

PSYCHOLOGICAL EFFECTS OF MEDIA USAGE AND INFORMATION EXPOSURE ABOUT COVID-19

Eni Maryani¹, Yuliani Dewi Risanti², Detta Rahmawan³, Reksa Anggia Ratmita⁴

¹Faculty of Communication Science, Universitas Padjadjaran

²Faculty of Communication Science, Universitas Padjadjaran

³Faculty of Communication Science, Universitas Padjadjaran

⁴Faculty of Communication Science, Universitas Padjadjaran

ABSTRACT

This study investigates the psychological effects of exposure to information from the use of media during pandemic Covid-19. In information exposure, can be seen from the aspects of motivation, excess information, the suitability of information which is considered as important variables in the information provided. Within the context of Pandemic, this study looks at the sources of information, the use of media, the exposure to information, the type of information and psychological aspects of the audience in term of feelings that arise after receiving information related to Covid-19. This study used an online survey conducted in the Greater Jakarta and Bandung areas. The questionnaire was distributed to 1000 respondents in a representative manner according to the percentage of population, gender, and age category. The result showed that television is the most prominent sources of information related to Covid-19. Meanwhile for digital media usage, Google as search engine is the highest percentage as source of information, followed by Instagram and YouTube. Furthermore, in the aspect of type of information, most of respondents exposed by the information about maintain social distancing and the measurement to prevent the acceleration and the spread of Covid-19. Psychological effects occurs at peak when respondents receive information from television, family and friends, while WhatsApp as social media tends to have higher impact on psychology as compared to other social media. **Keywords:** information exposure, digital media, Covid-19, audience, digital media effect.

INTRODUCTION

Currently more than one hundred countries including Indonesia are facing Covid-19 pandemic. Covid 19 is a disease caused by the Corona virus (Coronavirus). This virus was first identified in December 2019 in the city of Wuhan, the capital of Hubei Province in China. Since then, the Corona virus has spread globally in which the World Health Organization (WHO) declared this outbreak as a Pandemic (an epidemic that spreads to various countries or the world). As of April 19, 2020, more than 2.33 million reports were reported in 185 countries and resulted in more than 160 thousand deaths and 598 thousand recoveries.

The first person affected by Covid-19 in Indonesia was officially announced by the government on March 2,

**Autora de correspondencia / Corresponding author.*

2020. The victim was a woman who lives in the Depok area, a small town in West Java which is directly adjacent to DKI Jakarta. Depok is one of Jakarta's satellite cities besides Tangerang, Bekasi and Bogor. Not long after that, the number of victims identified by Covid-19 continued to increase from tens of days to hundreds of days and also spread in various parts of Indonesia. Until April 20, 2020 Pk. 19.50 WIB, in Indonesia it was reported that there were 6,760 people who were confirmed positive for Covid-19, in the care of 5,423 people, 590 people died, and 747 people managed to recover.

In line with the increasing number of victims of Covid-19 and the area where it spreads, various information related to Covid-19 also continues to develop, especially through digital media. The government instructed the citizen to stay and work from home, in which this situation increases the use of digital media for Covid-19 related information. Dozens of online sites and social media accounts related to Covid-19 have emerged from various groups and organizations. Other than from these organizations, there are many personal posts and messages generated and circulated by the digital media users.

These information spread on social media is assumed to not only have a positive but also negative impact on the audiences. Positive implications occur when the information adds knowledge that helps the public to understand the existence of Covid-19 and how to respond to Covid-19, so that the public is better prepared to face the outbreak. Negative implications were found when the information received can caused feelings of pressure, anxiety, fear, or anger. Meanwhile, information exposure is also closely related to the use of digital media and the characteristics of its audiences.

Various explanations of the information exposure theory noted the basic assumption that humans have a certain level of activation of stimuli (information), which at certain level will make them feel comfortable. If they feel a lack of stimuli, they will try to find stimuli or other sources to reach their level of activation (Donohew et al.,1980). Therefore, in addition to the cognitive motivation that they are aware of, attention is the main function to meet the level of individual needs related to stimulation and the level of stimulation provided by stimulation sources (DONOHEW et al., 1998).

Information exposure in a person basically also informs the audience's motivation and need for information. In this regard, individual attention has a primary function of obtaining information from various sources so that they can reach their comfort level. The search for information will then also related to the audience's desire for information based on the suitability of the information that hits their need to achieve comfort (DONOHEW et al., 1998; Donohew., 1980). The characteristics of information exposure through the mass media can be measured through five indicators, namely the ability to choose, to use, intention, involvement, and resistance to media influences (Biocca, 1988).

The use of internet-based (Digital) media which provides very high access to various sources of information could cause the information overload. Internet penetration in Indonesia reaches 64% (174 million accesses) and is ranked 3rd after China and India. The growth of internet access in Indonesia in 2019 was 17% or an increase of 25.3 million (Social, 2019). The use of digital media implies an abundance of information received. Meanwhile, it can be said that various problems will arise when more information is presented than the ability of information seekers to process and handle information (Swar, B., Hameed, T., & Reychay, 2017).

In addition to excessive information, Liang & Fu also added that the aspect of having similar information and repeated information can also make people stop following the information (Liang, H., & Fu,

2017). Since digital media provide unlimited amount of content and diversity of sources, media literacy and news literacy skills are needed. Media literacy is the individual's ability to access, evaluate and assess media (Livingstone, 2004). Media literacy also refers to a person's critical ability when analysing messages from the media (Fleming, 2014; Livingstone, 2014). This includes when someone thinks about what kind of media content is right and wrong or what is honest and deceptive (Boyd, 2018). In addition, digital media users must also face hate speech that is made and spread in digital media based on freedom of speech, hoaxes, and hacking cultures (Jurriens & Tapsell, 2017; Lim, 2017).

As the initial definition in the late 1990s, digital literacy relates to "the ability to understand and use information in various formats from a wide variety of sources when it is presented via computers" and especially through the medium such as the internet (Gilster in Pool, 1997). Various other definitions have been put forward by many other organizations and in various languages and cultural backgrounds. This definition of a multinational organization tends to standardize the concept of digital literacy in an "instrumental" way, promoting labor-oriented abilities (Pangrazio et al., 2020).

Following Gilster (1997), Bawden argues that digital literacy should not be reduced to a set of functional abilities and competencies, and focuses on the importance of context for the meaning-making process (Pangrazio et al., 2020). Another definition of digital literacy is also put forward by O'Brien and Scharber (2008) which defines digital literacy as the practice of social situations supported by abilities, strategies and views that allow representation and understanding of ideas using a range of capital available by digital devices. They also argue that digital literacy should be seen as "development", as digital practice "forms, and is shaped by, young people inside and outside of school" (O'Brien & Scharber, 2008). Bawden (2008) argues that digital literacy needs to be more clearly distinguished from "information literacy" and "computer literacy", as well as from the more recent terms "information" and "fluency in information". In contrast, Buckingham (2011) adopts a counterpoint to the definition of digital literacy that is narrow, functional and tends to focus on "information" and "online safety".

Referring to the general definition of media literacy, the concept of digital literacy in this study is related to the individual's ability to use various digital media and credible sources of information. The ability to sort and select news about Covid-19 on digital media, especially social media, reflects the habit of sharing information and the technical ability to double-check the validity of the information received.

Based on the assumptions described above, this study aims to examine the media usage and information exposure about Covid-19 and its implications on audience psychological effects. Based on the analysis of the relationship between the variables which are source of information about Covid-19 and media usage towards respondents feeling after being exposed by the information about Covid-19.

Method

This study uses a quantitative approach with online survey method to analysis the trends, behaviours or opinions of a population by examining a sample of that population (Cresswell, 2007). As a population, this study chose the Greater Jakarta area (Jakarta, Bogor, Depok, Tangerang and Bekasi, hereafter will be referred to "Jabodetabek"), and the City of Bandung with several rationalizations as the basis for determining the population in the survey (Cresswell, 2007). The first rationalization of sample selection was based on the number of Covid-19 victims in the Jabodetabek area up to April 19, 2020. Jabodetabek is a megapolitan

consisting of Jakarta as the capital of the country and surrounding small cities. Meanwhile, the city of Bandung is the capital of West Java Province which has quite high interaction with the Jabodetabek population which is the first epicentre of the outbreak. Apart from the distance that is not too far away, there are various public transportation that connects the Jabodetabek and Bandung areas.

The survey was conducted by taking a representative sample based on Data from the Indonesian Central Bureau of Statistics (*Badan Pusat Statistik* or BPS) (Statistik, 2020). The target respondents are 1000 respondents consisting of residents of Jabodetabek and Bandung City. Respondents were selected by considering the population based on age and gender. These two characteristics are considered quite significant in relation to the use of digital media and their implications.

Several aspects studied related to information exposure, apart from frequency, also examined information sources, formats and content. Regarding the implications for the first audience, public knowledge and attitudes about Covid-19 and its handling will be seen. In addition, audience perceptions are also sought regarding the adequacy and appropriateness of information, the effects felt, and the ability to maintain their own security from Covid-19 (Donohew et al.,1980; Swar et al., 2017).

RESULT AND DISCUSSION

The online survey involving 1000 respondents to fill out a digital questionnaire using google form. Questionnaires were distributed through the enumerators' social networks in each region to find potential respondents who matched the predetermined characteristics of respondents, namely aged 15-54. Enumerators also look for respondents according to the number of respondents that have been determined in their respective regions so that the number of respondents involved is proportional to the population of each region.

The results will cover two subsections. Firstly, the profile of respondents involved in filling out the digital questionnaire, totalling 1,000 respondents from the Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) areas. Secondly, the presentation and discussion of data related to information exposure, digital media usage, and its implications.

Profile of respondents

This study involved 1,000 respondents from the Jabodetabek area whose numbers in each region were proportional to the population of each region compared to the total population. Most of respondents are from DKI Jakarta with percentage 51,2% followed by Kota Bekasi 14% then Kota Bandung 12,5% and the rest of whole percentage is from Kota Tangerang, Kota Depok and Kota Bogor. Profile of respondents based on gender, which is proportional to the proportion of men and women in Jabodetabek, namely 50.4: 49.6. The composition of men and women is relatively balanced, so it is hoped that this study will not produce gender biased data. Furthermore, Table 1 contains data on the profile of respondents based on 8 age categories of respondents. Age categories are compiled by referring to age data categories from the Central Bureau of Statistics.

Table 1 Profile of Respondents based on Age

Age	F	%
15 - 19	120	12,00%
20 - 24	136	13,60%
25 - 29	151	15,10%
30 - 34	150	15,00%
35 - 39	137	13,70%
40 - 44	120	12,00%
45 - 49	101	10,10%
50 - 54	85	8,50%
Total	1000	100%

In general, the data in table 1 also shows a proportional composition, which ranges from 8.5% in the age category of 50-54 to 15.1% in the age category of 25-29. Age category is quite an important aspect to analyse media usage and the implication of the information about Covid-19.

Meanwhile, the educational level of the respondents are more than half of the respondents, as many as 58.1%, are having a diploma or bachelor's degree and as many as 30.7% are in high school. Most of the respondent involved in this research are Senior High School graduate, this is because the questionnaire distributed is in digital form therefore these group which are easier to access and be accessed by enumerators.

Information Sources and Digital Media Usage on Coronavirus Pandemic

This research brought information sources that include mass media institution., social media account owned by public figure or non-public figure, government and NGO's website. Respondents answer about the frequency of each of institution which become source of information's about Covid-19 to respondents.

Table 2. Information Sources about Covid-19

No.	Information Sources about Covid-19	Never	Rarely	Often	Total
1	Radio	82,70%	11,80%	5,50%	100%
2	Television	17,10%	30,90%	52,00%	100%
3	Social Media owns by Celebrity/Public Figure	33,00%	28,20%	38,30%	100%
4	Social Media owns by Non-Celebrity	21,60%	32,20%	46,20%	100%
5	Government's Official Website (Kemenkes, BNPB)	36,10%	29,20%	34,70%	100%
6	Non-Government's Website (kawalcovid, etc)	39,00%	31,20%	29,80%	100%
7	Family or Relatives	16,80%	32,90%	50,30%	100%
8	Friends	16,20%	33,20%	50,80%	100%

Source: Research, 2020

Table 2 show the source of information about the Covid-19, where television is the primary choice in seeking information for 52% of the respondents. Apart from television, 50% of the information sources about Covid-19 are also obtained from family, relatives, and friends. Meanwhile, radio is the media that has been used the least as a source of information about the Covid-19, with 82.7%.

Table 3. Frequency of Digital Media Usage

No.	Digital Media	Frequency			Total
		Never	Rarely	Often	
1	Instagram	38,10%	24,70%	37,20%	100%
2	Facebook	64,10%	15,40%	20,50%	100%
3	WhatsApp	32,30%	25,90%	13,90%	100%
4	Line	65,60%	13,90%	20,50%	100%
5	You Tube	40,50%	23,70%	35,80%	100%
6	Google Search	28,80%	26,30%	44,90%	100%
7	Twitter	62,00%	12,70%	25,30%	100%

Source: Research, 2020

The digital media most often used to obtain information about Covid-19 is through Google search (44.9%), Instagram (37.2%), and You Tube (35.8%). Overall, the three media that most respondents admit they have never used to access are Line (65%), Facebook (64%) and Twitter (62.05). Detailed data related to the use of digital media to obtain information about Covid-19 is shown in table 3

Furthermore, table 3 shows respondent's answer regarding information exposures that are received. In order to clarify information exposure, then question asked to respondent is how often they were exposed by the information about Covid-19 that are related to the spread of Covid-19 and its victims, ways to limit Coronavirus transmission, government policies on Covid-19, information on various tests related to Covid-19 and maintaining distance as a way to prevent Covid-19 transmission.

Table 4 Information Exposure of Coronavirus

NO	Information Exposure	Frequency			
		Never	Rarely	Often	Total
1	The spread of the Coronavirus and its victims in various countries or regions in Indonesia	0.3%	9.7%	90.0%	100%
2	Practical ways so as not to easily contract or transmit the Coronavirus	0.5%	5.2%	94.3%	100%
3	Government policies and actions to deal with the Corona outbreak and its effects	0.6%	11.9%	87.5%	100%
4	Information on various tests to find out whether or not we have contracted the Corona virus	2.4%	23.5%	74.1%	100%
5	Maintain distance (Social Distancing) to prevent the acceleration and the spread of the Corona virus	0.2%	3.0%	96.8%	100%

Source: Research, 2020

Table 4 explains the types of information received by respondents in which the majority have been receiving a lot of information on coronavirus, such as about The spread of the Corona virus and its victims in various countries or regions in Indonesia (90%); Practical ways so as not to easily contract or transmit the Corona virus (94,3%); Government policies and actions to deal with the Corona outbreak and its effects (87,5%); Information on various tests to find out whether or not we have contracted the Corona virus (74,1%); and Maintain distance (Social Distancing) to prevent the acceleration and the spread of the Corona virus (96.8%).

Respondent 's Feeling After Receiving Coronavirus Information

There have been various psychological impacts due to Coronavirus in society. This study reveals the feelings of respondents after receiving various information about Coronavirus in order to see the feeling most

respondents feel are worried, depressed, angry or sad. In other words, Coronavirus does not only have impact in physical but also on psychological health.

Table 5 .Respondents’ feelings after receiving information about Coronavirus

No	Respondents' feelings after receiving information about Covid-19	Frequency			
		Disagree	Less agree	Agree	Total
1	Worry	12,00%	13,30%	74,70%	100%
2	Stressed	35,20%	36,20%	28,60%	100%
3	Angry	45,10%	33,40%	21,50%	100%
4	Sad	16,80%	18,00%	65,20%	100%

Source: Research, 2020

From table 5 above, it can be seen the psychological influence related to exposure on coronavirus related information received which were asked within four categories, namely worry, stressed, anger, and sadness. The results show that after the respondents received information on coronavirus, 74.7% feel worry and 65.2% feel sad. Hence, it can be said that information on coronavirus provoke these two emotions on the respondents the most. This research is in line with study conducted on 10,000 participants in various countries showing that at the peak of lockdown, the pandemic was perceived as moderate stress for most people, and 11% reposted high levels of stress. Depressive symptoms are also quite high, including 25% of the sample indicating that what they are doing is not reinforcing, 33% of them have high levels of boredom and nearly 50% indicating that they are spending most of the time for nothing. Consistent with the symptoms of stress and depression, 10% of the participants felt a psychological disorder (Gloster et al., 2020). Symptoms of stress and depression arise from various feelings such as worry, anger or sadness when reading or hearing news about Covid-19.

Information of Source and Media Usage Toward Audience

Based on description of the table above, it can be seen that most of the feeling that is felt by respondents after receiving information about Coronavirus are worried and sad. Furthermore, it can be seen the background information sources that have a response related to the feelings expressed by the respondents based on the source of the information about Coronavirus that is acknowledged by the respondents.

Table 6 Respondents Feeling Based on Source of information

Source Information	Respondent Feeling							
	Worry 747	74.7 %	Angry 286	28,60%	Stressed 215	21,50%	Sad 652	65,2 %
Radio	38	5,1	11	3,8	9	4,2	32	4,9
Television	415	55,6	159	55,6	114	53	361	55,4
Social Media owns by Celebrity/Public Figure	297	39,8	110	38,5	89	41,4	252	38,7
Social Media owns by Non- Celebrity	344	46,1	131	45,8	109	50,7	308	47,2
Government's Official Website (Kemenkes, BNPB)	263	35,2	88	30,8	66	30,7	214	32,8
Non- Government's Website (kawalcovid, etc)	231	30,9	96	33,6	75	34,9	202	31
Family or Relatives	379	50,7	144	50,3	115	53,5	337	51,7
Friends	390	52,2	151	52,8	116	54	339	52

Source: Research, 2020

Table 6 shows that there are about 50% of 749 respondents who have worried feeling, admitted that television, family and friends become their information sources. Likewise who are feeling sad, among 50% of them also turn television, family and friends as information sources about Coronavirus. It means that both mainstream and digital media and people who has personal influence to respondent assumed give contribution to the appearance of worried and sad feeling of respondents. Another interesting data shown that is there are around 40% of respondents who feel worried, angry, depressed, and sad, admit that they use social media owned by public figures as their source of information about Coronavirus. This percentage is slightly lower to the respondents who use social media owned by non-public figures as source of information that also claimed to have feeling worried, angry, depressed and sad.

Table 7 provides a background of the types of digital media from respondents who feel worried, angry, depressed and sad related to Coronavirus.

Table 7 Respondents Feeling and Digital Media Usage

Source of Information-Digital Media	Respondents Feeling							
	Worry (747/74.7%)	%	Angry (286/28,6%)	%	Stressed (215/21,5%)	%	Sad (652/65,2%)	%
Instagram	286	38,3	108	37,8	88	40,9	26	4
Facebook	160	21,4	59	20,6	41	19,1	133	20,4
Whatsapp	334	44,7	129	45,1	96	44,7	293	44,9
Line	151	20,2	57	19,9	53	24,7	137	21
Youtube	271	36,3	104	36,4	76	35,3	253	38,8
Twitter	335	44,8	132	46,3	95	44,2	195	29,9
Google Search	194	26	83	29	75	34,9	179	27,5

Source: Research, 2020

Regarding digital media, table 7 above show that coronavirus related information from WhatsApp make them worry (44,7%), angry (45,1%) tertekan (44,7%) and sad (44,9%). These data indicate that Whatsapp is the most used social media by respondents who have all of the feelings from worried, angry, stressed to sad. Meanwhile, Twitter make them worried (44,8%), angry (46,3) and stressed (44,2%), while information on Whatsapp make them worry (44,7%) and also sad (29,5%). Instagram users admit to feel stressed (40,9%), worried (38,35%) and depressed (37,8%). Whilst, the usage of digital media like Facebook, Line Youtube and Google search engine are only a background for respondents who have feelings worried, angry, stressed and sad only about 19,1%-36,45% respondents.

Table 6 shows that television information sources are the most prominent sources of information (52.0%). In addition, the source of information through social relationships with friends (50.8) and family (50.3%) also shows a quite prominent value among other sources of information. This finding is relevant to the assumption of social relationship theory which assumes that the public gets more information disseminated by the mass media through social relationships (McQuail, 1994). Another explanation is that The Indonesian government has formed a Task Force for the Acceleration of Handling Covid-19 since the beginning of March 2020 at the time when the Covid-19 virus emerged in Indonesia. At that time, President Jokowi appointed Dr. Ahmad Yurianto as the spokesperson in charge of providing information on the development of daily data on the Covid-19 case and answering media questions about the handling of Covid-19 in Indonesia which are broadcast live on television. The latest developments regarding the daily Covid-19 case are broadcast every day at 3:30 p.m. Hence, television is the main source of information about the Coronavirus besides family, relatives, or friends.

The highest sources of information among digital media are the social media that do not belong to celebrities. Meanwhile, more government websites are accessed than non-government web sites. According to research results released by Nielsen regarding Covid-19 and its impact on media consumption trends, news program TV viewing has increased by 25%, along with the prevalence of news on a number of television stations related to Covid-19 contributing to increasing the intensity of the community in monitoring developments related to Covid-19 (Nielsen.com, 2020). The existence of a stay-at-home policy, with the Large-Scale Social Restrictions (PSBB) which has been implemented since mid-March to prevent the spread of the Covid-19 virus, has also contributed to influencing television viewing.

The source of corona information through digital media is mostly obtained from the Google search, then Instagram and YouTube. The impact of using social media as a source of information during a pandemic has two sides. On one hand, social media presents a large amount of information with emotional content, most of which are negative in tone. On the other hand, social media plays an important role in social support and emotional catharsis because during times of crisis, people depend on the media not only to seek information, but also to cope with emotions and seek support (Liu, Cong. Yin, 2020).

Based on data released by We Are Social and Hootsuite.com in the Digital 2021 report for Indonesia, currently internet users in Indonesia are 202.6 million users or 73.7% of the total population in Indonesia (Social, 2021). Digital media makes information published and spread faster in a real time. The popularity of Google as the main search engine that is widely used by Indonesians as well as social media Instagram and YouTube continues to increase, namely as many as 170 million active social media users or 61.8% of the total population

of Indonesia where the duration used to access social media is 3 hours 14 minutes. where almost 100% use a mobile phone as a tool used in accessing social media (Social, 2021).

It can be said that the general information on coronavirus that have been received by the respondents can be related with government campaigned through the “3M Movement”, namely Wearing Masks, Washing Hands, and Maintaining Distance. The message regarding the 3M Movement was conveyed massively through various media.

There is notable result related to digital literacy competencies, in respondents ability to choose the information needed or determine the correctness of data received by respondents. More than half of respondents also agreed that there was too much information about Covid-19 compared to what was needed. Research on health literacy related to the pandemic states that the higher exposure to information through mass media and non-mass media has a relationship with the increasing level of health literacy regarding Covid-19 and behaviour in preventing the spread of the virus (Ifroh RH, 2020). It is necessary to do further research on the level of public knowledge of the Covid-19 virus.

In the aspect of psychological influence, it states that the frequent psychological impact after receiving information about Covid-19 is feelings of worry and sadness. The findings of this study indicate that negative psychological impacts can be formed due to repeated exposure to information about Covid-19 that exceeds what is actually needed. The media should not only present information and increase the number of views, or as much readability as possible, but must also be able to show empathy and real concern and uphold the ethics of reporting. The media could also build optimism by presenting positive information, especially in times of crisis caused by a prolonged pandemic.

CONCLUSION

This study raises data collection about (A) sources of information, (B) use of digital media (C) exposure to information (D) selective exposure and (E) psychological aspects of the audience in terms of feelings that arise after receiving information related to Coronavirus.

The new coronavirus 2019 (Covid-19) which attacks the respiratory tract has rapidly become an unprecedented global outbreak. During a pandemic that is difficult to predict, the tendency from the public to seek related information from various media is very high.

The digital media most often used to obtain information on the Corona virus is through Google search (44.9%), Instagram (37.2%), and You Tube (35.8%). Overall, the three media that most respondents admit they have never used to access are Line (65%), Facebook (64%) and Twitter (62.05). Several types of information received by respondents are about the spread of the Corona virus and its victims in various countries or regions in Indonesia (90%); Practical ways so as not to easily contract or transmit the Corona virus (94,3%); Government policies and actions to deal with the Corona outbreak and its effects (87,5%); Information on various tests to find out whether or not we have contracted the Corona virus (74,1%); and Maintain distance (Social Distancing) to prevent the acceleration and the spread of the Corona virus (96.8%).

The psychological influence related to information exposure received by the public from various sources of information is asked for four categories, namely worry, stress, anger, and sadness. The psychological impact after receiving information about the Covid-19 was that most respondents agreed, namely feeling worried (74.7%) and sad (65.2). When associated with information sources that make television

as the source of information of Coronavirus, they reveal that they feel worried (55.6%), angry (55.6%), depressed, 53.0%) and sad (55.4). Likewise, those who states that family and friends were the source of the Coronavirus information stated that they were worried (50.7% and 52.5%) angry (50.3%-53%), depressed (53.5-54.0%) and feeling sad (51.7% and 52.0%). In other words, television, family and friends as sources of information about the Coronavirus tend to have more of an impact on the psychological condition of the audience, compared to both government and non-government websites. Meanwhile, WhatsApp as social media tends to have higher impact on psychology as compared to other social media.

LIMITATION AND STUDY FORWARD

The limitation of this research is that the focus chosen is only on how psychological effect of media usage and information exposure about Covid-19. Meanwhile there are still many other effects that can be impacted by media usage and information exposure. In addition, the method of study can be expanded to investigate the impact of media usage and information exposure on both psychical and psychological effects. This research is expected to be used as a reference for conducting further research in term of media usage and information exposure especially in Covid-19 pandemic era.

ACKNOWLEDGEMENTS

The author would like to thank to Universitas Padjadjaran for providing financial support for this research.

REFERENCES

- Bawden, D. (2008). Origins and concepts of digital literacy. *Digital Literacies: Concepts, Policies and Practices*. <https://doi.org/10.1093/elt/ccr077>
- Biocca, F. (1988). Opposing Conceptions of the Audience: The Active and Passive Hemispheres of Mass Communication Theory. *Communication Yearbook*, 11, 51–80.
- Boyd, D. (2018). *You Think You Want Media Literacy... Do You?*
- Buckingham, D. (2011). *Media Literacy: New Directions or Losing Our Way? Manifesto for Media Education Symposium*. Royal Institute of British Architect.
- Cresswell, J. W. (2007). R. D. Q. & Q. A. N. Y. S. P. (2007). *Cresswell, J. W. (2007). Research Design: Qualitative & Quantitative Approaches*. New York: Sage Publications.
- DONOHEW, L., LORCH, E. P., & PALMGREEN, P. (1998). (1998). Applications of a Theoretic Model of Information Exposure to Health Interventions. *Human Communication Research*, 24(3), 454–468, 24.
- Donohew, L., Palmgreen, P., & Duncan, J. (1980). An activation model of information exposure. *Communication Monographs*, 47(4), 295–303, 295–303.
- Fleming, J. (2014). Media Literacy, News Literacy, or News Appreciation? A Case Study of the News Literacy Program at Stony Brook University. *Journalism & Mass Communication Educator*, 69(2), 146–165.
- Gilster, P. (1997). *Digital Literacy*. Wiley & Sons, Inc.
- Gloster, A. T., Lamnisos, D., Lubenko, J., Presti, G., Squatrito, V., Constantinou, M., Nicolaou, C., Papacostas, S., Aydın, G., Chong, Y. Y., Chien, W. T., Cheng, H. Y., Ruiz, F. J., Garcia-Martin, M. B., Obando-Posada, D. P., Segura-Vargas, M. A., Vasiliou, V. S., McHugh, L., Höfer, S., ... Karekla, M. (2020). Impact of COVID-

- 19 pandemic on mental health: An international study. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0244809>
- Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., Zhang, L., Fan, G., Xu, J., Gu, X., Cheng, Z., Yu, T., Xia, J., Wei, Y., Wu, W., Xie, X., Yin, W., Li, H., Liu, M., ... Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*. [https://doi.org/10.1016/S0140-6736\(20\)30183-5](https://doi.org/10.1016/S0140-6736(20)30183-5)
- Ifroh RH, A. T. (2020). Health Literacy, Media Exposure and Behavior Among Young Adults During the Covid-19 Pandemic. *Jurnal Ilmu Kesehatan Masyarakat (JIKM)*, 11(3).
- Jurriens. Edwin & Ross Tapsell. (2017). *Jurriens. Edwin & Ross Tapsell, (2017). Digital Indonesia ; Connetctivity and Divergence, ISEAS, Yosof Ishak Institute, Singapore.*
- Karyono, K., Rohadin, R., & Indriyani, D. (2020). PENANGANAN DAN PENCEGAHAN PANDEMI WABAH VIRUS CORONA (COVID-19) KABUPATEN INDRAMAYU. *Jurnal Kolaborasi Resolusi Konflik*. <https://doi.org/10.24198/jkrk.v2i2.29127>
- Liang, H., & Fu, K. (2017). Information Overload, Similarity, and Redundancy: Unsubscribing Information Sources on Twitter. *Journal of Computer-Mediated Communication*, 22(1), 1–17.
- Lim, M. (2017). Freedom to hate: social media, algorithmic enclaves, and the rise of tribal nationalism in Indonesia. *Critical Asian Studies*, 49(3), 411–427.
- Liu, Cong. Yin, L. (2020). Media Exposure and Anxiety during COVID-19: The Mediation Effect of Media Vicarious Traumatization. *International Journal of Environmental Research and Public Health*, 17(13), 4710.
- Livingstone, S. (2004). Media Literacy and the Challenge of New Information and Communication Technologies. *The Communication Review*, 7(1), 3–14.
- Livingstone, S. (2014). Developing social media literacy: How children learn to interpret risky opportunities on social network sites. *Communications*, 39(3).
- McQuail, D. (1994). *Mass Communication Theory : An Introduction*. Sage Publications.
- NHS England and NHS Improvement coronavirus. (2020). *Coronavirus guidance for clinicians and NHS managers*. NHS England Web Site.
- Nielsen.com. (2020). *Covid-19 dan Dampaknya Pada Tren Konsumsi Media*. Nielsen Company Indonesia.
- O'Brien, D., & Scharber, C. (2008). Digital Literacies Go to School: Potholes and Possibilities. *Journal of Adolescent & Adult Literacy*. <https://doi.org/10.1598/jaal.52.1.7>
- Pangrazio, L., Godhe, A. L., & Ledesma, A. G. L. (2020). What is digital literacy? A comparative review of publications across three language contexts. *E-Learning and Digital Media*. <https://doi.org/10.1177/2042753020946291>
- Pool, C. R. (1997). A New Digital Literacy A Conversation with Paul Gilster. *Educational Leadership*.
- Social, W. A. (2019). *Global Digital Report 2019*.
- Social, W. A. (2021). *Digital 2021 For Indonesia*.
- Statistik, B. P. (2020). *Statistik, B. P. (2020). No Title. Retrieved March 21, 2020, from bps.go.id*.
- Su, S., Wong, G., Shi, W., Liu, J., Lai, A. C. K., Zhou, J., Liu, W., Bi, Y., & Gao, G. F. (2016). Epidemiology, Genetic Recombination, and Pathogenesis of Coronaviruses. In *Trends in Microbiology*. <https://doi.org/10.1016/j.tim.2016.03.003>

- Swar, B., Hameed, T., & Reychav, I. (2017). Information overload, psychological ill-being, and behavioral intention to continue online healthcare information search. *Computers in Human Behavior*, 70, 416–425.
- Weiss, S. R., & Leibowitz, J. L. (2011). Coronavirus pathogenesis. In *Advances in Virus Research*. <https://doi.org/10.1016/B978-0-12-385885-6.00009-2>
- World Health Organization. (2020a). *Coronavirus disease (COVID-19) advice for the public*. Coronavirus Disease 2019.
- World Health Organization. (2020b). Covid-19 Situation Report. *World Health Organization*.
- Wu, Y. C., Chen, C. S., & Chan, Y. J. (2020). The outbreak of COVID-19: An overview. In *Journal of the Chinese Medical Association*. <https://doi.org/10.1097/JCMA.0000000000000270>