Journal of Health Promotion and Behavior (2022), 07(02): 142-151
Masters Program in Public Health, Universitas Sebelas Maret

Research

Study of Knowledge, Attitude, Anxiety and Perception of Mental Health Service Needs Related to the COVID-19 Pandemic in Banyumas Regency, Central Java, Indonesia: A Cross-sectional Study

Yudhi Wibowo[1)], Joko Mulyanto[1)], VM. Wahyu Siswandari[2)], Siti Munfiah[1)]

[1)]Deparment of Public Health & Community Medicine, Medical Faculty, Jenderal Soedirman University, Purwokerto, Central Java, Indonesia
[2)]Deparment of Clinical Pathology, Medical Faculty, Jenderal Soedirman University, Purwokerto, Central Java, Indonesia

ABSTRACT

Background: In Banyumas, as of 27 June 2021, there were 15,809 confirmed cases and 669 deaths. Social restrictions with forced quarantine to fight the spread of diseases that have psycho-social impacts such as acute panic, anxiety, obsessive behavior, buildup, paranoia, depression and post-traumatic stress disorder. Community knowledge and attitudes affect compliance with the prevention and control of COVID-19. This study aimed to examine knowledge, Attitudes, Anxiety & Perception of Mental Health Service Needs during the Covid-19 Pandemic.
Subjects and Method: This was a cross sectional study, conducted in Banyumas, Central Java, from July to August 2021. A total of 687 subjects was selected by snowball sampling. The dependent variable was anxiety. The independent variables were demographic data (initials, age, gender, home location, occupation, education level), marital status, pregnancy status, history of COVID-19, knowledge, attitudes, and perceptions of mental health service needs. The data were collected by questionnaire and analyzed using a multiple logistic regression.
Results: The anxiety level increased with age >60 years (OR= 0.60; 95% CI= 0.29 to 1.27; p= 0.001), not working (OR= 0.65; 95% CI= 0.29 to 1.46; p= 0.004), low level of education (OR= 2.07; 95% CI= 0.88 to 4.84; p= 0.021), unmarried status (OR=2.51; 95% CI= 1.67 to 3.78; p< 0.001), COVID-19 survivors (OR= 1.96; 95% CI= 1.27 to 3.02; p= 0.003).
Conclusion: Age, occupation, education level, unmarried status, COVID-19 survivors had a correlation with anxiety level.

Keywords: knowledge, attitudes, anxiety, mental health service needs, COVID-19.

Correspondence:
Yudhi Wibowo. Department of Public Health and Community Medicine, Medical Faculty, Jenderal Soedirman University. Jl. Dr. Gumbreg No 1, Mersi, Purwokerto, Banyumas, Central Java, Indonesia. Email: yudhi.wibowo@unsoed.ac.id. Mobile: +628112621904.

Cite this as:
Wibowo Y, Mulyanto J, Siswandari VMW, Munfiah S (2022). Study of Knowledge, Attitude, Anxiety & Perception of Mental Health Service Needs related to the Covid-19 Pandemic in Banyumas Regency, Central Java, Indonesia: A Cross-sectional Study. J Health Promot Behav. 07(02): 142-151. https://doi.org/10.-26911/thejhpb.2022.07.02.06.

BACKGROUND

Corona Virus Disease-19 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome-Corona Virus-2 (SARS-CoV-2) previously known as 2019-nCov. This disease started from 41 cases of pneumonia with no known cause in Wuhan, Hubei Province, China on December 30,

2019 and there was a history of contact with the seafood market (Isaac I. Bogoch et al., 2020; Lu et al., 2020; WHO, 2020a, 2020b). As of October 30, 2020, the COVID-19 pandemic has spread to 219 countries and territories. As of 27 June 2021, globally there were 180,492,131 confirmed cases and 3,916,771 deaths (WHO, 2021). In Indonesia, there were 2,115,481 confirmed COVID-19 and 57,138 deaths, and in Central Java there were 246,529 confirmed cases and 10,373 deaths. In Banyumas, there were 15,809 confirmed cases and 669 deaths.

Key public health measures to break the chain of transmission include 1) Identification, isolation, testing and case management, 2) Tracing and quarantine for close contacts, and 3) Maintain a distance of at least 1 meter and combined with washing hands with soap and coughing and sneezing etiquette (WHO, 2020c; World Health Organization, 2020). Most of the world's population has been limited in their activities in the home environment, since quarantine or large-scale social restrictions (called PSBB) were implemented in order to suppress the rate of transmission of the COVID-19 disease. In Indonesia, since the beginning of the pandemic, quarantine has also been implemented or PSBB which is evaluated and adapted to the dynamics of the epidemiology of the Covid-19 disease in the local context (Brooks et al., 2020; Kemenkes RI, 2020; Peraturan Pemerintah Republik Indonesia, 2020; Pulla, 2020).

Quarantine often provides an unpleasant experience for those who undergo it and has psychological effects such as irritability, fear of contracting and spreading infection to family members, anger, confusion, frustration, loneliness, denial, anxiety, depression, insomnia, hopelessness, to extreme consequences such as suicide. Isolated suspected cases may suffer from anxiety due to uncertainty about their health status and may develop obsessive-compulsive symptoms, such as repeated temperature checks and sterilization. In addition, there is the possibility of lawsuits after the implementation of quarantine and isolation (Miles, 2015; Jeong et al., 2016; Brooks et al., 2020; Li et al., 2020). The psychological effects of post-quarantine can be in the form of significant socioeconomic pressure and psychological symptoms due to financial losses. Another important aspect is the stigmatization and rejection of society regarding quarantined care, discrimination, suspicion, insecurity about property and withdrawl from social events even after pandemic control (Brooks et al., 2020).

Since the pandemic, there has been extraordinary interconnection through online social networks that have the potential to create real-time maps as a pandemic tracking tool and COVID-19 prevention and control campaigns. However, this social media can also have the opposite impact in controlling the COVID-19 pandemic. The WHO Director-General calls it an infodemic that actually creates fear and panic by spreading confusing, propaganda and sensational rumors (Al-garadi et al., 2016; Depoux et al., 2020; Shimizu, 2020; Zarocostas, 2020). This can cause tremendous mental burdens such as anxiety, phobias, panic, depression, obsessions, irritability, delusions of having symptoms similar to COVID-19 and other paranoid ideas. People who will seek health services become too confused, lazy, and very worried about the symptoms of the COVID-19 disease so that normal health services can be disrupted (Asmundson and Taylor, 2020; Ho, Chee and Ho, 2020). Inappropriate social media information can affect people's attitudes and behavior. People may violate the basic rules of the

pandemic and ignore the seriousness of the COVID-19 pandemic (Soltaninejad, 2020).

The knowledge and attitudes of the community are expected to greatly influence compliance with the prevention and control of COVID-19, including the final result. The Central Statistics Agency (called BPS) has released the results of the socio-demographic survey of the impact of COVID-19 in 2020, but has not specifically described the real thing in Central Java, especially Banyumas regency (BPS RI, 2020). Therefore, this study aimed to examine knowledge, Attitude, Anxiety & Perception of Mental Health Service Needs during the Covid-19 Pandemic in Banyumas, Central Java.

SUBJECTS AND METHOD

1. Study Design

This study is analytical observational with a cross-sectional design, which was conducted in Banyumas, Cetral Java, from July to August 2021.

2. Population and Sample

The population studied was all residents who live in Banyumas, Central Java. A total of 687 subjects was carried out by snowball sampling.

3. Study Variables

The dependent variable was anxiety. The independent variables included demographic data (initials, age, gender, home location, occupation, education level), marital status, pregnancy status, history of COVID-19, knowledge, attitudes, and perceptions of mental health service needs.

4. Operational Definition of Variables

Demographic data are age-related data in years calculated based on the year of birth, sex according to ID card, the location of the house was distinguished from rural if the main economy is agrarian, the respondents occupation and education level.

Marital status is the respondent's status related to marriage whether unmarried, divorced or married.

Pregnancy status is a female respondent diagnosed as pregnant by a doctor or health worker.

History of COVID-19 is a respondent who has been diagnosed with COVID-19 by a doctor.

Knowledge is knowledge about the disease COVID-19

Attitude is the attitude of the respondent regarding efforts to prevent covid-19.

Perception of mental health services need is the respondent's perception regarding the need for mental health services as measured by 4 questions

Anxiety is an emotion characterized by feelings of tension, worried thoughts and certain physical changes such as an increase in blood pressure.

5. Instruments

Primary data of knowledge, attitudes and perception of mental health services needs were obtained using a questionnaire adopted from Roy's research (Roy et al., 2020). The anxiety level was measured by Hamilton Anxiety Rating Scale (HARS) (HAMILTON, 1959).

6. Data Analysis

Univariate analysis used to describe the characteristics of respondents. Bivariate analysis includes the Spearman correlation test, which analyzes the correlation between knowledge scores and attitudes scores, between knowledge scores and anxiety scores, and between attitude scores and anxiety scores. Chi Square comparative test to analyze the relationship between age group, gender, marital status, maternal status, occupation, education level, home location and survivor status with anxiety level. Multivariate analysis was carried out using multiple logistic regression.

7. Research Ethics

The ethical clearence in this study was conducted at Health Research Ethics Committee, Faculty of Medicine, Jenderal Soedirman University Number Ref: 103/KEPK/V/2021.

RESULTS

1. Univariate Analysis

Table 1 showed that the most age of subjects were 31-45 years (38.2%), and the majority of them were female 398 (53.9%), study subjects who did not pregnant were 385 (96.6%), ocuupation health workers, civil servant or army, and police as many as 279 (37.8%), the most level of education is associate degree or vocational 329 (44.6%), urban house location 440 (59.65), not COVID-19 survivors 617 (83.6%), have a good knowledge 646 (87.5%), good attitude 728 (98.6%), and 583 (79.0%) not experienced anxiety.

Table 1. Characteristics of the sample

Characteristics	Categories	Frequency (n)	Percentage (%)
Age	18-30 years old	160	21.7
	31-45 years old	282	38.2
	46-59 years old	246	33.3
	≥ 60 years old	50	6.8
Gender	Female	398	53.9
	Male	340	46.1
Pregnant mother	Yes	13	3.3
	No	385	96.6
Occupation	Not working	51	6.9
	Housewife	13	1.8
	Student	85	11.5
	Laborer	14	1.9
	Self-employed	80	10.8
	Honorary/private	92	12.5
	Employee	16	2.6
	Retired	61	8.3
	Professional	44	6.0
	Health workers, civil servant/ army, police	279	37.8
Level of education	Elementary school	12	1.6
	Junior high school	111	15.0
	Senior high school	57	7.7
	Associate Degree / vocational	329	44.6
	Master Degree or specialist doctor-1	174	23.6
	Doctoral Degree/ specialist doctor-2	55	7.5
Residence	Rural	298	40.4
	Urban	440	59.6
COVID-19 survivors	Yes	121	16.4
	No	617	83.6
Knowledge	Less	92	12.5
	Good	646	87.5
Attitude	Less	3	0.4
	Enough	7	0.9
	Good	728	98.6

Characteristics	Categories	Frequency (n)	Percentage (%)
Anxiety level	No anxiety	583	79.0
	Mild anxiety	95	12.9
	Moderate anxiety	42	5.7
	Severe anxiety	14	1.9
	Very heavy anxiety	4	0.5

2. Bivariate Analysis

Based on Table 2, it can be seen that the correlation of knowledge score with attitude score was statistically significant with a very weak correlation strength and a positive direction of correlation.

Table 2. Results of Correlation Analysis of Knowledge Scores with Attitude Scores

Variable	Attitude Scores	
	r	p
Knowledge Scores	0.173	<0.001

Table 3. Results of Correlation Analysis of Knowledge Scores with Anxiety Scores

Variable	Anxiety Scores	
	r	p
Knowledge Scores	-0.108	0.003

Table 3 showed that the correlation between knowledge scores and anxiety scores was statistically significant with a very weak correlation strength and a negative correlation direction.

Based on table 4 showed that there is a statistically significant relationship between age group (OR= 0.60; 95% CI= 0.29 to 1.27, p= 0.001), marital status (OR= 2.51; 95% CI= 1.67 to 3.78; p<0.001), occupation (OR= 0.65; 95% CI= 0.29 to 1.46; p= 0.004), education level (OR= 2.07; 95% CI= 0.88 to 4.84; p= 0.021) and COVID-19 survivors (OR= 1.96; 95% CI= 1.27 to 3.02; p= 0.003) with anxiety.

The independent variables included in the multiple logistic regression analysis were marital status, and COVID-19 survivors. The results of the multiple logistic regression analysis are presented in Table 5. Table 5 showed that there is relationship between marital status of not married yet (OR= 2.71; 95% CI = 1.79 to 1.12; p<0.001), and COVID-19 survivors (OR= 2.18; 95% CI= 1.43; p=0.001) with anxiety.

Table 4. Results of Correlation Analysis of Knowledge Scores with Attitude Scores

Characteristic	Categories	Anxiety				OR	95% CI	p
		YES		NO				
		n	%	n	%			
Age	≥ 60 years old	11	22.0	39	78.0	0.60	0.29 -1.27	0.001
	46-59 years old	46	18.7	200	81.3	0.49	0.31-0.78	
	31-45 years old	47	16.7	235	83.3	0.43	0.27-0.68	
	18-30 years old	51	31.9	109	68.1	reff		
Gender	Female	92	23.1	306	76.9	1.32	0.92-1.89	0152
	Male	63	18.5	277	76.9			
Marital Status	Not married yet	49	35.3	90	64.7	2.51	1.67-3.78	<0.001
	Divorced	4	15.4	22	84.6	0.84	0.28-2.49	
	Married	102	17.8	471	82.2	reff		
Pregnancy status	Yes	3	23.1	10	76.9	0.99	0.270.370	1.000
	No	9	23.1	296	76.9			
Occupation	Not working	8	12.5	56	87.5	0.65	0.29-1.46	0.004
	Student	30	35.3	55	64.7	2.50	1.46-4.29	
	Non-Civil servant	49	23.9	156	76.1	1.44	0.92-2.24	
	Professional	9	14.8	52	85.2	0.79	0.37-1.71	
	Health workers	9	20.5	35	79.5	1.18	0.53-2.61	
	Civil servant/ army, police	50	17.9	229	82.1	reff		
Level of education	<senior high school	32	26.0	91	74.0	2.07	0.88-4.84	0.021
	Vocational degree	13	22.8	44	77.2	1.74	0.66-4.59	
	Bachelor Degree	79	24.0	250	76.0	1.86	0.84-4.09	
	Master or doctor	23	13.2	151	86.8	0.89	0.36-2.13	
	Doctoral / specialist	8	14.5	47	85.5	reff		
Residence	Rural	72	24.2	226	75.8	1.37	0.96-1.96	0.101
	Urban	83	18.9	357	81.1			
COVID-19 survivors	Yes	38	31.4	83	68.6	1.96	1.27-3.02	0.003
	No	117	19.0	500	81.0			
Knowledge level	Less	20	21.7	72	78.3	1.05	0.62-1.79	0.961
	Good			87.5				
Attitude	Less – enough	3		0.4		0.94	0.20-4.47	1.000
	Good	728		98.6				

Table 5. Results of correlation analysis of marital status and COVID-19 infection on anxiety

Variables	OR	95% CI		p
		Lower Limit	Upper Limit	
Marital status				
Not married yet	2.71	1.79	4.12	<0.001
Divorced	0.85	0.28	2.55	0.781
COVID-19 survivors	2.18	1.40	3.41	0.001
N observation = 738				
-2 log likelihood = 728.2				
Nagelkerke R^2 = 0.06%				

DISCUSSION

Subjects were more likely to find it enjoyable to talk to someone regarding their anxiety about the COVID-19 pandemic (37.4%) and the majority chose that it was necessary to seek mental health assistance if someone panicked (83.7%), there is a benefit if a mental health professional helping someone deal with the COVID-19 pandemic situation (90.4%), suggesting getting mental health assistance to people severely affected by the COVID-19 pandemic (82.7%).

Most of the respondents have good knowledge and attitude. The results of this study are almost the same as other studies (Abdelhafiz et al., 2020; Alrubaiee, Al-Qalah and Al-Aawar, 2020; Yanti et al., 2020). There is a significant and positive correlation between knowledge and attitude although the strength of the correlation is very weak. The COVID-19 pandemic has had a tremendous impact on all aspects of people's lives. The pandemic is a challenge for the community to be able to deal with the pandemic well. Lack of knowledge about COVID-19 can lead to a lack of care or a lack of preparedness from the community to make prevention efforts (Roy et al., 2020). Although knowledge, attitudes and preventive behavior have been carried out well, there is still a gap between knowledge and attitudes in some people and even health service providers. Positive knowledge and attitudes can lead to good preventive behavior such as keeping a distance or other prevention (Johnson and Hariharan, 2017; Alrubaiee, Al-Qalah and Al-Aawar, 2020; Yanti et al., 2020).

The COVID-19 pandemic also has an impact on mental health such as anxiety. The results of this study were 21% of respondents experienced anxiety and the most was mild anxiety (12.9%). This result is different from the results of the study of Alrubeiee et al., which showed moderate anxiety and the results of the study of Dablina Roy et al., which showed 72% of respondents were worried about the COVID-19 pandemic (Alrubaie et al., 2020; Roy et al., 2020). The results of this study are different because the time the research was carried out after almost 2 years of a pandemic, meaning that over time more and more people were getting information about COVID-19 and more people were getting vaccines. However, the results of this study are almost the same as those of Ren Y et al, which showed 16.5% experienced anxiety (Ren et al., 2020).

The most influential factor on the incidence of anxiety during the COVID-19 pandemic is the condition of being unmarried. This is in accordance with existing research. Groups of people who are not or unmarried are said to be more at risk of experiencing anxiety because they are said to have poor relationships and low social support (Pieh et al., 2020; Nkire et al., 2021). Another factor that influences anxiety is the group of survivors of COVID-19. COVID-19 survivors are under high pressure related to preventive measures such as isolation, stigma and restrictions on other community activities (Sitepu and Simanungkalit, 2019; Dai et al., 2020; Gennaro et al., 2020).

Most respondents have the perception that during the COVID-19 pandemic they need professional mental health services. This is in accordance with the research of Deblina Roy et al. Therefore, the government is obliged to facilitate the public to obtain valid, current, concise and straightforward information related to epidemiology, viral pathogenicity, prevention and vaccination acceleration by utilizing various Information Technology (IT). This can increase health literacy which will improve prevention and control of the COVID-19

pandemic and can reduce the psychological impact on society (Chen, 2020; Dai et al., 2020; Gennaro et al., 2020).

Health literacy is required by providing valid, current, straightforward and clear information services as well as mental health services with platforms that utilize Information Technology.

AUTHOR CONTRIBUTION

Yudhi Wibowo conceptualizes, analyzes and compiles articles. Joko Mulyanto and Wahyu Siswandari analyzed and interpreted the results of the analysis. Siti Munfiah compiled online questionnaires, collected data and managed data.

FUNDING AND SPONSORSHIP

This research was supported by research funds sourced from research grants from LPPM, Jenderal Soedirman University in 2021.

CONFLICT OF INTEREST

There is no conflict of interest in this study.

ACKNOWLEDGMENT

Our gratitude goes to Institute for Research and Community Service at Jenderal Soedirman University which has provided the opportunity and at the same time funded this research and to the Banyumas Government for allowing this research to be carried out.

REFERENCES

Abdelhafiz AS, Mohammed Z, Ibrahim ME, Ziady HH, Alorabi M, Ayyad M, Sultan EA (2020). Knowledge, Perceptions, and Attitude of Egyptians Towards the Novel Coronavirus Disease (COVID-19). J. Community Health. Springer US, 45(5), pp. 881–890. DOI: 10.1007/s10900-020-00827-7.

Al-garadi MA, Khan MS, Mujtaba G, Al-Kabsi AM (2016). Using online social networks to track a pandemic: A systematic review. J. Biomed. Inform. Elsevier Inc. 62, pp. 1–11. DOI: 10.1016/j.jbi.2016.05.005.

lmira T (2020). Depression and Anxiety in Patients with Corona Virus Disease 2019. Jurnal Penelitian Perawat Profesional, Volume 2 No 3, Agustus 2020 Hal 355–360. Global Health Science Group. Available at: http://jurnal.globalhealthsciencegroup.com/index.php/JPPP/article/download/83/65.

Alrubaiee GG, Al-Qalah TAH, Al-Aawar MSA (2020). Knowledge, attitudes, anxiety, and preventive behaviours towards COVID-19 among health care providers in Yemen: an online cross-sectional survey, BMC Public Health, 20(1), pp. 1–20. DOI: 10.1186/s12889-020-09644-y.

Asmundson GJG, Taylor S (2020). Coronaphobia: Fear and the 2019-nCoV outbreak. J. Anxiety Disord. 70 (February). DOI: 10.1016/j.janxdis.2020.102196.

Bogoch II, Watts A, Bachli AT, Huber C, Kraemer MUG, and Khan K (2020). Pneumonia of unknown aetiology in Wuhan, China: potential for international spread via commercial air travel, Journal of travel medicine. DOI: https://doi.org/10.1093/jtm/%0Ata¬aa008.

BPS RI (2020) Hasil Survei Sosial Demografi Dampak COVID-19.

Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, Rubin GJ (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence, The Lancet. Elsevier Ltd, 395(10227), pp. 912–920. DOI: 10.1016/S0140-6736-

(20)30460-8.

Chen J (2020). Pathogenicity and transmissibility of 2019-nCoVdA quick overview and comparison with other emerging viruses. Microbes and Infection 22 (2020) 69 71. DOI: https://doi.org/10.1016/j.micinf.2020.01.004

Dai LL, Wang X, Jiang TC, Li PF, Wang Y, Wu SJ, Jia LQ, et al. (2020). Anxiety and depressive symptoms among COVID-19 patients in Jianghan Fangcang Shelter Hospital in Wuhan, China, PLoS ONE, 15(8): 1–11. DOI: 10.1371/journal.pone.0238416.

Davis PG (2015). Clinical research, Seminars in Fetal and Neonatal Medicine, 20(6): 377. DOI: 10.1016/j.siny.2015.10.004.

Depoux A, Karafillakis E, Smith AW (2020). The pandemic of social media panic travels faster than the COVID-19 outbreaks. J Travel Med. 27(3): 1–2. DOI: 10.1093/jtm/taaa031.

Gennaro MM, Lorenzo RD, Conte C, Poletti S, Vai B, Bollettini I, Melloni EMT et al., (2020). Anxiety and depression in COVID-19 survivors: Role of inflammatory and clinical predictors. Elsevier Journal, Brain Behav Immun, 89: 594–6. DOI: 10.1016/j.bbi.2020.07.037.

Hamilton, M. (1959). The Assessment of Anxiety States by Rating. Br J Health Psychol. 32(1): 50–55. DOI: 10.1111/j.2044-8341.1959.tb00467.x.

Ho CS, Chee CY, Ho RC (2020). Mental Health Strategies to Combat the Psychological Impact of COVID-19 Beyond Paranoia and Panic. Ann Acad Med Singapore. 49(1): 1–3.

Jeong H, Yim HW, Song YJ, Ki M, Min JA, Cho J, Chae JH (2016). Mental health status of people isolated due to Middle East Respiratory Syndrome, Epidemiology and health. 38: e2016048. DOI: 10.4178/epih.e2016048.

Johnson EJ, Hariharan S (2017). Public health awareness: knowledge, attitude and behaviour of the general public on health risks during the H1N1 influenza pandemic. J Public Health (Oxf). 25(3): 333–337. DOI: 10.1007/s10389-017-0790-7.

Kemenkes RI (2020). Peraturan Menteri Kesehatan Republik Indonesia Nomor 9 Tahun 2020 Tentang Pedoman Pembatasan Sosial Berskala Besar Dalam Rangka Percepatan Penanganan Corona Virus Disease 2019 (Covid-19), Kementerian Kesehatan RI, p. 28. Available at: http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No__9_Th_2020_ttg_Pedoman_Pembatasan_Sosial_Berskala_Besar_Dalam_Penanganan_COVID-19.pdf.

Li W, Yang Y, Liu ZH, Zhao YJ, Zhang Q, Zhang L, Cheung T et al., (2020). Progression of mental health services during the COVID-19 outbreak in China. Int J Biol Sci. 16(10): 1732–1738. DOI: 10.7150/ijbs.45120.

Lu H, Stratton CW, Tang YW (2020). Outbreak of pneumonia of unknown etiology in Wuhan, China: The mystery and the miracle. J Med Virol. DOI: 10.1002/jmv.25678.

Miles, S. H. (2015). Kaci Hickox: Public Health and the Politics of Fear, Am J Bioeth. 15(4): 17–19. DOI: 10.1080/15265161.2015.1010994.

Nkire N, Nwachukwu I, Shalaby R, Hrabok M, Vuong W, Gusnowski A, Surood S et al., (2021). COVID-19 Pandemic: Influence of Relationship Status on Stress, Anxiety, and Depression in Canada. Irish J Psychol Med. DOI: 10.1017/ipm.2021.1.

Peraturan Pemerintah Republik Indonesia (2020). Peraturan Pemerintah Nomor 21 Tahun 2020 tentang Pembatasan

Sosial Berskala Besar Dalam Rangka Percepatan Penanganan Coronavirus Disease 2019/COVID-19, 2019(022-868).

Pieh C, Rourke TO, Rudimir S, Porbst T (2020). Relationship quality and mental health during COVID-19 lockdown, PLoS ONE, 15(9): 1–10. DOI: 10.1371/journal.pone.0238906.

Pulla, P. (2020). COVID-19: India imposes lockdown for 21 days and cases rise, BMJ (Clinical research ed.), 368: m1251. DOI: 10.1136/bmj.m1251.

Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic, Asian J. Psychiatry. Elsevier, 51: 102083. DOI: 10.1016/j.ajp.2020-.102083.

Shimizu K (2020). 2019-nCoV, fake news, and racism. The Lancet. 395(10225): 685–686. DOI: 10.1016/S0140-6736-(20)30357-3.

Soltaninejad K (2020). Methanol mass poisoning outbreak, a consequence of COVID-19 pandemic and misleading messages on social media. Int J Occup. 11(3): 148–150. doi: 10.34-172/ijoem.2020.1983.

Wang C, Pan R, Wan X, Tan Y, Xu L, McIntyre RS, Choo FN, Tran B, Ho R, Sharma VK, Ho C (2020). Letter to the Editor "A longitudinal study on the mental health of general population during the COVID-19 epidemic in China, Brain, Behavior, and Immunity, 87: 132–133. DOI: 10.1016/j.bbi-.2020.05.004.

WHO (2020a) Coronavirus. Genewa: WHO. Available at: https://www.-who.int /healthtopics/coronavirus#-tab=tab_1

WHO (2020b). Naming the coronavirus disease (COVID-19) and the virus that causes it, World Health Organization? Available at: https://www.who.int/-emergencies/diseases/novelcoronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019) and-the-virus-that-causes-it.

WHO (2020c). Strategic Preparedness, World Health Organisation (WHO), (February).

WHO (2020). WHO COVID-19 preparedness and response progress report From the Director-General, (30 June 2020).

WHO (2021). Coronavirus disease 2019 (COVID-19) situation report: weekly epidemiological update – 27 Juni 2021, World Health Organization.

Yanti B, Mulyadi E, Wahiduddin, Novika RGH, Arina YMB, Martani NS, Nawan N (2020). Community Knowledge, Attitudes, and Behavior Towards Social Distancing Policy as Prevention Transmission of Covid-19 in Indonesia, Jurnal Administrasi Kesehatan Indonesia. 8(2): 4. DOI: 10.20473/-jaki.v8i2.2020.4-14.

Zarocostas J (2020). How to fight an infodemic, Lancet (London, England). Elsevier Ltd, 395(10225): 676. DOI: 10.1016/S0140-6736(20)30461-X.