



Experience of Self-isolation Covid-19 at home

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ARTICLE INFO	ABSTRACT
<p><i>Article history:</i></p> <p>Received 10 October 2022 Accepted 31 January 2023 Published 20 March 2023</p> <hr/> <p><i>Keyword:</i></p> <p>Covid-19 Experience Home self-isolation</p>	<p>Corona Virus - 19 is a worldwide pandemic disease that causes crises, particularly in the field of health. The government implemented a policy of home isolation for patients who do not have comorbid conditions in order to reduce the impact on patients' self-isolation. This research aims to delve deeply into the experiences of covid-19 patients during self-isolation at home. This qualitative study employs a phenomenological design to investigate life events or patient experiences during self-isolation at home. Data was gathered through direct and indirect interviews lasting 50-60 minutes. The purposive sampling technique was used to select 12 participants. Demographic data questionnaires, interview guides, daily notes, and voice recorders are used as data collection tools. Content analysis is used to analyze data. The study's findings revealed six themes, namely: Theme 1. Participants' signs and symptoms prior to the PCR examination; theme 2. Participants' psychological reactions following the PCR examination; theme 3. The emergence of health conditions among participants during self-isolation at home; theme 4. Tools for monitoring participants' health status during self-isolation at home are available; theme 5. Participants' activities and efforts during self-isolation at home, and theme 6. Participants' expectations of the government, health workers, and the community for self-isolation at home.</p>

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<p><i>Kata kunci:</i></p> <p>Covid-19 Pengalaman Rumah isolasi mandiri</p> <p><i>*) corresponding author</i></p> <p>Rostime Hermayerni Simanullang</p> <p>Sekolah Tinggi Ilmu Kesehatan Murni Teguh Medan</p> <p>Email: hermayerni@gmail.com</p> <p>DOI: 10.30604/jika.v8i1.1500</p> <p>Copyright 2023 @author(s)</p>	<p>ABSTRAK</p> <p>Corona Virus-19 merupakan penyakit pandemic yang dialami oleh seluruh dunia dan menyebabkan krisis diberbagai dunia terutama di bidang kesehatan. Pemerintah membuat kebijakan isolasi di rumah untuk pasien yang tidak mengalami komorbid sehingga berdampak kepada pasien isolasi mandiri. Tujuan penelitian ini untuk menggali secara mendalam pengalaman pasien covid-19 selama isolasi mandiri di rumah. Penelitian ini adalah penelitian kualitatif dengan menggunakan desain fenomenologi untuk menggali kejadian hidup atau pengalaman pasien selama isolasi mandiri di rumah. Metode pengumpulan data dengan wawancara mendalam secara langsung dan tidak langsung dengan durasi 50-60 menit. Partisipan sejumlah 12 partisipan yang diambil dengan tehknik purposive sampling. Alat pengumpul data berupa kuisisioner data demografi, panduan wawancara, catatan lapangan dan perekam suara. Analisis data dengan menggunakan thematic analysis. Hasil penelitian ditemukan 6 tema yaitu: Tema 1. Tanda dan Gejala yang dialami Partisipan sebelum dilakukan Pemeriksaan PCR; Tema 2. Dampak psikologis yang dialami Partisipan setelah dilakukan Pemeriksaan PCR; Tema 3. Perkembangan kondisi kesehatan yang dialami Partisipan selama Menjalani Isolasi Mandiri di Rumah; Tema 4. Ketersediaan Alat-Alat untuk Memantau Status Kesehatan Partisipan selama Menjalani Siolasi Mandiri di Rumah; Tema 5. Aktivitas dan Usaha yang dilakukan Partisipan selama Menjalani Isolasi Mandiri di Rumah, dan Tema 6. Harapan Partisipan yang Menjalani Isolasi Mandiri di Rumah terhadap Pemerintah, Petugas Kesehatan dan Masyarakat.</p>
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INTRODUCTION

Covid 19 or Corona virus is an infectious disease that starts from mild to severe symptoms caused by the Corona Virus. Corona virus is a disease that can cause severe symptoms such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Coronavirus Disease 2019 includes a new type of disease that has not previously been identified to occur in humans. Sars-CoV-2 is the Virus that causes COVID-19. The spread of the corona Virus occurs zoonotically (transmission that occurs between animals and humans) and it is not yet known which animal causes transmission to humans (Kementrian Kesehatan Republik Indonesia (Kemenkes RI), 2020a; Simanullang et al., 2021; Simanullang & Situmorang, 2020a; Wahyu & Simanullang, 2020).

Covid-19 is a pandemic disease in the world and even became one of the causes of the crisis in various fields, especially health (Simanullang & Situmorang, 2020b). The initial symptoms of COVID-19 that occur in infected patients are cough, fever and fatigue, headache, hemoptysis, diarrhea, dyspnoe, and lymphopenia and in the upper respiratory tract there are symptoms such as rhinorrhea, sore throat and sneezing. From the results of radiography performed on the chest some events showed infiltrates dilobus over the lungs that increased dyspnea with hypoxemia (Rhothan & Byrareddy, 2020).

In Indonesia, the government has taken a policy for patients who do not have comorbidities, self-isolation at home is recommended to meet the availability of beds in hospitals or quarantine rooms for the treatment of Covid-19 patients. So this has an impact on psychological stress for people with covid-19. The experience of covid-19 patients begins with fear and they must be patient and they feel calm after being diagnosed (Jesmi et al., 2021). Patients experience psychological deterioration where they think no one can help, except God, family members, and health workers. While they should be separated from the family. In addition, stigma in the community also causes panic and fear of contracting the disease (Kementrian Kesehatan Republik Indonesia (Kemenkes RI), 2020a, 2020b; Soemari et al., 2020). To get social support during isolation by contacting close friends or family by mobile phone and talking to doctors and nurses by phone or telemedicine (Aunguroch et al., 2020).

So far, researchers have focused on reviewing patient experiences of isolation in hospitals or in covid-19 quarantine rooms. so the purpose of this study to examine and exploit the experience of patients who undergo self-isolation at home without the help of health workers. So that he found experiences that he might not have had in the hospital or in the covid-19 treatment quarantine room.

METHODS

Participant characteristics and research design

The participants in this study were 12 people according to the inclusion criteria where the participants were COVID-19 patients who underwent self-isolation at home. Based on the results of the study, it is known that the majority are women, as many as 8 people (66.6%), work as private employees, as many as 7 people (58%), are Muslims, as many as 10 people (83.2%), have a Batakness, as many as 9 people (75%), then the average age is 32 years. This study a

phenomenological design, where the main focus of the phenomenological study is how people experience a life experience and interpret the experience so that from this phenomenological approach it is expected to gain a deep understanding of the experience of covid patients during isolation at home (Polit & Beck, 2012).

Sampling procedures

The study participants were those who were willing to fill out questionnaires and interview instruments. Participants selected in this study using purposive sampling technique with the method of selecting participants in a study by determining the criteria included in the study (Polit & Beck, 2012). The criteria for participants in this study were (1) confirmed positive for covid-19, (2) living in Medan, (3) communicative, and (4) willing to become participants through instruments distributed through the google form Application.

Sample size, power, and precision

The participants of this study were 12 participants and participants were not directed at the number of participants but based on the principle of suitability and adequacy of information to achieve data saturation (Polit & Beck, 2012). In this study, data saturation has occurred when the tenth participant. The data obtained through the filling of google form that has been distributed to participants by first informed consent sheet, then proceed to fill out the next questionnaire. If they were not willing to be participant, then the participant would not be able to continue or open the next questionnaire sheet. Then, the data was collected by the researcher and continued in-depth interviews via telephone the interview sheets used have been provided. The researcher does not insist if the participant refuses to be interviewed and respects them rights as a participant in the study. For the confidentiality of the participant's identity, the researcher does not include the participant's name (anonymity). Participant names are made initials. Furthermore, the identity of the participants is also kept confidential (confidentiality) where only the necessary information is written and included in the study. This study was conducted from February-May 2021 in various districts in Medan.

Data analysis

The data analysis process is carried out immediately after the completion of the interview, which is simultaneously made transcript of the interview, then the transcript is read repeatedly or data selection is done one by one (word for word). Researchers use the method Colaizzi (1978, in (Polit & Beck, 2012)) in analyzing the data because this method provides a clear, systematic, detailed and simple steps. The process of data analysis in this study include:

1. Read all interview transcripts to get a sense of the participants. In this case, the researcher reads all the transcripts and also listens to the recording device for some time to gain a sense of familiarity with the meaning of the expression and for the sensitivity of the researcher to the way each participant speaks.
2. Review each transcript and draw significant statements. In this step, significant phrases and sentences that allude to the experiences of covid patients who practice self-isolation at home.

3. Decipher the meaning of each significant statement. In this step significant statements are learned to take meaning.
4. Grouping these meanings into thematic groups. In this step, the researcher identifies the theme of meaning formulated into groups of sub themes and categories.
5. Integrate the results into the description form. In this analysis, an in-depth description of the experience of covid-positive patients who carried out self-isolation at home was obtained, that is, the integration of narratives from all themes, sub-themes and categories.
6. Formulate a complete description of the phenomenon under study as identifying statements as unequivocally as possible.

Validate what is found in the participants as the final validation stage. In this step, researchers validate the results obtained to The Matrix theme of the representatives of the participants as many as 5 people. From the validation results, participants stated that the results obtained in this study were in accordance with what was meant by participants.

To obtain reliable research results, the data is validated by several criteria, namely *credibility*, *transferability*, *dependability* dan *confirmability* (Polit & Beck, 2012).

RESULTS AND DISCUSSION

Results

a. Characteristics of participation The participants in this study were 12 people who fit the inclusion criteria where the participants were COVID-19 patients who underwent self-isolation at home. Based on the results of the study, it is known that the majority are women, as many as 8 people (66.6%), work as private employees, as many as 7 people (58%), are Muslims, as many as 10 people (83.2%), have a Batakness, as many as 9 people (75%), then the average age is 32 years.

b. Description condition of COVID-19 confirmed participants

Based on the results of the study, it is known that the majority of patients before being confirmed to have COVID-19 with PCR tests had fever 6 people (50%), runny nose and sore throat 7 people (58%), lost smell 3 people (25%), dizzy head 4 people (33%). After participants confirmed COVID-19 with PCR examination, the majority of patients in addition to feeling complaints experienced before knowing they were positive, participants also experienced feelings of worry about the condition they experienced 7 people (58%).

c. Overview of the availability of basic examination tools by participants during self-isolation at home

Based on the results of the study, it is known that the majority of participants had basic health examination tools such as oximeter 7 people (58%), thermometer 8 people (66%).

d. Thematic Analysis

Researchers used records obtained through in-depth interviews with 6 participants, during the process of collecting this data combined with some data obtained through forms and interviews with participants online. Data

analysis using thematic analysis. This study produced 6 themes including the following:

Theme 1. Signs and symptoms experienced by participants before PCR examination

The subtheme is a sign of symptoms experienced by patients prior to the confirmation of covid-19. Participants complain of fever, runny nose and sore throat, loss of smell, and dizziness.

"unspeakable mom, I think at first I was just a regular fever, but the Fever did not go down immediately but I still think positively this is just a regular fever" (P1).

"when I experience loss of smell, I feel worried and believe I must have COVID, because it's a common symptom that I've heard from my friends" (P3).

"my throat hurts so much that I have no appetite and no appetite and the flu and makes my body all feel sick" (P4).

Theme 2. Psychological impact experienced by participants after PCR examination

The subtheme is that participants' psychological states change after learning they are positive for COVID-19. Concerns about the conditions experienced by the participants, as well as feelings of sadness and confusion, were the psychological changes experienced by the participants.

"I have to tell you how my concern at that time was considering that many patients had died due to COVID-19, which sometimes made it difficult for me to sleep" (P12).

"instantly I cried, confused about what to do, instantly my body ached and the symptoms that appeared at the beginning seemed to be getting heavier" (P10)

"my husband immediately cried and immediately I cried as if I couldn't live it if I had high blood pressure so I couldn't get the COVID-19 vaccine" (P5).

"my family is confused, I have to be evacuated to another place because my children are toddlers, this makes me anxious and I find it difficult to sleep" (P6)

Theme 3. The development of health conditions experienced by participants during self-isolation at home

The subtheme is what participants do when they are self-isolated at home; the complaints experienced by participants are reduced, as are their concerns.

"the first day until the third day I felt the same condition as when I didn't know I had COVID-19 but on the third day my complaints decreased, my fever had dropped, but my smell only returned on the fifth day of isolation" (P8).

"I feel resigned to it, because I am free from my routine activities that makes me tired and have plenty of time to rest" (P10).

"when I self-isolation just my appetite increases because most rest makes me bored and to improve my body's immunity prefer to rest, eat, and sleep activities that I alternately do when undergoing a period of isolation" (P7).

"I was very scared at first, but I felt like I was experiencing symptoms of fever and flu without any tightness at all, so I did the routine as usual, I considered it like a long holiday" (P9)

Theme 4. Availability of tools to monitor the health Status of participants during self-isolation at home

The subtheme is that participants have basic examination tools such as an oximeter to determine oxygen levels in the blood and a thermometer to determine changes in participants' body temperature that can be done easily and independently by participants during self-isolation at home.

"before I found out that I was positive this thermometer and oximeter were already prepared at home"(P1).

"incidentally, my brother is a health worker and after knowing I was positive, he immediately asked me to monitor saturation and temperature with the device"(P2).

"I got the information about this oximetry and I asked my husband to bought it "(P3).

"during my isolation I was monitored by the COVID task force team at the Puskesmas where I did the initial examination and I was asked to record the saturation and report via WA"(P5).

Theme 5. Activities and efforts undertaken by participants during self-isolation at home

Sub-themes are consuming drugs given from health centers or hospitals, nutritious foods, especially those containing vitamin c, exercising and managing stress well.

"because I only experience mild symptoms so I consume more vitamins, all vitamins that I also don't know the type because they are sent by my family, there are several drugs to reduce complaints that I experience that I get from the Health Center and this is very helpful "(P8)

"I was very scared that my immunity was down, at first I was very careful about food but during this isolation period, all my food was consumed, especially those containing vitamin c, there were also several types of herbs and antivirals given from the hospital, then there were several types of supplements that my family had consumed who had experienced COVID-19"(P11)

"I exercise more and calm down, because I read that the first factor that promotes this healing process is to eliminate the cause of stress so that my stress at that time as much as possible I manage well"(P12).

"I drink boiled ginger water and drink a lot of water the rest I take a break "(P6).

Theme 6. Expectations of participants undergoing self-isolation at home against the government, health workers and the community

The Sub theme is that the participants hope that vaccination can reach the entire community and that the public is more aware of the health protocols advocated by the government so that the COVID-19 chain cases can be immediately interrupted.

"people should be more aware of undergoing health protocols because they feel this infection is suffering even though we are only asked to rest at home"(P10)

"hopefully vaccination will reach more people"(P3)

"whether the COVID-19 Test examination cannot be free so that people when they experience complaints can easily check themselves so don't wait for it to be severe first and the spread will be even higher" (P9) "masyarakat harus sadar protokol kesehatan"(P5)

"More people are receiving vaccines, and people are becoming more aware of government regulations in order to break the COVID chain." (P6)

DISCUSSION

Theme 1. Signs of symptoms experienced by participants before PCR examination

In this study, it was found that the symptoms experienced by patients before covid-19 was confirmed were participants experiencing complaints of fever, runny nose and sore throat, loss of smell and dizziness.

This finding is in line with the Sukur, et al (2020) study that some coronaviruses can cause severe symptoms. The infection can turn into bronchitis and pneumonia caused by the COVID-19 virus, which results in symptoms such as: 1) fever that may be quite high if the patient has pneumonia. 2) cough with mucus 3) shortness of breath 4) chest pain or tightness when breathing and coughing. The symptoms that appear depend on the type of virus that attacks, and how serious the infection is. Some of the symptoms of the COVID-19 virus that are categorized as mild are nasal congestion 2) headache 3) cough 4) sore throat 5) fever 6) feeling unwell. to diagnose coronavirus infection, the doctor will begin with an anamnesis or medical interview.

Theme 2. Concerns experienced by participants after PCR examination

The Sub theme is that there are psychological changes experienced by participants after knowing they are positive for COVID-19. Psychological changes experienced by participants are concerns about the conditions experienced by participants.

In general, hospitalized patients have high levels of anxiety and somatization symptoms. Based on research (Jannah et al., 2020) showed that COVID-19 positive patients not only endure physical pain, but also mental disorders such as anxiety. Some aspects that affect the mental condition of COVID-19 patients can be broken down into four cases, the first is the transmission route of the spread which requires the patient to be in a position of contact with the environment and even medical personnel, besides COVID-19 is a new virus, on the one hand making people less knowledgeable about the characteristics and procedures for transmission, on the other hand, antivirals have not been found. In a short time COVID-19 patients increased in a short time, plus the contribution of social media that reported the issue of the spread of COVID-19 made the trauma of patients increase. The findings in the field are based on several research results that have been reported by the authors, the fear of patients who have been diagnosed has a level of fear, worry and disturb the patient's sleep patterns. Of course, this triggers a series of physiological events that lead to a decrease in the level of immunity.

Theme 3. Complaints experienced by participants during self-isolation at home

Sub theme is what participants do when undergoing self-isolation at home the complaints experienced by participants are reduced and the concerns of participants are reduced. Based on research (Kiay et al., 2021) it is known that the

most common symptoms of COVID-19 include symptoms of acute respiratory distress such as fever, dry cough, and shortness of breath. The average incubation period is 5-6 days with the longest incubation period being 14 days. In severe cases of COVID-19, it can cause pneumonia, acute respiratory syndrome, kidney failure, and even death. Other symptoms but rare and may be experienced by some patients include pain and pain, nasal congestion, headache, conjunctivitis, sore throat, diarrhea, loss of sense of taste and smell (anosmia) similar to other upper airway viral infections, such as the common cold, loss of smell is a frequent symptom in COVID-19 patients. However, sudden, severe, and isolated loss of smell and or taste can also occur in asymptomatic COVID-19 patients. These symptoms are usually mild and appear gradually. Some people become infected and experience mild symptoms.

Theme 4. Availability of tools to monitor the health Status of participants during self-Siolasi at home

The Sub theme is that participants have basic examination tools such as an oximeter to determine oxygen levels in the blood and a thermometer to determine changes in participants ' body temperature that can be done easily and independently by participants during self-isolation at home. The World Health Organization (WHO) now requires the use of oximeters for COVID-19 patients undergoing self-isolation. According to WHO, this is solely to believe whether the patient's condition is indeed enough to be treated at home or need treatment to the hospital. Oxygen saturation levels in the blood can only be determined in two ways, namely by means of an oximeter and a supporting examination in the form of blood gas analysis.

Therefore, WHO appealed to COVID-19 patients or people who are undergoing self-isolation to have an oximeter. This is because some COVID-19 patients can experience happy hypoxia or silent hypoxia, which is a condition of decreased oxygen saturation in the blood without symptoms. If you do not get treatment, the condition of decreased oxygen levels can cause damage to tissues and organs, even lead to fatal complications, such as respiratory failure and sudden death. The sooner treatment is done, the lower the risk of dangerous complications or severe symptoms of COVID-19 (Adrian, 2021).

Theme 5. Activities and efforts undertaken by participants during self-isolation at home

Sub themes are consuming drugs given from health centers or hospitals, consuming nutritious foods, especially those containing vitamin C, exercising and managing stress well. A pandemic, the amount of nutritional intake becomes increased which is needed to be able to increase the body's immunity, especially vitamin and mineral nutrients. Good body immunity will be very helpful in fortifying yourself from being exposed to COVID-19. The need for balanced nutrition by patients is in order to maintain and maintain their immunity and endurance. Good body immunity in patients has a positive effect on killing germs and avoiding the effects of disability and help in the healing process of patients, good and balanced nutrition can also repair tissue, and restore the condition of homeostasis in the body so that the body remains healthy (Adu & Boeky, 2021).

Theme 6. Expectations of participants undergoing self-isolation at home against the government, health workers and the community

The sub-theme is that participants hope that vaccination will reach the entire community and that the public will be more aware of the health protocols proposed by the government so that the COVID-19 chain case can be broken immediately.

According to (Riyadi & Larasaty, 2020), the government has required its citizens to follow health protocols in order to reduce and prevent the spread of this virus. The government continues to work to spread messages to the entire community about staying at home, wearing masks, frequently washing hands with soap and running water, maintaining physical distance (physical distancing), and not touching the face, eyes, nose, or mouth. However, implementing new social behaviors in society is difficult, and there are still some people who are resistant to adopting this new habit. The 5M Health protocol is expected to reduce COVID-19 virus transmission and break the chain of transmission. As a result, the community's main task is to be disciplined in implementing the Health protocol together in order to break the chain and spread of COVID-19 in Indonesia. However, compliance with health protocols remains low, and many people continue to underestimate the health protocols implemented in the current new adaptation era (Professional Nursing et al., 2022).

LIMITATION OF THE STUDY

The limitation of this study is the ineffectiveness of conducting in-depth interviews because only by telephone due to the covid-19 pandemic conditions so that participants find it difficult to accept researchers to conduct in-depth interviews directly. What should be in-depth interviews should be recorded directly by researchers with participants so that they can observe the condition of participants face to face.

CONCLUSIONS AND SUGGESTIONS

Based on the results of in-depth interviews conducted with twelve participants, this study found 6 themes related to the experience of covid 19 confirmed patients who underwent self-isolation at home. The six themes were (1) signs of symptoms experienced by participants before PCR examination (fever, runny nose and sore throat, loss of smell and dizziness.), (2) the psychological impact experienced by participants after PCR examination (concern for the condition experienced by participants, feelings of sadness and confusion), (3)the development of health conditions experienced by participants during self-isolation at home (complaints experienced by participants were reduced and participants'worries were reduced), (4)availability of tools to monitor the health Status of participants during self-isolation at home (having basic examination tools such as an oximeter to determine oxygen levels in the blood and a thermometer to determine changes in participants'body temperature that can be done easily and independently by participants during self-isolation at home), (5) the activities and efforts carried out by participants during self-isolation at home (consuming drugs given from Puskesmas or hospitals, consuming nutritious foods, especially those containing

vitamin c, exercising and managing stress well), and (6) the expectations of participants undergoing self-isolation at home towards the government, health workers and the community (participants hope that vaccination can reach the entire community and the public is more aware of the health protocols that have been urged by the government so that the COVID-19 chain cases can be immediately interrupted).

The results of the study conducted on twelve participants there are similarities between theoretical and reality based on the experiences of patients who were confirmed positive for covid 19. The results of this study found no difference between the theoretical and the reality found in the field when participants experienced covid 19 disease.

Health care providers are expected to provide continuous education about covid 19 and the community is expected to continue to implement clean and healthy living behaviors and implement health protocols everywhere.

ETHICAL CONSIDERATIONS

In this study does not require ethical clearance but researchers only provide a letter of approval to be a participant that has been listed on google forms.

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Conflict of Interest Statement

Authors have not conflict of interest in this research

REFERENCES

- Adu, A. A., & Boeky, D. (2021). Pola Konsumsi Pasien Covid-19 yang Melakukan Isolasi Mandiri Selama PPKM Level 4. *Jurnal Keperawatan Silampari*, 5(1), 214–221. <https://doi.org/10.31539/jks.v5i1.2918>
- Aunguroch, Y., Gunawan, J., & Juanamasta, I. G. (2020). Experiences of Patients with Coronavirus in the COVID-19 Pandemic Era in Indonesia. *Asian Journal for Public Opinion Research*, 2507(1), 1–9. <https://doi.org/10.1016/j.solener.2019.02.027><https://www.golder.com/insights/block-caving-a-viable-alternative/0A??>
- Jannah, R. J., Jatimi, A., Azizah, M. J., Munir, Z., & Rahman, H. F. (2020). Kecemasan Pasien COVID-19: A Systematic Review. *Jurnal Penelitian Kesehatan Suara Forikes*, 11(2), 33–37.
- Jesmi, A., Mohammadzade-tabrizi, Z., Rad, M., & Hosseinzadeh-younesi, E. (2021). Lived experiences of patients with COVID-19 infection: a phenomenology study. *Mad Glas (Zenica)*, 18(1), 18–26. <https://doi.org/10.17392/1247-21>
- Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2020a). *Pedoman Pencegahan dan Pengendalian Coronavirus Disease (Covid-19) (4 ed)*. 1–4.
- Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2020b). *Protokol Isolasi Mandiri. paragraf 1*, 1–9. <http://p2ptm.kemkes.go.id/kegiatan-p2ptm/pusat-/protokol-isolasi-mandiri-covid-19>
- Keperawatan Profesional, J., Sa, Q., & Adi Nugroho, S. (2022). Strategi Dalam Meningkatkan Kepatuhan Masyarakat Terhadap Protokol Kesehatan Di Masa Pandemi Covid-19. *Jurnal Keperawatan Profesional (JKP)*, 10.
- Kiay, M., Pelealu, O. C. P., & Mengko, S. K. (2021). Anosmia pada Coronavirus Disease 2019 (Covid-19). *Jurnal Biomedik (Jbm)*, 13(2), 167. <https://doi.org/10.35790/jbm.13.2.2021.31827>
- Polit, D., & Beck, C. (2012). *Nursing Research: Generating and Assesing Evidence for Nursing Practice (9 edition)* (9 Edition). Lippincot.
- Rhothan, H., & Byrareddy, S. (2020). *Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information. January*, 1–9.
- Riyadi, & Larasaty, P. (2020). Factors Affecting Community Compliance With Health Protocols In Preventing The Spread Of Covid-19). *Seminar Nasional Official Statistics 2020: Pemodelan Statistika Tentang Covid-19*, 19, 45–54.
- Simanullang, R. H., & Situmorang, P. C. (2020a). *Managemen stres di tengah dampak Covid-19*. Guepedia Group Publisher.
- Simanullang, R. H., & Situmorang, P. C. (2020b). *Managemen stres di tengah dampak Covid-19*. Guepedia Group Publisher.
- Simanullang, R. H., Wahyu, A., & Mendrofa, H. K. (2021). *The Satisfaction of Health Students to Online Learning Methods During the Covid-19 Pandemic*. 6(June), 307–314. <https://doi.org/10.30604/jika.v6i2.507>
- Soemari, Y. B., Sapri, Maghfiroh, F., Yuniarti, Achaditani, N. M., Varianti, R., Tsabitah, A. F., Zulkarnain, A. K., Wahyuningsih, M. S. H., Nugrahaningsih, D. A. A., Akmaliah, M., Syamsul, E. S., Amanda, N. A., Lestari, D., 2021, scmidt iotc, Sumule, A., Kuncahyo, I., Leviana, F., Xue-, W., Kimia, J. T., Jubaidah, S. (2020). Peran keluarga dalam mencegah coronavirus. *Journal of Chemical Information and Modeling*, 2(1), 5–7.
- Wahyu, A., & Simanullang, R. H. (2020). Student Stress Due to Online Learning During the Covid-19 Pandemic. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*, 5(2), 153–157.