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THE ROLE OF VISUALS IN THE PERCEPTIONS OF RISK AND OF SELF-EFFICACY AND THE BEHAVIORS TOWARDS THE PANDEMIC OF COVID-19*

El papel de las imágenes en las percepciones de riesgo y de autoeficacia y los comportamientos frente a la pandemia de Covid-19

O papel dos recursos visuais nas percepções de risco e de autoeficácia e nos comportamentos quanto à pandemia no período da Covid-19

Mehmet Şahin Ergeç, *Anadolu University (Türkiye)*
ssahinergec@gmail.com

Kemal Elciyar, *Anadolu University (Türkiye)*
kemalerci@anadolu.edu.tr

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ABSTRACT

The Covid-19 has spread rapidly, becoming a global health crisis. In crises, especially in public health problems such as a pandemic, it is important to reach the target audience effectively. In this process, the use of visuals helps to convey risk messages effectively. To control the pandemic and prevent its spread, individuals' risk perception, self-efficacy and behaviors towards the pandemic are of great importance. The aim of this study is to measure how the visuals those individuals are exposed to about the Covid-19 pandemic affect their perceived risk level and self-efficacy, and how these relationships direct their behavior towards the pandemic. For the implementation of the study, data were collected from 410 people working in public institutions, in Türkiye. Structural equation modeling, t-test and Anova techniques analyzed the data collected in the survey conducted in the survey model. According to the research results, gender and educational status significantly affect employees' attention to visuals and risk perception. According to the results of the research model, the research factors affect each other positively. Individuals' interest in visuals increases their perceived risk and self-efficacy perceptions. Perceived risk and self-efficacy for the epidemic, on the other hand, affect their behavior towards the epidemic.

Keywords: Covid-19 pandemic; crisis communication; visual communication; risk perception; measures for the pandemic.

RESUMEN

El Covid-19 se ha propagado rápidamente y se ha convertido en una crisis sanitaria mundial. En las crisis, especialmente en los problemas de salud pública como la pandemia, es importante llegar al público objetivo de manera eficaz. En este proceso, el uso de elementos visuales ayuda a transmitir mensajes de riesgo de forma efectiva. Para controlar la pandemia y prevenir su propagación, la percepción de riesgo, la autoeficacia y los comportamientos de las personas hacia la pandemia son de gran relevancia. El objetivo de este estudio es medir cómo las imágenes a las que están expuestas esas personas sobre la pandemia de Covid-19 afectan su nivel de riesgo percibido y su autoeficacia, y cómo estas relaciones dirigen su comportamiento hacia la pandemia. Para la implementación de la investigación, se recopilieron datos de 410 empleados que trabajan en instituciones públicas en Turquía. El modelado de ecuaciones estructurales, la prueba t y las técnicas Anova analizaron los datos recopilados en la encuesta realizada. Según los resultados de la investigación, el género y el nivel educativo inciden significativamente en la atención de los empleados a las imágenes y la percepción del riesgo. De acuerdo con los resultados del modelo de investigación, los factores de investigación influyen entre sí de forma positiva. El interés de las personas por lo visual aumenta su percepción de riesgo y de autoeficacia. Por otra parte, la percepción de riesgo y de autoeficacia frente a la epidemia afecta su comportamiento ante ella.

Palabras clave: pandemia de Covid-19; comunicación de crisis; comunicación visual; percepción de riesgo; medidas frente a la pandemia.



RESUMO

A Covid-19 se espalhou rapidamente e se tornou uma crise de saúde global. Em crises, especialmente em problemas de saúde pública como pandemias, é importante atingir o público-alvo de forma eficaz. Nesse processo, o uso de recursos visuais ajuda a transmitir mensagens de risco de forma eficaz. Para controlar a pandemia e prevenir sua propagação, a percepção de risco, a autoeficácia e os comportamentos dos indivíduos quanto à pandemia são de grande importância. O objetivo deste estudo é medir como os recursos visuais aos quais esses indivíduos são expostos sobre a pandemia da Covid-19 afetam seu nível de percepção de risco e de autoeficácia, e como essas relações direcionam seu comportamento quanto à pandemia. Para a implementação da pesquisa, foram coletados dados de 410 funcionários que trabalham em uma instituição pública, na Turquia. A modelagem de equações estruturais, o teste t e as técnicas Anova analisaram os dados coletados na pesquisa. De acordo com os resultados da pesquisa, gênero e nível de escolaridade afetam significativamente a atenção dos funcionários quanto aos recursos visuais e à percepção de risco. Segundo os resultados do modelo de pesquisa, os fatores de pesquisa se afetam entre si positivamente. O interesse das pessoas pelo visual aumenta suas percepções de risco e de autoeficácia. Além disso, percepção de risco e de autoeficácia ante a epidemia afeta seu comportamento ante esta.

Palavras-chave: pandemia da Covid-19; comunicação de crise; comunicação visual; percepção de risco; medidas para a pandemia.

Introduction

Covid-19 emerged in Wuhan, China toward the end of 2019 and quickly spread globally, being declared a pandemic by the World Health Organization (WHO, 2020). This global health crisis has had adverse effects not only on the health sector but also across various socio-economic sectors (Wang et al., 2020). The spread of Covid-19 led to numerous consequences, including unemployment, production losses in multiple industries, travel restrictions, and disruptions in communication and transportation channels. The uncertainty surrounding preventive measures exacerbated these challenges, complicating efforts to address the outbreak (Yıldırım & Yıldırım, 2022).

In the face of such uncertainties, communication became a crucial tool for society, with crisis communication playing a key role in managing uncertainty and mitigating challenges (Özkan et al., 2020). Crisis communication refers to strategies employed by institutions and organizations to manage unexpected situations that impact society (Coombs & Holladay, 2002, p. 172; Eğinli, 2014, p. 35). It encompasses approaches aimed at minimizing the effects of crises, protecting reputation, and ensuring effective communication throughout the crisis period.



During crises, employing effective communication strategies is essential. These strategies include adhering to principles such as transparency, openness, accuracy and accountability (Finegold et al., 2011, p. 255). Organizations must provide accurate, up to-date information about the crisis to their target audience, prevent the spread of misinformation, and take responsibility for their messaging. In times of crisis, social media serves as a primary information source for the public, with the content shared on these platforms having a significant influence on individuals (Carlsen et al., 2021).

A well-planned and effective social media strategy is crucial for informing the public, building trust, and delivering accurate guidance. Visual content is often preferred on social media due to its ease of dissemination compared to verbal, written, or behavioral communication (Dubey et al., 2021, p. 1096). The use of visuals can effectively convey risk messages, enhancing individuals' risk perceptions, self-efficacy, and behaviors —factors that are critical in controlling the outbreak and preventing its spread. Visuals can raise awareness about the pandemic, shape risk perceptions, and encourage positive behavioral changes by effectively communicating risk messages to the target audience (Padilla et al., 2022; Tsoy et al., 2021; Uluçay et al., 2020). In this context, the aim of this study is to examine how Covid-19-related visuals influence individuals' risk perceptions, self-efficacy regarding the pandemic, and preventive behaviors.

In communication studies, there is a noticeable gap in research regarding the role of visual communication on individuals' behavior change. The research aims to fill this gap with its theoretical foundations. It is thought that the data collected from adults will also enrich the sample. This study may be helpful in developing risk communication and outbreak management strategies for healthcare providers and public health organizations. It is important in terms of understanding the effects of the Covid-19 pandemic and contributing to the development of effective strategies in combating the pandemic.

In this study, we aim to examine the impact of exposure to Covid-19-related visuals on social media on individuals' self-efficacy, risk perception, and preventive behaviors. The increasing use of social media platforms during the pandemic has amplified the dissemination of visual information, including images, infographics, and videos related to Covid-19. These visuals can shape public perceptions of the virus, influence beliefs about personal efficacy in taking protective measures, and guide behavior regarding preventive actions, such as mask-wearing, social distancing, and hand hygiene. In the context of a health crisis like Covid-19, self-efficacy is closely tied to how individuals perceive their ability to manage the risks posed by the virus. Risk perception, which refers to individuals' subjective evaluation of the likelihood and severity of the threat (Chong et al., 2020; Tsoy et al., 2021; Zanin et al., 2020), is another crucial determinant of health-related decision-making. When combined, self-efficacy and risk perception can significantly affect individuals' likelihood of engaging in preventive behaviors. To understand these complex relationships, we employ Structural Equation Modeling (SEM), a robust statistical technique that allows for the simultaneous testing of multiple dependent and independent variables.

SEM is particularly suited for this study as it can assess direct and indirect effects between exposure to Covid-19 visuals, self-efficacy, risk perception, and preventive behaviors, while accounting for measurement errors. By using SEM, this study provides a comprehensive analysis of how social media visuals about Covid-19 can influence public health behaviors and inform strategies for effective health communication.



Theoretical Framework

The Extended Parallel Process Model (EPPM) explains how individuals respond when faced with danger or risk (Witte & Allen, 2000, p. 608). The response to such situations depends on individuals' perceived threat levels. As perceived threat increases, individuals are more likely to take the risk seriously and become concerned about the potential consequences. Similarly, as perceived severity rises, the likelihood of individuals taking necessary actions to mitigate the danger also increases (Çobaner, 2021).

The EPPM consists of two parallel processes: the perception process and the response process. The perception process determines how individuals perceive the level of risk, while the response process governs how they handle the risk and the precautions they take (Sezgin, 2015, p. 35). The EPPM also highlights the importance of providing individuals with accurate information and education regarding their risk situations. According to the model, equipping individuals with correct information and education is essential for fostering more effective responses to danger or risk (Witte & Allen, 2000). Thus, the EPPM serves as a framework for understanding how individuals respond to risk and offers guidance for improving their responses. In this study, the research model comprises four constructs, and the relationships between these constructs are clarified through the research findings.

Attention to visuals

Visuals related to the Covid-19 pandemic have been prepared in different categories, such as graphs showing the spread of the pandemic, photographs depicting behaviors complying with mask-wearing or social distancing rules, and posters illustrating medical procedures like Covid-19 testing (Guo et al., 2022). Studies on how visuals affect the perception of the Covid-19 pandemic suggest that visuals related to the disease create more anxiety and concern in individuals, while visuals depicting behaviors complying with mask-wearing or social distancing rules increase awareness (Schuele et al., 2020).

Various types of visual content, including forecast visualizations and campaign posts, have been explored in numerous studies, which have analyzed their effects on individuals (Padilla et al., 2022; Tsoy et al., 2021). The items in the "attention to visuals" construct of the research refer to all the visuals' individuals encounter on social media regarding Covid-19, including those related to diseases, precautions, and warnings. The research was conducted within a broader context, without distinguishing between different types of visuals.

Hypothesis 1. Exposure to Covid-19-related visuals on social media heighten individuals' perceptions of risk associated with the Covid-19 pandemic.

Hypothesis 2. Exposure to Covid-19-related images on social media enhances individuals' self-efficacy in managing the Covid-19 pandemic.

Covid-19 and self-efficacy

Self-efficacy beliefs refer to "interconnected cognitive structures that influence individuals' evaluation processes and, consequently, guide their actions, determining how individuals feel, motivate themselves, and behave" (Çiçek & Karakaş, 2020, p. 1855). In challenging times like the Covid-19 pandemic, self-efficacy helps individuals manage



and cope with their concerns about the current situation. In such situations, self-efficacy can reduce their anxieties by increasing their belief in their ability to manage the pandemic (Yavuz & Okur, 2021, p. 37). Individuals with high self-efficacy take the necessary precautions to protect themselves and others, which reduces their concerns about seeking medical care (Chong et al., 2020; Wang et al., 2021).

Hypothesis 3. Increased self-efficacy perceptions regarding the Covid-19 outbreak are associated with a higher likelihood of individuals engaging in pandemic-preventive behaviors.

Risk perception during Covid-19

The Covid-19 pandemic has brought many factors that influence people's risk perception. Monge-Rodriguez et al. (2021) examined the factors that affect people's risk perception during the pandemic in four categories: spread risk, health issues, economic concerns, and social isolation. These factors can influence people's risk perception, but measures taken during the pandemic can help individuals manage their risk perception and reduce their concerns (Monge-Rodriguez et al., 2021). Individuals' risk perceptions can also influence their attitudes and behaviors towards the pandemic. Governments, in response to the Covid-19 pandemic, are implementing stringent and rigorous measures to shape public behavior (Zanin et al., 2020). Individuals with higher risk perceptions are more likely to comply with preventive regulations and behaviors (Asefa et al., 2020).

Hypothesis 4. Increased risk perceptions regarding the Covid-19 outbreak are associated with a higher likelihood of individuals engaging in pandemic-preventive behaviors.

Engaging in pandemic-preventive behaviors during Covid-19

The variables measured in the research model are those that influence individuals' engagement in preventive behaviors during the fight against the pandemic. The adoption of pandemic-preventive behaviors is predicted by the other three constructs in the model. Therefore, it was deemed appropriate to elaborate on this under a separate heading.

The concept of behavioral intention is a factor that "influences the likelihood of an individual engaging in a specific behavior" (Ajzen, 1991, p. 181). The Covid-19 pandemic has significantly affected people's behaviors (Ong et al., 2022). In addition to changes in everyday behaviors, people have made efforts to exhibit healthier behaviors due to the pandemic. For example, to prevent the spread of the pandemic, they have taken precautions such as wearing masks, following social distancing rules, practicing hand hygiene, and getting vaccinated. Increased awareness heightened self-efficacy, and amplified risk perceptions about the epidemic are effective in promoting the adoption of pandemic-preventive behaviors (Chong et al., 2020; Cook, 2020; Kabasakal et al., 2021; Tadese & Mihretie, 2021; Wang et al., 2021).



Method

Research design and Sampling

The research was conducted using a quantitative paradigm and applied to the survey model. The survey model is a research method in which the researcher aims to describe the existing state of a situation under natural conditions. It involves conducting research on a whole population or a group of samples taken from the population to make general judgments about the population (Bahtiyar & Can, 2016). This study employed a survey model to examine the influence of Covid-19-related visuals on participants’ risk perception, self-efficacy, and pandemic-preventive behaviors.

During the Covid-19 pandemic, individuals were exposed to numerous visuals shared on social media by both individuals and public institutions. These visuals, intended to inform, warn, explain, or offer suggestions, may have varying effects on individuals. This study, which explores individuals’ perceptions and evaluations of these social media visuals, along with the associated variables, was designed using a survey model. Surveys were distributed in person to all employees across various levels and units of the public institution, and data were collected from the entire sample (n = 410) through a self-administered process. The analyses were conducted using SPSS and AMOS software. After removing outliers (50 participants) using mahalanobis, the analysis was conducted with the data of 360 participants. The demographic characteristics of the 360 participants are presented in Table 1.

Table 1. Demographic variables

Variables		n	%
Gender	Female	107	29.7
	Male	253	70.3
Age	≤31	127	35.3
	32-38	136	37.8
	39+	97	26.9
Education	Primary school	73	20.3
	Middle school	160	44.4
	High school	108	30.0
	University	19	5.3



Instruments and data collection

To achieve the research objectives, a questionnaire was utilized as the data collection instrument, constructed using previously validated and reliable scales. The questionnaire consists of three sections. The first section gathers demographic information, including participants' gender, education level, and age. The second section contains four questions regarding participants' social media usage and the effects of Covid-19. The final section focuses on participants' attention to visuals, pandemic-related behaviors, self-efficacy, and risk perceptions.

This research was conducted with personnel working under Biga Municipality in Çanakkale in July, August, and September of 2022. The data collection occurred during a period when Covid-19 restrictions had been eased. The first lockdown in Turkey took place on April 11, 2020, and a full lockdown was re-implemented in May 2021. Restrictions were then lifted after July 1, 2021. Thus, the study was carried out during a period when the effects of the pandemic were still noticeable but had started to diminish. Consequently, the findings reflect participants' perspectives in the post-Covid-19 period. Conducting the research during a time when the intense fear and anxiety caused by the outbreak had subsided was expected to result in more accurate assessments by the participants. A time frame was chosen that would allow individuals to provide more realistic evaluations rather than during the peak periods of fear and anxiety caused by the pandemic.

Given that previous studies were mostly conducted with student participants, the researchers decided to focus on adults for this study. The research was conducted within a public institution due to the challenges associated with collecting data from adult participants and ensuring diversity. The public institution provided a more diverse sample, including participants from various cultural and social backgrounds, income levels, and age groups. Convenience sampling was employed, as one of the researchers worked at the institution, facilitating access to the sample.

During the data collection process, a scale used in the article "Covid Issue: Visual Narratives about Covid-19 Improve Message Accessibility, Self-Efficacy, and Health Precautions" by Paige Brown Jarreau and colleagues (2021) was used. The items of the mentioned scale were culturally adapted, and the scale items were developed through language translation. Since conducting reliability and validity analyses is crucial to ensure that the scale functions appropriately in the new cultural and linguistic context, analyses were conducted, and the resulting items are presented in Table 2.

Validity and reliability

Cronbach's alpha and exploratory factor analysis

The reliability of the study was measured with Cronbach's alpha (α) and all factors had values greater than 0.7. The validity of the data collection instrument used in the study was tested through exploratory factor analysis. The analysis resulted in four constructs, which collectively explained 66.8% of the variance. These constructs represent different aspects of the participants' responses related to their behaviors, attention to visuals, self-efficacy, and risk perception. The distribution of items related to each factor can be seen in Table 2.



Table 2. Factor loadings of exploratory factor analysis

Item no	α	Items	EFA Loadings
RiskPer3	0.902	I felt at risk during the periods when Covid-19 was widespread	0.900
RiskPer1		I was concerned I might get sick when Covid-19 was prevalent	0.794
RiskPer2		I believed that Covid-19 was a serious disease	0.731
S-efficacy2	0.811	I was confident in my ability to protect myself from Covid-19	0.885
S-efficacy1		I knew how to protect myself from Covid 19	0.726
S-efficacy3		I knew what actions to take if I contracted Covid-19	0.653
AVisuals1	0.763	I encountered images shared on social media related to Covid-19	0.784
AVisuals2		When I saw a visual about Covid-19 on social media, I paid attention	0.419
Behavior3	0.857	I tried to avoid crowds during the pandemic	-0.994
Behavior4		I wore a mask as often as possible during the pandemic	-0.667
Behavior1		I was careful to maintain my distance from others during the pandemic	-0.552
Behavior2		I frequently washed my hands during the pandemic	-0.510

Note: Items are ranked according to factor loadings.

Confirmatory factor analysis

After conducting exploratory factor analysis, confirmatory factor analysis (CFA) was also conducted to further measure the validity of the data collection instrument and proceed to structural equation modeling (SEM) analyses. CFA is used to assess the fit of a hypothesized measurement model to the data, confirming whether the constructs identified in the exploratory factor analysis hold true. On the other hand, SEM is a powerful statistical technique that allows researchers to test complex relationships between variables and evaluate the proposed theoretical model. The results of the CFA are presented in Table 3. The data are considered acceptable, indicating that the hypothesized measurement model fits well with the observed data. These findings provide confidence in the validity of the data collection instrument and support the subsequent SEM analyzes to investigate the relationships between the constructs and test the proposed research model.



Table 3. Confirmatory factor analysis' values

Constructs	Constructs mean	Item	Mean	SD	Loading
Attention to visuals	4.288	AVisuals1	4.338	1.010	0.839
		AVisuals2	4.238	0.940	0.731
		AVE** = 0.619			
Perceived Risk	3.965	RiskPer1	3.969	1.218	0.831
		RiskPer2	4.063	1.138	0.856
		RiskPer3	3.863	1.189	0.921
Behaviors	4.172	Behaviors1	4.197	0.988	0.618
		Behaviors2	4.252	0.978	0.824
		Behaviors3	4.100	1.048	0.857
		Behaviors4	4.141	0.989	0.820
Self-efficacy	3.994	S-efficacy1	4.030	0.95098	0.703
		S-efficacy2	4.002	1.03018	0.882
		S-efficacy3	3.950	1.16960	0.703

Fit Indices: χ^2/df : 4.418; GFI: 0.929; AGFI: 0.865; NFI: 0.937; CFI: 0.950; IFI: 0.951; RMR: 0.050; RMSEA: 0.098; SRMR: 0.043.

Findings

Participants were asked about the social media accounts they follow to obtain information about Covid-19. Out of 360 participants, 229 (63.6%) follow the social media account of the Ministry of Health, 164 (45.6%) follow the social media account of Health Minister Fahrettin Koca, 86 participants (23.9%) follow “doctors they consider to be experts”, and only 23 (6.4%) of the participants follow accounts that advocate the idea that the pandemic is not real and consider them as a source of information about the pandemic. Additionally, 46.1% of the participants stated following “news accounts on social media” to obtain information about the pandemic.

Many elements and messages were used in the images used during the epidemic period, and some of them remained in the minds of the users. According to the responses, 219 participants (60.8%) indicated that the most memorable element was the mandatory use of ‘masks’ in daily life. In response to the same question, 44 participants (12.2%) mentioned ‘soap,’ and another 44 participants mentioned ‘Stay at Home’. Additionally, 22 participants (6.1%) stated ‘vaccine’ as the most memorable element, while 19 participants (5.3%) identified the ‘virus image’



as the most memorable element. The least mentioned element was “social distancing”, indicated by only 12 participants (3.3%).

Participants attempted to meet their information needs regarding the pandemic during the Covid-19 period. When asked about the most trusted source during this process, 204 participants (56.7%) answered ‘social media’. 131 participants (36.4%) indicated that ‘television’ was the most reliable source during the Covid-19 period. Only 25 participants (6.9%) chose ‘newspaper/magazine/brochure’ as the most trusted source of information.

The pandemic has led to physical or psychological negative effects on individuals. When looking at participants’ views on the emerging negative psychological effects, 108 participants (30%) stated that ‘anxiety’ was the most negative effect. For the same question, 88 participants (24.4%) mentioned ‘loneliness’, 86 participants (23.9%) mentioned ‘sadness’, and 78 participants (21.7%) indicated ‘depression’ as their response.

Relationship between constructs and gender

The study focuses on four constructs. Independent t-tests were performed to evaluate significant differences according to gender. When examining the t-test results, significant differences were found in the construct of ‘attention to visuals’ ($p = 0.002$) and ‘perceived risk’ ($p = 0.002$) in terms of gender. According to the results, women ($M = 4.47$) show more attention to visuals related to Covid-19 compared to men ($M = 4.17$). Regarding the perceived risk of Covid-19, women ($M = 4.20$) have a significantly higher risk perception than men ($M = 3.84$). The results of the analysis are presented in Table 4.

Table 4. Relationship between constructs and gender

	f	t	df	Sig 2- tailed	Mean difference	Std. error difference
Attention to visuals	24.605	-3.139	388	0.002	-0.30234	0.09632
Perceived Risk	29.250	-3.056	388	0.002	-0.35743	0.11694

Relationship between constructs and educational background

Anova analysis was utilized to assess potential differences among the four constructs in the study based on participants’ educational backgrounds. Significant differences were found in attention to visuals ($p = 0.012$) and perceived risk ($p = 0.000$) constructs. The Anova results can be seen in Table 5.



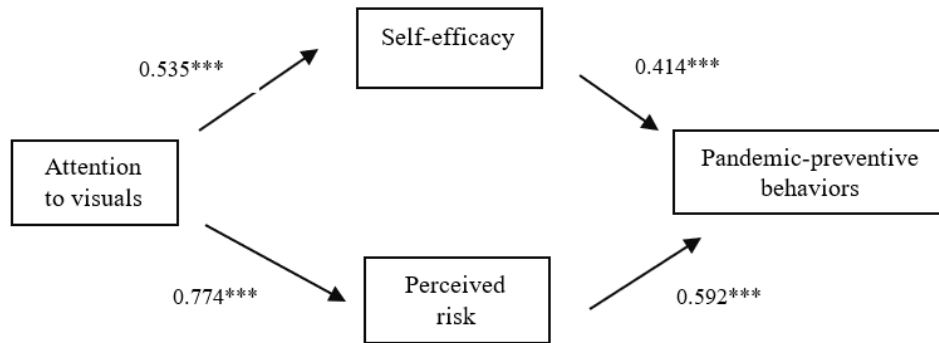
Table 5. Relationship between constructs and educational background

		Sum of Squares	df	Mean Square	F	Sig
Attention to visuals	Between groups	11.867	3	3.956	5.231	0.002
	Within groups	291.883	386	0.756		
	Total	303.749	389			
Perceived Risk	Between groups	27.451	3	9.150	8.415	0.000
	Within groups	419.735	386	1.087		
	Total	447.185	389			

It was observed that the values of participants' attention to visuals and perceived risk varied according to educational background. To further examine these differences, the Scheffe post hoc test was performed. According to the results of the post hoc test, university graduates show more attention to visuals related to Covid-19 compared to elementary and middle school graduates. In terms of perceived risk of Covid-19, university graduates have a higher risk perception than elementary and middle school graduates. Participants with an elementary school education perceive less risk than high school graduates. Similarly, participants with a middle school education perceive less risk compared to high school graduates.

Results of the SEM

An evaluation of the model's fit indices indicates that the model demonstrates a good fit. The fit indices are compared for both the confirmatory factor analysis (CFA) model and the structural equation model, alongside their corresponding acceptable thresholds. The path diagram for the SEM results provides a visual representation of the research model's outcomes, depicting the relationships between the constructs included in the model. The standardized regression coefficients for these relationships are shown in Figure 1.



Fit Indices: χ^2/df : 4.176; GFI: 0.929; AGFI: 0.872; NFI: 0.938; CFI: 0.933; IFI: 0.952; RMR: 0.053; RMSEA: 0.094; SRMR: 0.063.

Hypothesis	Supported/Not Supported
H1: A. Visuals → Per. Risk	Supported
H2: A. Visuals → Self-efficacy	Supported
H3: Self-efficacy → P.P. Behaviors	Supported
H4: Per. Risk → P. P. Behaviors	Supported

Figure 1. SEM Diagram

In the proposed model, attention to visuals significantly influences self-efficacy ($\beta = 0.535$) and has a positive effect on perceived risk ($\beta = 0.774$). Furthermore, pandemic-related behaviors are influenced by both perceived risk and self-efficacy. The results indicate that pandemic-related behaviors are positively and significantly affected by self-efficacy ($\beta = 0.414$) and perceived risk ($\beta = 0.592$).

Discussion and Conclusions

During the pandemic, some social media users disseminated misleading content, including false information and conspiracy theories denying the existence of the pandemic. In the survey, 6.4% of the participants reported following such accounts. These accounts attempted to exploit people’s fears and concerns. Research conducted in different countries and cultures has revealed the presence of such users on social media and the potential impacts they may create (Ferrara et al., 2020; Gabarron et al., 2021) by spreading misinformation, fake content, and conspiracy theories related to the Covid-19 outbreak. The WHO developed a chatbot on Rakuten Viber and WhatsApp as a preventive measure (WHO, 2020). The results highlight that the official social media account of the Ministry of Health emerged as one of the most trusted and frequently followed sources for health-related information. It is necessary to address, handle, and provide accurate information to the public regarding such misleading, manipulative, and



false claims (Skafle et al., 2022). In parallel with this need, survey results indicate that a significant proportion of participants (63.6%) followed the official social media account of the Ministry of Health as part of their information-seeking efforts.

This finding suggests that individuals tend to trust official authorities when seeking accurate and reliable health-related information and official announcements. Similarly, 46.1% of the participants followed news accounts on social media that provide timely information, while 45.6% followed the social media account of the Minister of Health, Fahrettin Koca. Since the Minister shared official statements and critical health-related updates during the pandemic, individuals preferred to directly follow his social media account to access current information.

In combating the Covid-19 pandemic, both public officials and healthcare professionals have actively communicated their expertise to the public. Visual content, such as graphs, tables, visual representations, and infographics, has been widely used to transform complex information into a more accessible visual narrative (Fang et al., 2022). When analyzing participants' responses, visuals such as masks, vaccines, images of the virus, hand sanitizers, social distancing icons, and "stay at home" messages emerged as prominent elements used to convey public health messages and increase awareness about the pandemic.

Understanding the most memorable elements during the Covid-19 period is crucial for assessing the effectiveness of visual communication strategies during crisis periods. Among the 360 participants, 219 (60.8%) identified the mandatory use of masks as the most memorable visual element associated with the pandemic. This outcome suggests that the widespread visibility and extensive use of masks left a strong impression on people's minds.

Another frequently mentioned element was vaccines. Several factors contribute to the memorability of vaccines. First, scientific evidence demonstrated the effectiveness of vaccines in providing protection against Covid-19. Clinical studies have shown that vaccines reduce the severity of the disease and help prevent fatal outcomes (Polack et al., 2020). The role of vaccines as a critical tool in combating the pandemic contributes to their prominent place in public memory. Furthermore, vaccination campaigns, disseminated through both traditional media and direct public announcements, reinforced the importance of vaccines in the collective consciousness. In other studies, mask-wearing and social distancing (Hample, 2022), vaccination (Bates et al., 2024), stay at home messages (Duong et al., 2023) were reported by participants as memorable messages that provided support in terms of morale and confidence (Kaufmann et al., 2021) and were found to be influential in shaping individual behaviors (Waldron et al., 2023). Memorable elements are important in risk and health communication as they reflect the outcomes achieved and the impact on public perception.

The Covid-19 crisis has led to profound changes in people's lives and has resulted in numerous negative effects. One of the primary impacts has been the alterations in individuals' emotional states, with factors such as loss, illness, social isolation, uncertainty, and economic difficulties contributing to heightened negative emotions. When participants were asked to identify the most negative impact of Covid-19, 108 respondents reported experiencing "anger". Anger is an emotional response to coping with stressful situations and is often linked to the challenges introduced by the pandemic (Barros et al., 2020, p. 8). Factors such as uncertainty, fear, anxiety, social isolation, economic strain, and health-related issues (Holmes et al., 2021; Xiong et al., 2020), people who did not take the pandemic seriously (Bates et al., 2024) and messages shared about Covid-19 (Hample, 2022) that emerged during the pandemic have been associated with increased feelings of anger.



Among participants' responses regarding the psychological effects of Covid-19, feelings of loneliness, sadness, and depression were also prominent (Chaudhury & Samudra, 2020; Sheraton et al., 2020; Stamu-O'Brein et al., 2020). Similar effects have been observed in different cultures as well (Kontoangelos et al., 2020). Such psychological negative effects stem from the pandemic process, the individual or their social circle contracting the disease (Stamu-O'Brein et al., 2020), job loss, social distancing (Wu et al., 2020), and lack of social support (Sheraton et al., 2020). Previous studies have shown that the prevalence of loneliness has risen significantly during the Covid-19 pandemic, negatively affecting psychological well-being (Banerjee et al., 2020). Loneliness is associated with a range of negative emotional and psychological outcomes, including depression, anxiety, heightened stress, and sleep disturbances (Killgore et al., 2020).

The study assessed participants' perceptions across four constructs —attention to visuals, perceived risk, self-efficacy, and pandemic-related behaviors— and analyzed these constructs based on demographic variables. A t-test was conducted to examine gender-based differences, revealing significant variations in attention to visuals and perceived risk. According to the findings, women demonstrated a higher perception of risk related to Covid-19, suggesting that they perceive the seriousness and dangers of the pandemic more acutely.

This heightened perception of risk among women may reflect their elevated health concerns during the pandemic. Although there are findings supporting these results in the literature (Alsharawy et al., 2021; Rodriguez-Besteiro et al., 2021; Rana et al., 2021); there are also studies suggesting that men have higher risk perceptions (Lewis & Duch, 2021). Based on these results, the study proposes recommendations for researchers and decision-makers involved in crisis management. While policymakers often employ fear-based or cautionary messages to promote compliance with preventive measures, the current findings highlight the need to consider potential gender-specific effects in such approaches.

To explore differences based on educational background, an Anova test was performed, revealing significant differences in attention to visuals and perceived risk constructs across varying educational levels. The results indicate that university graduates exhibited greater attention to Covid-19-related visuals compared to primary and middle school graduates. As the level of education increases, individuals' skills such as visual literacy, identification of the need for visuals, and finding visual sources are enhanced (Arslan & Nalinci, 2014; Hanci, 2022) resulting in a higher interest in visuals among these users. This finding suggests that the level of education influences individuals' sensitivity to visual communication and risk perception regarding Covid-19. Consequently, the study emphasizes that educational background should be considered (Rattay et al., 2021) when developing effective crisis communication strategies.

Research findings indicate that during the Covid-19 pandemic, individuals' attention to visuals related to the outbreak significantly influences their risk perception and self-efficacy. As people pay more attention to these visuals, both their perceived risk and self-efficacy increase. This heightened risk perception and enhanced self-efficacy, in turn, shaped their behavioral intentions. Increased exposure to outbreak-related visuals elevates individuals' awareness of the associated risks, guiding them toward more cautious and protective behaviors. Visuals related to the pandemic facilitate a better understanding of the risks involved, thereby promoting safer practices.

Visual exposure plays a critical role in shaping individuals' risk perception (Lohiniva et al., 2022; Padilla et al., 2022). Images depicting the pandemic's severity —such as visuals of death rates, testing statistics, case numbers, or symptoms— help people comprehend the seriousness of the situation and heighten their awareness of the



risks. These visuals reinforce the reality and tangible nature of the outbreak, encouraging individuals to take the pandemic's effects seriously and comply more rigorously with preventive measures such as maintaining personal hygiene, practicing social distancing, and using masks. Moreover, due to the rapid dissemination of these visuals on social media (Lohiniva et al., 2022), they also contribute to a deeper understanding of the broader societal measures necessary to control the spread of the pandemic. Consequently, effective use of such visuals is crucial for increasing public awareness of the severity of the outbreak, personal vulnerability, and the necessity of protective measures. Media professionals and scientists should be careful and thoughtful in selecting the visuals they use (Li et al., 2022).

The findings further suggest that risk perception significantly influences individuals' behaviors during the pandemic. Risk perception is a cognitive process that allows individuals to evaluate the potential spread of the outbreak and their personal susceptibility. It helps them grasp the severity of the pandemic, assess the disease's potential impact, and determine the level of risk for themselves and those around them (Nunkoo & Ramkissoon, 2010). As a result, enhanced risk perception can lead to the adoption of preventive measures and behavioral changes aimed at mitigating these risks (Ferrin, 2021). Individuals who are concerned about the pandemic and its potential health effects are more likely to adhere to social distancing, mask-wearing, and hygiene rules (Sobkow et al., 2020).

Additionally, visual exposure has been found to contribute to an increase in individuals' self-efficacy, strengthening their confidence in their ability to cope with the pandemic and implement effective precautions (Keren et al., 2021). Visuals that demonstrate protective behaviors make people feel more secure and encourage them to approach the pandemic with greater discipline. These visuals serve as role models, motivating individuals to adopt preventive practices such as mask-wearing, frequent handwashing, and social distancing. Higher levels of self-efficacy are associated with greater motivation to adhere to health guidelines and to implement safety measures effectively. Individuals with strong self-efficacy beliefs are more likely to respond proactively to the risks posed by Covid-19, embracing protection strategies and demonstrating greater resilience. Self-efficacy also influences individuals' coping abilities, enabling them to adopt appropriate behaviors, manage challenges, and adapt to changing circumstances (Recksiedler & Landberg, 2021).

In conclusion, individuals' attention to Covid-19-related visuals has a notable impact on their risk perception and self-efficacy, which in turn affects their behaviors. Visual communication and awareness campaigns play a pivotal role in enhancing public understanding of pandemic risks and in guiding people toward safer behaviors. Therefore, the strategic use of visual materials and the promotion of exposure to such visuals during the pandemic can foster a more informed and precautionary response within society.

Limitations

Although the study provides valuable insights into the role of visuals on individuals' risk perception, self-efficacy, and behavior during the Covid-19 pandemic, it has certain limitations. First, the research was conducted using a sample of public sector employees in Türkiye, which may limit the generalizability of the findings to other occupational groups or cultural contexts. Second, the study relies on self-reported data, which may be prone to response biases such as social desirability. Future research could benefit from using a longitudinal approach and incorporating diverse samples to enhance the robustness and applicability of the results.



References

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
2. Arslan, R., & Nalinci, G. Z. (2014). Development of visual literacy levels scale in higher education. *TOJET: The Turkish Online Journal of Educational Technology*, 13(2).
3. Asefa, A., Qanche, Q., Hailemariam, S., Dhuguma, T., & Nigusie, T. (2020). Risk perception towards Covid-19 and its associated factors among waiters in selected towns of Southwest Ethiopia. *Risk Management and Healthcare Policy*, 2601-2610. <http://doi.org/10.2147/RMHP.S276257>
4. Bahtiyar, A., & Can, B. (2016). An investigation of problem-solving skills of preservice science teachers. *Educational Research and Reviews*, 11, 2108-2115. <https://doi.org/10.5897/ERR2016.3054>
5. Banerjee, R., Illes, A., Kharroubi, E., & Garralda, J. M. S. (2020). *Covid-19 and corporate sector liquidity (Nº 10)*. Bank for International Settlements. <https://www.bis.org/publ/bisbull10.pdf>
6. Bates, B. R., Finkelshteyn, S., & Odunsi, I. A. (2024). 'We were having a rather long conversation about the uproar': memorable messages about Covid-19 vaccinations in a mostly young, white sample. *Journal of Communication in Healthcare*, 17(2), 143-153. <https://doi.org/10.1080/17538068.2023.2223437>
7. Carlsen, H. B., Toubøl, J., & Brincker, B. (2021). On solidarity and volunteering during the Covid-19 crisis in Denmark: the impact of social networks and social media groups on the distribution of support. *European Societies*, 23, 122-140. <https://doi.org/10.1080/14616696.2020.1818270>
8. Chaudhury, S., & Samudra, M. (2020). Covid-19 lockdown: psychological effects. *Medical Journal of Dr. dy Patil University*, 13(6), 580-584. https://doi.org/10.4103/mjdrdypu.mjdrdypu_230_20
9. Chong, Y. Y., Chien, W. T., Cheng, H. Y., Chow, K. M., Kassianos, A. P., Karekla, M., & Gloster, A. (2020). The role of illness perceptions, coping, and self-efficacy on adherence to precautionary measures for Covid-19. *International Journal of Environmental Research and Public Health*, 17(18), 6540. <https://doi.org/10.3390/ijerph17186540>
10. Çiçek, B., & Karakaş, Y. E. (2020). Girişimcilerin gözünden girişimciliği etkileyen içsel ve dışsal faktörler. *OPUS International Journal of Society Research*, 15(23), 1849-1884. <https://doi.org/10.26466/opus.631493>
11. Çobaner, A. A. (2021). Covid-19 sürecinde değişen sağlık/risk algisi ve medya tüketim pratikleri. In G. Çalışır ve E. Diker (Eds.), *Covid-19 Sürecinde İletişimin Değişen Yüzü*. Eğitim Yayınevi.
12. Cook, T. M. (2020). Personal protective equipment during the coronavirus disease (Covid) 2019 pandemic: a narrative review. *Anaesthesia*, 75(7), 920-927. <https://doi.org/10.1111/anae.15071>
13. Coombs, W. T., & Holladay, S. J. (2002). Helping crisis managers protect reputational assets: initial tests of the situational crisis communication theory. *Management Communication Quarterly*, 16(2), 165-186. <https://doi.org/10.1177/089331802237233>
14. Dubey, R., Gunasekaran, A., Childe, S. J., Fosso Wamba, S., Roubaud, D., & Foropon, C. (2021). Empirical investigation of data analytics capability and organizational flexibility as complements to supply chain resilience. *International Journal of Production Research*, 59(1), 110-128. <https://doi.org/10.1080/00207543.2019.1582820>



15. Duong, H. T., Nguyen, L. T. V., Julian McFarlane, S., Nguyen, H. T., & Nguyen, K. T. (2023). Preventing the Covid-19 outbreak in Vietnam: social media campaign exposure and the role of interpersonal communication. *Health Communication*, 38(2), 394-401. <https://doi.org/10.1080/10410236.2021.1953729>
16. Eğinli, A. T. (2014). Kriz iletişimi. In M. Akdağ (Ed.), *Kriz yönetimi: İletişimsel temelde çözüm odaklı stratejik yaklaşımlar* (pp. 32-66). Literatürk Yayınları.
17. Fang, H., Xin, S., Pang, H., Xu, F., Gui, Y., Sun, Y., & Yang, N. (2022). Evaluating the effectiveness and efficiency of risk communication for maps depicting the hazard of Covid-19. *Transactions in GIS*, 26(3), 1158-1181. <https://doi.org/10.1111/tgis.12814>
18. Finegold, D., Ali, M. A., & Winkler, A. (2011). Governing value creation: new policy and organizational approaches for the global economy. In C. Crouch & C. Maclean (Eds.), *The responsible corporation in a global economy*. Oxford University Press.
19. Gabarron, E., Oyeyemi, S. O., & Wynn, R. (2021). Covid-19-related misinformation on social media: a systematic review. *Bulletin of the World Health Organization*, 99(6), 455. <http://dx.doi.org/10.2471/BLT.20.276782>
20. Guo, Y., An, S., & Comes, T. (2022). From warning messages to preparedness behavior: the role of risk perception and information interaction in the Covid-19 pandemic. *International Journal of Disaster Risk Reduction*, 73, 102871. <https://doi.org/10.1016/j.ijdr.2022.102871>
21. Hample, J. (2022). An investigation into memorable messages about Covid-19. *Journal of Health Communication*, 27(9), 615-623. <https://doi.org/10.1080/10810730.2022.2147256>
22. Hanci, H. (2022). Investigation of high school students' visual literacy levels. *International Journal of Research in Education and Science*, 8(3), 611-625. <https://doi.org/10.46328/ijres.2980>
23. Holmes, R. M., Hitt, M. A., & Arregle, J. L. (2021). The (Covid-19) pandemic and the new world (dis) order. *Journal of World Business*, 56(4), 101210. <https://doi.org/10.1016/j.jwb.2021.101210>
24. Keren, F., Siddiquei, A. N., Anwar, M. A., Asmi, F., & Ye, Q. (2021). What explains natives and sojourners preventive health behavior in a pandemic: role of media and scientific self-efficacy. *Frontiers in Psychology*, 12, 664399. <https://doi.org/10.3389/fpsyg.2021.664399>
25. Killgore, W. D., Cloonan, S. A., Taylor, E. C., Miller, M. A., & Dailey, N. S. (2020). Three months of loneliness during the Covid-19 lockdown. *Psychiatry Research*, 293, 113392. <https://doi.org/10.1016/j.psychres.2020.113392>
26. Kontoangelos, K., Economou, M., & Papageorgiou, C. (2020). Mental health effects of Covid-19 pandemia: a review of clinical and psychological traits. *Psychiatry Investigation*, 17(6), 491. <https://doi.org/10.30773/pi.2020.0161>
27. Lewis, A., & Duch, R. (2021). Gender differences in perceived risk of Covid-19. *Social Science Quarterly*, 102(5), 2124-2133. <https://doi.org/10.1111/ssqu.13079>
28. Li, N., Molder, A. L., & Yang, S. (2022). Visual representations of SARS-CoV-2, emotions, and risk perception of Covid-19. *Health Science Reports*, 5(1), e496. <https://doi.org/10.1002/hsr2.496>
29. Lohiniva, A. L., Pensola, A., Hyökki, S., Sivelä, J., & Tammi, T. (2022). Covid-19 risk perception framework of the public: an infodemic tool for future pandemics and epidemics. *BMC Public Health*, 22(1), 2124. <https://doi.org/10.1186/s12889-022-14563-1>



30. Monge-Rodríguez, F. S., Jiang, H., Zhang, L., Alvarado-Yepetz, A., Cardona-Rivero, A., Huaman-Chulluncuy, E., & Torres-Mejía, A. (2021). Psychological factors affecting risk perception of Covid-19: evidence from Peru and China. *International Journal of Environmental Research and Public Health*, 18(12), 6513. <https://doi.org/10.3390/ijerph18126513>
31. Nunkoo, R., & Ramkissoon, H. (2010). Gendered theory of planned behaviour and residents' support for tourism. *Current Issues in Tourism*, 13(6), 525-540. <https://doi.org/10.1080/13683500903173967>
32. Ong, A. K. S., Prasetyo, Y. T., Vallespin, B. E., Persada, S. F., & Nadlifatin, R. (2022). Evaluating the influence of service quality, hedonic, and utilitarian value on shopper's behavioral intentions in urban shopping malls during the Covid-19 pandemic. *Heliyon*, 8(12). <https://doi.org/10.1016/j.heliyon.2022.e12542>
33. Özkan, H., Tüzün, H., Demirköse, S., Dikmen, A. U., & İlhan, M. N. (2020). Covid-19 pandemisi ve risk iletişimi. *Gazi Sağlık Bilimleri Dergisi*, 1-8.
34. Padilla, L., Hosseinpour, H., Fygenson, R., Howell, J., Chunara, R., & Bertini, E. (2022). Impact of Covid-19 forecast visualizations on pandemic risk perceptions. *Scientific Reports*, 12(1), 2014. <https://doi.org/10.1038/s41598-022-05353-1>
35. Rana, I. A., Bhatti, S. S., Aslam, A. B., Jamshed, A., Ahmad, J., & Shah, A. A. (2021). Covid-19 risk perception and coping mechanisms: does gender make a difference? *International Journal of Disaster Risk Reduction*, 55, 102096. <https://doi.org/10.1016/j.ijdrr.2021.102096>
36. Rattay, P., Michalski, N., Domanska, O. M., Kaltwasser, A., De Bock, F., Wieler, L. H., & Jordan, S. (2021). Differences in risk perception, knowledge and protective behaviour regarding Covid-19 by education level among women and men in Germany. Results from the Covid-19 Snapshot Monitoring (Cosmo) study. *PLOS ONE*, 16(5), e0251694. <https://doi.org/10.1371/journal.pone.0251694>
37. Schuele, E., Kuman, G., Gibbs, P., Pus, A., Vamilat, M., & Namun, K. (2020). Risk perceptions and responses to Covid-19 at a Papua New Guinea University. *Contemporary PNG Studies*, 33, 59-80. <https://search.informit.org/doi/10.3316/informit.355977248324229>
38. Sezgin, D. (2015). Toplumsal cinsiyet perspektifinde sağlık ve tıbbileştirme. *Sosyoloji Araştırmaları Dergisi*, 18(1), 153-186. <https://doi.org/10.18490/sad.63338>
39. Sheraton, M., Deo, N., Dutt, T., Surani, S., Hall-Flavin, D., & Kashyap, R. (2020). Psychological effects of the Covid 19 pandemic on healthcare workers globally: a systematic review. *Psychiatry Research*, 292, 113360. <https://doi.org/10.1016/j.psychres.2020.113360>
40. Skafle, I., Nordahl-Hansen, A., Quintana, D. S., Wynn, R., & Gabarron, E. (2022). Misinformation about Covid-19 vaccines on social media: rapid review. *Journal of Medical Internet Research*, 24(8), e37367. <https://doi.org/10.2196/37367>
41. Sobkow, A., Zaleskiewicz, T., Petrova, D., Garcia-Retamero, R., & Traczyk, J. (2020). Worry, risk perception, and controllability predict intentions toward Covid-19 preventive behaviors. *Frontiers in Psychology*, 11, 582720. <https://doi.org/10.3389/fpsyg.2020.582720>
42. Stamu-O'Brien, C., Carniciu, S., Halvorsen, E., & Jafferany, M. (2020). Psychological aspects of Covid-19. *Journal of Cosmetic Dermatology*, 19(9), 2169-2173. <https://doi.org/10.1111/jocd.13601>



43. Tadese, M., & Mihretie, A. (2021). Attitude, preparedness, and perceived self-efficacy in controlling Covid-19 pandemics and associated factors among university students during school reopening. *PLOS ONE*, 16(9), e0255121. <https://doi.org/10.1371/journal.pone.0255121>
44. Tsoy, D., Tirasawasdichai, T., & Kurpayanidi, K. I. (2021). Role of social media in shaping public risk perception during Covid-19 pandemic: a theoretical review. *International Journal of Management Science and Business Administration*, 7(2), 35-41. <http://dx.doi.org/10.18775/ijmsba.1849-5664-5419.2014.72.1005>
45. Uluçay, D. M., Melek, G., & Özyurda-Ergen, D. (2020). Public perception of data visuals in media coverage during Covid-19 pandemic: the risk perception model revisited. *Tripodos*, 1(47), 135-154. <https://doi.org/10.51698/tripodos.2020.47p135-154>
46. Waldron, V. R., Reutlinger, C., Martin, J., O'Neil, E., & Niess, L. C. (2023). "We are all in this together": which memorable moral messages guided student responses to the Covid-19 pandemic? *Health Communication*, 1-12. <https://doi.org/10.1080/10410236.2023.2286695>
47. Wang, L., Lin, Z. Q., & Wong, A. (2020). Covid-net: a tailored deep convolutional neural network design for detection of covid-19 cases from chest x-ray images. *Scientific Reports*, 10(1), 19549. <https://doi.org/10.1038/s41598-020-76550-z>
48. Wang, R. N., Zhang, Y. C., Wu, R. K., Li, B., Li, C. W., Yu, B. T., & Zhang, Y. L. (2021). A study of self-precaution against the background of the Covid-19 pandemic from the perspective of risk perception attitude theory and social support. *BMC Public Health*, 21, 1-12. <https://doi.org/10.1186/s12889-021-11597-9>
49. Witte, K., & Allen, M. (2000). A meta-analysis of fear appeals: implications for effective public health campaigns. *Health Education & Behavior*, 27(5), 591-615. <https://doi.org/10.1177/109019810002700506>
50. World Health Organization (WHO). (2020a). *PAHO/WHO response. 31 March 2020. Report*. https://iris.paho.org/bitstream/handle/10665.2/52403/covid-19SitRep1_eng.pdf?sequence=1&isAllowed=y
51. World Health Organization (WHO). (2020b). *Rakuten Viber fight Covid-19 misinformation with interactive chatbot*. WHO. <https://www.who.int/news-room/feature-stories/detail/who-and-rakuten-viber-fight-covid-19-misinformation-with-interactive-chatbot>
52. Wu, P. E., Styra, R., & Gold, W. L. (2020). Mitigating the psychological effects of Covid-19 on health care workers. *CMAJ*, 192(17), E459-E460. <https://doi.org/10.1503/cmaj.200519>
53. Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M., Gill, H., Phan, L., ... & McIntyre, R. S. (2020). Impact of Covid-19 pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders*, 277, 55-64. <https://doi.org/10.1016/j.jad.2020.08.001>
54. Yavuz, S., & Okur, F. (2021). Covid-19 pandemi sürecinin ekonomiye olan etkilerinin sektörel analizi. In Sümer, G. (Ed.), *İktisat alanında seçilmiş konular-2* (pp. 79-89). Efe Akademi.
55. Yıldırım, Y., & Yıldırım, H. (2022). Covid-19 sağlık krizinden alınabilecek iletişim dersleri. *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 15(4), 949-962. <https://doi.org/10.25287/ohuiibf.111548>



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THE ROLE OF VISUALS IN THE PERCEPTIONS OF RISK AND OF SELF-EFFICACY AND THE BEHAVIORS TOWARDS THE PANDEMIC OF COVID-19*

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