





# Analysis of Barriers and Drivers for Individuals in Preventing the Spread of COVID-19: A Case Study of the Implementation of the 3M Protocol in Small Districts in Indonesia

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#### KEYWORDS

Covid-19
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## **ABSTRACT:**

**Introduction**: Various global policy efforts have been implemented to prevent the spread of COVID-19, which continues to surge, including lockdowns, maintaining distance, washing hands with soap and running water, and using masks.

**Objectives**: Lacinia This study aimed to examine the barriers and drivers of individual preventive behavior against the risk of contracting COVID-19 when using the 3M protocol, considering predisposition factors (attitudes) and inhibiting factors. Additionally, the study explores why individuals do not engage in preventive behaviors against the risk of contracting COVID-19 when using the 3M protocol.

**Methods**: This research employed qualitative methods with a case study approach on COVID-19 survivors, aiming to understand and explore social or human issues using specific methodologies, develop complex problems holistically, and analyze and present data naturally.

**Results**: The results of this study indicate that people tend to comply with the health protocols recommended by the government if they have the right knowledge about COVID-19 and its prevention. Conversely, if they have incorrect knowledge about COVID-19, they tend to neglect to carry out health protocols

**Conclusions**: This highlights the importance of education on COVID-19 prevention, as well as the impact and usefulness of following health protocols.

## 1. Introduction

The COVID-19 agent is the 2019 novel Coronavirus (2019-nCov), Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), and the disease is referred to as Coronavirus Disease 2019 (COVID-19) (1). COVID-19 is a new type of disease that has never been identified before in humans. The transmission from human to human occurs through droplets released when coughing or sneezing (2).

Some cases have shown that victims of COVID-19 transmission generally have direct and intense contact with COVID-19 patients (3). Furthermore, WHO explained, based on evidence, that the spread of COVID-19 occurs through saliva, respiratory tract secretions, or airway fluids can transmit COVID-19 when there is

direct, indirect, or intense contact with an infected person. Considering the widespread situation of COVID-19, which has nearly reached all provinces in Indonesia with an increasing number of cases and/or deaths, the impact on political, economic, social, cultural, defence, and security aspects, and the welfare of the Indonesian people has led the Government of Indonesia to establish Presidential Decree Number 11 of 2020 concerning the Determination of the Corona Virus Disease 2019 (COVID-19) Public Health Emergency. Controlling new infectious diseases like COVID-19 is not only an individual responsibility but also a global issue. It is crucial to ensure transparency of information and enhance health risk communication (4).

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Meanwhile, based on previous studies, it has been suggested that people have not been implementing health protocols effectively. Most individuals do not follow protocols to maintain hand hygiene (5). A crucial element in reducing virus transmission is the rapid and widespread behavioral change among ordinary citizens. This is particularly important considering that the spread of this virus can occur through the air (airborne). However, in reality, community compliance with health protocols is still suboptimal (6). Consequently, the Indonesian government established nationwide rules regarding the 3M strategy: wearing masks, washing hands, and maintaining distance as part of a comprehensive approach to prevent and control COVID-19.

Rappocini District is one of the epicenters of COVID-19 transmission in the city of Makassar. A total of 3,540 positive confirmed cases were recorded up until February 2021 although the government has promoted information about health protocols. This is the underlying reason for researchers to choose a research location, and it is hoped that it will become one of the focal points in efforts to prevent the spread of COVID-19 (7).

## 2. Objectives

Therefore, this study aims to conduct a deeper analysis of the inhibiting and driving factors in individual prevention behavior against the risk of contracting COVID-19 using the 3 M protocol.

#### 3. Methods

The purpose of this study is to analyze the barriers and drivers of individual preventive behavior toward the risk of contracting COVID-19 with the use of health protocols in the Rappocini area of Makassar. This study used qualitative methods with in-depth interview data collection techniques with interview guidelines that had been compiled by the research team. Creswell (8) describes qualitative research as a process that aims to understand and explore social or human issues using specific methodologies, develop complex problems holistically, and analyze and present data naturally. Qualitative methods are utilized to obtain in-depth data containing meaning, where the meaning is the actual data and represents the value behind the visible data (9).

The research was conducted in August 2021 with the research location in the Rappocini sub-district, Makassar City, South Sulawesi. Research informants consisted of

6 people with the following criteria: living in Rappocini sub-district of Makassar city, have been confirmed positive for COVID-19 in the last 6 months at the time of the study, and being in the productive age range, which is 15-64 years. Interviews were also conducted with the team tasked with handling COVID-19 in the Rappocini sub-district.

#### 4. Results

This study examines the barriers and facilitators for individuals in preventing COVID-19 transmission, using a case study of health protocols in the Rappocini subdistrict health center's working area in Makassar City. The research was conducted from February 2022 to March 2022, utilizing interview guidelines developed by the author to explore the factors that hinder and encourage individuals to implement health protocols for the prevention of Covid-19 transmission. The motivating and inhibiting factors discovered in this research are as follows:

#### Knowledge about COVID-19

Information about Covid-19, including current health protocols, is easily accessible through social media, print media, and electronic media. This research found that the more positive an informant's attitude and knowledge about Covid-19, the higher their compliance with the 3M Health protocol. Knowledge about Covid-19 naturally determines behavior.

"The Covid virus is like the flu; it attacks the body's metabolism, particularly the immune system, and spreads very quickly" (RY, 33 years old).

This research found that there is misinformation circulating in the community regarding Covid-19, including Covid-19 is a conspiracy, a political game to obtain profits by the government, to the mass media which is considered to exaggerate the news. So that informants who get the right information tend to know Covid-19, how it spreads and prevention.

"I believe Covid is merely an exaggerated political game. Covid is not as severe as TB, but because it receives substantial funding from the government, any illness will be considered Covid due to the high payment bill" (BS, 45 years old, private employee).

# Attitude Towards Change

The emergence of the Covid-19 pandemic indirectly brought about changes in numerous ways, not only for

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the informants themselves but also within the societal context and the government system. At that time, the impact of the Covid-19 pandemic limited various aspects of life, such as health, education, social, and cultural aspects, including restrictions on events of a certain scale, limited wedding processions, postponements, and so on.

This research discovered that informants with positive insight and knowledge about Covid-19 tend to exhibit a more prepared attitude towards change compared to informants who do not believe in the existence of Covid-19. The following informant explained that with the regulations in place to prevent the COVID-19 virus, they are prepared to adhere to health protocols.

"By wearing masks, we are trying to protect ourselves from this Covid virus. Using a mask alone can still result in infection, especially if you don't wear one, the risk will be greater" (ER, 23 years old).

Meanwhile, informants who have negative attitudes and knowledge about Covid-19 exhibit the opposite behavior.

## Restraining Forces

An obstacle is a thing or circumstance that hinders progress or achievement. The researcher wanted to know what caused individuals not to take preventive measures, such as not implementing the 3M protocol, leading them to believe that this was the reason they were vulnerable to contracting COVID-19.

Currently, in Indonesia itself, especially Makassar, it is mandatory to wear masks when entering public areas such as banks, hospitals, shopping centers and so on. The consequences of not wearing then not being able to get service. This research found that some informants carried out health protocols because of these rules, not because of their own awareness to protect themselves and their surroundings from the spread of the Covid-19 virus.

"I feel congested whenever I wear a mask. So far, I have been wearing a mask only because of the rules, such as not being able to enter public facilities if I don't wear a mask" (RY, 33 years old). Ganti data informan

From the results of this study, it was discovered that the primary obstacle experienced while following health protocols was a feeling of discomfort. Moreover, adherence to these health protocols was not driven by a conscious desire to protect oneself and others, but rather due to rules and obligations. Nevertheless, some informants, despite feeling uncomfortable wearing masks, still chose to use them and follow health

protocols. They believed that by doing so, they could protect themselves and those around them from Covid-19 transmission.

"I used to be uncomfortable wearing a mask, but now I like it. Because it can protect from dust and other impurities" (BS, 45 years old).

#### 5. Discussion

The Covid-19 pandemic has led to significant global changes over the past few years. Not only changes in economic aspects as a result of job cuts but also patterns of social and political life. This sudden change certainly caused a variety of responses from the wider community. In the process of preventing the transmission of Covid-19 in Indonesia, the government has carried out various ways and policies.

In Indonesia, there are still ongoing efforts to encourage people to maintain social distancing, wear masks, and wash their hands during the lockdown (10). The adoption of these new measures has gradually become habitual and even transformed into a standard behavior (11). Introducing new actions and turning them into habits, and even behaviors, takes time and requires consistent promotion (12), moreover each individual responds differently to obstacles.

Those who have a positive perception of controlling the situation and taking action to overcome these obstacles will become more aware and understanding of the situation they face (13). This study found that an individual's knowledge of Covid-19 affects how they implement health protocols. If a person has positive knowledge and no negative prejudices against Covid-19, they are more likely to follow health protocols out of their own awareness, rather than due to external control or regulations (14).

Conversely, if someone has negative knowledge about Covid-19, they tend to ignore health protocols. This negative knowledge can come from misinformation, such as considering Covid as a conspiracy, political issue, also because of limited knowledge and access to information, for example in the elderly, unemployed or not having formal education or people living in peripheral areas. In line with this, Reuben et al (15) explained that limited internet access and information for people who do not have privileges will be more likely to experience misinformation about Covid-19 and its handling.

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Furthermore, an individual's attitude towards change also plays a role in implementing health protocols (16). If a person has a positive perception of Covid-19 knowledge, they are more likely to adapt and follow the necessary guidelines and capable of overcoming obstacles in implementing health protocols.

This research found that some informants carried out health protocols because of these rules, not because of their own awareness to protect themselves and their surroundings from the spread of the Covid-19 virus. Research related to Covid-19 explains that individuals who have internal control or locus of control, have the perception that success comes from their own efforts, while individuals with external locus of control behave the opposite because they believe success is determined by factors outside themselves such as luck, destiny and so on (17).

Public awareness is the main key in solving the Covid-19 problem in Indonesia. Because whatever policy is taken by the government, if it is not followed by self-awareness, it will make the Covid-19 outbreak like an unbroken chain. In addition to strict rules, continuous cooperation is also needed by all relevant parties to provide socialization about Covid-19 to the smallest environmental level.

Health belief model is one of the concepts in health science that explains the combination of knowledge and individual actions that refer to health and preventive actions taken. This concept explains that an individual's perception or beliefs will determine his attitude to do or not perform Health behaviors. This perception is obtained from several aspects, including experience, knowledge, the level of perceived risk, severity, benefits or usefulness, obstacles and cues to action (18).

Knowledge and attitudes are factors that determine practices or behaviors related to Covid-19 (19). With the dissemination of proper information, it is expected to be able to correct misinformation in the community. Increasing knowledge about clean and healthy living behaviors, such as washing hands with soap or hand sanitizers, using masks, and practicing social distancing is essential to prevent the widespread transmission of COVID-19 (20). In line with research which shows that continuous education is needed to maintain compliance in implementing the 3M health protocols (Washing Hands, Wearing Masks, Maintaining Distance) (20).

Researchers found that knowledge and attitudes are driving factors as well as can also be inhibiting factors for informants to carry out health protocols. In this case, if the informant has good knowledge about Covid-19, they tend to behave and carry out health protocols. Conversely, if informants have misinformation about Covid-19, they tend to refuse to carry out health protocols, or do not consistently carry out health protocols.

## 6. Conclusion

The Covid-19 pandemic has caused massive global changes for almost two years. Efforts to combat the virus that causes Covid-19 are aimed at complying with all health protocols, including the use of masks, maintaining distance, and washing hands. Healthcare workers and related agencies are expected to provide education and supervision to the public regarding the importance of using masks during the pandemic to break the chain of COVID-19 transmission. Access to information is linked to a high level of compliance. Individuals with a good understanding of COVID-19 are more likely to adhere to health protocols, while those with limited knowledge tend to be non-compliant.

This study found that informants who had a positive perception about Covid-19 were able to understand and easily carry out health protocols in daily life. Conversely, informants who have a wrong understanding of Covid-19 tend to be ignorant in carrying out health protocols. Therefore, promotive action is needed to increase individual awareness to understand and prevent the spread of Covid-19. This action can be in the form of socialization, counseling to the level of the smallest unit of the community to optimize the dissemination of information about Covid-19 and its prevention.

To be more comfortable during the pandemic, we can take the following steps: first, know our health status by ensuring the results of the PCR swab test serve as a diagnosis to determine if we are infected with the COVID-19 virus, and whether we can engage in physical activities; second, be aware of the distribution of cases in our surroundings. By being aware of the status of the area where we live or the area we plan to visit, we are better prepared to engage in physical activities, whether at home, in the vicinity, or in public places far from home. Additionally, understanding the behavior of our surrounding community regarding COVID-19 health protocols is crucial. This awareness helps us recognize whether our environment promotes adherence to health protocols or not.

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## References

- Zhang H. The Influence of the Ongoing COVID-19 Pandemic on Family Violence in China. J Fam Violence. 2022;37(5):733–43.
- 2. Han Y, Yang H. The transmission and diagnosis of 2019 novel coronavirus infection disease (COVID-19): A Chinese perspective. J Med Virol. 2020;92.
- 3. Bai Y, Yao L, Wei T, Tian F, Jin D-Y, Chen L, et al. Presumed Asymptomatic Carrier Transmission of COVID-19. Natl Libr Med. 2020;323(14).
- 4. Ma X, Guan C, Chen R, Wang Y, Feng S, Wang R, et al. Pathological and molecular examinations of postmortem testis biopsies reveal SARS-CoV-2 infection in the testis and spermatogenesis damage in COVID-19 patients. Cell Mol Immunol. 2020;18:487–9.
- 5. Pinasti FDA. Analysis of the Impact of the Corona Virus Pandemic on the Level of Public Awareness in the Implementation of Health Protocols. Wellness Heal. 2020;2(2).
- Machida M, Nakamura I, Saito R, Nakaya T, Hanibuchi T, Takamiya T, et al. Adoption of personal protective measures by ordinary citizens during the COVID-19 outbreak in Japan. Natl Libr Med. 2020;94:139–44.
- 7. Office MCH. Coronavirus Disease Case Development Report. 2020.
- 8. Creswell JW. Qualitative, Quantitative and Mixed Approaches. Yogyakarta: Pustaka Pelajar; 2010.
- 9. Blumer H. Symbolic Interactionism\_ Perspective and Method-University of California Press (1986).pdf. 1986.
- Hutapea AP, Hutapea L. Level of Compliance of Vaccinated Students in Implementing Health Protocols during the Covid-19 Pandemic. J Penelit Perawat Prof. 2021;3(4).
- Hager E, Odetokun IA, Bolarinwa O, Zainab A, Okechukwu O, Al-Mustapha AI. Knowledge, attitude, and perceptions towards the 2019 Coronavirus Pandemic: A bi-national survey in Africa. PLOS ONE2. 2020;16(6).
- 12. Ruggiero E Di, Ardiles P. Health Promotion Perspectives on Covid-19. Natl Libr Med. 2021;28(1):3–4.
- 13. Parikh PA, Shah B V, Phatak AG, Vadnerkar

- AC, Uttekar S, Thacker N, et al. COVID-19 Pandemic: Knowledge and Perceptions of the Public and Healthcare Professionals. Natl Libr Med. 2020;12(5).
- 14. Muslih M, Susanti HD, Rias YA, Chung MH. Knowledge, attitude, and practice of indonesian residents toward covid-19: A cross-sectional survey. Int J Environ Res Public Health. 2021;18(9).
- 15. Reuben RC, Danladi MMA, Saleh DA, Ejembi PE. Knowledge, Attitudes and Practices Towards COVID-19: An Epidemiological Survey in North-Central Nigeria. J Community Health [Internet]. 2021;46(3):457–70. Available from: https://doi.org/10.1007/s10900-020-00881-1
- 16. Nwagbara UI, Osual EC, Chireshe R, Bolarinwa OA, Balsam Qubais Saeed, Nelisiwe Khuzwayo KWH. Knowledge, attitude, perception, and preventative practices towards COVID-19 in sub-Saharan Africa: A scoping review. PLoS ONE2. 2021;
- 17. Nasir, Mustafa S, Sulvianti, Azizah N. The Effect of Locus of Control on Student Achievement. Factors Eff Student Achiev Meta-Analysis Empir Stud. 2017;5(2):161–70.
- 18. Limbu YB, Gautam RK, Pham L. The Health Belief Model Applied to COVID-19 Vaccine Hesitancy: A Systematic Review. Vaccines. 2022;10(6):1–13.
- Puspitasari IM, Yusuf L, Sinuraya RK, Abdulah R, Koyama H. Knowledge, attitude, and practice during the COVID-19 pandemic: A review. J Multidiscip Healthc. 2020;13:727–33.
- Setiyowati E, Juliasih NN, Sari RM, Susilo P. Perception and Knowledge of Covid 19 in Indonesia: An Intervention Study. J Heal Sci. 2022;15(2).
- 21. Yusuf, Rezky Aulia, et al. "Efforts to break the chain of spread of COVID-19 through education about the importance of using masks during the pandemic." Community Service Ideas 3.01 (2023): 289-293.