

ELSEVIER

162

**O**sînta'

SCIENCE



# 1<sup>st</sup> MICTOPH

The 1st Mulawarman International Conference on Tropical Public Health

#### Theme "Digital Health for Public Health on Post-Pandemic Covid-19"

Saturday, 12th November 2022, 07.30-15.30 Central Indonesia Time Faculty of Public Health, Mulawarman University, Samarinda, Indonesia





## BALI MEDICAL JOURNAL (BaliMedJ)

VOLUME 8, NUMBER 2, MAY-AUGUST 2019 Print-ISSN: 2089-1180, E-ISSN: 2302-2914 DOI: http://dx.doi.org/10.15562/bmj.v12i2.4526





Bali Medical Journal (*Bali MedJ*) 2023, Volume 12, Number 2: 1-98 P-ISSN.2089-1180, E-ISSN: 2302-2914

#### Editorial Board Bali Medical Journal

#### Jniversitas

Editor-in-Chief

#### Prof. Dr. dr. Sri Maliawan, SpBS (K)

(Scopus ID), (Google scholar) srimaliawan@unud.ac.id / maliawans@yahoo.com Department of Neuro Surgery, Universitas Udayana Sanglah General Hospital Bali - Indonesia

#### Associate Editor

#### **Prof. Dr. Ir. Ida Bagus Putra Manuaba, M.Phil** (Scopus ID), (Google Scholar) putramanuaba@unud.ac.id / putramanuaba28@yahoo.com Biomedicine Postgraduate Program, Universitas Udayana Bali - Indonesia

#### Prof. DR. dr. Ketut Suwiyoga, SpOG (K)

(Scopus ID) suwiyoga@unud.ac.id Faculty of Medicine, Universitas Udayana, Sanglah Hospital Denpasar, Bali-Indonesia

#### **Editorial Board for Regional America**

Ankit Sakhuja, M.B.B.S., F.A.C.P., F.A.S.N. (Scopus ID) asakhuja@med.umich.edu Nephrology and Hypertension Cleveland Clinic (United States)

#### Editorial Board for Regional Australia

#### Prof. John Svigos, MB. BS. DRCOG., FRCOG., RANZCOG

(Scopus ID) jsvigos@iprimus.com.au Ashford Hospital & Faculty of Health Sciences, University of Adelaide, Australia

### Universitas Esa U

### Jniversitas **ESA U**

Bali Medical Journal 2023; 12(2): 1-98 | doi: 10.15562/bmj.v12i2.4526

#### dr Deasy Ayuningtyas Tandio MPH-MBA.

(orcidID) deasytandio@yahoo.com James Cook University Australia Master of Public Health Master Of Business Administration, Indonesia

#### Editorial Board for Regional Europa

Prof. Harald J. Hoekstra, MD, PhD. (Scopus ID) h.j.hoekstra@wxs.nl Universitair Medisch Centrum Groningen, Division of Surgical Oncology, Groningen the Netherland

#### Editorial Board for Regional Asia

**Prof Huang Qin** (Scopus ID) qhuang@cqu.edu.cn Chairman Dept. of Neurosurgery, Guangdong 999 Hospital Guangzhou China

#### Prof. Soo Khee Chee, MD. PhD.

(Scopus ID) kheechee.soo@duke-nus.edu.sg SGH (Singapore General Hospital), National University Hospital, Duke Medical Center Singapore

#### Dr. G Sai sailesh Kumar, Ph.D

(Scopus ID) saisailesh.kumar@gmail.com Department of Physiology, Little Flower Institute of Medical Sciences and Research, Angamaly, Kerala,India

#### Assoc. Prof. Mohammad Amin Bahrami

(Scopus ID) aminbahrami1359@gmail.com Head of healthcare management department, Shahid Sadoughi University of Medical Sciences, Yazd,Iran

#### Dr. Tanveer Beg, PhD

(Scopus ID)

tbmirza@jazanu.edu.sa Assistant Professor, Department of Biology, Faculty of Science, Jazan University, Jazan, Saudi Arabia. Editorial Board Members Prof Dr. dr. Andi Asadul Islam, SpBS(K). (Scopus ID), (Google Scholar) undee@med.unhas.ac.id Faculty of Medicine Universitas Hasanudin, Makasar-Indonesia

#### Prof. Dr. dr. Abdul Hafid Bajamal, Sp.BS(K)

(Scopus ID) hfbajamal@gmail.com Faculty of Medicine Universitas Airlangga, Surabaya-Indonesia

#### Dr. Dr. I Wayan Sudarsa, Sp.B(K) Onk, FINACS, FICS.

(Scopus ID), (Google Scholar), (Researchgate) sudarsa@unud.ac.id Department of Surgery, Universitas Udayana, Sanglah General Hospital Bali - Indonesia

#### dr. I.B. Amertha P. Manuaba, SKed, MBiomed.

(Scopus ID), (Google Scholar), (Orcid), (Researcher ID) (Researchgate) AmerthaManuaba@gmail.com / Amertha\_Manuaba@unud.ac.id Biomedicine Magister Program, Universitas Udayana, Indonesia

#### dr. I Putu Yuda Prabawa, S.Ked., M.Biomed.

(Scopus ID), (Google Scholar), (Orcid ID), (Researcher ID), (Researchgate) Clinical Pathology Department, Faculty of Medicine Universitas Udayana, Indonesia.

#### dr. Agha Bhargah, SKed.

(Scopus ID), (Google Shoolar), (Orcid ID), (Researchgate), (Researcher ID) Faculty of Medicine Universitas Udayanay, Indonesia.

Editorial inquiries to be addressed to: editor@balimedicaljournal.org



Bali Medical Journal 2023; 12(2): 1-98 | doi: 10.15562/bmj.v12i2.4526



#### TABLE OF CONTENTS

Editorial Board Bali Medical Journal	i i
Table of Contents	Universita
The Relationship between Air Quality and COVID-19 Pandemic Karin Kurniati Nurfatmah, Ramadhan Tosepu	Esa l
Determinant factors of anemia in adolescent pregnant women in coastal areas, North Buto Rini Mulyasari, Ramadhan Tosepu	on Regency
<b>Analysis The Preparedness of Inche Abdoel Moeis Hospital Samarinda in Facing Disasters</b> Salyanti Puji Negeri, Iwan Muhamad Ramdan	
A Systematic Literature Review: Formulating Post-Covid-19 Management Practices in Indo Azumaddin, Ramadhan Tosepu, Sarlan Adijaya	<b>nesia</b>
<b>Post-pandemic telehealth app: a literature review on future opportunities and challenges</b> Globila Nurika*, Reny Indrayani, Ana Islamiyah Syamila, Dhuha Itsnanisa Adi	
<b>Policy and Financing Strategy in The Management of Dengue Hemorrhagic Fever Control a</b> Eri Witcahyo, Ascobat Gani, Moch Yunus Setiawan, Merissa Ayu Oktanova	t Banyuwangi District 16
The Effect Of Near-Miss Education On Knowledge and Attitude Among Workers at PT. Sem Homer Masanang, Atjo Wahyu, Syamsiar S Russeng	en Bosowa Maros 19
Analysis of the effect of welding radiation on worker's eye fatigue in PT. X Balikpapan	
Qualitative Study of the History of Eating and Abstinence Behavior in Pregnant Women with in Bontang City in 2022	
Ayu Safitri, Lia Kurniasari	
The Relationship between Health Service Quality and Patient Revisit Interest at Lempake H Thara Amanda Puspita Sari, Nida Amalia, Erni Wingki Susanti	lealth Center Samarinda 29
The Effectiveness of Health Promotion to Improve Knowledge of COVID-19 Health Protoco Intan Silviana Mustikawati, Zelfino, Putri Handayani, Erlina Puspitaloka	ls in Pasanggrahan Village, West Java 32
Analysis of Factors Related to Husband's Participation to Become a KB Acceptor  in Unaaha Literature Review	
Masnawati, Ramadhan Tosepu	
Formulating Better Labor-Service Finding Strategies for Coastal People: A Review Sitti Al Aliatin Hamsah, Ramadhan Tosepu, Sarlan Adijaya	
Source and Household Waste Management in Muara Bengkal Ilir, East Kalimantan Vita Pramaningsih, Deny Kurniawan, Ratna Yuliawati, Marjan Wahyuni, Muhammad Habibi Andira	

Bali Medical Journal 2023; 12(2): 1-98 | doi: 10.15562/bmj.v12i2.4526

Martri Wulan, Ramadhan Tosepu	46
Utilization of Sea Cucumber Bioactive Ingredients as an Alternative Treatment Therapy for Diabetes Mellitus	49
The Difference of Serum Albumin Levels on De Ritis Ratio in Acute Hepatitis B and Chronic Hepatitis B at Kendari Public Hospital Tuti Dwiyana, Ramadhan Tosepu	52
<b>The Effect of Environmental Sanitation on the In<mark>cidence</mark> of Diarrhea in the Coastal Region</b>	52
Analysis of Maternal and Child Health Program Financing on Minimum Service Standards Indicators in East Kutai Regency 2021 Ery Muhammad Shadikin, Ratno Adrianto	58
Universitas Unive	
Relationship of House Sanitation, Knowledge and Mother's Behavior with Stunting infants in the Work Area of Mangkupalas	(2)
<b>Health Center Samarinda</b> Marjan Wahyuni, Vita Pramaningsih, Deny Kurniawan, Ratna Yuliawati	62
<b>Analysis of Work Accident Risk in the Ground Handling Unit at PT. Gapura Angkasa of Sultan Hasanuddin International Airport</b> Ayunharira Ashary I, Lalu Muhammad Saleh, Yahya Thamrin, Latifa Fadillah	65
<b>The Analysis of Mental Workload and Drivers' Burnout (Case Study in Oil and Gas Company X- Balikpapan)</b> Theresia Amelia Pawitra, Lina Dianati Fathimahhayati, Farida Sitania, Mayestika Ayuni Fariza	68
The Effect of Long Working Hours on Blood Pressure using Sleep Quality as an Intervening Variable for Transportstion	71
Sector Workers in Parepare, Indonesia	
<b>Sector Workers in Parepare, Indonesia</b> Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah	
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah	73
	73
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of <i>Moringa oleifera</i> seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period	
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah I <b>nhibition activity of <i>Moringa oleifera</i> seeds extract on Escherichia coli bacteria</b> Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan	73 77
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of <i>Moringa oleifera</i> seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area	
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of <i>Moringa oleifera</i> seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area	
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of Moringa oleifera seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area Dewi Rokhmah, Zarah Puspaningtyas, Erdi Istiaji, Erwin Nur Rif 'ah The Effect of Environmental Sanitation on the Event of Scabies Disease in the Community: a Review. Rezki Purnama Yusuf, Ramadhan Tosepu	77
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of Moringa oleifera seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area Dewi Rokhmah, Zarah Puspaningtyas, Erdi Istiaji, Erwin Nur Rif 'ah The Effect of Environmental Sanitation on the Event of Scabies Disease in the Community: a Review. Rezki Purnama Yusuf, Ramadhan Tosepu	77 85
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of Moringa oleifera seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area Dewi Rokhmah, Zarah Puspaningtyas, Erdi Istiaji, Erwin Nur Rif 'ah The Effect of Environmental Sanitation on the Event of Scabies Disease in the Community: a Review. Rezki Purnama Yusuf, Ramadhan Tosepu	77
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of Moringa oleifera seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area Dewi Rokhmah, Zarah Puspaningtyas, Erdi Istiaji, Erwin Nur Rif 'ah The Effect of Environmental Sanitation on the Event of Scabies Disease in the Community: a Review. Rezki Purnama Yusuf, Ramadhan Tosepu	77 85
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of Moringa oleifera seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area Dewi Rokhmah, Zarah Puspaningtyas, Erdi Istiaji, Erwin Nur Rif 'ah The Effect of Environmental Sanitation on the Event of Scabies Disease in the Community: a Review	77 85
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of Moringa oleifera seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area Dewi Rokhmah, Zarah Puspaningtyas, Erdi Istiaji, Erwin Nur Rif 'ah The Effect of Environmental Sanitation on the Event of Scabies Disease in the Community: a Review. Rezki Purnama Yusuf, Ramadhan Tosepu	77 85 91
Naufal Hilmy Imran, Lalu Muhammad Saleh, Syamsiar S Russeng, Latifa Fadillah Inhibition activity of Moringa oleifera seeds extract on Escherichia coli bacteria Kusmiyati, Ferry William Frangky Waangsir, Moses Kopong Tokan The Psychological Factors Analysis That Influences Stress Levels of Children Aged 9-13 Years During The Adaptation Period from WFH To WFO Gender-Based in Coastal Area Dewi Rokhmah, Zarah Puspaningtyas, Erdi Istiaji, Erwin Nur Rif 'ah The Effect of Environmental Sanitation on the Event of Scabies Disease in the Community: a Review. Rezki Purnama Yusuf, Ramadhan Tosepu Factors Related to Lung Function Capacity Among Mandar Traditional Food Workers in Tubo Sendana Sub-District, Majene, Indonesia Latifa Fadillah, Yahya Thamrin, Masyhita Muis	77 85 91



#### The Effectiveness of Health Promotion to Improve Knowledge of COVID-19 Health Protocols in Pasanggrahan Village, West Java



Intan Silviana Mustikawati<sup>1\*</sup>, Zelfino<sup>1</sup>, Putri Handayani<sup>1</sup>, Erlina Puspitaloka<sup>2</sup>

# ggui

#### <sup>1</sup>Department of Public Health, Faculty of Health Sciences, University of Esa Unggul;

<sup>2</sup>Department of Management, Faculty of Economic and Business, University of Esa Unggul;

#### \*Corresponding to:

Intan Silviana Mustikawati; Department of Public Health, Faculty of Health Sciences, University of Esa Unggul;

intansilviana@esaunggul.ac.id

#### INTRODUCTION

Recently, there has been a significant threat to public health due to the emergence of the COVID-19 pandemic. Based on a survey by National Disaster Management Agency, nationally, the level of respondents' compliance with health protocols is generally quite good.<sup>1</sup> However, there are still people whose compliance level is still low in implementing health protocols, such as wearing masks (58.7%), washing hands (56.7%), maintaining distance, and avoiding crowds (54.4%), and reducing mobility (54.1%). There are several reasons why people violate health protocols, such as being saturated with the pandemic, feeling uncomfortable, thinking the situation is safe, and feeling confident that they are not infected.<sup>2</sup>

Protective measures are important to overcome and control the spread of the COVID-19 pandemic. Adherence to preventive and control measures are affected by the HWs' knowledge, awareness.<sup>3</sup> As such, the increased knowledge will influence the attitude

#### ABSTRACT

Introduction: Knowledge of COVID-19 health protocols has an important role in COVID-19 prevention behaviors. This study aimed to determine the effect of health promotion in improving knowledge of COVID-19 health protocols.

**Methods:** This study was a quasi-experimental design with one group pre-posttest. The respondents in this study were 120 people in Pasanggrahan village, West Java who participated in health promotion. The dependent variable was knowledge of COVID-19 health protocols and the independent variable was health promotion. The data were collected by questionnaire. Paired t-test was used to analyzed the data.

**Results:** The average age of respondents was 45 years old, most of the respondents was woman (90%), had a high level of education (59,2%), not working (61,7%), multipara (85,8%). Majority of the respondents has no history of COVID-19 (76%) and respondents who had second COVID-19 vaccination was 96,3%. The mean score of COVID-19 health protocols knowledge was higher after health promotion (Mean=8,1; SD=0,89) than before health promotion (Mean=4,1; SD=1,76) and it was statistically significant (p<0,05).

**Conclusion:** COVID-19 health protocols promotion has improved knowledge of COVID-19 health protocols among people in Pasanggrahan village, West Java. Continuous health promotion is needed to improve knowledge, attitude, and compliance with COVID-19 health protocols.

Keywords: effectiveness, health promotion, COVID-19, health protocols, knowledge.

and practice toward COVID-19.4 A global public health campaign strategy to increase knowledge should be conducted to help in controlling the spread of the disease.<sup>5</sup> One of the efforts to improve community compliance, based on the Ministry of Health of the Republic of Indonesia, is by building communication through a campaign on the importance of implementing the 5M health protocols.<sup>6,7</sup> Health promotion can contribute to addressing the CoV-2 virus through behaviour change and management, disease interventions affecting organizations and communities and informing policies affecting the population.8

Pasanggrahan Village is in the Solear District, West Java, Indonesia. The residential conditions in Pasanggrahan Village are quite dense, with unhealthy environmental conditions. Based on observations at Pasanggrahan Village, it was found that there are still many people who have not complied with health protocols such as washing hands, wearing masks, and maintaining distance. This is due to the lack of public knowledge and awareness regarding the importance of implementing the 5M health protocol during the COVID-19 pandemic. Therefore, efforts are needed to provide communication, information, and education about the benefits of implementing COVID-19 health protocols. This study was to determine the effect of health promotion in improving knowledge of COVID-19 health protocols.

#### **RESEARCH QUESTION**

Can health promotion improve knowledge of COVID-19 health protocols in Pasanggrahan village, West Java?

#### **METHOD**

This study was a quasi-experimental design with one group pre-posttest in 2022. The population in this study were people in Pasanggrahan village, West Java. The sample were 120 persons who participated in health promotion and it selected by

consecutive sampling. The dependent variable was knowledge of COVID-19 health protocols and the independent variable was health promotion. Data were collected by questionnaire and analyzed using the paired-t test.

#### RESULTS

The average age of respondents was 45 years old; most of the respondents were women (90%), had a high level of education (59,2%), were not working (61,7%), and multipara (85,8%). Majority of the respondents has no history of COVID-19 (76%) and respondents who had second COVID-19 vaccination was 96,3%.

Knowledge of COVID-19 health protocols in this study includes questions about the definition of COVID-19 health protocols 5M, indicators of COVID-19 health protocols 5M, benefits of practicing COVID-19 health protocols, type of masks, how to use masks properly, how to wash hand using soap, and benefits of COVID-19 vaccination.

Overall, there was an improvement of respondent's average total score of COVID-19 health protocols knowledge after health promotion. The average total score of COVID-19 health protocols knowledge before health promotion was 4,1 (SD= 1.76) and the average total score after health promotion was 8,1 (SD= 0.89). It showed in Table 1. Based on paired t-test, there was a difference in the respondent's average total score of COVID-19 health promotion knowledge before and after health promotion and it was statistically significant (p<0,05).

#### DISCUSSION

One of the efforts that can be done to improve health knowledge, attitudes, and behaviors is communication, information, and education about health.<sup>9</sup> Health education is an effort or activity to create community behavior conducive to health.<sup>10</sup> Respondents in this study had an improvement in COVID-19 health protocol knowledge after health promotion. It can be explained that information provided in the health promotion received well by respondents and it was effective.

Study by Kanligi et al., (2022) found that

 Table 1.
 COVID-19 health protocols knowledge before and after health promotion.

COVID-19 health protocols knowledge	Mean	SD	Z	р
Before health promotion	4,1	1,76	-4,48	0,0 <mark>0</mark>
After health promotion	8,1	0,89		

3

knowledge of COVID-19 health protocols was predicted by source of information.<sup>11</sup> The more information people get about COVID-19 health protocols, the higher their knowledge about COVID-19 health protocols. Study by Setyaningrum et al., (2022) showed that there was an increase in respondents' knowledge about COVID-19 health protocols after health promotion.<sup>12</sup> Meanwhile, another study showed an increase in respondents' knowledge about COVID-19 health protocol after health education is carried out.<sup>13</sup> Study by Sambo et al., (2021) also showed an increase in respondents' knowledge about the benefits of COVID-19 health protocol after health promotion.14

#### CONCLUSIONS

COVID-19 health protocols promotion has improved knowledge of COVID-19 health protocols among people in Pasanggrahan village, West Java. Continuous health promotion is needed to improve knowledge, attitude, and compliance with COVID-19 health protocols.

#### **CONFLICT OF INTEREST**

No conflict of interest.

#### FUNDING

This research was funded by the University of Esa Unggul.

#### **ETHICS**

This research has passed the ethics review from the University of Esa Unggul

#### **AUTHOR CONTRIBUTIONS**

ISM: responsible for data analysis and manuscripts; Z: responsible for data analysis; PH: responsible for data analysis; EP: responsible for data collection

#### REFERENCES

1. Badan Nasional Penanggulangan Bencana. Pedoman Perubahan Perilaku Penanganan COVID-19.; 2020.

- 2. Badan Pusat Statistik Provinsi Banten. Perilaku Masyarakat Pada Masa PPKM Darurat Provinsi Banten.
  - Aleanizy FS, Alqahtani FY. Awareness and knowledge of COVID-19 infection control precautions and waste management among healthcare workers: Saudi cross-sectional study. *Medicine (Baltimore)*. 2021;100(21):e26102. doi:10.1097/MD.000000000026102
  - Zhong BL, Luo W, Li HM, et al. Knowledge, attitudes, and practices towards COVID-19 among chinese residents during the rapid rise period of the COVID-19 outbreak: A quick online cross-sectional survey. *Int J Biol Sci.* 2020;16(10):1745-1752. doi:10.7150/ijbs.45221
- Puspitasari IM, Yusuf L, Sinuraya RK, Abdulah R, Koyama H. Knowledge, Attitude, and Practice During the COVID-19 Pandemic : A Review. 2020:727-733.
- Kementerian Kesehatan RI. Pedoman Pencegahan Dan Pengendalian CORONAVIRUS DISEASE (COVID-19) Revisi Ke-5. Vol 5.; 2020.
- Kementrian Kesehatan RI. Keputusan Menteri Kesehatan Republik Indonesia Tentang Protokol Kesehatan Bagi Masyarakat Di Tempat Dan Fasilitas Umum Dalam Rangka Pencegahan Dan Pengendalian Corona Virus Disease 2019 (Covid-19). Vol 40.; 2020:119-129. doi:10.36497/jri.v40i2.101
- van den Broucke S. Why health promotion matters to the COVID-19 pandemic, and vice versa. *Health Promot Int.* 2021;35(2):181-186. doi:10.1093/HEAPRO/DAAA042
- 9. Notoatmodjo. Promosi Kesehatan Dan Perilaku Kesehatan (Edisi Revisi 2012).; 2012.
- 10. Notoatmodjo S. Promosi Kesehatan: Teori Dan Aplikasi.; 2007.
- Kanligi DA, Boah M, Adokiya MN. Predictors of knowledge and adherence to COVID-19 safety protocols among nurses at health facilities in Tamale Metropolis of Northern Ghana. *PLoS One.* 2022;17(9 September):1-15. doi:10.1371/ journal.pone.0274049
- Setyaningrum H, Keperawatan PS, Kesehatan FI, Surakarta UM. PENGETAHUAN KADER MENGENAI PROTOKOL KESEHATAN COVID-19. 2022.
- Wulandari D, Novitayanti E. Pengaruh Promosi Kesehatan tentang Penerapan Protokol Kesehatan terhadap Perilaku Remaja dalam Menerapkan Pencegahan Penularan COVID-19 di Desa Buran. 2019;2(2):102-110.
- Sambo M, Beda NS, Odilaricha YC, Marampa L. Pengaruh Edukasi Tentang Protokol Kesehatan Terhadap Pengetahuan dan Sikap Pencegahan Penularan Covid-19 pada Anak Usia 10-12 Tahun. Nurs Care Heal Technol J. 2021;1(2):72-80. doi:10.56742/nchat.v1i2.15