in complexity. The mode of communication was primarily push-based, channeling information to people through all media and communication channels (Dadaczynski et al., 2021). Our findings on the positive effect of the professional use of mass media in changing individual behaviors during the pandemic match these results.

### Conclusion

Studies to reveal and evaluate the characteristics of attitudes and behaviors toward the mass media, which can differ from one society to another, can provide valuable insights into ways to fight against the epidemic. This study examined individuals' perceptions of mass media health coverage during the COVID-19 pandemic and the effect on their preventive and avoidance behaviors. For this purpose, it was developed two COVID 19-specific scales for test the relationship between and mass media perception and avoidance behavior: the "Perception of COVID 19 News Scale" and the "COVID 19 Avoidance Behavior Scale." These tools were used in an online Google forms questionnaire completed by 748 people in Turkey April 4–9, 2020, using the online snowball sampling method. Not surprisingly, this study found that when the participants followed publications they understood, this led to positive developments in their personal avoidance behaviors. The more they understood about the risks, the more they avoided crowds and common areas. Therefore, to ensure that people are practicing public avoidance behaviors, the mass media's health coverage relating to the pandemic must be presented in a more understandable way. These outcomes should enable policymakers to redesign their mass communication strategies to increase the effectiveness of their pandemic management. In this way, fewer people can be infected with the disease, and the pandemic can end in a shorter time.

### Limitations and Recommendations for Future Research

This research had certain limitations. One, it was conducted in only one country, Turkey. Two, it was conducted through an online vehicle only, so questionnaire forms were only delivered to those with internet access and users of the internet and social media. Third, the final sample was small, reaching only 748 participants in a country with a population of approximately 84 million. Therefore, future researchers should repeat the study in different countries and include methods other than online questionnaires.

### References

- Abdulmir, A. S., & Hafidh, R. R. (2020). The possible immunological pathways for the variable immunopathogenesis of COVID-19 infections among healthy adults, elderly and children. *Electronic Journal of General Medicine*, 17(4), 1–4. <https://doi.org/10.29333/ejgm/7850>

- Ahmed, R., & Bates, B. R. (2013). *Health Communication and Mass Media: An Integrated Approach to Policy and Practice*. New York: Routledge. Gower Publishing Limited, Farnham, 3.
- Aydın, A. F. (2020). Post-truth dönemde sosyal medyada dezenformasyon: Covid-19 (yeni koronavirüs) pandemi süreci. *Asya Studies*, 4(12), 76-90. <https://doi.org/10.31455/asya.740420>
- Balkhi, F., Nasir, A., Zehra, A., & Riaz, R. (2020). Psychological and behavioral response to the coronavirus (COVID-19) pandemic. *Cureus*, 12(5). <https://doi.org/10.7759/cureus.7923>
- Ball-Rokeach, S. J., & DeFleur, M. L. (1976). A dependency model of mass-media effects. *Communication Research*, 3(1), 3-21.
- Bozkanat, E. (2021). Koronavirüs Salgınında Medya Kullanımı: Küresel Raporlar Üzerinden Bir Derleme. *Üsküdar Üniversitesi İletişim Fakültesi Akademik Dergisi Etkileşim*, 7, 216-234. <https://doi.org/10.32739/etkilesim.2021.7.125>
- Canöz, K., & Öndoğan, A. (2015). Kriz yönetiminde dönüştürücü liderin rolü. *Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi*, 3(1), 36-61.
- Çapar, H., & Çakmak, C. (2019). Newspapers as a source of public health information: Analysis of health-related news. *Journal of Health Academicians*, 6(1), 25–33.
- Centers for Disease Control and Prevention. (2020). *Coronavirus disease 2019 (COVID-19): How to protect yourself*. <https://www.cdc.gov/coronavirus/2019-ncov/prepare/prevention.html>
- Cowling, B. J., Ng, D. M. W., Ip, D. K. M., Liao, Q., Lam, W. W., Wu, J. T., Lau, J. T., Griffiths, S. M., & Fielding, R. (2010). Community psychological and behavioral responses through the first wave of the 2009 influenza A (H1N1) pandemic in Hong Kong. *The Journal of Infectious Diseases*, 202(6), 867–876. <https://doi.org/10.1086/655811>
- Çerçi, Ü. Ö., Canöz, N., & Canöz, K. (2020). Covid-19 Krizi Döneminde Bilgilenme Aracı Olarak Sosyal Medya Kullanımı. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 44, 184-198.
- Çınar, F., Şengül, H., Çapar, H., Çakmak, C., & Bilge, Y. (2018). Perception of health news: A scale development study. *Gazi Osman Pasha Taksim Training and Research Hospital Journal of Academic Research in Nursing*, 4(3), 164–171. <https://doi.org/10.5222/jaren.2018.55265>
- Dadaczynski, K., Okan, O., Messer, M., Leung, A. Y., Rosário, R., Darlington, E., & Rathmann, K. (2021). Digital health literacy and web-based information-seeking behaviors of university students in Germany during the COVID-19 pandemic: cross-sectional survey study. *Journal of Medical Internet Research*, 23(1), 1-17. <https://doi.org/10.2196/24097>
- De Jesus, M. (2013). The impact of mass media health communication on health decision-making and medical advice-seeking behavior of US Hispanic population. *Health Communication*, 28(5), 525–529. <https://doi.org/10.1080/10410236.2012.701584>
- Dhanani, L. Y., & Franz, B. (2020). The role of news consumption and trust in public health leadership in shaping COVID-19 knowledge and prejudice. *Frontiers in Psychology*, 11, 1-13. <https://doi.org/10.3389/fpsyg.2020.560828>
- Durmuş, A. (2021) Covid-19 Pandemisinde Bireylerin Hükümete, Sağlık Kuruluşlarına ve Medyaya Güveni. (iç.) COVID-19 Pandemisinde İşletme Yönetiminin Dönüşümü. (ed.) Akbolat, M. & Ünal, Ö. 51-78.

- Drury, J., Carter, H., Ntontis, E., & Guven, S. T. (2021). Public behaviour in response to the COVID-19 pandemic: understanding the role of group processes. *BJPsych Open*, 7(1), 1–6. <https://doi.org/10.1007/s10900-013-9774-x>
- Friedman, D. B., Tanner, A., & Rose, I. D. (2014). Health journalists' perceptions of their communities and implications for the delivery of health information in the news. *Journal of Community Health*, 39(2), 378–385. <https://doi.org/10.1007/s10900-013-9774-x>
- Gautam, V., Dileepan, S., Rustagi, N., Mittal, A., Patel, M., Shafi, S., ... & Raghav, P. (2021). Health literacy, preventive COVID 19 behaviour and adherence to chronic disease treatment during lockdown among patients registered at primary health facility in urban Jodhpur, Rajasthan. Diabetes & Metabolic Syndrome: *Clinical Research & Reviews*, 15(1), 205-211. <https://doi.org/10.1016/j.dsx.2020.12.023>
- Garcia, J., Hankins, W. G., & Rusiniak, K. W. (1974). Behavioral regulation of the milieu interne in man and rat. *Science*, 185(4154), 824–831. <https://doi.org/10.1126/science.185.4154.824>
- Girgin, A. (2014). *Fundamental principles of journalism*. Istanbul: Der Publications.
- Goodwin, R., Gaines, S. O., Jr., Myers, L., & Neta, F. (2010). Initial psychological responses to swine flu. *International Journal of Behavioral Medicine*, 18, 88–92. <https://doi.org/10.1007/s12529-010-9083-z>
- Hekler, E. B., Lambert, J., Leventhal, E., Leventhal, H., Jahn, E., & Contrada, R. J. (2008). Commonsense illness beliefs, adherence behaviors, and hypertension control among African Americans. *Journal of Behavioral Medicine*, 31(5), 391. <https://doi.org/10.1007/s10865-008-9165-4>
- Hodgetts, D., Chamberlain, K., Scammell, M., Karapu, R., & Waimarie Nikora, L. (2008). Constructing health news: possibilities for a civic-oriented journalism. *Health*, 12(1), 43-66. <https://doi.org/10.1177/1363459307083697>
- IBM Corp. (2017). IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.
- Ibuka, Y., Chapman, G. B., Meyers, L. A., Li, M., & Galvani, A. P. (2010). The dynamics of risk perceptions and precautionary behavior in response to 2009 (H1N1) pandemic influenza. *BMC Infectious Diseases*, 10(1), 296. <https://doi.org/10.1186/1471-2334-10-296>
- Jalloh, M. F., Nur, A. A., Nur, S. A., Winters, M., Bedson, J., Pedi, D., ... & Hakim, A. J. (2021). Behaviour adoption approaches during public health emergencies: implications for the COVID-19 pandemic and beyond. *BMJ Global Health*, 6(1), 1-9. <https://doi.org/10.1136/bmjgh-2020-004450>
- Jiang, S., Shi, Z., Shu, Y., Song, J., Gao, G. F., Tan, W., & Guo, D. (2020). A distinct name is needed for the new coronavirus. *Lancet*. 395(10228), 949. [https://doi.org/10.1016/S0140-6736\(20\)30419-0](https://doi.org/10.1016/S0140-6736(20)30419-0)
- Kalogeropoulos, A., Suiter, J., Udriș, L., & Eisenegger, M. (2019). News media trust and news consumption: Factors related to trust in news in 35 countries. *International Journal of Communication*, 13, 3672–3693.
- Kaya, A. (2019). Health news and ethical principles. *Journal of Human Sciences*, 16(2), 477–492. <https://doi.org/10.14687/jhs.v16i2.5695>
- Kreslake, J. M., Elkins, A., Thomas, C. N., Gates, S., & Lehman, T. (2019). Use of mass communication by public health programs in nonmetropolitan regions. *Preventing Chronic Disease*, 16. <https://doi.org/10.5888 / pcd16.190014>

- Lai, C. -C., Shih, T.-P., Ko, W.-C., Tang, H.-J., & Hsueh, P.-R. (2020). Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. *International Journal of Antimicrobial Agents*, 55(3), 105924. <https://doi.org/10.1016/j.ijantimicag.2020.105924>
- Leppin, A., & Aro, A. R. (2009). Risk perceptions related to SARS and avian influenza: Theoretical foundations of current empirical research. *International Journal of Behavioral Medicine*, 16, 7–29. <https://doi.org/10.1007/s12529-008-9002-8>
- Iorfa, S. K., Ottu, I. F., Oguntayo, R., Ayandele, O., Kolawole, S. O., Gandi, J. C., ... & Olapegba, P. O. (2020). COVID-19 knowledge, risk perception, and precautionary behavior among Nigerians: a moderated mediation approach. *Frontiers in Psychology*, 11, 3292. <https://doi.org/10.3389/fpsyg.2020.566773>
- Ma, J. (2020, March 13). Coronavirus: China's first confirmed COVID-19 case traced back to November 17. *South China Morning Post*. <https://www.scmp.com/news/china/society/article/3074991/coronavirus-chinas-first-confirmed-COVID-19-case-traced-back>
- Mahase, E. (2020). China coronavirus: WHO declares international emergency as death toll exceeds 200. *BMJ: British Medical Journal (Online); London*, 368, <https://doi.org/10.1136/bmj.m408>
- Naveena, N. (2015). Importance of mass media in communicating health messages: An analysis. *IOSR Journal of Humanities and Social Science*, 20(2), 36–41. <https://doi.org/10.9790/0837-20253641>
- Nishiura, H., Jung, S. M., Linton, N. M., Kinoshita, R., Yang, Y., Hayashi, K., ... & Akhmetzhanov, A. R. (2020). The extent of transmission of novel coronavirus in Wuhan, *J. Clin. Med*, 9(2), 330. <https://doi.org/10.3390/jcm9020330>
- Nguyen, H. T., Do, B. N., Pham, K. M., Kim, G. B., Dam, H. T., Nguyen, T. T., ... & Duong, T. V. (2020). Fear of COVID-19 scale—associations of its scores with health literacy and health-related behaviors among medical students. *International Journal of Environmental Research and Public Health*, 17(11), 4164. <https://doi.org/10.3390/ijerph17114164>
- Odorume, A. (2015). Mass media health communication: Imperative for sustainable health development in Nigeria. *Mgbakoigba: Journal of African Studies*, 4, 1–6.
- Sadique, M. Z., Edmunds, W. J., Smith, R. D., Meerding, W. J., De Zwart, O., Brug, J., & Beutels, P. (2007). Precautionary behavior in response to perceived threat of pandemic influenza. *Emerging Infectious Diseases*, 13(9), 1307. <https://doi.org/10.3201/eid1309.070372>
- Schiavo, R. (2014) Health communication in health disparities settings, *Journal of Communication in Healthcare*, 7(2), 71-73. <https://doi.org/10.1179/1753806814Z.000000000073>
- Shinan-Altman, S., & Levkovich, I. (2020). COVID-19 precautionary behavior: the Israeli case in the initial stage of the outbreak. *BMC Public Health*, 20(1), 1-7. <https://doi.org/10.1186/s12889-020-09818-8>
- Sterrett, D., Malato, D., Benz, J., Kantor, L., Tompson, T., Rosenstiel, T., ... & Loker, K. (2019). Who shared it? Deciding what news to trust on social media. *Digital Journalism*, 7(6), 783-801. <https://doi.org/10.1080/21670811.2019.1623702>

- Song, H., Omori, K., Kim, J., Tenzek, K. E., Hawkins, J. M., Lin, W.-Y., Kim, Y.-C., & Jung, J.-Y. (2016). Trusting social media as a source of health information: Online surveys comparing the United States, Korea, and Hong Kong. *Journal of Medical Internet Research*, 18(3), e25. <https://doi.org/10.2196/jmir.4193>
- Thanh, P. T., & Thung, L. T. (2021). Can risk communication in mass media improve compliance behavior in the COVID-19 pandemic? Evidence from Vietnam. *International Journal of Sociology and Social Policy*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/IJSSP-05-2021-0122>
- Toker, K., & Gözübol, Z. İ. (2020). The Relationship Between Median Age and Death Cases During the Coronavirus Disease 2019 (COVID-19) Pandemic: The Mediating Role of Current Health Expenditure. *Bezmialem Science*, 8(Supplement 2),1-6. <https://doi.org/10.15405/epsbs.2017.12.02.28>
- Van Aelst, P., Toth, F., Castro, L., Štětka, V., Vreese, C. D., Aalberg, T., ... & Theocharis, Y. (2021). Does a crisis change news habits? A comparative study of the effects of COVID-19 on news media use in 17 European countries. *Digital Journalism*, 9(9), 1208-1238. : <https://doi.org/10.1080/21670811.2021.1943481>
- Van der Meer, T. G., & Verhoeven, P. (2013). Public framing organizational crisis situations: Social media versus news media. *Public Relations Review*, 39(3), 229-231. <https://doi.org/10.1016/j.pubrev.2012.12.001>
- Van der Weerd, W., Timmermans, D., Beaujean, D., Oudhoff, J., & Van Steenberghe, J. E. (2011). Monitoring the level of government trust, risk perception, and intention of the general public to adopt protective measures during the influenza A (H1N1) pandemic in the Netherlands. *BMC Public Health*, 11(1), 575. <https://doi.org/10.1186/1471-2458-11-575>
- Van Slooten, E., Friedman, D. B., & Tanner, A. (2013). Are we getting the health information we need from the mass media? An assessment of consumers' perceptions of health and medical news. *Journal of Consumer Health on the Internet*, 17(1), 35–53. <https://doi.org/10.1080/15398285.2013.756338>.
- Whelan, E. (2018). Working up a lather: The rise (and fall?) of hand hygiene in Canadian newspapers, 1986–2015. *Critical Public Health*, 28(4), 424–438. <https://doi.org/10.1080/09581596.2018.1453126>
- WHO. (2020). Coronavirus disease (COVID-19) advice for the public. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>
- Wu, X., & Li, X. (2017). Effects of mass media exposure and social network site involvement on risk perception of and precautionary behavior toward the haze issue in China. *International Journal of Communication*, 11, 3975–3997.
- Xu, Z., Shi, L., Wang, Y., Zhang, J., Huang, L., Zhang, C., Huang, L., Zhang, C., Liu, S., Zhao, P., Liu, H. Zhu, L., Tai, Y., Bai, C., Gao, T., Song, J, Xia, P., Dong, J., & Zhao, J. (2020). Pathological findings of COVID-19 associated with acute respiratory distress syndrome. *The Lancet Respiratory Medicine*, 8(4), 420–422. [https://doi.org/10.1016/S2213-2600\(20\)30076-X](https://doi.org/10.1016/S2213-2600(20)30076-X)
- Yau, E. K. B., Ping, N. P. T., Shoesmith, W. D., James, S., Hadi, N. M. N., & Loo, J. L. (2020). The behaviour changes in response to COVID-19 pandemic within Malaysia. *The Malaysian Journal of Medical Sciences: MJMS*, 27(2), 45-50. <https://doi.org/10.21315/mjms2020.27.2.5>

**Beyan ve Aıklamalar (Disclosure Statements)**

1. Arařtırmacıların katkı oranı beyanı / Contribution rate statement of researchers:
  1. Yazar/First author % 50
  2. Yazar/Second author % 35
  3. Yazar/ Third author % 15
2. Yazarlar tarafından herhangi bir ıkar atıřması beyan edilmemiřtir (No potential conflict of interest was reported by the authors).

Copyright of Electronic Turkish Studies is the property of Electronic Turkish Studies and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.