



YAŞAR UNIVERSITY
GRADUATE SCHOOL

MASTER THESIS

**STRATEGIC HEALTH COMMUNICATION DURING
COVID-19 OUTBREAK IN TURKEY: SOCIAL MEDIA
USE OF TURKISH MINISTRY OF HEALTH**

NUR BANU ELBÜLKEN

THESIS ADVISOR: PROF. DR. HURİYE TOKER

MASTER PROGRAM IN COMMUNICATION

PRESENTATION DATE: 17.01.2022

BORNOVA / İZMİR
JANUARY 2022

We certify that, as the jury, we have read this thesis and that in our opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts.

Jury Members:

Signature:

Prof. Dr. Huriye Toker

Yaşar University

.....

Prof. Dr. Selda Akçalı

Ege University

.....

Assist. Prof. Dr. Dilek Melike Uluçay

Yaşar University

.....

Prof. (PhD) Yucel Ozturkoglu
Director of the Graduate School

ABSTRACT

STRATEGIC HEALTH COMMUNICATION DURING COVID-19 OUTBREAK IN TURKEY: SOCIAL MEDIA USE OF TURKISH MINISTRY OF HEALTH

ELBÜLKEN, Nur Banu

MA, Yaşar University Institute of Graduate School Master of Communication

Advisor: Prof. (PhD) Huriye TOKER

Covid-19, which emerged in Wuhan, China, in December 2019 and was declared to have reached the pandemic level by the World Health Organization on March 11, 2020, has become an essential threat to the 21st century in terms of death rates, rates of catching the disease and the damage it causes to people.

Health communication is a concept that has become increasingly important in recent years. It has a vital role in informing the public, taking precautions, and controlling the pandemic. Although low health literacy in societies and misinformation spreading rapidly in the media are disadvantages for health communication, health communicators/health institutions can control the process with various communication policies implemented through the media. During the Covid-19 pandemic, health communication activities in Turkey were carried out under the leadership of the Ministry of Health. The Ministry of Health delivers the messages it prepares during the pandemic to large masses with the support of the media and informs the public. In this study, the posts made by the Ministry of Health between January 23, 2020, and June 1, 2020, on the official Instagram account were evaluated with content analysis within the scope of health communication strategies in the Covid-19 pandemic. According to research findings, the basis of health communication strategies carried out by the Ministry of Health is “informative and persuasive communication”.

Keywords: Covid-19, Strategic Health Communication, Ministry of Health, Media, Instagram

ÖZ

TÜRKİYE’DE COVID-19 SALGINI SIRASINDA STRATEJİK SAĞLIK İLETİŞİMİ: SAĞLIK BAKANLIĞI’NIN SOSYAL MEDYA KULLANIMI

ELBÜLKEN, Nur Banu

Yüksek Lisans Tezi, Yaşar Üniversitesi Lisansüstü Eğitim Enstitüsü İletişim Yüksek Lisans Programı

Danışman: Prof. Dr. Huriye TOKER

Aralık 2019’da Çin’in Wuhan kentinde ortaya çıkan ve 11 Mart 2020’de Dünya Sağlık Örgütü tarafından pandemi seviyesine ulaştığı ilan edilen Covid-19, ölüm oranları, hastalığa yakalanma oranları ve insanlar üzerinde bıraktığı hasarlar açısından 21. yüzyıl için önemli bir tehdit haline gelmiştir.

Sağlık iletişimi, son yıllarda önemi giderek artan bir kavramdır ve Covid-19 gibi dünyayı etkisi altına alan salgın durumlarında, toplumlarda halkı bilgilendirmek, önlem almak ve salgını kontrol etmek için önemli bir role sahiptir. Toplumlar da sağlık okuryazarlığının düşüklüğü ve medyada hızla yayılan yanlış bilgiler sağlık iletişimi için dezavantaj oluştursa da, sağlık iletişimcilerinin/sağlık kurumlarının medya aracılığıyla uyguladığı çeşitli iletişim politikalarıyla, süreci kontrol altına alabilmeleri mümkündür. Covid-19 salgınında, Türkiye’de sağlık iletişimi çalışmaları, Sağlık Bakanlığı önderliğinde gerçekleşmektedir. Sağlık Bakanlığı salgın sürecinde hazırladığı mesajları medyanın desteğini alarak geniş kitlelere ulaştırmakta, halkı bilgilendirmektedir. Bu çalışmada Sağlık Bakanlığı’nın 23 Ocak 2020, 1 Haziran 2020 arasında resmi Instagram hesabından gerçekleştirdiği paylaşımlar, Covid-19 salgınında sağlık iletişim stratejileri kapsamında içerik analizi yöntemiyle incelenerek değerlendirilmiştir. Araştırma bulgularına göre, Sağlık Bakanlığı tarafından gerçekleştirilen sağlık iletişimi stratejilerinin temeli, “bilgilendirici ve ikna edici iletişim”dir.

Anahtar Kelimeler: Covid-19, Stratejik Sağlık İletişimi, Sağlık Bakanlığı, Medya, Instagram

ACKNOWLEDGEMENTS

Initially, I would like to thank my advisor, Prof. Dr. Huriye Toker, who guided me academically with her valuable knowledge and motivated me with her critical style.

I would like to thank my dear mother, Ebru Ünlü, who supported and believed in me in all steps during my thesis. Also, I would like to thank my boyfriend, Batuhan Duman, for his unwavering support and encouragement at all times. It would not have been easy without them.

Nur Banu Elbülken

İzmir, 2022

TEXT OF OATH

I declare and honestly confirm that my study, titled “STRATEGIC HEALTH COMMUNICATION DURING COVID-19 OUTBREAK IN TURKEY: SOCIAL MEDIA USE OF TURKISH MINISTRY OF HEALTH” and presented as a Master’s Thesis, has been written without applying to any assistance inconsistent with scientific ethics and traditions. I declare, to the best of my knowledge and belief, that all content and ideas drawn directly or indirectly from external sources are indicated in the text and listed in the list of references.

Nur Banu Elbülken

17.01.2022



TABLE OF CONTENTS

ABSTRACT	v
ÖZ	vii
ACKNOWLEDGEMENTS	ix
TEXT OF OATH	xi
TABLE OF CONTENTS	xiii
LIST OF FIGURES	xvii
LIST OF TABLES	xix
SYMBOLS AND ABBREVIATIONS	xxiii
CHAPTER 1 INTRODUCTION AND THEORY	1
1.1. Strategic Communication Theory	6
1.2. The Importance of Digitalization in Strategic Communication	8
1.3. Health Communication as a Strategic Communication	9
1.4. Infodemic as a Problem in Strategic Health Communication	11
CHAPTER 2 LITERATURE REVIEW	13
2.1. Research Related to Covid-19 and Health Communication in the International Literature	14
2.1.1. Health Information in the International Literature	14
2.1.2. Digital Health Communication in the International Literature	16
2.1.3. Trust Factor in Health Communication in the International Literature	18
2.1.4. The Use of Language for Immigrants in Health Communication in International Literature	20
2.1.5. Research Methods in the Field of Health Communication in International Literature	21
2.2. Research Related to Covid-19 and Health Communication in Turkey	23
2.2.1. The Use of Social Media in Health Communication in Turkey	23
2.2.2. Trust Factor in Health Communication in Turkey	27
2.2.3. Health-Related Messages in the Cinema in Turkey	28
2.2.4. The Non-Digital Environment in Turkish Health Communication	30
2.2.5. The Relationship Between Health Communication and Corporate Reputation in Turkey	31

CHAPTER 3 METHOD, FINDINGS AND CONCLUSION.....	34
3.1. Methodology.....	34
3.1.1. Importance of the Research.....	34
3.1.2. Research Questions and Hypothesis.....	35
3.1.3. Method of the Research.....	36
3.1.4. Sample of the Research.....	36
3.1.5. Research Categories and Variables.....	36
3.1.6. Limitations of the Research.....	40
3.2. Findings.....	41
3.2.1. Quantitative Findings.....	41
3.2.2. Qualitative Findings.....	51
Conclusion.....	63
Future Suggestions.....	68
REFERENCES	70

LIST OF FIGURES

Figure 1. Instagram post dated May 30, 2020.....	52
Figure 2. Instagram post dated February 17, 2020.....	53
Figure 3. Instagram post dated February 17, 2020.....	53
Figure 4. Instagram post dated February 7, 2020.....	55
Figure 5. Instagram post dated March 16, 2020.....	55
Figure 6. Instagram post dated April 4, 2020.....	57
Figure 7. Instagram post dated April 7, 2020.....	57
Figure 8. Instagram post dated April 18, 2020.....	58
Figure 9. Instagram post dated April 18, 2020.....	58
Figure 10. Instagram post dated March 10, 2020.....	59
Figure 11. Instagram post dated April 25, 2020.....	60
Figure 12. Instagram post dated April 6, 2020.....	61
Figure 13. Instagram post dated March 28 2020.....	61

LIST OF TABLES

Table 1. Mapping of the International Studies on the Health Information.....	15
Table 2. Mapping of the International Studies on Digital Health Communication.....	18
Table 3. Mapping of the International Studies on Trust Factor in Health Communication.....	19
Table 4. Mapping of the International Studies on the Use of Language for Immigrants in Health Communication.....	21
Table 5. Mapping of the International Studies on Research Methods in the Field of Health Communication.....	22
Table 6. Mapping of the Studies on Use of Social Media in Health Communication in Turkey.....	25
Table 7. Mapping of the Studies on Trust Factor in Health Communication in Turkey.....	28
Table 8. Mapping of the Studies on Health-Related Messages in the Cinema in Turkey.....	29
Table 9. Mapping of the Studies on Non-Digital Environment in Turkish Health Communication.....	30
Table 10. Mapping of the Studies on Relationship Between Health Communication and Corporate Reputation in Turkey.....	32
Table 11. Topic Distribution of the Posts on Instagram Account.....	41
Table 12. Source/Actors of the Posts on Instagram Account.....	42
Table 13. Distribution of the Posts Related to Covid-19 on Instagram Account.....	43
Table 14. Target Audience of the Posts Related to Covid-19 on Instagram Account.....	43

Table 15. Number of Likes of the Posts Related to Covid-19 on Instagram Account.....	44
Table 16. Number of Comments of the Posts Related to Covid-19 on Instagram.....	44
Table 17. Number of the Views to the Video Posts Related to Covid-19 on Instagram.....	45
Table 18. Constraints in the Posts Related to Covid-19.....	45
Table 19. Hashtags Distribution of the Posts Related to Covid-19 on Instagram Account.....	46
Table 20. Distribution of the Posts Related to Institutional Information on Instagram Account.....	47
Table 21. Tone of the Posts Related to the Statements Made by Ministry or Government Officials on Instagram Account.....	48
Table 22. Distribution of the Posts Related to Commemoration & Condolence & Celebration.....	48
Table 23. Distribution of the Posts Related to General Health Information on Instagram Account.....	49
Table 24. Distribution of the Posts Related to Physical Diseases on Instagram Account.....	49
Table 25. Distribution of the Posts Related to Mental Health on Instagram Account.....	50

SYMBOLS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
COVID-19	Coronavirus
DGC	Department of Global Communications
DHCM	Digital Health Communication Media
GOARN	Global Outbreak Alert and Response Network
HIV	Human Immunodeficiency Virus
IFRC	International Federation of Red Cross and Red Crescent Societies
ITU	International Telecommunication Union
JHU	Johns Hopkins University
OAIC	Office of the Australian Information Commissioner
OECD	Organisation for Economic Co-operation and Development
pH1N1	Subtype of Pandemic Influenza A Virus
SARS	Severe Acute Respiratory Syndrome
SSK	Social Insurance Institution
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

CHAPTER 1

INTRODUCTION AND THEORY

Covid-19 emerged in Wuhan, China, on December 12, 2019, and has affected the whole world in a short time. The Wuhan Local Government announced that the virus-related disease had turned into an epidemic on January 11, 2020, and the first loss of life occurred on the same date (Bağ, 2020; Simpson & Corner, 2020). The World Health Organization declared that the virus-related disease reached the pandemic level on March 11, 2020 (WHO, 2020b), and the first Covid-19 case emerged in Turkey on the same date (Kurt, 2020). The first death due to the virus in Turkey occurred on March 17, 2020 (Sözcü, 2020). As of September 10, 2021, while the Covid-19 total cases were 6.590.384 and the total deaths were 59.170 in Turkey, total cases were 223.318.139, and total deaths were 4.608.242 worldwide (JHU, 2021). As it threatened public health globally, measures to control and prevent the pandemic became the main agenda of all countries, and Turkey was one of these countries. Accordingly, health communicators, practitioners and institutions came to the fore by questioning the management of the pandemic by the institutions with questions concerning: “effective communication during pandemic days”, “what is done well in pandemic management”, “what can be done better”, “the reasons for the spread of misinformation, how to prevent it”, “how to manage risk perception” (Vaughan & Tinker, 2009; Simpson & Corner, 2020; Bavel et al., 2020; GOARN, IFRC, UNICEF, WHO, 2020).

Health communication, which focuses on accurate information and behavioral changes regarding health-related issues, has been an increasingly important concept in the recent years and has a critical role, especially during a pandemic (Utma, 2020). In the coronavirus pandemic, which affected the whole world, health communication actions in Turkey are carried out under the leadership of the Turkish Ministry of Health with the support of the media. The Turkish Ministry of Health ensures that the information flow on Covid-19 is delivered to large masses of the public through its health communication activities. It delivers the messages to a large segment of the public through mass media. In this context, many new applications that have not been used before have been implemented. The first of these practices is the effective use of the Scientific Committee and its role in the pandemic process. The Scientific

Committee was established on January 10, 2020, as part of the fight against Covid-19 (Yalçınkaya, 2020). The Ministry took necessary measures and implemented these measures radically by forming the Scientific Committee before Covid-19 affected Turkey. In line with its cooperation with the Scientific Committee, the Ministry informed the public about the current developments regarding the virus through mass media immediately and timely. Establishing the Scientific Committee undisputedly led to the pandemic process. Secondly, the Ministry released the “Hayat Eve Sığar” [Stay at Home] application on April 10, 2020. The application started to be used in all public institutions as of September 23, 2020 (Turkish Ministry of Interior, 2020). The purpose of the application is to inform and guide citizens about Covid-19, minimize the risks related to the pandemic and prevent its spread. This application, having more than 5 million registered users (Yanık & Günyol, 2020), was a first for Turkey. The Ministry has also tried to diversify the health communication it implemented through different communication channels. In this sense, it made the call “Stay at Home” in all its visual and written social media posts (Facebook, Instagram, Twitter), and this call has become a slogan in the Turkish media. Upon this approach of the Ministry, the calls of health workers in the country to “Stay at Home” were also reflected in traditional and social media. Apart from that, “Stay at Home” calls were included in the advertising campaigns of companies such as Vodafone, Dominos, Bambi, and Toyota. In addition, within the scope of the Ministry's method of combatting false and biased information, specialists were invited to television programs to talk about the current state of the disease and what measures can be taken to prevent it. Bringing forward experts on the subject in media channels prevents information outbreaks in the media during the pandemic. The Scientific Committee and Hayat Eve Sığar application are at the forefront of new applications not present in other pandemics and epidemics (Yanık & Günyol, 2020), and different communication channels make a significant difference. They are among the innovative health communication implementations.

Covid-19 is the biggest pandemic in a century for the whole world (Walsh, 2020) and a time of high uncertainty. In such periods, the public has difficulty finding real-time and accurate information about what is going on and what needs to be done. During these periods, information gaps occur because there are still unknown aspects of the crisis. The information gap leads to the rapid and easy spread of rumors

and false information (Enago, 2020; Almomani & Al-Qur'an, 2020). With the digital age, the fact that social media is increasingly ahead of the traditional media as a news source has led to new problems in the reliability of information and news (Akyüz, 2020). With the internet entering into all areas of life, the widespread use of social media has increased. According to the We Are Social (2021) report, there are 65.80 million internet users in Turkey. This rate corresponds to 77.7% of the total population of 84.6 million. The number of internet users increased by 3.7 million compared to 2020. In addition, there are 60.00 million social media users in the country. This rate corresponds to 70.8% of the total population (84.6 million). The number of social media users has increased by 11% compared to 2020 (We Are Social, 2021). The most used social media platforms in Turkey are Youtube (94.5%), Instagram (89.5%), and WhatsApp (87.5%) (Kemp, 2021). The fact that anything can be shared by anyone has triggered the problem of information pollution (Linden et al., 2020). This situation poses a significant problem with the Covid-19 pandemic today (Walsh, 2020). The Director-General of the World Health Organization reported on February 15, 2020, that it is fighting a pandemic and information pollution (Enago, 2020). False information about the virus is spread on the internet sometimes deliberately and sometimes naturally. Fake news produced during the pandemic period, which caused a significant public health crisis, spreads rapidly, just like the virus (Enago, 2020; van der Linden et al., 2020; Cinelli et al., 2020; WHO, 2020a; Brennen et al., 2020; Ahmad & Murad, 2020).

This false news produced are called infodemic. Journalist and political scientist David Rothkopf first used the concept of infodemic in 2003 (Tomes, 2020). In his article in the Washington Post, Rothkopf stated that the infodemic was a second outbreak apart from the SARS (Severe Acute Respiratory Syndrome) virus. SARS started in Hong Kong in November 2002 (Tomes, 2020), and it had become an outbreak of disinformation that turned into economic and social collapse (Beyoğlu, 2020). Therefore, the infodemic made it challenging to control the SARS virus-related disease (Lai et al., 2020).

Infodemic is information pollution that can spread rapidly on social networks through the media. It contains a lot of misinformation (WHO, 2020a) and drags society into chaos during pandemics such as Covid19 (Anwar et al., 2020).

According to research findings, the only way to combat the infodemic is to establish effective public health communication in the media (Thomas et al., 2020; DGC, 2020; WHO & UN & UNICEF & UNDP & UNESCO & UNAIDS & ITU & UN Global Pulse & IFRC, 2020; Igoe, 2020; Anwar et al., 2020; Banerjee & Meena, 2021).

The media is an essential tool in health communication in informing the public and managing the pandemic; for this reason, health communicators, practitioners, and institutions always need the support of the media (Hyer & Covello, 2005; Schein et al., 2010; Anwar et al., 2020; Su et al., 2021; OECD, 2020). The Covid-19 process has shown that public health communication contributes to the control and management of the pandemic (Porat et al., 2020; Hyland-Wood et al., 2021; WHO, 2020a; Abu-Akel et al., 2021; Gilmore et al., 2020). Despite the low level of health literacy in Turkey (Özdemir et al., 2010), adequate and correct health communication strategies facilitate the management of the process; they prevent the chaos that may occur with panic in the society (Porat et al., 2020).

Today, with the developing technology, the internet is spreading over a wide area, and the use of social media is increasing rapidly (Vural & Bat, 2010; Çalışkan & Mencik, 2015; Kırık, 2017; Çalışır, 2015; Özkoyuncu, 2021). According to the We Are Social (2021) report, there are 4.66 billion internet users worldwide. The same report states that 4.2 billion people in the world use social media. While the most used social media platforms in the world are Google (66.5 billion), Youtube (20.42 billion) and Facebook (15.5 billion), the most used social media platforms in Turkey are Youtube (94.5%), Instagram (89.5%) and WhatsApp (87.5%) (We Are Social, 2021). Therefore, there has been an increase in the Ministry of Health's social media shares during this period.

In this study, the posts published on the official Instagram account of the Ministry of Health between January 23, 2020, and June 1, 2020, will be evaluated with content analysis within the scope of health communication strategies during the Covid-19 pandemic in Turkey. Since content analysis is a systematic and an objective approach used to analyze communication in a quantitative context and to reveal the messages given (Kerlinger, 1986), the messages given by the Ministry will be examined within the scope of this analysis.

The Turkish Ministry of Health made the first Instagram post about Covid-19 on January 23, 2020. June 1, 2020, is the beginning of the first normalization period in Turkey during the first peak of the Covid-19 outbreak. According to the We Are Social (2021) research on social media use, Instagram is the most used social media platform in Turkey after Youtube, with 89.5%. Therefore, the data includes Instagram posts of the Ministry's social media account between 23rd January - 1st June 2020. Since the platform has become an important medium for the information exchange in Turkey, the official Instagram account of the Ministry of Health was analyzed within the scope of health communication.

Especially in pandemic situations such as Covid-19, controlling the process is of great importance. The main points in controlling the process are “communication” and “strategy”. In this context, “strategic communication” comes to the fore. In this sense, it is thought that the analysis of health communication strategies implemented by the Ministry of Health on Instagram, which is the most used social media platform in Turkey after Youtube, will contribute to the the field to a large extent.

This study, titled Strategic Health Communication During Covid-19 Outbreak in Turkey, consists of three parts. The first part explains the concepts of “Covid-19”, “media”, “infodemic”. The relationship between the concepts of “Covid-19”, “infodemic”, and the media was emphasized. Then innovative health communication practices of the Ministry of Health are explained. In the second part of the study, the concepts of “health communication”, “social media”, and “pandemic” were discussed, and a national and international literature review was conducted. The studies obtained in the literature are divided into categories and explained one by one. In line with the categories, different and similar aspects of the studies were revealed. In the third part, the purpose, importance, limitations, and research method are stated. The data obtained through a qualitative content analysis were evaluated within the theoretical framework. Under the headings of findings and conclusion, the data has been discussed and analyzed, and it has been tried to be interpreted with the light of the theoretical background.

1.1. Strategic Communication Theory

Wilson and Ogden (2008: 5) define strategy as “a well-coordinated approach to achieving the overall goal”. Strategy is an effort by institutions to achieve the goal. Communication, which helps to determine the attitude that institutions will follow while reaching their general goals, is strategic (Wilson & Ogden, 2008: 5). Strategy is a linear and rational process. Goals are defined in advance, and critical elements are determined before executing the strategy (Steyn, 2002).

Hax and Majluf (1988) discussed the strategy with 6 dimensions. These dimensions are:

- The strategy constitutes the purpose of the institution.
- The strategy defines the competitive area of the institution and the sector in which it is located.
- The strategy can be adapted to external opportunities & threats and internal strengths & weaknesses.
- The strategy provides a competitive advantage.
- The strategy encompasses all hierarchical levels of the organization as “corporate”, “commercial” and “functional”.
- The strategy is a motivating force for stakeholders inside and outside the organization.

In line with these features, the concept of strategy increases its power in the communication processes of institutions and works for the effectiveness of the messages given to the target audience. Strategy is the cornerstone of an organization's values. Companies ensure success and sustainability with strategic communication (Filiz, 2021).

Strategic communication is used to describe planned communication campaigns and is considered as the management function of an organization (Çınarlı, 2013: 5). Strategic communication management focuses on integrating public relations, advertising and marketing communications under a single roof (Çınarlı, 2013: 5). Today, messages conveyed to target audiences are prepared in line with specific

strategies. First of all, internal and external analyses are carried out. Messages are created according to the analysis results and transferred to the target audience. Then the situation after the transmitted message is evaluated (Göksel, 2013: 55). Strategic communication is a two-way process. The first is the one who has a strategy and the power to implement the strategy. The second is the target audience for which the strategy is applied. Strategy implementers deliver messages when the target audience is most vulnerable. In this direction, the target audience is powerless in the strategic communication process (Karsan & Altuntaş & Demren, 2018).

The strategic communication process has been defined in various ways. O’Hair et al. (2011: 24) defined strategic communication as “the realization of the organization's potential in four areas such as situational knowledge, goal setting, communication competence and stress management” (O’Hair et al., 2011: 24). According to Paul (2011: 4), strategic communication has 4 main elements. These elements are “informing, influencing and persuading”, “objectives”, “coordination” and “preventing misinformation to avoid conflict” (Paul, 2011: 4). The starting point of the planning process in strategic communication is to identify the problem or opportunity. Accordingly, the research phase takes place in the planning process (Wilson & Ogden, 2008: 10). The reflective mandate of strategy requires analysis of changing standards in society. Institutions reflect social values in the decision-making process and organize their values accordingly. The reflective task is essential for strategic corporate communication (Steyn, 2002: 15). As understood from the definitions, research, planning, implementation and evaluation determine the effectiveness of strategic communication implemented by institutions. Research is the most critical stage because it aims to understand the target audience.

Innovations in information technologies are important developments in the field of strategic communication because the developing new technology has affected the structure of the target audience (Karsan & Altuntaş & Demren, 2018). New media technologies offer many options to understand the target audience's structure and to create corporate messages. Today, institutions create online spaces in line with strategic communication. Institutions conduct public relations campaigns in online spaces and strengthen their relations with the target audience (Cozier & Witmer,

2007: 29). In the new world, the communication strategies of institutions continue to exist on the internet and social media created by digitalization.

1.2. The Importance of Digitalization in Strategic Communication

With the introduction of the internet into our lives, it has become possible for strategic communication to take place in social media created by new media technologies. While Cozier and Witmer (2007: 27) stated that internet-based communication changed the communication of the masses and power relations, O'Hair, Friedrich and Dixon (2011: 24), emphasized that in order to be successful in the digital age, institutions should integrate technology with communication skills. Strategic communication with people from different segments makes institutions successful in the digital age (O'Hair et al., 2011: 24).

Today, communicators/practitioners use the Web to gain knowledge that increases their expertise (Thomsen, 1995: 105). Corporate communication managers and practitioners reach their employees and target audiences more effectively by using developing tools such as social media (Porter et al., 2007: 95). Social media, which is frequently used in digital public relations in the context of strategic communication, has changed the relationship between the company and its employees, customers, competitors, suppliers and investors (Yang & Lim, 2009: 351). In the changing new model, information technologies facilitate communication strategies and are based on user interaction. In this perspective, receiving feedback from users within the scope of interaction contributes to strategic communication research and evaluation stages (Karsan & Altuntaş & Demren, 2018).

Social media, which plays a significant role in reaching the aim and target audiences of individuals and institutions, has become the primary tool for institutions to deliver their activities to the target audience. With the rapid spread of new media technologies, people's interaction with each other or institutions in societies has also changed. Institutions can reach new and different target audiences through social platforms such as Instagram, Twitter and Facebook (Karsan & Altuntaş & Demren, 2018).

The advantage of “new and different target audience” provided by social media, which is an interactive environment, to the field of strategic communication is explained as follows: “Social media platforms encourage people to express themselves. In social media, users may be more interested in representing a topic and belonging to a community” (Rettberg, 2009: 452). It is possible to say that social media platforms enable us to agree on a subject. Social media platforms lead to more interaction with features such as “posting someone else's message on your own page”, and “sending the message to someone else”. This interaction gives strategic communication practitioners an advantage in understanding the target audience.

As seen above, institutions tend to use social media to increase interaction with the target audience. The most important advantage that social media brings to strategic communication is that it supports the research phase in communication campaigns (Wilson & Ogden, 2008: 11; Steyn, 2002: 15). Social media is an essential communication tool that allows institutions to research their target audience. Social media, which is a two-way communication tool, attracts great attention in the context of strategic communication in terms of “fulfilling the function of public relations”, “providing concrete measurement metrics” and “enabling environmental scanning” (Karsan & Altuntaş & Demren, 2018). In summary, social media is an indispensable medium for strategic communicators/practitioners.

1.3. Health Communication as a Strategic Communication

The concept of health is defined by the World Health Organization as “not merely the absence of disease and infirmity, but a state of complete physical, mental and social well-being” (Polan and Taylor 2007: 4). Health is the most basic human right, and communication is most necessary in the field of health (Koçak & Bulduklu, 2010).

Health communication aims to create the desired health behavior in societies and to improve individual and social health (Koçak & Bulduklu, 2010). The sharing of health-related information by individuals according to the conditions of society is at the forefront of health communication issues. Apart from that, health messages conveyed by mass media directly impact individual and social health. Strategic communication about health, implemented through mass media, lays the groundwork

for raising the target audience's awareness about a particular health problem or its solution (Koçak & Bulduklu, 2010). The individual is motivated toward the desired action thanks to the strategic health communication implemented through mass media. Moreover, the individual's knowledge and attitude about current positive health behavior are reinforced.

Health communication, which creates individual and social awareness and supports the development of health through health education, takes place at various levels. "These levels are physician-patient communication, group communication, mass communication, and the most common one is mass communication" (Koçak & Bulduklu, 2010: 8). With the rapid development of technology, health communication strategies are mostly realized on mass media. Especially the widespread use of the internet has led to the acquisition of health information through mass media. Today, the most common dimension of strategic communication is interaction through mass media. According to Milio (1986), mass media affects health behavior individually and socially. While mass media changes individual health-related behaviors positively or negatively, it contributes to the development of social health (Brown & Walsh-Childers, 2002: 453). Health campaigns carried out through mass media can raise awareness in individuals (Ratzan, 2001). Mass media is effective in forming targeted health behavior, especially in health campaigns prepared in line with the social health risk (MacDonald, 1998: 110).

Since health communication is an emerging discipline, consensus health communication approaches in the literature are uncertain. Koçak and Bulduklu (2010) stated that behavioral models of social psychology and some approaches of the communication discipline are adapted to health communication, and these adaptations are called health communication approaches. "These approaches are rhetorical model, semiotic model, phenomenological model, cybernetic model, socio-psychological model, socio-cultural model, critical approach" (Koçak & Bulduklu, 2010: 9).

Firstly, the rhetorical model focuses on the effective use of discourse and text content in health communication (Ratzan, 2001). The semiotic model ensures that the content presented in health communication is conspicuously created with signs

(Ratzan, 2001). The phenomenological model argues that the element that gives meaning to the signs in health communication is the experiences of the individual. According to the cybernetic model, daily close relationships (environmental influence) constitute the source of behavior in health communication (Edwards 1992). In the socio-psychological model, individual beliefs, feelings and judgments affect health communication. (Babrow & Mattson, 2003: 53). In the socio-cultural model, the concept of communication refers to the society in which the individual lives (Koçak & Bulduklu, 2010). An individual has no choice. The individual encounters the particular definitions of health & disease in his/her own society. In the critical approach, theorists and researchers aim to identify the dominant ideologies and materialist practices that distort communication. According to Craig (1999), health communication has a distinct relationship with tensions and critical approach (Babrow & Mattson, 2003: 53).

In recent years, health communication continues to exist as a sub-discipline of communication science, and many scientific studies are carried out in this field. In the second part of the research, the national and international studies in the field of health communication will be examined in depth. In general, it is possible to say that health communication applies communication theories to health-related interactions between individuals (Koçak & Bulduklu, 2010: 6). Health communication is a strategic communication that supports the development of individual and social health. Strategic health communication is frequently used in societies when informing individuals about health problems. With the changing needs in health communication and developments in social media, the concept of infodemic has come to the fore, and it has become a prominent health issue.

1.4. Infodemic as a Problem in Strategic Health Communication

Infodemic is a prominent health communication problem that paves the way for societies to be dragged into chaos, and it is defined as information pollution caused by the spread of misinformation (WHO, 2020a). The World Health Organization (2020) announced that since March 2020, it has been fighting against the infodemic alongside the pandemic (Tüzün et al., 2020; WHO, 2020a; Hyland-Wood et al., 2021). Today, the emergence of many social platforms with new media technologies increases the speed of information dissemination (Su et al., 2020). In the 21st

century, digital media platforms, which play a significant role in informing society, have a prominent place (Karabela, 2021; Çalışkan & Mencik, 2015). These platforms, created by new media technologies, also provide an environment for the rapid spread of the infodemic (Çalışkan & Mencik, 2015).

Infodemic which means the rapid spread of misinformation through mass media and social media platforms poses a danger to the efforts of health communicators/practitioners, especially during pandemic periods (Lai et al., 2020). In critical periods such as an outbreak, infodemic harms people's physical and mental health, worries the society and increases the rate of spread of the pandemic (Karabela, 2021; Cinelli et al., 2020). In the pandemic, it is important to ensure that people receive information from the right source, to form the right attitude against the pandemic, and to highlight reliable information (Tomes, 2020; Vural & Bat, 2010).

Infodemic is a significant problem in health communication and harms the trust factor in societies. During the pandemic, it is important to create an environment of trust in the society and to prevent false information. Since social media channels pave the way for the rapid spread of misinformation, health communicators/practitioners struggle with this problem especially in social media (Çalışır, 2015). Because nowadays, where the internet environment is widespread and fast, it is very easy and risky to access all kinds of health-related information on social media (Özkoyuncu, 2021). Outbreaks are periods of uncertainty, and such periods can only be overcome with proper health communication and appropriate interventions (Tüzün et al., 2020). The main point of pandemic management is to create content that appeals to people from different segments with different media tools to prevent people from reaching inaccurate information and prevent panic in society (Gilmore et al., 2020). Consistent, comprehensible and transparent information provided in social networks within the scope of health communication creates a perception of trust in the society and contributes to the management of the pandemic positively (Tüzün et al., 2020; Porat et al., 2020).

CHAPTER 2

LITERATURE REVIEW: RESEARCH RELATED TO HEALTH COMMUNICATION

Communication has been developing since human existence and forms the basis of the progress of humanity. The concept of communication, which meets the need for information and is a prominent information-sharing tool, is a fundamental discipline that continues its development today (Kaya, 2014).

The word's origin is based on community and includes “ensuring the social and individual agreement” (İnceoğlu, 2011: 56). The concept of communication refers to a process that occurs both at the individual and social levels (İnceoğlu, 2011: 56). The comprehensiveness of the concept has led to the emergence of different fields of study regarding the discipline of communication (Kaya, 2014). In this respect, health communication is frequently encountered as a concept from the sub-disciplines of communication. Health communication is a field where individual and social communication elements are used. How health-related issues are handled individually and socially forms the basis of health communication studies (Tabak, 2006). As a field of study, it is related to many disciplines such as medicine and health sciences, social sciences, sociology, psychology and social psychology.

Strategic communication constitutes “communication activities that enable organizations to achieve their goals” (Hallahan et al., 2007: 32), and it is observed as comprehensive communication activities in both academic and practical fields (Filiz, 2021). Farwell (2012: 288) defines the concept of strategic communication as “an effective practice based on the use of words, actions, images or symbols to achieve targeted policies or interests” (Farwell, 2012: 288). Strategic communication, which is informative and persuasive, must have a purpose and a plan (Çınarlı, 2013).

Today, the rapid development of technology and the significant increase in the use of the internet worldwide have increased the use of technology tools in health communication and have created the use of social media applications in accordance with strategic communication efforts. In the new media environment, the limitations

of time and space have disappeared, and this environment has also shaped strategic communication practices (Filiz, 2021).

Social media is a powerful communication element that emerged in the Web 2.0 era. With the introduction of social media into our lives, health communication has created its use on social media (Wong et al., 2020; Smailhodciz et al., 2016; Moorhead et al., 2013; Chou et al., 2009). In the recent years, academic research on the relationship between health communication and social media have been frequently encountered, such as Uittenhout (2012), Hu (2015), Deevey (2016), Ald-Dmour et al. (2020). When we look at the health communication literature, there are 24 notable national and international studies in total (between 2009-2021); 14 are master theses, 2 are doctoral theses and 8 are articles. Articles have been published in the Journal of Migration and Health (2), medRxiv (1), National Institutes of Health (2), Sage (1), Journal Komunikasi (1) and Journal of Communications in Healthcare (1).

2.1. Research Related to Covid-19 and Health Communication in the International Literature

The studies in the international literature are divided into 5 categories as “social media and internet use in health information” (4 studies), “trust factor in terms of information in the media” (2 studies), “using language for immigrants in health communication” (1 study), “digital health communication and media use” (2 studies) and “research methods in the field of health communication” (1 study).

2.1.1. Health Information in the International Literature

Health information is any personal information about health or disability. It includes information or opinions about illnesses, injuries or disabilities (OAIC, 2020). With the development of new media technologies, digitalization has also been reflected in health information. People use the internet to access health-related information, and they adapt to the age of technology.

Considering the international studies carried out in the context of “internet use in health information”, Deevey (2016), who researched the perspectives of the elderly of social media and health communication, revealed that the elderly adopted the

internet as a forum to search for health information. Each of them accepted that they used the internet in this way. Similarly, Al-Dmour et al. (2020) emphasized the positive effect of social media on protecting public health against Covid-19 and confirmed its contribution to health information (Table 1). In addition, Olum et al. (2020) investigated social media platforms for health communication and research in the face of the Covid-19 pandemic, with a survey conducted in Uganda. According to the findings, social media has been a source of information for a broad audience (75.8%), and the commonly used social media tools are WhatsApp, Facebook, Twitter, Instagram and Telegram. Traditional and social media have been chosen as the most valuable tools for disseminating information about Covid-19 and general health information. However, Uittenhout (2012) stated that parents do not see social media as a source of health information in the research called “The Use and Effect of Social Media in Health Communication” conducted on parents.

Table 1. Mapping of the International Studies on the Health Information

Study	Methodology	Findings
Deevey, 2016 “Social Media and Health Communication for Seniors”	Qualitative research, group and personal interviews	*Internet is a forum for searching for health information. *Participants do not want to communicate with the healthcare providers online.
Al-Dmour et al., 2020 “Influence of Social Media Platforms on Public Health Protection Against the COVID-19 Pandemic via the Mediating Effects of Public Health Awareness and Behavioral Changes: Integrated Model”	Qualitative research, survey	*The use of social media platforms had a positive influence. *Social media platform use had a direct effect on public health awareness. *Public awareness and behavioral change affected protection both directly and indirectly.

<p>Olum et al., 2020 “Social Media Platforms for Health Communication and Research in the Face of COVID-19 Pandemic: A Cross Sectional Survey in Uganda”</p>	<p>Qualitative research, survey</p>	<p>*Social media was a source of information (75%). *Medical students mostly used WhatsApp (95.1%), Facebook (54.8%), Twitter (39.1%), Instagram (24.0%). *Mass media and social media were preferred as the most useful tools.</p>
<p>Uittenhout, 2012 “The Use and Effect of Social Media in Health Communication”</p>	<p>Qualitative research, survey and interview</p>	<p>*Social media is not a source of health information for parents. *They consulted mostly pharmacies for general health information.</p>

Generally, international studies in the field of health information show that the internet, social media, and mass media play a significant role as sources of information for a broad audience on health issues (Deevey, 2016; Al-Dmour et al., 2020; Olum et al., 2020; Uittenhout, 2012). After international studies in health information, we can look at the digital health communication field as the second category.

2.1.2. Digital Health Communication in the International Literature

Digitalization is the adoption of digital technologies to modify a business model. “The aim of digitalization is to create a value from the use of new, advanced technologies by exploiting digital network dynamics and the giant digital flow of information” (IGI Global, 2021, p. 3). Social media, which is a prominent part of digitalization, is an online network where the user publishes and shares his own produced content (Bozgül, 2017). It includes online platforms such as Instagram, Facebook, Twitter and is actively used by many individuals and institutions (Bozgül,

2017). Nowadays, social media has become an important part of our lives. With digitalization, the interest in social media has increased. According to the We Are Social (2021) report, Facebook is the most used social media platform globally and it is followed by platforms such as Youtube, WhatsApp, Instagram and Twitter. Therefore, many international research within the scope of health communication have been carried out on these platforms in recent years. For instance, collecting Facebook and Twitter communications from a comprehensive list of Canadian official government accounts that provide information about Covid-19, Teichmann et al. (2020) conducted a study called “Public Health Communication and Engagement on Social Media during the COVID-19 Pandemic”. As a result of the research, it was seen that while sharing health directives and calling for personal responsibility during the pandemic period, the posts often called for unity with the word “we”. The findings of the research suggested that “such platforms make an important contribution to the formation and development of the perception of unity in health issues in societies” (Teichmann et al., 2020, p. 22). As it is clear in Table 2, the digitalization we experience with the introduction of technology into our lives affects many sectors in health communication (Budd et al., 2020; Livari et al., 2020; De et al., 2020). Along with the adaptation of all sectors to the digital world, the health sector also kept up with this new world, and the concept of digital health communication entered our lives (Nurluoğlu, 2019). Sumaedi et al. (2021) conducted the research titled “A Model of Digital Health Communication Media Use During the Covid-19 Pandemic”, and it was determined that the use of Digital Health Communication Media (DHCM) during the Covid-19 pandemic is significantly affected by the attitudes and facilitating conditions towards the use of DHCM.

Table 2. Mapping of the International Studies on Digital Health Communication

Study	Methodology	Findings
Teichmann et al., 2020 “Public Health Communication and Engagement on Social Media during the COVID-19 Pandemic”	Content analysis	<ul style="list-style-type: none"> *Overperforming posts leveraged networks of influencers and popular culture references. *Health directives such as animations were especially well shared. *Posts often included the word “we”.
Sumaedi et al., 2021 “A Model of Digital Health Communication Media Use During the Covid-19 Pandemic”	Qualitative research, survey	* The DHCM usage is not affected by the perceived threat of Covid-19, e-health literacy, information quality, but affected by the attitude and the facilitating conditions.

The general findings of the research directly reveal the relationship between health communication, media, and digitalization (Teichmann et al., 2020; Sumaedi et al., 2021). After international studies in digital health communication, trust factor in health communication can be examined as the third category.

2.1.3. Trust Factor in Health Communication in the International Literature

Trust is a belief in a probability that a person will behave in certain ways (Thagard, 2018), and it involves social interactions such as communication, commitment and collaboration. “Information given in the communication should be trustworthy, consistent and meaningful so as to avoid miscommunication” (Thagard, 2018, p. 295). The reliability and accuracy of the information given on health are of vital importance. Especially during pandemic periods such as Covid-19, the inaccuracy or

lack of health messages transmitted through the media poses a danger to public health. Creating a sense of trust in the public through the messages transmitted is one of the essential steps in the fight against the pandemic (Utma, 2020).

When the “trust factor in terms of information in the media” category is evaluated, we can say that trust in communication determines the perception of unity in societies. The emergence of the concept of infodemic, especially with the introduction of the mass media and internet into our lives, shakes the trust factor in societies. In parallel with this, a study emphasized the trust to the national network news against local newspapers and internet during the public health emergency communication. In the study titled “Media Use and Communication Inequalities in a Public Health Emergency: A Case Study of 2009–2010 Pandemic Influenza A Virus Subtype H1N1”, Lin et al. (2014) revealed that people trust national network news more but local newspapers and the internet less. It is also among the main findings that the use of social media to exchange information about pH1N1(subtype of Pandemic Influenza A Virus) is deficient. Also, Staes et al. (2011) found (Table 3) in another study that only 1/3 of people frequently use a government public health or a corporate website to obtain up-to-date guidance (at least once a week).

Table 3. Mapping of the International Studies on Trust Factor in Health Communication

Study	Methodology	Findings
Lin et al., 2014 “Media Use and Communication Inequalities in a Public Health Emergency: A Case Study of 2009–2010 Pandemic Influenza A Virus Subtype H1N1”	Qualitative research, survey	*People received information through local television news, national network news and the internet. *People relied less on local newspapers and the internet. *For information about pH1N1, social media usage was very low.

<p>Staes et al., 2011 “Public Health Communication with Frontline Clinicians during the First Wave of the 2009 Influenza Pandemic”</p>	<p>Qualitative research, survey</p>	<p>100% of participants received information from healthcare organizations, but only 1/3 visited a state public health or an institutional website to obtain updated guidance.</p>
--	--	---

The findings prove that although societies may prefer social media for health information, the infodemic directly affects the trust factor in social media in health communication (Lin et al., 2014; Staes et al., 2011; Ventola, 2014). After international studies in trust factor in health communication, the use of language for immigrants in health communication can be handled as the fourth category.

2.1.4. The Use of Language for Immigrants in Health Communication in International Literature

Language is the basis of communication and the use of language for foreigners/immigrants in health communication is an essential part of the pandemic. The clarity and transparency of the language used during the pandemic ensure intelligibility in communication and control social anxiety. Although local people do not have any problems such as understanding the process and taking precautions, foreigners and immigrants living in a country can be affected by this situation because they do not understand the language used.

Maldonado et al. (2020) conducted a study on public health communication to immigrants during the Covid19 pandemic in Europe (Table 4). According to the research findings, 96% of sampled countries offer online Covid-19 advice from the government. 30% of countries publish information in their official language, 64% provide information in other languages, and 48% translate information into one immigrant language. The most common European languages included English, French, and German. However, no public health communications in the form of posters or infographics on disease prevention targeting specifically migrant groups

and their health needs were found across the 47 European countries included in the study (Maldonado et al., 2020, p. 5).

Table 4. Mapping of the International Studies on the Use of Language for Immigrants in Health Communication

Study	Methodology	Findings
<p>Maldonada et al., 2020 “Engaging the Vulnerable: a Rapid Review of Public Health Communication Aimed at Migrants during the COVID-19 Pandemic in Europe”</p>	<p>Quantitative research, rapid review</p>	<p>*64% of countries delivered information in additional languages. *48% translated information into at least one migrant language. *Half of the countries offered information in at least one alternative language.</p>

According to the research findings, although most countries translate health-related information into other languages, there are no public health communications in the form of posters or infographics on disease prevention targeting immigrant groups and their health needs (Maldonado et al., 2020). It can be said that this situation is a source of concern for immigrant health. Preventive health messages tailored to the needs of migrants should be clear in order to address current concerns and barriers. After international studies in the use of language for immigrants in health communication, research methods in the field of health communication can be addressed as the fifth category.

2.1.5. Research Methods in the Field of Health Communication in International Literature

Along with the new media and digitalization, the increase in research in the field of health communication has allowed the development of different methodologies (Kaya, 2014). Hu (2015) did an investigation on these methodologies in the study

titled as “Health communication research in the digital age: A systematic review” and examined English peer-reviewed journal articles on specific dates (Table 5). At the end of the research, it has been determined that online health information is the most researched subject, and quantitative research and experimentation are at the top of all methodologies. Usability/feasibility testing is in the third place. Following that, content analysis and secondary data analysis are in the fourth place. The data obtained prove that the most used research method in health communication is quantitative research and experiments (Hu, 2015).

Table 5. Mapping of the International Studies on Research Methods in the Field of Health Communication

Study	Methodology	Findings
Hu, 2015 “Health communication research in the digital age: A systematic review”	Content analysis	*Online health information was the most commonly researched subject. *Quantitative survey and experiment ranked top among all the methodologies. *Usability/feasibility test and content analysis ranked the third.

When the health communication literature is evaluated in the international context, with the increase of the internet use, digital health communication has come to the fore. Many institutions carry out health communication through social media (Teichmann et al., 2020; Sumaedi et al., 2021; Uittenhout, 2012). Contents related to Covid-19 has also been reflected in governments’ official social media accounts, and health communication is frequently carried out in these channels. Although the concept of infodemic damages the trust factor in the media, social media is an essential source of information (Deevey, 2016; Al-Dmour et al., 2020; Olum et al., 2020; Uittenhout, 2012; Sumaedi et al., 2021; Teichmann et al., 2020; Lin et al., 2014; Staes et al., 2011; Maldonado et al., 2020; Hu, 2015). Findings obtained from

research in the international literature reveal the significant relationship between health communication, media, and social media (Lin et al., 2014; Teichmann et al., 2020; Olum et al., 2020; Al-Dmour et al., 2020; Deevey, 2016; Uittenhout, 2012; Sumaedi et al., 2021).

2.2. Research Related to Covid-19 and Health Communication in Turkey

When we look at the domestic studies on the outbreak, it is seen that although there are health communication studies that take place outside the digital environment, research mostly started to take place regarding social media platforms. Nowadays, when the infodemic is widespread, the studies also focus on the trust factor in the context of news sites and websites.

Considering the national selected studies in the health communication, many academic studies in Turkey reveal the importance of social media in health communication (Kaya, 2014; Karagöl, 2017; Yıldız, 2019; Işık, 2019; Geysi, 2019; Çakır, 2019; Akış, 2019; Aygün, 2017). The studies in the Turkish literature are divided into 5 categories as “social media use in health communication in the context of health institutions” (8 studies), “trust factor in health communication in the context of news sites and websites” (2 studies), “health-related messages in the cinema” (1 study), “health communication that takes place outside the digital environment” (2 studies), and “relationship between health communication and corporate reputation” (1 study).

2.2.1. The Use of Social Media in Health Communication in Turkey

With the social media covering a large area of our lives, health communication studies on social media channels continue to be conducted. Many health institutions use social media platforms effectively for health communication. Kaya (2014) conducted the first research on the use of social media in health communication and focused on Facebook (Table 6). He found out that private institutions are more unsuccessful than public institutions in using social media tools in the health sector. Similarly, Karagöl (2017) has shown that 63.3% of people use the internet when they need information on any health-related subject at Ufuk University. Yıldız (2019) emphasized that new media is effective in informing people about the risks threatening public health and raising awareness, and Işık (2019) found all hospitals

also use alternative digital communication channels other than social media channels in Erzurum and Istanbul during her research. The findings directly prove the place of new media in the health sector and the prominence of health communication in the digital world.

Geysi (2019) examined the use of social media by the health institutions in Kocaeli province, and the key finding in the research is the increasing interest in Instagram posts. The hospital posts an average of 15 posts per month on Facebook and only five on Instagram. However, the total number of likes for Facebook posts is 1438, and the total number of likes for Instagram posts is 1592. People are showing more interest in Instagram. The research also confirms that Instagram is the most used social media platform in Turkey after Youtube (We Are Social, 2021). Çakır (2019) focused on Twitter, the 5th most used social media platform in Turkey (We Are Social, 2021), and conducted a study on the Twitter account of the Ministry of Health titled “Convention Methods Used in Social Media in Fighting Drugs in the Context of Health Communication”. It has been determined that addiction is one of the last topics on the social media agenda of the Ministry in the social media posts within the scope of health communication. The findings revealed that social media in health communication is mainly used for oral and dental health, cardiovascular diseases, infectious diseases, diabetes, and eye health. Similarly, Akış (2019) investigated the effect of mass communication on health communication and the role of social media over the province of Kilis and noted that 283 people received the necessary information from their families about choosing a doctor or hospital before receiving health care. According to the research, 134 people get this information from their relatives, 191 people from their friends, 75 people from their neighbors, 105 people from social networks/social media, 94 people from health personnel, and 104 people from mass media. In addition, Aygün (2017) researched the use of social media in health communication at the Beyoğlu neighborhood in İstanbul. It was determined that 78.6% of the participants follow health websites on social media, and 72% think health-related posts on social media are remarkable. As it is shown in Table 6, the research findings of Akış (2019), Çakır (2019) and Aygün (2017) reveal that social media is also seen as an essential source of data and information in the field of health communication, and participants benefit from social media as much as they consult to health personnel.

Table 6. Mapping of the Studies on Use of Social Media in Health Communication in Turkey

Study	Methodology	Findings
Kaya, 2014 “Use of Social Media in Health Communication”	Quantitative content analysis	<p>*Private institutions are more unsuccessful in using social media tools.</p> <p>*All of the messages are supported by visuals.</p> <p>*The most liked, shared and commented messages are related to an event or social responsibility projects.</p>
Karagöl, 2017 “Location Of Social Media in Health Communication”	Quantitative research, survey	<p>*56.7.0% of the participants follow the developments related to health through social media.</p> <p>*63.3% use the internet when they need information.</p> <p>*39.4% share their satisfaction and dissatisfaction on social media.</p>
Yıldız, 2019 “The Role of Health Communication Campaigns and New Media in the Context of Prevention of Health-Related Risks”	Quantitative research, survey	<p>*New media is effective in informing people about the risks threatening public health and raising awareness.</p> <p>*The participants tend to use the new media while gaining information on health-related issues and reaching health-related experts or institutions.</p>

<p>Işık, 2019 “The Using of Digital Communication Channels in Health Communication; Analyzing of the Social Media Accounts of Sector Leaders”</p>	<p>Qualitative research, in depth interview</p>	<p>*Hospitals make their content within the rules such as the framework supported by the Ministry of Health and the protection of personal rights. *Hospitals used alternative digital communication channels.</p>
<p>Geysi, 2019 “The Role of Social Media in Health Communication: Investigation of Social Media Usage of Health Institutions in Kocaeli”</p>	<p>Content analysis and interview</p>	<p>*Hospital shares more content on Facebook than Instagram, but Instagram posts have more likes and comments than Facebook. *96% of the posts on Facebook are visual and 4% are video. *88% of the posts on the Instagram account are visual and 12% are video.</p>
<p>Çakır, 2019 “Convention Methods Used in Social Media in Fighting Drugs in the Context of Health Communication”</p>	<p>Qualitative content analysis</p>	<p>*54 tweets in total were posted by the Ministry giving information about the diseases. *Institutional information, general informative messages about health, and sharing about congratulation/commemoration were emphasized.</p>
<p>Akış, 2019 “The Effect of Mass Media on Health Communication and the Role of Social Media: the Case Study of the Province of Kilis”</p>	<p>Quantitative research, survey</p>	<p>*Before receiving health service, 105 people get information from social networks/social media, 94 people get it from health personnel and 104 people get it from mass media.</p>

<p>Aygün, 2017 “Social Media Use in Health Communication and Its Effects on Health Literacy; The Case of Beyoğlu District”</p>	<p>Quantitative research, survey</p>	<p>*Health-related posts are attractive. *Participants follow health websites on social media. *There is enough coverage of health news on social media.</p>
---	--------------------------------------	--

The research findings reveal the prominence of health communication in the digital world (Kaya, 2014; Geysi, 2019; Yıldız, 2019; Karagöl, 2017), and that social media is an essential source of data and information in the field of health communication (Akış, 2019; Çakır, 2019; Aygün, 2017). Following the national studies in the use of social media in health communication, trust factor in health communication in Turkey can be handled as the second category.

2.2.2. Trust Factor in Health Communication in Turkey

The element of trust is the building block of health communication. Currently, when the infodemic is spreading rapidly, creating a trust factor in the public during the pandemic is especially important for the management and control of the outbreak.

In the category of “trust factor in health communication in the context of news sites and websites”, Çakır (2019), focusing on the factor of trust in health communication, conducted a study on the approach of users of news sites in Turkey, and he proved that the most reliable websites are hospital sites (Table 7). Similarly, focusing on the analysis of health news and reliability in the media in Turkey, Sezgin (2010) noted that generally, the monthly distributions of published news/articles are close to each other and partially reliable (Table 7).

Table 7. Mapping of the Studies on Trust Factor in Health Communication in Turkey

Study	Methodology	Findings
Çakır, 2019 “Trust Factor in Online Health Communication: Approach of Users to News Sites in Turkey”	Qualitative and quantitative research	*The most trusted websites are hospital sites. Social content platforms are the most unreliable sites.
Sezgin, 2010 “Health Communication Paradigms and Turkey: Analysis of Health News in the Media”	Content analysis	*The greatest number of news/articles are in Hürriyet Kelebek, the least in Hürriyet Cuma. *In July and August, hot weather-related diseases and nutrition are at the forefront. *The average in March, April and May is higher than in other months.

The research findings reveal that health news published on non-hospital websites is viewed with suspicion in Turkey (Çakır, 2019; Sezgin, 2010). After national studies on the trust factor in health communication, health-related messages in the cinema in Turkey can be handled as the third category.

2.2.3. Health-Related Messages in the Cinema in Turkey

Today, communication technologies, e.g., news media, social media, and the internet are reflected in the field of cinema, and they have become an important and effective mass communication tool (Cardoso, 2007; Künüçen, 2014). For this reason, studies

on health communication are also carried out in this field. Focusing on the importance of cinema in terms of health communication, Biçermen (2021) carried out research on HIV and AIDS-positive individuals in films. The research has concluded that the films examined from world cinema are more realistic than Turkish cinema. As it is visible in Table 8, while HIV and AIDS are handled as a social problem in world cinema and characters seeking solutions to these problems are portrayed, there are false discourses about the subject in health communication messages in Turkish cinema.

Table 8. Mapping of the Studies on Health-Related Messages in the Cinema in Turkey

Study	Methodology	Findings
Biçermen, 2021 “The Importance of Cinema in Terms of Health Communication and a Research on Films Regarding HIV Positive Individuals and AIDS Stage”	Qualitative content analysis	*The “Incir Receli” movie does not reflect the right health communication messages. *5 films from world cinema were more realistic compared to Turkish cinema. HIV/AIDS is treated as a social problem.

In line with the research findings, it can be said that misinforming the audience causes some confusion in the target audience and prepares the ground for misdirection (Posetti & Ireton; 2018, Anderson & Rainie, 2017). The attitude of the media and the messages it gives to the masses have a critical role (Anwar et al., 2020). In this sense, it is possible to say that the messages and influencing power of the movies that appeal to large audiences in the context of health communication are very noteworthy. After national studies in health-related messages in the cinema, the non-digital environment in Turkish health communication can be handled as the fourth category.

2.2.4. The Non-Digital Environment in Turkish Health Communication

With the introduction of the internet and social media into our lives, although health communication practices in digital environments have become widespread, it is seen that studies on health communication outside the digital environment are still carried out. Şireci (2019) carried out a study on health communication practices at Family Medicine Centers in Malatya, and he determined that doctors do not have enough knowledge about health communication (Table 9). Experienced former doctors try to solve communication problems mostly with their own experiences. The findings reveal the need for health communication training at Family Medicine Centers in Malatya. Health communication training includes informing, influencing and motivating institutional, individual, and social masses about health problems (Göksu, 2018), and today many health institutions provide these trainings to their personnel. Similarly, Korkmaz (2017) focused on the relationship between cancer patients and doctors in health communication in Istanbul. However, she emphasized that most of the patients stated that the doctor informed them adequately, and eight out of ten patients declared that communication in treatment was influential (Table 9).

Table 9. Mapping of the Studies on Non-Digital Environment in Turkish Health Communication

Study	Methodology	Findings
Şireci, 2019 “A Study on Health Communication Practices at Family Medicine Centers in Malatya”	In depth interview	*Doctors do not have sufficient knowledge about health communication. *Experienced former doctors try to solve communication problems with their own experiences.

<p>Korkmaz, 2017 “Health Communication: the Relation with Cancer Patients and Doctor”</p>	<p>Qualitative research, in depth interview</p>	<p>*Patients treated in private hospitals think that the doctor spares enough time for the patient. *The majority of the patients stated that they were adequately informed by the doctor.</p>
--	---	---

Based on the contradictory findings of such similar studies, it can be said that the degree of effectiveness and success of health communication policies differ from institution to institution (Şireci, 2019; Korkmaz, 2017). After national studies in the non-digital environment in health communication, the relationship between health communication and corporate reputation in Turkey can be addressed as the fifth category.

2.2.5. The Relationship Between Health Communication and Corporate Reputation in Turkey

The success of an institution depends on the reputation it creates. Corporate reputation is a term for how a company is perceived by others (Esenyel, 2020). In recent years, the effectiveness and success of health communication policies are significant for the corporate reputation of hospitals and other organizations. The positive corporate image created in health communication increases the recognition and enables the institutions to be distinguished from their competitors. The academic studies in this direction have started to appear in the literature. Zağlı (2019) researched the effect of health communication on the corporate image at private and public hospitals in Istanbul (Table 10). It was determined that it is unnecessary to have a high income to receive health services from a private hospital because individuals can benefit from the services offered by private hospitals within the scope of their social security, such as SSK (Social Insurance Institution) in Turkey. “62% of the patients and their relatives who participated in the study did not negatively evaluate the hospital or its staff” (Zağlı, 2019: 40). The research proved

that brand loyalty is emotional, and the positive communication of hospital staff and doctors with patients and their relatives contributes positively to the corporate reputation of both public and private hospitals.

Table 10. Mapping of the Studies on Relationship Between Health Communication and Corporate Reputation in Turkey

Study	Methodology	Findings
Zağlı, 2019 “The Effect of Healthcare Communication on Corporate Image and Identity at Private and Public Hospitals”	Quantitative research, survey	*Patients and their relatives receiving service from private hospitals are more educated than public hospitals. *The rate of patients over 60 years old is low in both hospitals.

When the health communication literature is evaluated in the context of Turkey, most studies reveal the direct relationship between social media and health communication. In the 21st century, where communication and information flow have accelerated, social networks have created a more active mass production and dissemination of content in health communication. This situation has made the relationship between health communication and social media inevitable. The findings of the studies especially confirm that social media is an essential source of information in health issues (Zağlı, 2019; Çakır, 2019; Sezgin, 2010; Geysi, 2019; Akış, 2019; Aygün, 2017; Karagöl, 2017; Yıldız, 2019; Işık, 2019; Kaya, 2014).

Although research in the field of health communication within the scope of social media in the literature is various, academic studies in Turkey are minimal within the scope of health communication strategies (Çakır, 2019). Similar studies conducted in Turkey show that the Ministry uses social media effectively (Işık, 2019; Kaya, 2014; Çakır, 2019). However, the focus of the studies is not based on the health communication strategies of the Ministry. In this context, the present study, which will examine the official Instagram account of the Ministry of Health

within the scope of health communication strategies in the Covid-19 pandemic, will make a significant contribution to the field. Especially in pandemic situations such as Covid-19, controlling the process is of great importance. In this direction, it is thought that the analysis of health communication strategies implemented by the Ministry of Health on Instagram, a popular social media channel, will contribute to the gap in the field to a large extent because the studies carried out in the national field reveal how the Ministry uses social media rather than its health communication strategies (Gündođdu & Aydođan, 2021; Okay et al., 2020; Őenol & Avcı, 2019; Yıldırım, 2014; Sarı & Öztunç, 2021; Ateş & Baran, 2020; Kalçık & Bayraktar, 2020; Devrani, 2021; Göçođlu, 2019; Öztürk, 2021; Ilgın, 2021; Batu et al., 1970).



CHAPTER 3

METHOD, FINDINGS AND CONCLUSION

3.1. Methodology

3.1.1. Importance of the Research

Covid-19 has become a serious health problem in the world and in our country since December 2019. Governments, health institutions and public health communicators/practitioners around the world are struggling with the Covid-19 pandemic. As of December 7, 2021, while the number of Covid-19 cases worldwide is 266.791.163, the number of deaths is 5.267.806, and a total of 196 countries have encountered coronavirus. (JHU, 2021).

In the fight against Covid-19, social media is the primary source and tool because with the new media technologies created by digitalization, the orientation to the internet and social media has increased. According to the We Are social (2021) report, internet usage in the world has increased by 6% compared to 2020. The same report revealed that the use of social media in the world has increased from 4.3 billion to 4.4 billion (We Are Social, 2021). This data proves the increase in internet and social media usage. In this direction, it is possible to say that the success of health communication strategies carried out through social media is one of the most basic arguments in controlling the processes such as Covid-19.

In this study, the official Instagram account of the Ministry of Health, which is the only legally authorized institution in Turkey, is investigated. The Ministry is a prestigious and the only legal and authorized institution in Turkey that delivers its messages to large audiences with the support of the media. The Ministry is the hierarchically highest institution and decision-making body in the country. It is the most basic unit in Turkey in the context of carrying out studies in the field of health and providing health services to the society in a complete manner. During the Covid-19 pandemic in Turkey, health communication studies are carried out under the leadership of the Ministry of Health. Therefore, Turkish Ministry of Health constitutes the study area of the research. Since Instagram is the most used social

media platform in Turkey after Youtube (We Are Social, 2021), Ministry's official Instagram account was chosen within the scope of the research.

Instagram is an American photo & video sharing application founded on October 6, 2010 (Kaya, 2019). According to the We Are Social (2021) report, while Instagram is the 5th most used social media platform in the world, it is the 2nd in Turkey (We Are Social, 2021). The same report shows that Instagram ranks 2nd among the best social and video streaming apps in the world, and 3rd in Turkey (We Are Social, 2021). Ministry of Health joined Instagram on January 15, 2013. The Ministry, which has shared a total of 4677 posts since joining, has reached 3.1 million followers on Instagram as of December 20, 2021. Instagram, a popular social media platform in Turkey, has been included in the research since it is also actively used by the Ministry of Health, which is the most legally authorized institution in the country.

3.1.2. Research Questions and Hypothesis

The main research questions are:

- What kind of a communication strategy does the Ministry of Health implement on social media in the context of health communication?
- What kind of posts does the Ministry of Health share on Instagram during the Covid-19 pandemic?
- To what extent does the Ministry of Health include posts on Covid-19 on Instagram? How does it handle shares?
- Who are the actors frequently featured in the posts? Who are the politicians, ministers or other public figures, in what tone are posts often handled?

The hypothesis determined within the framework of the research questions determined above:

(H1) It is claimed that health-related content shared by official institutions/organizations on social media in Turkey creates a positive behavioral

change in the society during the Covid-19 pandemic. It is claimed that the Ministry of Health supports positive behavior change with the content shared on Instagram.

In the context of the hypothesis, the primary purpose will be to understand the communication strategy of the Ministry of Health on social media during the Covid-19 pandemic. The answer to the “how” question will be sought.

3.1.3. Method of the Research

In this study, quantitative and qualitative content analysis method is used to analyze the data. In this context, inferences are made in line with a number of quantitative or qualitative indicators. The attitude of the Ministry on health communication strategies in the Covid-19 pandemic has been tried to be understood through social media. The analysis is carried out on visible and explicit messages. For this reason, the conclusion is reached in the direction of the inferences made with the logical method and the observations.

3.1.4. Sample of the Research

The sample frame is one of the reliability and validity criteria of the research (Toker, 2012) and is formed as follows: The 404 posts shared by the Ministry of Health from the date of the first Instagram post about Covid-19 (January 23, 2020) until the transition to the first normalization process (June 1, 2020) were selected. Then it was coded according to predetermined categories. All posts shared between the specified dates (January 23, 2020 – June 1, 2020) were taken as a sample.

3.1.5. Research Categories and Variables

The most basic point in content analysis is categories. In this study, the categories were created by using the categories used in similar studies, and the variables were determined. This situation affects the validity and reliability of the research highly positively. Since the clarity of the categories increases the reliability of the coding (Baltacı, 2017), the categories used in this study were determined in line with the categories used by H. Laswell (1952) in the content analysis application. Since the validity dimension of the content analysis is to ensure the suitability of the tools in line with the objectives (Bilgin 2006), attention was paid to be objective, distinctive, homogeneous and holistic while determining the categories of this study. The

identical posts were re-encoded on different days, and the same codings were reached. Thus, the reliability of the coders and categories were ensured. The analyzed posts are only the posts made by the Ministry on Instagram within the specified dates. The research questions and data that can be tested for the hypotheses were obtained accordingly.

Starting from the first Instagram post related to Covid-19 (January 23, 2020), to the process considered as the beginning of the first normalization process in the country (June 1, 2020), all of the shared posts were revealed in detail. The posts from Instagram, which are the units determined in line with the research, were grouped under 13 different categories and coded. The posts related to the subject were determined one by one, photographed, viewed on the computer, and coded in line with the determined variables by scanning from the social media, which is a digital medium. Then it is presented with tables. Quantitative content analysis and numerical data were used in this study. At the same time, a qualitative content analysis was carried out regarding the content of the posts and the tone of the actors used. The study offers a more comprehensive perspective by using both methods as a complementary approach.

Research data were coded according to the following 13 variables: “topics of the posts”, “source/actors in the posts”, “information shared in the posts related to Covid-19”, “target audience of the posts related to Covid-19”, “interaction of the posts related to Covid-19”, “relation of the posts related to Covid-19 with constraints”, “hashtags in the posts related to Covid-19”, “information shared in the posts related to institutional information”, “tone of the posts related to the statements made by ministry or government officials”, “information shared in the posts related to commemoration & condolence & celebration”, “information shared in the posts related to general health information”, “information shared in the posts related to physical diseases”, “information shared in the posts related to mental health”. The coding method used in the research was adapted from the coding system used by Şennur Çakır from Gazi University in the thesis titled “Convention Methods Used in Social Media in Fighting Drugs in the Context of Health Communication” in 2019.

- **Topics of the Posts**

The first variable is intended to determine the topic distribution of all posts shared on Instagram within the specified date and the rate of the posts related to Covid-19 during the outbreak. Topics shared in the posts other than Covid-19 are “institutional information”, “general health information”, “commemoration & condolence & celebration” and “mental health”.

- **Source/Actors in the Posts**

In the second variable, the aim is to identify the main source/actors of the shared posts and to determine what/who is often featured in the posts. The main source/actors in the shared posts are “Ministry of Health & ministry officials or government officials”, “academicians” and “actors & singers”.

- **Information Shared in the Posts Related to Covid-19**

The third variable aims to determine what kind of messages the posts related to Covid-19 convey in the context of behavior change during the outbreak. The variable is coded as “cases & deaths & number of tests”, “protective measures”, “transmission path & risk & symptom”, “use of masks” and “social distance & isolation”.

- **Target Audience of the Posts Related to Covid-19**

The fourth variable is related to seeking an answer to the question “Who are the messages for in the posts related to Covid-19?” The target audience of the shared posts includes “general followers”, “smokers” and “elders”.

- **Interaction of the Posts Related to Covid-19**

The fifth variable refers to the interaction of the posts related to Covid-19 with the target audience. This variable aims to determine “the number of likes and comments of the posts” and to find out “the rate of viewing of the posts with video content”.

• **Relation of the Posts Related to Covid-19 with Constraints**

The sixth variable determines whether the shared posts related to Covid-19 have the element of “restriction”. The element of restriction in the shared posts is “cigarettes” in the context of “fear”.

• **Hashtags in the Posts Related to Covid-19**

Hashtags are phrases used with the symbol “#”, and enable the content shared on social media to reach more people. The seventh variable is the determination of hashtag expressions in the posts related to Covid-19. The prominent hashtags in the shared posts are “#SağlıkElimizde”, “#TamZamanı”, “#BirlikteYeneceğiz”, “#RamazanBayramı”, “#SağlıklıRamazan”, “#BayramdaEvdeyiz” and “#HayatEveSığar”.

• **Information Shared in the Posts Related to Institutional Information**

The eighth variable aims to determine the messages included in the posts shared in the context of institutional information during the outbreak. The variable is coded as “statements made by ministry or government officials”, “institutional visits and receptions”, “statements made by experts on the subject”, “general meeting activities”, “statements made by well-known singers/actors in the country” and “explanations for informing about the HES application”.

• **Tone of the Posts Related to the Statements Made by Ministry or Government Officials**

The ninth variable aims to determine the tone of posts related to the statements made by ministry or government officials and is coded as “positive”, “neutral” and “negative”.

• **Information Shared in the Posts Related to Commemoration & Condolence & Celebration**

The tenth variable aims to determine the messages included in the posts related to commemoration & condolence & celebration during the outbreak. The variable is coded as “health workers”, “medical related days” and “national days”.

• **Information Shared in the Posts Related to General Health Information**

The eleventh variable aims to determine what kind of messages the posts related to general health information contain during the outbreak. The variable is coded as “food safety & expiration date”, “healthy diet”, “personal hygiene & oral & dental health”, “sleep patterns and regular exercise”, “nutrition in Ramadan” and “harms of alcohol and cigarettes”.

• **Information Shared in the Posts Related to Physical Diseases**

The twelfth variable is the detection of the information/message transmitted in the posts related to physical diseases during the outbreak. The variable is coded as “obesity”, “Crohn's disease and ulcerative colitis”, “phenylketonuria”, “multiple sclerosis” and “asthma”.

• **Information Shared in the Posts Related to Mental Health**

Restrictions made during outbreak periods such as curfew and isolation can have a negative impact on people. In this direction, mental health comes to the fore. The last variable is the determination of the messages given to the target audience in the posts related to mental health during the outbreak. The variable is coded as “things to do for better mental health” and “correct behavior patterns that should be applied to children and the young”.

Through the variables determined above, it has been tried to determine the research question, how much the Ministry of Health gives place to the posts about Covid-19 on Instagram and how it handles the posts. Thus, the hypothesis of the study (H1) that the Ministry of Health supported positive behavior change in the society with the content shared on Instagram during the Covid-19 pandemic was tested.

3.1.6. Limitations of the Research

Within the scope of the research, Instagram, which is the most used social media platform after Youtube in Turkey (We Are Social, 2021), was discussed and the Instagram posts of the Ministry was examined in line with health communication strategies. The limitation of the research is the analysis of the period from the date the Ministry shared the first post related to Covid-19 on Instagram (January 23,

2020) to the date considered as the beginning of the first normalization process in Turkey (June 1, 2020).

3.2. Findings

The research was carried out by sampling 404 posts from the official Instagram account of the Ministry of Health (@saglikbakanligi) between January 23, 2020 and June 1, 2020. The findings were evaluated qualitatively and quantitatively.

3.2.1. Quantitative Findings

Based on a total sample of 404 posts examined, it has been determined that the posts are mainly related to Covid-19. 164 of 404 posts are related to Covid-19. The most frequently shared subject after Covid-19 is the posts related to institutional information, a total of 140 posts have been shared on this subject. After the institutional information, the most frequently shared subjects are general health information (43), commemoration & condolence & celebration (39) and mental health (13). It was determined that the subject with the least number of posts on Instagram between the specified dates is physical diseases (Table 11).

Table 11. Topic Distribution of the Posts on Instagram Account

The Topics	The Number (N)	The Percentage (%)
Covid-19	164	40,5
Institutional information	140	35,5
General health information	43	10,3
Commemoration & condolence & celebration	39	9,4
Mental health	13	3,1
Physical diseases	5	1,2
Total	404	100

The second variable is “source/actors in the posts”. In 396 of 404 posts, Ministry of Health itself and ministry officials or government officials came to the fore as the main source/actor. This rate corresponds to approximately 98% of the total posts. It has been clearly seen that the Ministry of Health has positioned itself or other ministry & government officials in the shared posts. In addition, while academicians with the professor title in the medical field were in the role of actor in 6 posts, it was concluded that a well-known singer in the country was in the role of actor in 2 posts.

Table 12. Source/Actors of the Posts on Instagram Account

Source/Actor	Number of Posts	Percentage (%)
Ministry of Health, ministry officials or government officials	396	97,6
Academicians	6	1,4
Actors/Singers	2	1,0
Total	404	100

In the third variable, which is “information shared in the posts related to Covid-19”, 79 of the contents were “cases & deaths & number of tests”, 42 were “protective measures”, 28 were “transmission path & risk & symptom” and 12 were “use of masks.” Posts for mask use included “correct use of the mask” (9), “not throwing the mask on the ground due to health reasons” (2), and “making masks at home with easy methods” (2). As indicated in Table 13, “social distance & isolation” is the least mentioned information in the posts. Within the framework of the 4 months’ review on the Instagram account, it was determined that there were only 3 posts on “social distance&isolation”.

Table 13. Distribution of the Posts Related to Covid-19 on Instagram Account

The Topics	The Number (N)	The Percentage (%)
Cases, deaths, number of tests	79	48,3
Use of masks	12	7,3
Protective measures	42	25,6
Transmission way, risk, symptom	28	17,0
Social distance, isolation	3	1,8
Total	164	100

In the fourth variable, which is “target audience of the posts related to Covid-19”, it was concluded that the majority of the target audience group consists of “general followers” (158), and the rest are “smokers” (3), “elders” (3) (Table 14). For general followers, emphasis was placed on protection and precautions against coronavirus (42), and individual methods such as personal hygiene, social distance and isolation were highlighted. For smokers, it was emphasized that smoking complicates the recovery process during Covid19 outbreak, and the possibility of death was pointed out.

Table 14. Target Audience of the Posts Related to Covid-19 on Instagram Account

Target Audience	The Number (N)	The Percentage (%)
General followers	158	96,4
Smokers	3	1,8
Elders	3	1,8
Total	164	100

In the fifth variable, which is “interaction of the posts related Covid-19”, it was concluded that the rate of likes of the posts are over 10,000. The likes of 116 posts

are between 10,000-100,000. Considering the total number of posts in this variable (164), this number corresponds to approximately 71% (Table 15). As seen in Table 15, 14 posts have likes between 1000-9.999 while 5 posts have likes between 0-999. While 14 posts with likes between 1000-9.999 constitute 8,7% of the total, 5 posts with likes between 0-999 constitute 3% of the total posts.

Table 15. Number of Likes of the Posts Related to Covid-19 on Instagram Account

The Likes	The Number of Posts	The Percentage (%)
0-999	5	3,0
1000-9.999	14	8,6
10.000-99.999	116	70,7
+100.000	29	17,7
Total	164	100

Considering the comment rates, it was determined that the comments were predominantly in the range of 0-499, and there were 85 posts in this range. There are 55 posts with 500-999 comments and 13 posts with 1000-1,499 comments. While there are 8 posts with over 2000 comments, 3 posts have between 1500-1,999 comments. As seen in Table 16, this rate corresponds to approximately 2% of the total posts. In general, it was concluded that the comments were lower than the likes.

Table 16. Number of Comments of the Posts Related to Covid-19 on Instagram Account

The Comments	The Number of Posts	The Percentage (%)
0-499	85	51,9
500-999	55	33,6
1000-1.499	13	7,9
1500-1.999	3	1,8
+2000	8	4,8
Total	164	100

There is visual use in all of the posts related to Covid-19. While photographs, graphics, and illustrations were used in 119 shared posts, videos were used in 45 posts. When the viewing rate of the videos is evaluated, as of September 25, 2021, the highest viewing rate of the videos is 495.680, and the lowest rate of viewing is 9.517. While there were 25 video posts viewed between 100,000-399.999, 18 video posts viewed between 0-99.999 were detected. As seen in Table 17, there are only 2 video posts viewed over 40,000. This rate corresponds to approximately 5% of the total posts. Video posts are most frequently viewed between 100,000-399,999 and the least viewed range is over 40,000.

Table 17. The Number of the Views to the Video Posts Related to Covid-19 on Instagram

The Rate of Viewership	The Number of Posts	The Percentage (%)
0-99.999	18	40,0
100.000-399.999	25	55,6
+400.000	2	4,4
Total	45	100

In the sixth variable, which is the “relation of the posts related to Covid-19 with constraints”, it has been determined that only 2 of the 164 shared posts related to Covid-19 contain a constraint element. This rate corresponds to 1.2% in total posts. In both posts, the type of constraint draws attention to the element of fear during the Covid-19 outbreak. The prominent element in the constraint in 2 shared posts is cigarettes.

Table 18. Constraints in the Posts Related to Covid-19

Type of Constraints	Element of Constraints	The Number of Posts	Percentage (%)
Fear	Cigarettes	2	1,2
Total	1	164	100

In the seventh variable, which is “hashtags in the posts related Covid-19”, a total of 27 hashtags were used. While the most frequently used hashtag is #HayatEveSığar (10), the least used are #SağlıklıRamazan (1), #RamazanBayramı (1), #TamZamanı (1), #BayramdaEvdeyiz (1). These rates correspond to 37% and 3.7% of the total posts. As seen in Table 19, the hashtag #BirlikteYeneceğiz has been used 7 times and #SağlıkElimizde has been used 6 times.

Table 19. Hashtags Distribution of the Posts Related to Covid-19 on Instagram Account

The Hashtags	The Number (N)	The Percentage (%)
#SağlıkElimizde	6	22,3
#TamZamanı	1	3,7
#BirlikteYeneceğiz	7	25,9
#RamazanBayramı	1	3,7
#SağlıklıRamazan	1	3,7
#BayramdaEvdeyiz	1	3,7
#HayatEveSığar	10	37,0
Total	27	100

In the eighth variable, which is “information shared in the posts related to institutional information”, “statements made by the ministry officials or government officials” (89) is the most emphasized in the institutional information variable. This rate corresponds to approximately 64% of the total posts. After “statements made by ministry officials or government officials”, the most emphasized are “general meeting activities” (21) and “explanations for informing about the HES application” (16). The least highlighted are “statements made by well-known singers/actors in the country” (2). This rate constitutes 1.2% of the total posts. As indicated in Table 20, other points mentioned are “institutional visits and receptions” (6), “statements made by experts on the subject” (6).

Table 20. Distribution of the Posts Related to Institutional Information on Instagram Account

The Topics	The Number (N)	The Percentage (%)
Statements made by the ministry or government officials	89	63,6
Institutional visits and receptions	6	4,2
Statements made by experts on the subject	6	4,2
General meeting activities	21	15,0
Statements made by well-known singers/actors in the country	2	1,5
Explanations for informing about the HES application	16	11,5
Total	140	100

In the ninth variable, which is the “tone of the posts related to the statements made by ministry or government officials”, it was found that the actors conveyed messages in a primarily positive tone (81). This rate corresponds to approximately 92% of the total posts. While 8 posts are neutral, there are not any negative-toned posts. As seen in Table 21, it was concluded that the negative tone was avoided in the posts, and even if there is a neutral tone, the positive tone was mostly prominent. Similarly, in other studies conducted within the scope of health communication in social media (Kite et al., 2016), it was seen that a positive communication strategy with the rate of %84 is used in the posts.

Table 21. Tone of the Posts Related to the Statements Made by Ministry or Government Officials on Instagram Account

Tone of the Posts	The Number (N)	The Percentage (%)
Positive	81	91.1
Negative	0	0
Neutral	8	8,9
Total	89	100

In the tenth variable, which is “information shared in the posts related to commemoration & condolence & celebration”, 39 posts were identified, and it was determined that the shared posts focused on “health workers” (16) and “medical-related days” (15). These rates correspond to 41% and 38.4% of the total posts. It was concluded that health workers and medical-related days were the most emphasized in the posts during the pandemic. The least emphasized posts are “national days” (8), and this rate constitutes approximately 21% of the total posts (Table 22).

Table 22. Distribution of the Posts Related to Commemoration & Condolence & Celebration

The Topics	The Number (N)	The Percentage (%)
Health workers	16	41,0
Medical related days	15	38,4
National days	8	20,6
Total	39	100

In the eleventh variable, which is “information shared in the posts related to general health information”, there are a total of 43 posts shared. The most frequently mentioned were “Nutrition in Ramadan” (17), “personal hygiene, oral & dental health” (13) and “healthy diet” (9). Apart from that, it was determined that subjects such as “food safety, expiration date” (1), “sleep pattern and regular exercise” (1), “harms of alcohol and cigarettes” (2) were given less attention. Posts shared about

general health information are not entirely focused on one particular topic as they focus on many topics.

Table 23. Distribution of the Posts Related to General Health Information on Instagram Account

The Topics	The Number (N)	The Percentage (%)
Food safety, expiration date	1	2,3
Healthy diet	9	20,9
Personal hygiene, oral & dental health	13	30,3
Sleep patterns and regular exercise	1	2,3
Nutrition in Ramadan	17	39,5
Harms of alcohol and cigarettes	2	4,7
Total	43	100

The twelfth variable, which includes data on “information shared in the posts related to physical diseases”, contains an even distribution. Only 5 posts shared in this variable are coded (Table 24). These are “obesity” (1), “phenylketonuria - an inherited disease” (1), “multiple sclerosis - nervous system disease” (1), “Crohn's disease and ulcerative colitis - intestinal diseases” (1) and “asthma” (1). This rate corresponds to 1.2% of the total post (404) shared in the determined process.

Table 24. Distribution of the Posts Related to Physical Diseases on Instagram Account

The Topics	The Number (N)	The Percentage (%)
Obesity	1	20,0
Crohn's disease and ulcerative colitis	1	20,0
Phenylketonuria	1	20,0

Multiple sclerosis	1	20,0
Asthma	1	20,0
Total	5	100

In the last variable, which is “information shared in the posts related to mental health” a total of 13 posts were observed. It has been concluded that most of the posts are based on “things to do for better mental health” (10) in the Covid-19 pandemic. This rate corresponds to approximately 77% of the total. As seen in Table 25, the least emphasized topic in the posts is “the correct behavior patterns that should be applied to children and the young” during Covid-19 outbreak. In this process, the number of posts that include the correct behavior patterns towards children and the young is only 3. This rate corresponds to 23.1% of the total posts. The posts that include the correct behavior patterns towards children and the young involve “activities related to spending the quarantine process at home efficiently”.

Table 25. Distribution of the Posts Related to Mental Health on Instagram Account

The Topics	The Number (N)	The Percentage (%)
The things to do for better mental health	10	76,9
The correct behavior patterns that should be applied to children and the young	3	23,1
Total	13	100

According to the quantitative findings mentioned above within the scope of the research although there are posts on “institutional information”, “commemoration & condolence & celebration”, “general health information”, “physical diseases”, “mental health”, the most shared subject on Ministry's Instagram account during the outbreak is “Covid-19”. The findings reveal that the Ministry mostly positions itself as an actor in its posts in a positive tone, the most frequently shared information related to Covid-19 is on the number of cases & deaths & tests, and the posts appeal

to general followers. Following the quantitative findings, the data will be evaluated qualitatively below.

3.2.2. Qualitative Findings

This study determined that the content related to Covid-19 was preferred more frequently in the posts the Ministry of Health shared from the official Instagram account between January 23, 2020, and June 1, 2020. 164 of the 404 posts shared between the specified dates were coded related to Covid-19. After it was determined that the shared posts were mainly related to Covid-19, it was found that the other part of the posts mainly focused on institutional information. While “death & case & test numbers” emphasized most frequently in posts related to Covid-19, it was seen that the most frequently highlighted post under institutional information was “statements made by the ministry or government officials”.

The research revealed 9 qualitative findings. These are “posting death & case & test numbers with images”, “sharing visual posts with hygiene content to encourage positive behavior”, “using famous singers/actors or experts in posts to emphasize protective measures”, “using hashtags that emphasize unity”, “creating a positive perception with the tone of the posts”, “considering Covid-19 as an individual problem in the posts such as mask usage & HES application promotion”, “raising awareness for general health in posts related to special days”, “reflecting cigarettes as a fear element in the posts”, and “low rate of comments, likes and views of the video posts”.

Firstly, it was noted that the Ministry shared posts to combat the Covid-19 outbreak as a general approach and produced specific content related to the pandemic process in this context. Although a general approach is adopted in informing about the cases, deaths, test numbers, way of transmission, risk and symptoms, there is limited content shared on social distance and isolation, which are one of the essential ways of the fight against the coronavirus. The messages mainly contain cases, death, test information, and precautions for protection in the posts. The most emphasized subject is the number of cases, deaths, tests and recovery information. In order to successfully manage the process of combatting the pandemic, it is crucial to

regularly inform the public transparently about the current situation in societies. For this reason, it is thought that information on the cases, deaths, tests and recovery were pointed out. In addition, it is possible to say that the blue color used by the Ministry in the tables reflects “hope”.



Figure 1. Instagram post dated May 30, 2020

Secondly, it has been determined that there are purposes of informing, raising awareness, controlling & reducing & preventing the risk related to Covid-19 in the posts. Although some messages emphasize more than one purpose in the posts, it is aimed for the followers to be informed about Covid-19 and to exhibit appropriate behavior, especially in hygiene. In this direction, the followers are informed about the appropriate hygiene behaviors to support the Covid-19 outbreak. It was seen that the Ministry shared detailed information in the posts so that the followers could understand personal hygiene and proper handwashing behavior. It was found that the information about hygiene-based protective measures is the second most frequently emphasized topic related to Covid-19. This finding confirmed the research

hypothesis and proved that the Ministry supports positive behavior change in society with the posts shared.



Figure 2. Instagram post dated February 17, 2020

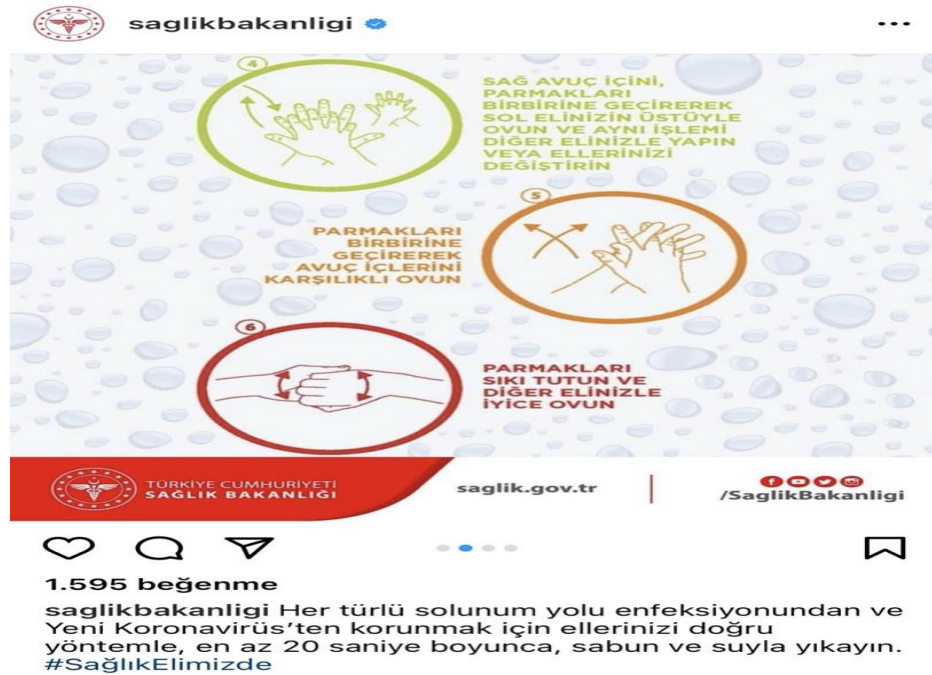


Figure 3. Instagram post dated February 17, 2020

Thirdly, it is seen that calls are mainly made for the personalization of protective measures in the shared posts. In order to be protected from the virus, the measures for Covid-19 were individualized, emphasizing issues such as personal hygiene, social distance, and social isolation. It was emphasized that the risk would be minimized if the rules specified were followed individually. The Ministry supports the importance it attaches to the subject by using the well-known people of the country (actors/singers) in its posts. Two well-known actors emphasize personal precautions in the country during the Covid-19 outbreak in 2 of the posts. When protective measures are not implemented, the damage to a person's health is highlighted in the posts. Apart from that, as in other studies (Çakır, 2019), it was seen that two male academicians, who have a professor title, shared their information on the subject in 6 video shares. In addition, it was observed that the posts did not include any experts other than professors in medicine. No ordinary patients or citizens were found in any of the posts. Supporting the contents of audio, video, and written messages with an expert opinion increases the effectiveness of the messages given by the Ministry. Detailed information is given about the measures taken by the Ministry, the symptoms of the virus & the way of transmission in these video posts. In addition, Ministry of Health placed its logo on the written, audio, and video posts it shared. The presence of the logo at the end of all videos, under the images, gives visibility to the Ministry.



18.236 görüntüleme

saglikbakanligi Yeni Koronavirüs ile ilgili güvenilir güncel bilgileri Türkiye Cumhuriyeti Sağlık Bakanlığının web sitelerinden ve sosyal medya hesaplarından takip edebilirsiniz.

Figure 4. Instagram post dated February 7, 2020



330.519 görüntüleme

saglikbakanligi TANER ÖLMEZ de bizim söylediklerimizi söylüyor. - Koronavirüs Riskinden Korunmak İçin 14 Kural PAYLAŞIN, Koronavirüsün yayılmasını önleyin.

Figure 5. Instagram post dated March 16, 2020

Fourthly, during the pandemic, hashtags such as #BirlikteYeneceğiz, #HayatEveSığar, #TamZamanı have often emphasized “unity” and “togetherness”. Emphasizing the sense of unity through hashtags will accelerate the achievement of the goal in the context of strategic communication, as the society is prone to emotional reactions.

As the fifth point, it is noteworthy that there are few posts that are described as neutral on the Ministry's Instagram account. According to statements made by ministry officials or government officials, only 8 of the 89 posts are in the neutral category. It was determined that the majority of the posts contained a positive tone. According to the research results, the Ministry of Health preferred to create a positive perception with the explanations and message contents in the posts. Creating a positive perception in the society in the context of strategy during risky periods such as the pandemic facilitates control of the process and encourages positive behavior change.

As for the sixth point, the target audience groups of the posts are identified as “general followers,” “cigarette addicts,” and “elderly” in the research. The findings directly reveal the limitations of the target audience. The Ministry did not focus on a specific audience such as children, young people and women in its posts. It only produced content for general followers.

The absence of a specific target audience in the posts is a significant problem. It may be an obstacle to the positive behavior change desired to be created during the pandemic.

For general followers, the emphasis was placed on being protected against the coronavirus and the measures to be taken. The ways and precautions to be protected against the coronavirus were handled as an individual problem. Moreover, individual methods of combating the virus were highlighted in the posts. Individual methods such as personal hygiene, social distance and isolation were emphasized. What the target audience should do in the fight against Covid-19 is not limited to personal hygiene and proper handwashing; furthermore, information about the use of masks is also given. “The correct use of the mask,” “not throwing the mask on the ground for

health reasons,” “making masks at home with easy methods” are imposed. In addition, applications developed for easy, safe access to the main points needed during the outbreak and to determine the risk situation were highlighted. In general, followers were asked to take appropriate precautions for their health and to follow the rules.



Figure 6. Instagram post dated April 4, 2020



Figure 7. Instagram post dated April 7, 2020



Figure 8. Instagram post dated April 18, 2020



Figure 9. Instagram post dated April 18, 2020

As the seventh point, it has been determined that the general approach of the Ministry is to inform the public and raise awareness while providing information on physical diseases and general health information affecting the general population. Such information is also included in the posts about special days. Emphasizing the harms of salt in the World Salt Awareness Week and giving information about the characteristics/prevention of malaria on World Malaria Day proves this.



2.258 beğenme

saglikbakanligi Fazla tuz tüketimi, başta hipertansiyon olmak üzere, kalp hastalıklarına, sıvı elektrolit dengesi bozukluklarına ve böbrek yetmezliği gibi kronik hastalıklara sebep olabilir.

#DünyaTuzaDikkatHaftası

Figure 10. Instagram post dated March 10, 2020



Figure 11. Instagram post dated April 25, 2020

As for the eight point, it seems that methods of persuasion used are “informing”, “explaining the harms”, “guiding” and “encouraging”. In general, information content is shared that points to other diseases related to Covid-19. It was found that the element of fear was used within the scope of a healthy life in the Covid-19 outbreak in some of the posts. It was emphasized in a video that smoking makes individuals vulnerable to the coronavirus, complicates treatment, and reduces the likelihood of recovery. Visuals in the video supported the adverse effects of smoking on individuals during the Covid-19 period. Another post emphasized that those with chronic diseases such as asthma & COPD (Chronic Obstructive Pulmonary Disease) are affected by the Covid-19 outbreak more. It is stated that smoking triggers such diseases, and the risk of death is high in the Covid-19 outbreak. The posts shared in the Covid-19 period are presented as an “imposition” element in preventing smoking. The danger of smoking-related chronic diseases and risk of death in the Covid-19 pandemic come to the fore in the posts. This element, which is stated as a precaution, also includes the message of fear. The message given is “If you smoke during the Covid-19 period, you are very close to chronic diseases and death.”



saglikbakanligi



166.745 görüntüleme

saglikbakanligi Sigara,
Koronavirüs'e karşı kişiyi savunmasız kılar
Tedaviyi zorlaştırır
İyileşme ihtimalini düşürür Şimdi sigarayı bırakmanın
#TamZamanı

Figure 12. Instagram post dated April 6, 2020

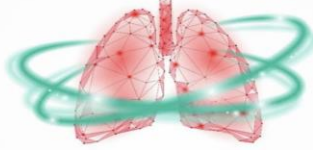


saglikbakanligi



Sigara veya nargile içmek
**Yeni Koronavirüs Hastalığı'na
yakalanma riskini artırır.**

Tütün ve tütün ürünlerinin kullanımı
hastalığın ağır seyretmesine neden olur.



Sağlığınız için
TÜTÜN VE TÜTÜN ÜRÜNLERİNDEN
UZAK DURUN



TÜRKİYE CUMHURİYETİ
SAĞLIK BAKANLIĞI

saglik.gov.tr

/SaglikBakanligi



19.526 beğenme

saglikbakanligi Sigara veya nargile içmek Yeni Koronavirüs
Hastalığı'na yakalanma riskini artırır.

Sağlığınız için tütün ve tütün ürünlerinden uzak durun.

Figure 13. Instagram post dated March 28, 2020

Lastly, all of the posts shared related to Covid-19 have visual components. While photographs, graphics, and illustrations were used in 119 posts, videos were used in 45 posts. The visual content of the posts consists of “written texts,” and “images of senior executives & well-known actors/singers.” Apart from that, “hand & soap & mask & home & Covid-19” images are frequently used. When the viewing of the videos is evaluated, it is seen that they were watched in the range of 9.516-461.000. (as of September 25, 2021) Considering the overall number of followers (3.1 million as of September 25, 2021), it can be said that the viewing rates of the posts with video content and the general comment & like rates of the posts are low. Similarly, the research findings titled “Convention Methods Used in Social Media in Fighting Drugs in the Context of Health Communication” show that the rate of watching the videos on the Ministry’s Facebook account is 2% in proportion to the number of followers (Çakır, 2019). It is possible to say that the duration of the video or the highlighted image in the video may cause fewer views.

According to the qualitative findings, the Ministry has informed and encouraged the followers and used a language that creates a positive perception to manage the process in the Covid-19 outbreak successfully. The Ministry often gave positive messages in the posts and directed the society to the desired behavior change with messages of hope. It was determined that “ministry or government officials” identified as actors in institutional information mostly handled the messages in a positive tone. Although neutral messages were seen, there was not a single negative message. It shared the daily number of cases & deaths & recovery and informed its followers about the process, and ensured transparency to enable trust, one of the most crucial elements of societies during the outbreak. It also created an ordinary consciousness by frequently including personal and social measures in its posts. It has created a perception of trust and unity in the society with various applications it has developed, such as HES (Hayat Eve Sığar).

Conclusion

Covid-19, which emerged in Wuhan, China in December 2019, affected the whole world in a short time, reached the level of pandemic, and caused social & economic losses. As of December 11, 2021, while the number of Covid-19 cases worldwide is 269.263.590, the number of deaths is 5.298.223, and a total of 196 countries have encountered coronavirus. (JHU, December 11, 2021). The concept of communication, which has been the basis of our lives since our existence, has become the most needed tool in societies, especially during the pandemic period. In order to control the outbreak during pandemic periods, “appropriate forms of communication”, which is desired to be created in societies, has brought the concept of “strategic communication” to the fore. In this sense, governments/health institutions/health communicators have turned to various communication strategies to successfully manage the outbreak.

The media is an essential tool in health communication in informing the public and managing the pandemic; for this reason, health communicators, practitioners, and institutions always need the support of the media (Hyer & Covello, 2005; Schein et al., 2010; Anwar et al., 2020; Su et al., 2021; OECD, 2020). With the introduction of the concept of digitalization and the internet into our lives, new media technologies have come to the fore, and these technologies have brought along various social media platforms. Social media platforms, which pioneered the sharing of various information in one-way/two-way/simultaneous modes, have become an inevitable interaction area for many individuals/health institutions today. Strategic communication implemented through social media platforms is of extra importance, especially during pandemic periods as misinformation spread on the internet can drag the society into chaos.

In this study, which was limited between January 23, 2020 and June 1, 2020, the Instagram account of the Ministry of Health, which is hierarchically the most authorized and prestigious institution in the country, was examined within the scope of health communication strategies during the Covid-19 pandemic. Since it is of great importance to control the process during the pandemic, it was thought that the

analysis of the health communication strategies implemented by the Ministry of Health on Instagram would greatly contribute to the field.

Within the scope of the research, the data obtained in the context of “Covid-19”, “health communication”, “social media” can be expressed under 3 main headings:

- Findings of research carried out in the international literature between 2009-2021
- Findings of research carried out in Turkish literature between 2009-2021
- The findings of the research carried out on the official Instagram account of the Turkish Ministry of Health between January 23, 2020 and June 1, 2020

Research conducted in the international literature in the context of “Covid-19”, “health communication”, and “social media” between 2009-2021 directly reveals the relationship between Covid-19, health communication, social media and digitalization (Lin et al., 2014; Teichmann et al., 2020; Olum et al., 2020; Al-Dmour et al., 2020; Deevey, 2016; Uittenhout, 2012; Sumaedi et al., 2021; Akhmad, 2020). Similarly, according to the studies carried out in the Turkish literature in the context of “Covid-19”, “health communication”, and “social media” between 2009-2021, although academic studies in Turkey are minimal within the scope of health communication strategies (Çakır, 2019), social media is an important source of information in the field of health communication (Akış, 2019; Çakır, 2019; Aygün, 2017). Studies conducted in both literatures show that health communication and studies in this field are transferred to social media with digitalization. Today, health institutions/communicators come to the fore with various communication policies implemented through social media.

Within the scope of the research, in the analysis carried out on the official Instagram account of the Ministry of Health between January 23, 2020 and June 1, 2020, it was seen that the Ministry used Instagram as an effective communication tool during the Covid-19 outbreak. The Ministry shared a total of 404 posts on Instagram in 129 days. It was seen that the Ministry shared more than 1 post every day. The subject

distribution of the posts is “Covid-19”, “institutional information”, “general health information”, “commemoration & condolence & celebration”, “mental health”, and “physical diseases”. In line with this distribution, the second research question covering “what kind of posts the Ministry made on the dates determined during the Covid-19 outbreak” was answered.

During the pandemic, the most weighted subject in the posts is Covid-19. The most frequently shared information on Covid-19 is “the number of cases & deaths & tests” and “protective measures”. Protective measures, social distance, isolation and use of masks are personalized in the posts and Covid-19 has been treated as an “individual problem”. In this direction, the third research question, which covers “to what extent Covid-19 is included and how the virus is handled” was answered in the posts.

The target audience of the posts is “general followers”, the Ministry has not focused on a specific audience. Although academicians and well-known singers are seen as the source/actor in the posts, the main sources/actors are the “Ministry of Health”, “ministry officials”, and “government officials”. One of every two posts refers to the Ministry. The Ministry of Health has become the personalized face of the pandemic. Since the society is affected by the personal message, this strategy is of a target-oriented nature. The source/actor tone is 91% positive. In this direction, the fourth question of the research, which is related to the “actors in the posts and tone of the actors” was answered. When the tones of actors are evaluated, it is possible to say that the Ministry of Health has addressed the public quite sincerely for the first time in the history of the country. This period can be characterized as the most important transformation point in terms of strategic communication applied both in social media and in press conferences.

The basis of the health communication strategies carried out by the Ministry of Health on Instagram, which is a popular social media platform, is “informative & persuasive communication”. During the Covid-19 outbreak, the Ministry informed the society, created a trust factor, and encouraged people to change appropriate/positive behavior with the posts it shared on Instagram. In addition, due to the society's tendency to emotional reactions, the Ministry emphasized “unity” in the context of “persuasive communication” by using various hashtags in its posts.

Although the Ministry included the element of fear with few posts, it drew a generally positive frame with the posts it shared. The Ministry of Health has made a significant contribution to the control of the pandemic with its “persuasive, informative and positive communication strategy” applied on Instagram during the Covid-19 outbreak. In this direction, the first research question related to “health communication strategy of the Ministry of Health on Instagram” was answered, and the hypothesis of the research, which is “Ministry of Health supports positive behavior change with the content shared on Instagram” has been confirmed.

When the findings obtained from the analysis of the Instagram account of the Ministry of Health are compared with other international studies, similar findings come to the fore. Rahim et al., (2019) stated that in his research titled “Health Information Engagement Factors in Malaysia: A Content Analysis of Facebook Use by the Ministry of Health in 2016 and 2017”, the most common post is related to “institutional information”. While the most frequently shared post type on Facebook is a photo, the rate of watching videos is low, and the Ministry of Health shares more than 1 post every day (Rahim et al., 2019). Similarly, Kite et al. (2016) stated that a positive communication strategy is used in the posts in the study titled “Please Like Me: Facebook and Public Health Communication”. Most of the posts were photographic and had a small amount of fear element. However, unlike the findings of our study, it was found that video posts received an average of 25% more likes than photo posts (Kite et al., 2016). In the findings of another study conducted by Rus and Cameron (2016) on health communication in social media, it was determined that the number of likes of Facebook users is higher than comments. Visual content was at the forefront of the posts and diseases were emphasized in a positive tone (Rus and Cameron, 2016). When the findings obtained from the analysis of the Instagram posts of the Ministry of Health are examined within the scope of health communication strategies, it is seen that the findings are similar to some international studies.

When the research findings are evaluated within the framework of strategic communication theory in the literature, it is possible to make the following inferences:

- The Ministry shared a total of 404 posts on Instagram in 129 days. This shows that the Ministry uses social media as an active and effective communication tool during the Covid-19 pandemic. Since the basis of the strategic communication theory is that institutions need to integrate technology with communication skills in order to be successful in the digital age (O’Hair et al., 2011), it is seen that the Ministry actively integrates technology with its communication activities.

- The Ministry regularly shares the number of cases & deaths & tests during the Covid-19 pandemic, and tries to prevent infodemic, which is a significant problem in strategic health communication. It is seen that the Ministry uses a communication strategy that informs and persuades the public. Since the main approaches of the strategic communication theory are “informing”, “influencing”, “persuading” and “preventing misinformation to avoid conflict” (Paul, 2011), this approach of the Ministry is compatible with the strategic communication theory.

- It has been seen that the Ministry encourages people to act correctly in the Covid-19 pandemic with the specific content produced on Instagram, and it has been found that it creates appropriate behavior in the society. This approach of the Ministry is in harmony with strategic health communication, as strategic health communication aims to create the desired behavioral change in the society regarding health (Koçak & Bulduklu, 2010).

- It has been determined that the Ministry has used various signs and symbols while emphasizing issues such as “hand washing”, “use of masks” and “social distance” in the Covid-19 pandemic. In addition, it used symbols such as lungs to emphasize that smoking made treatment difficult in the outbreak. This strategy of the Ministry is compatible with the semiotic model, one of the strategic health communication approaches. The semiotic model ensures that the content presented in health communication is conspicuously created with signs & symbols (Ratzan, 2001).

When we look at the strategic communication theories, the shortcomings of the Ministry in health communication should also be mentioned:

- The Ministry does not focus on a specific target audience and does not produce specific content in line with the target audience. It focuses directly on general followers. However, strategic communication is a two-way process: the implementer of the strategy and the target audience (Karsan et al., 2018). According to O’Hair et al. (2011), strategic communication with people from different segments makes institutions successful in the digital age. Institutions must reach new and different target audiences through social platforms (Karsan & Altuntaş & Demren, 2018). Especially, social media is an advantage for new and different target audiences (Rettberg, 2009). Strategic communication practitioners have an advantage if they understand the target audience and produce content suitable for the target audience (Yang & Lim, 2009). In line with the strategic communication theory, the fact that the Ministry does not focus on a specific target group contradicts the theory.

Some suggestions regarding the health communication strategies of the Ministry are presented below in line with the research questions answered and the hypothesis confirmed.

Future Suggestions

- It is suggested that the Ministry should give more importance to “the source and target audience,” which is one of the “persuasive” communication methods applied within the scope of health communication strategies in the Covid-19 pandemic. The Ministry should first determine the target audience's characteristics (gender, age, economic situation, place of residence) of the messages it delivers through the posts. If the target audience's characteristics are known, the messages can be coded in a more impressive/compelling way; in this way, the desired point (successful control of the pandemic process) can be reached more clearly and quickly.
- Considering the clarity of the source element in the “persuasion in communication,” it has been observed that the Ministry generally positions itself and other ministry & government officials in the posts it prepares. The Ministry should include expert opinions of different segments in its posts more frequently. Apart

from that, the more frequent use of well-known people in the posts and campaigns in line with health communication will effectively control the Covid-19 pandemic.

- The different features of social media platforms such as Instagram and Facebook should be considered, and differentiation should be applied in the posts. More different content should be produced for Instagram, which “covers relationships in social life,” “focuses on sharing photos, memories and information through accurate profile names,” and “contains the filtering feature of these shares.”

- The Ministry’s Instagram account has a link (@sbsagliklicozum) for citizens to submit their “suggestions” and “complaints”. All “questions”, “complaints” and “suggestions” received from this link must be answered in a timely manner and in a corporate language. Responding to messages containing “complaints” in a corporate language, especially during the pandemic, can prevent the uncertainty and chaos that may occur in the society.

- The number of immigrants has been increasing in Turkey in recent years (European Commission, November 30, 2021). There are a total of 5.4 million immigrants in the country as of September 2021 (Sözcü, October 26, 2021). Since immigrants will have difficulty in understanding our language, they may have difficulty in understanding the process, especially during the pandemic. Within the scope of health communication strategies, new strategies for immigrants should be developed by institutions. For instance, health-related messages can be translated into at least one or more languages.

In this direction, new academic research can focus on the strategies that health institutions/communicators/practitioners should implement in health communication for immigrants in Turkey.

REFERENCES

- Abu-Akel, A., Spitz, A., & West, R. (2021). The Effect of Spokesperson Attribution on Public Health Message Sharing during the COVID-19 Pandemic. *Plos One*, 16(2). <https://doi.org/10.1371/journal.pone.0245100>
- Ahmad, A. R., & Murad, H. R. (2020). The Impact of Social Media on Panic During the COVID-19 Pandemic in Iraqi Kurdistan: Online Questionnaire Study. *Journal of Medical Internet Research*, 22(5).
- Akış, M. (2019). *The Effect of Mass Media on Health Communication and the Role of Social Media: The Case Study of the Province of Kilis*. [Unpublished Master Thesis, Gazi University].
- Akyüz, S. S. (2020). Yanlış Bilgi Salgını: COVID-19 Salgını Döneminde Türkiye’de Dolaşıma Giren Sahte Haberler. *Akdeniz Üniversitesi İletişim Fakültesi Dergisi*, 34, (422–444). <https://doi.org/10.31123/akil.779920>
- Al-Dmour, H., Masa’deh, R., Salman, A., Abuhashesh, M., & Al-Dmour, R. (2020). Influence of Social Media Platforms on Public Health Protection Against the COVID-19 Pandemic via the Mediating Effects of Public Health Awareness and Behavioral Changes: Integrated Model. *Journal of Medical Internet Research*, 22(8).
- Almomani, H., & Al-Qur’an, W. (2020). The Extent of People’s Response to Rumors and False News in Light of the Crisis of the Coronavirus. *Annales Médico-Psychologiques, Revue Psychiatrique*, 178(7), 684–689. <https://doi.org/10.1016/j.amp.2020.06.011>
- Anderson, J., & Rainie, L. (2017, October 19). *The Future of Truth and Misinformation Online*. Pew Research Center. <https://www.pewresearch.org/internet/2017/10/19/the-future-of-truth-and-misinformation-online/>
- Anwar, A., Malik, M., Raees, V., & Anwar, A. (2020). Role of Mass Media and Public Health Communications in the COVID-19 Pandemic. *Cureus*, 12(9). <https://doi.org/10.7759/cureus.10453>

- Ateş, N. B., & Baran, S. (2020). Kriz İletişiminde Sosyal Medyanın Etkin Kullanımı: Covid-19 (Koronavirüs) Salgınına Yönelik Twiter Analizi. *Kocaeli Üniversitesi İletişim Fakültesi Araştırma Dergisi*, 16, 66–99.
- Aygün, D. (2017). *Social Media Use in Health Communication and its Effects on Health Literacy; The Case OF Beyoğlu District*. [Unpublished Master Thesis, Beykent University].
- Babrow, S. A., & Mattson, M. (2003). Theorizing About Health Communication, In, T.L Thompson, A. Dorsey, K.I. Miller, R. Parrott (Eds.), *Handbook of Health Communication*, Lawrence Earlbaum Associates, NJ, 35-61.
- Bağ, M., & Sade, G. (2020, May 4). *Dünyada Covid-19: İlk 4 Ayında Neler Yaşandı? Salgının Seyri Ne Durumda?* Euronews.
<https://tr.euronews.com/2020/05/04/dunyada-covid-19-salg-n-n-ilk-100-gununde-yasananlar-ilk-nerede-ortaya-c-kt-nas-l-yay-ld>
- Baltacı, A. (2017). Nitel Veri Analizinde Miles-Huberman Modeli. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 3(1), 1–15.
- Banerjee, D., & Meena, K. S. (2021). COVID-19 as an “Infodemic” in Public Health: Critical Role of the Social Media. *Frontiers in Public Health*, 9.
<https://doi.org/10.3389/fpubh.2021.610623>
- Batu, M., Acar Şentürk, Z., & Tos, O. (2020). Health Communication on Social Media: An Analysis on the Twitter Use of the Ministry of Health in terms of Public Relations Models. *Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi*, 8(2), 805–828.
- Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., & Druckman, J. N. (2020). Using Social and Behavioural Science to Support COVID-19 Pandemic Response. *Nature Human Behavior*, 4, 460–471.
- Beyoğlu, O. (2020, October 6). *İnfodemi (Bilgi Kirliliği)*. Retrieved December 2, 2021, from <https://www.kibrisgazetesi.com/infodemi-bilgi-kirliligi-makale,12464.html>

- Biçermen, B. D. (2021). *The Importance of Cinema in terms of Health Communication and a Research on Films Regarding Hiv Positive Individuals and Aids Stage*. [Unpublished Master Thesis, Istanbul University].
- Bilgin, N. (2006). *Sosyal Bilimlerde İçerik Analizi: Teknikler ve Örnek Çalışmalar* (Vol. 2). Siyasal Kitabevi.
- Bozgül, F. (2017, May 20). *Sosyal Medya Nedir?* <https://pazarlamasyon.com/sosyal-medya-nedir/>
- Brennen J. S., Simon, F., Howard, P. N., & Nielsen R. K. (2020, April 7). *Types, Sources, and Claims of COVID-19 Misinformation*. <https://reutersinstitute.politics.ox.ac.uk/types-sources-and-claims-covid-19-misinformation>
- Brown, J. D. & Walsh-Childers, K. (2002). Effects of Media on Personal and Public Health, In Bryant & D. Zillmann (Eds.), *Media Effects Advances in Theory and Research*, Lawrence Erlbaum Associates, London, 453-488.
- Budd, J., Miller, B. S., Manning, E. M., Lampos, V., Zhuang, M., Edelstein, M., Rees, G., Emery, V. C., Stevens, M. M., Keegan, N., Short, M. J., Pillay, D., Manley, E., Cox, I. J., Heymann, D., Johnson, A. M., & McKendry, R. A. (2020). Digital Technologies in the Public-Health Response to COVID-19. *Nature Medicine*, 26(8), 1183–1192. <https://doi.org/10.1038/s41591-020-1011-4>
- Çakır, O. (2019). *Trust Factor in Online Health Communication: Approach of Users to News Sites in Turkey*. [Unpublished Master Thesis, Kadir Has University].
- Çakır, Ş. (2019). *Convention Methods Used in Social Media in Fighting Drugs in the Context of Health Communication*. [Unpublished Master Thesis, Gazi University].
- Çalışır, G. (2015). Social Media as a Means Used in Interpersonal Communication: A Research Oriented Onto the Studentes of Gümüşhane University Faculty of Communication. *E-Journal of New World Sciences Academy*, 10(3), 115–144. <https://doi.org/10.12739/NWSA.2015.10.3.4C0197>

- Çalışkan M, & Mencik Y. (2015). Değişen Dünyanın Yeni Yüzü: Sosyal Medya. *Akademik Bakış Dergisi*, 50, 1694-528.
- Cardoso, G. (2008). From Mass to Networked Communication: Communicational Models and the Informational Society. *International Journal of Communication*, 2, 587-630.
- Chou, W. S., Hunt, Y. M., Beckjord, E. B., Moser, R. P., & Hesse, B. W. (2009). Social Media Use in the United States: Implications for Health Communication. *Journal of Medical Internet Research*, 11(4), 48. <https://doi.org/10.2196/jmir.1249>
- Cinelli, M., Quattrocioni, W., Galeazzi, A., Valensise, C. M., Brugnoti, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 Social Media Infodemic. *Scientific Reports*, 10(1), 16598. <https://doi.org/10.1038/s41598-020-73510-5>
- Çınarlı, İ. (2013). *Stratejik İletişim Yönetimi*, 2. Beta Yayınevi.
- Cozier, Z. R., & Witmer, D. F. (2007). A Structurationist Approach to the Life Cycle of Internet Publics and Public Participation. Peter Lang Publishing, 27-41.
- De', R., Pandey, N., & Pal, A. (2020). Impact of Digital Surge during Covid-19 Pandemic: A Viewpoint on Research and Practice. *International Journal of Information Management*, 55, 102171. <https://doi.org/10.1016/j.ijinfomgt.2020.102171>
- Deevey, D. (2016). *Social Media and Health Communication for Seniors*. [Unpublished Master Thesis, Royal Roads University].
- Department of Global Communications. (2020, April 24). *5 Ways the UN is Fighting 'Infodemic' of Misinformation*. United Nations. Retrieved November 23, 2021, from <https://www.un.org/en/un-coronavirus-communications-team/five-ways-united-nations-fighting-%E2%80%98infodemic%E2%80%99-misinformation>
- Devrani, A. E. (2021). Twitter'in Farklı İletişim Uygulamalarında Eşzamanlı Araçsallaşması: Covid-19 Pandemisinde Dr. Fahrettin Koca'nın Twitter Paylaşımlarının Analizi. *OPUS Uluslararası Toplum Araştırmaları Dergisi*, 17, 3522-3541. <https://doi.org/10.26466/opus.884602>

- Dollarhide, M. (2021, August 31). *Social Media: Sharing ideas and thoughts*. Investopedia. <https://www.investopedia.com/terms/s/social-media.asp>
- Edwards, J. R. (1992). A Cybernetic Theory of Stress, Coping, and Well-being in Organizations, *Academy of Management Review*, 17, 238-274.
- Enago Academy (2020, September 7). *Covid-19 Salgın Krizi Sirasında Bilgi Kirliliğinden Korunma*. Retrieved October 13, 2021, from <https://www.enago.com.tr/academy/fighting-misinformation-during-covid/>
- Esenyel, V. (2020). Key Elements of Corporate Reputation. *Journal of Ekonomi*, 4. Retrieved October 1, 2021, from <https://dergipark.org.tr/ekonomi>
- European Commission. (2021, November 30). *European Civil Protection and Humanitarian Aid Operations*. Retrieved December 20, 2021, from https://ec.europa.eu/echo/where/europe/turkey_en
- Farwell, J. P. (2012). *Persuasion and Power: The Art of Strategic Communication*. Georgetown University Press.
- Filiz, Ş. (2021). *Digital Lobbying in the European Union in the Context of Strategic Communication: Qualitative Analysis of the Vote Leave Campaign through Astroturf Tactics*. [Unpublished Master Thesis, Galatasaray University].
- Geysi, A. (2019). *The Role of Social Media in Health Communication: Investigation of Social Media Usage of Health Institutions in Kocaeli*. [Unpublished Master Thesis, Kocaeli University].
- Gilmore, B., Ndejjo, R., Tchetchia, A., de Claro, V., Mago, E., Diallo, A. A., Lopes, C., & Bhattacharyya, S. (2020). Community Engagement for COVID-19 Prevention and Control: A Rapid Evidence Synthesis. *BMJ Global Health*, 5(10). <https://doi.org/10.1136/bmjgh-2020-003188>
- GOARN, IFRC, Unicef, & World Health Organization. (2020, December 23). *Global Risk Communication and Community Engagement Strategy*. World Health Organization. <https://www.who.int/publications/i/item/covid-19-global-risk-communication-and-community-engagement-strategy>

- Göçoğlu, V. (2019). Türkiye’de Merkezi Yönetimin Sosyal Medya Kullanımı: Bakanlıkların Twitter Hesapları Üzerine Bir Analiz. *Uluslararası Yönetim Akademisi Dergisi*, 422–444. <https://doi.org/10.33712/mana.600666>
- Göksel, A. B. (2013). *Stratejik Halkla İlişkiler Yönetimi*, 2. Nobel Akademik Yayınları.
- Göksu, N. F. (2018). *Sağlık İletişimi* [PDF Document]. Lecture Notes Online Website: Retrieved November 10, 2021, from <http://auzefkitap.istanbul.edu.tr/kitap/kok/saglikiletisimiau226.pdf>
- Hallahan, K., Holtzhausen, D., van Ruler, B., Verčič, D., & Sriramesh, K. (2007). Defining Strategic Communication. *International Journal of Strategic Communication*, 1(1), 3–35. <https://doi.org/10.1080/15531180701285244>
- Hax, A. C., & Majluf, N. S. (1988). The Concept of Strategy and the Strategy Formation Process. *Interfaces*, 18(3), 99–109. <https://doi.org/10.1287/inte.18.3.99>
- Turkish Ministry of Interior (2020, September 23). *HES Uygulaması Hayata Geçirildi*. <https://www.icisleri.gov.tr/hes-uygulamasi-hayata-gecirildi>
- Hu, Y. (2015). Health Communication Research in the Digital Age: A Systematic Review. *Journal of Communication in Healthcare*, 8(4), 260–288. <https://doi.org/10.1080/17538068.2015.1107308>
- Hyland-Wood, B., Gardner, J., Leask, J., & Ecker, U. K. H. (2021). Toward Effective Government Communication Strategies in the Era of COVID-19. *Humanities and Social Sciences Communications*, 8(1). <https://doi.org/10.1057/s41599-020-00701-w>
- İnceoğlu, M. (2011). *Tutum, Algı, İletişim*. Siyasal Kitabevi.
- IGI Global. (2021, May 3). *What is Digitalization?* <https://www.igi-global.com/dictionary/it-strategy-follows-digitalization/7748>
- Igoe, K. J. (2020, April 3). *Developing Public Health Communication Strategies—And Combating Misinformation—During COVID-19*. Harvard T.H. Chan School of Public Health Executive and Continuing Professional Education. Retrieved October 16, 2021, from <https://www.hsph.harvard.edu/ecpe/public-health-communication-strategies-covid-19/>

- Ilgın, H. Ö. (2021). Diyalojik Halkla İlişkiler Boyutuyla Kamu Kurumlarında Sosyal Medya Kullanımı: T.C. Sağlık Bakanlığı Örneği. *MANAS Sosyal Araştırmalar Dergisi*, 10(2), 1694–7215.
- Işık, T. (2019). *The Using of Digital Communication Channels in Health Communication; Analyzing of the Social Media Accounts of Sector Leaders*. [Unpublished PhD Thesis, Istanbul University].
- John Hopkins University (2021, September 10). *Covid-19 Map*. Retrieved September 10, 2021, from <https://coronavirus.jhu.edu/map.html>
- Kalçık, Ü. A., & Bayraktar, T. (2020). Covid-19 Salgınının Yönetilmesinde Sosyal Medya Kullanımı: Sağlık Bakanı Fahrettin Koca'nın Resmi Twitter Hesabı Üzerine Bir Analiz. *Journal of Turkish Studies*, 15(6), 583–602. <https://doi.org/10.7827/turkishstudies.44484>
- Karabela, Ş. N. (2021, July 31). *Pandemi mi? Infodemi mi?* Tıbbiye Bünyeni. <https://www.tibbiyebulteni.com/pandemi-mi-infodemi-mi-makale,11.html>
- Karagöl, B. (2017). *Location Of Social Media In Health Communication*. [Unpublished Master Thesis, Ufuk University].
- Karsak, B., Altuntaş, E. Y., & Sancar Demren, G. A. (2018). The Importance Of Digital Channels In Strategic Communication Management: A Qualitative Research On Digital Channel Use Of Public Relations Practitioners. *Halkla İlişkiler ve Reklamcılık Çalışmaları E-Dergisi*, 1(1), 2636-753.
- Kaya, E. (2014). *Use of Social Media in Health Communication*. [Unpublished Master Thesis, Süleyman Demirel University].
- Kaya, K. (2019, May 20). *Instagram Nedir, Nasıl Kullanılır?* Retrieved December 20, 2021, from <https://gezgindunyasi.com/instagram-nedir-nasil-kullanilir/>
- Kemp, S. (2021, February 11). *Digital 2021: Turkey*. DATAREPORTAL. <https://datareportal.com/reports/digital-2021-turkey>
- Kerlinger, F. N. (1986). *Foundations of Behavioral Research*, 3. Holt, Rinehart and Winston.

- Kırık, A. M. (2017). Yeni Medya Aracılığıyla Değişen İletişim Süreci: Sosyal Paylaşım Ağlarında Gençlerin Konumu. *Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi*, 5(1), 230–230.
<https://doi.org/10.19145/gumuscomm.300815>
- Kite, J., Foley, B. C., Grunseit, A. C., Freeman, B. (2016). Please Like Me: Facebook and Public Health Communication. *PLOS ONE*, 11(9), e0162765.
<https://doi.org/10.1371/journal.pone.0162765>
- Koçak, A., & Bulduklu, Y. (2013). Sağlık İletişimi: Yaşlıların Televizyonda Yayınlanan Sağlık Programlarını İzleme Motivasyonları. *Selçuk İletişim*, 6(3), 5–17.
Retrieved December 11, 2021 from
https://dergipark.org.tr/tr/pub/josc/issue/19021/200613#article_cite
- Korkmaz, I. D. (2017). *Health Communication: The Relation With Cancer Patients and Doctor*. [Unpublished Master Thesis, Istanbul Aydın University].
- Künüçen, H. H. (2014). The Effects of Digital Communication in Cinema: ‘A New Film Language’. *Journal of Media Critiques*, 1(3), 235–244.
<https://doi.org/10.17349/jmc114317>
- Kurt, F. (2020, March 11). *Sağlık Bakanı Koca: Türkiye’de İlk Koronavirüs (Covid-19) Vakası Tespit Edildi*. Euronews. <https://tr.euronews.com/2020/03/10/saglik-bakan-koca-koronavirus-covid-19-salg-n-ile-ilgili-ac-klama-yap-yor>
- Gündoğdu, F., & Aydoğan, S. (2021). Examination of the Digital Leadership Exhibited by the Minister of Health Fahrettin Koca in the Covid-19 Outbreak with the Analytical Hierarchy Process (Twitter Case Study). *Journal of Business Research - Turk*, 13(2), 1737–1750.
<https://doi.org/10.20491/isarder.2021.1226>
- 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>

- Lin, L., Jung, M., McCloud, R. F., & Viswanath, K. (2014). Media Use and Communication Inequalities in a Public Health Emergency: A Case Study of 2009–2010 Pandemic Influenza A Virus Subtype H1N1. *Public Health Reports*, 129(6), 49–60. <https://doi.org/10.1177/00333549141296S408>
- Livari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital Transformation of Everyday Life – How COVID-19 Pandemic Transformed the Basic Education of the Young Generation and why Information Management Research should Care? *International Journal of Information Management*, 55, 102-183. <https://doi.org/10.1016/j.ijinfomgt.2020.102183>
- MacDonald, T. H. (1998). *Rethinking Health Promotion A Global Approach*, Routledge, London.
- Maldonado, B. M., Collins, J., Blundell, H. J., & Singh, L. (2020). Engaging the Vulnerable: A Rapid Review of Public Health Communication Aimed at Migrants during the COVID-19 Pandemic in Europe. *Journal of Migration and Health*, 1–2, 100004. <https://doi.org/10.1016/j.jmh.2020.100004>
- Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A New Dimension of Health Care: Systematic Review of the Uses, Benefits, and Limitations of Social Media for Health Communication. *Journal of Medical Internet Research*, 15(4), 85. <https://doi.org/10.2196/jmir.1933>
- Nurluoğlu, G. (2019, February 21). *Dijital Sağlık İletişiminde 5 Temel Nokta*. Medium. <https://gamzenurluoglu.medium.com/dijital-sa%C4%9Fl%C4%B1k-i%C5%9Fiminde-5-temel-nokta-30367fb186b9>
- O’Hair, D., Friedrich, G., & Dixon, L. (2011). *Strategic Communication in Business and the Professions* (8th ed.). Pearson Publication.
- Okay, A., Ašanin Gole, P., & Okay, A. (2021). Turkish and Slovenian Health Ministries’ Use of Twitter: A Comparative Analysis. *Corporate Communications*, 26(1), 176–191. <https://doi.org/10.1108/CCIJ-01-2020-0019>
- Olum, R., & Bongomin, F. (2020). Social Media Platforms for Health Communication and Research in the Face of COVID-19 Pandemic: A Cross Sectional Survey in Uganda. *MedRxiv*, Cold Spring Harbor Laboratory Press. <https://doi.org/10.1101/2020.04.30.20086553>

- Özdemir, H., Alper, Z., Uncu, Y., & Bilgel, N. (2010). Health Literacy among Adults: A Study from Turkey. *Health Education Research*, 25(3), 464–477. <https://doi.org/10.1093/her/cyp068>
- Özkoyuncu, F. (2021). *Sosyal Medya* [PDF Document]. Lecture Notes Online Website: Retrieved December 7, 2021, from http://auzefkitap.istanbul.edu.tr/kitap/halklailiskilervetanimim_ue/sosyalmedya.pdf
- Öztürk, F. A. (2021). Salgınla Yayılan Nefret: Twitter’da 65 Yaş Üstü Bireylere Yönelik Nefret Söylemi. *Ege Üniversitesi İletişim Fakültesi Yeni Düşünceler Hakemli E-Dergisi*, 15, 143–159.
- Paul, C. (2011). *Strategic Communication*. Praeger Publishing.
- Polan, E. U., & Taylor, D. R. (2010). *Journey Across the Life Span Human Development and Health Promotion*, (4th ed.). F.A. Davis Company.
- Porat, T., Nyrup, R., Calvo, R. A., Paudyal, P., & Ford, E. (2020). Public Health and Risk Communication During COVID-19—Enhancing Psychological Needs to Promote Sustainable Behavior Change. *Frontiers in Public Health*, (p.8). <https://doi.org/10.3389/fpubh.2020.573397>
- Porter, L. v., Sweetser Trammell, K. D., Chung, D., & Kim, E. (2007). Blog Power: Examining the Effects of Practitioner Blog Use on Power in Public Relations. *Public Relations Review*, 33(1), 92–95. <https://doi.org/10.1016/j.pubrev.2006.11.018>
- Posetti, J., & Ireton, C. (2018). *Journalism, “Fake News” & Disinformation: Handbook for Journalism Education and Training*. Retrieved October 13, 2021, from https://en.unesco.org/sites/default/files/journalism_fake_news_disinformation_print_friendly_0.pdf
- Rahim, A. I., Ibrahim, M. I., Salim, F. N., Ariffin, M. A. (2019). Health Information Engagement Factors in Malaysia: A Content Analysis of Facebook Use by the Ministry of Health in 2016 and 2017. *International Journal of Environment Research and Public Health*, 16(4), 591. <https://doi.org/10.3390/ijerph16040591>

- Ratzan, S. C. (2001). Health Literacy: Communication for the Public Good, Health Promotion International, 15 (3) Oxford University Pres, GB, pp.207-214.
- Rettberg, J. W. (2009). Freshly Generated for You, and Barack Obama. European Journal of Communication, 24(4), 451–466.
<https://doi.org/10.1177/0267323109345715>
- Rus, H. M., Cameron, L. D. (2016). Health Communication in Social Media: Message Features Predicting User Engagement on Diabetes-Related Facebook Pages. *Annals of Behavioral Medicine*, 50(5), 678-689.
<https://doi.org/10.1007/s12160-016-9793-9>
- Sarı, A., & Öztunç, M. (2021). Kriz İletişiminde Sosyal Medya: Koronavirüs Krizinde Fahrettin Koca'nın Twitter Kullanımı. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 10(1), 801–818. <https://doi.org/10.15869/itobiad.817698>
- Schein, R., Msc, W., & Keelan, J. (2010.). *Literature Review on Effectiveness of the Use of Social Media: A Report for Peel Public Health*. Handbook for Journalism Education and Training. Retrieved December 19, 2021, from https://en.unesco.org/sites/default/files/journalism_fake_news_disinformation_print_friendly_0.pdf
- Senol, Y., & Avcı K. (2019). Sağlık Alanında Kamu Kurumlarının Sosyal Medya Kullanımına Bir Örnek: Sağlık Bakanlığı 2017 Yılı Twitter Hesabının İncelenmesi. *Kocatepe Tıp Dergisi*, 20, 52–57.
- Sezgin, D. (2010). *Health Communication Paradigms and Turkey: Analysis of Health News in Media*. [Unpublished PhD Thesis, Ankara University].
- Simpson, E., & Conner, A. (2020, August 18). *Fighting Coronavirus Misinformation and Disinformation*. Center for American Progress.
<https://www.americanprogress.org/article/fighting-coronavirus-misinformation-disinformation/>
- Şireci, M. (2019). *A Study on Health Communication Practices at Family Medicine Centers in Malatya*. [Unpublished Master Thesis, İnönü University].

- Smailhodzic, E., Hooijsma, W., Boonstra, A., & Langley, D. J. (2016). Social Media Use in Healthcare: A Systematic Review of Effects on Patients and on their Relationship with Healthcare Professionals. *BMC Health Services Research*, 16(1), 442. <https://doi.org/10.1186/s12913-016-1691-0>
- Sözcü. (2020, Marc 17). *Bakan Koca'dan Coronavirus Açıklaması: İlk Ölüm Gerçekleşti!* Retrieved December 13, 2021, from <https://www.sozcu.com.tr/2020/gundem/son-dakika-saglik-bakanindan-coronavirusuyle-iligili-flas-aciklamalar-5685257/>
- Sözcü. (2020, October 26). *Türkiye'de Kaç Yabancı Var, Ne Kadarı Suriyeli?* Retrieved December 20, 2021, from <https://www.sozcu.com.tr/2021/gundem/turkiyede-kac-yabanci-var-ne-kadari-suriyeli-6729461/>
- Staes, C. J., Wuthrich, A., Gesteland, P., Allison, M. A., Leecaster, M., Shakib, J. H., Carter, M. E., Mallin, B. M., Mottice, S., Rolfs, R., Pavia, A. T., Wallace, B., Gundlapalli, A. v., Samore, M., & Byington, C. L. (2011). Public Health Communication with Frontline Clinicians During the First Wave of the 2009 Influenza Pandemic. *Journal of Public Health Management and Practice*, 17(1), 36–44. <https://doi.org/10.1097/PHH.0b013e3181ee9b29>
- Steyn, B. (2004). From Strategy to Corporate Communication Strategy: A Conceptualisation. *Journal of Communication Management*, 8(2), 168–183. <https://doi.org/10.1108/13632540410807637>
- Su, Z., McDonnell, D., Wen, J., Kozak, M., Abbas, J., Šegalo, S., Li, X., Ahmad, J., Cheshmehzangi, A., Cai, Y., Yang, L., & Xiang, Y. T. (2021). Mental Health Consequences of COVID-19 Media Coverage: The Need for Effective Crisis Communication Practices. *Globalization and Health*, 17(1), 4. <https://doi.org/10.1186/s12992-020-00654-4>
- Sumaedi, S., Sumardjo, S., Saleh, A., & Syukri, A. F. (2021). A Model of Digital Health Communication Media Use during the Covid-19 Pandemic. *Health Education*, 121(5), 465–485. <https://doi.org/10.1108/HE-03-2021-0040>
- Tabak, R. S. (2006). *Sağlık İletişimi* (Vol. 3). Literatür Yayıncılık.

- Teichmann, L., Nossek, S., Bridgman, A., Loewen, P. J., Owen, T., Ruths, D., & Zhilin, O. (2020). *Public Health Communication and Engagement on Social Media during the COVID-19 Pandemic*. <https://doi.org/10.31219/osf.io/7hypj>
- Thagard, P. (2018, October 9). *What is Trust?* Psychology Today. <https://www.psychologytoday.com/us/blog/hot-thought/201810/what-is-trust>
- Thomas, T., Wilson, A., Tonkin, E., Miller, E. R., & Ward, P. R. (2020). How the Media Places Responsibility for the COVID-19 Pandemic—An Australian Media Analysis. *Frontiers in Public Health*, 8. <https://doi.org/10.3389/fpubh.2020.00483>
- Thomsen, S. R. (1995). Using Online Databases in Corporate Issues Management. *Public Relations Review*, 21(2), 103–122. [https://doi.org/10.1016/0363-8111\(95\)90002-0](https://doi.org/10.1016/0363-8111(95)90002-0)
- Toker, H. (2012). Yerel Medyanın AB'ye Bakışı: Yeni Asır Gazetesi Örneği. *Selçuk İletişim*, 7(2), 139–155. https://dergipark.org.tr/tr/pub/josc/issue/19024/200581#article_cite
- Tomes, N. (2020). Managing the Modern Infodemic. *Canadian Medical Association Journal*, 192(43), E1311–E1312. <https://doi.org/10.1503/cmaj.201905>
- Office of the Australian Information Commissioner (OAIC). (2020, June 7). *What is Health Information?* (2020). <https://www.oaic.gov.au/privacy/health-information/what-is-health-information>
- Organisation for Economic Co-Operation and Development (OECD). (2020, June 3). *Transparency, communication and trust: The role of public communication in responding to the wave of disinformation about the new Coronavirus*. <https://www.oecd.org/coronavirus/policy-responses/transparency-communication-and-trust-the-role-of-public-communication-in-responding-to-the-wave-of-disinformation-about-the-new-coronavirus-bef7ad6e/>
- Tüzün, H., Demirköse, H., Özkan, S., Uğraş Dikmen, A., & İlhan, M. N. (2020). Risk Communication in the Covid-19 Pandemic. *Gazi Sağlık Bilimleri Dergisi*, 1(8).
- Uittenhout, H. (2012). *The use and effect of social media in health communication about common head lice*. [Unpublished Master Thesis, University of Twente].

- Utma, S. (2020). Sağlık İletişimi Kavramı: Koronavirüs (Covid-19) Salgınında Ülkemizde Sağlık İletişimi Uygulamaları. *Journal of Social, Humanities and Administrative Sciences*, 6(31), 1591–1605. <https://doi.org/10.31589/joshas.341>
- van der Linden, S., Roozenbeek, J., & Compton, J. (2020). Inoculating Against Fake News About COVID-19. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.566790>
- Vaughan, E., & Tinker, T. (2009). Effective Health Risk Communication About Pandemic Influenza for Vulnerable Populations. *American Journal of Public Health*, 99(S2), S324–S332. <https://doi.org/10.2105/AJPH.2009.162537>
- We Are Social. (2021, May 29). *Social Media Users Pass the 4.5 Billion Mark*. Retrieved September 23, 2021, from <https://wearesocial.com/uk/blog/2021/10/social-media-users-pass-the-4-5-billion-mark/>
- Ventola, C. L. (2014). Social Media and Health Care Professionals: Benefits, Risks, and Best Practices. *P & T: A Peer-Reviewed Journal for Formulary Management*, 39 (7), 491–520.
- Vural, Z. B. (2010). Social Media as a New Communication Environment: A Research on Ege University Faculty of Communication. *Journal of Yasar University*, 20 (5), 3348–3382.
- Walsh, B. (2020, March 26). *Covid-19: The History of Pandemics*. BBC. <https://www.bbc.com/future/article/20200325-covid-19-the-history-of-pandemics>
- WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, & IFRC. (2020). *Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation*. <https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation>
- Wilson, L., & Ogden, J. (2008). *Strategic Communication Planning For Effective Public Relations and Marketing* (7th ed.). Kendall Hunt Publishing.

- Wong, A., Ho, S., Olusanya, O., Antonini, M. V., & Lyness, D. (2021). The Use of Social Media and Online Communications in times of Pandemic COVID-19. *Journal of the Intensive Care Society*, 22(3), 255–260.
<https://doi.org/10.1177/1751143720966280>
- World Health Organization. (2020, April 3). *Infodemic*. World Health Organization. Retrieved December 13, 2021, from https://www.who.int/health-topics/infodemic#tab=tab_1
- World Health Organization. (2021, April 27). *Fighting Misinformation in the Time of COVID-19, One Click at a Time*. World Health Organization.
<https://www.who.int/news-room/feature-stories/detail/fighting-misinformation-in-the-time-of-covid-19-one-click-at-a-time>
- World Health Organization.a. (2020, April 14). *COVID-19 Strategy Update*.
<https://www.who.int/publications/m/item/covid-19-strategy-update>
- Yalçinkaya, H. (2020, March 25). *Uzmanları bir araya getiren “Bilim Kurulu” nasıl kuruldu?* JURNAL.İST. <https://www.gzt.com/jurnalist/uzmanlari-bir-araya-getiren-bilim-kurulu-nasil-kuruldu-3531656>
- Yang, S. U., & Lim, J. S. (2009). The Effects of Blog-Mediated Public Relations (BMPR) on Relational Trust. *Journal of Public Relations Research*, 21(3), 341–359.
<https://doi.org/10.1080/10627260802640773>
- Yanık, T., & Günyol, A. (2020, May 6). *“Hayat Eve Sığar” Uygulaması 5 Milyonun Üzerinde İndirildi*. Anadolu Ajansı. <https://www.aa.com.tr/tr/turkiye/hayat-eve-sigar-uygulamasi-5-milyonun-uzerinde-indirildi/1831032>
- Yıldırım, A. (2014). Bir Halkla İlişkiler Aracı olarak TWITTER: T.C. Sağlık Bakanlığı Örnek İncelemesi. *Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi*, 2(4). <https://dergipark.org.tr/tr/download/article-file/83964>
- Yıldız, E. (2019). *The Role of Health Communication Campaigns and New Media in the Context of Prevention of Health-Related Risks*. [Unpublished Master Thesis, Istanbul University].
- Zağlı, K. (2019). *The Effect of Healthcare Communication on Corporate Image and Identity at Private and Public Hospitals*. [Unpublished Master Thesis, Istanbul Aydın University].