

## **CHRONIC MANAGEMENT DURING PANDEMIC COVID-19 FROM THE PERSPECTIVE PRIMARY HEALTH CARE PRACTITIONERS**

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### **ABSTRACT**

This study aims to determine how chronic care management for the COVID-19 pandemic is managed from the point of view of public health by health practitioners. The method of this research is to use a literature review using the Proquest, Pubmed, Science Direct, and Ebsco databases. The results showed that 718 articles and seven met the criteria for inclusion in the author's review. In conclusion, chronic care management during the COVID-19 pandemic from the perspective of primary health practitioners is very influential in how people with chronic diseases can survive and be helped by improving the quality of their care.

Keywords: COVID-19, Primary Health Services and Nurses, Management, Chronic Care

### **INTRODUCTION**

The world is experiencing a Coronavirus or COVID-19 pandemic since the beginning of 2020. The virus COVID-19 has occurred in China on December 1, 2019 (Wu et al., 2020). Since it first appeared, COVID-19 has spread throughout the world, causing WHO on March 11, 2020, to designate COVID-19 as a pandemic (WHO, 2022). Transmission of the COVID-19 virus was transmitted often without realizing it, which can be in the form of droplets and direct contact transmission (Hou et al., 2020). This transmission can be in the form of droplets that come out when coughing or sneezing which results as easy spreads of the COVID-19 virus (Susilo et al., 2020). Because its makes the virus become infectious diseases, it can spread throughout the world that increases the number of cases of infected to people very quickly (Güler & Geçici, 2020).

Older people as well as those with poor health conditions can make the possibility of more severe problems and worse outcomes as a result of the COVID-19 virus (Farooqi et al., 2021). This is due to older age and pre-existing chronic conditions, such as diabetes mellitus, hypertension, heart disease and obesity (Surendra et al., 2021). Research shows that people with cardiovascular disease or diabetes mellitus are 2.5 until 3.9 times more likely to be infected with the COVID-19 virus. However, People with chronic disease conditions will not only were affected by COVID-19 pandemic directly but also indirectly. The COVID-19 pandemic disrupts the entire community, Including the limited health care in the process which is usually done routinely (Danhieus et al., 2020).

The ability of health service providers that was able to provide services before are hampered due to COVID-19 (Laurence et al., 2021). Those resulted in many routine health services having to be temporarily suspended. As a result of this situation, it is necessary to adapt health facilities to the existing pandemic conditions (WHO & UNICEF, 2020). The public health service continue to be done by taking into account the existing priority scale (Kementarian Kesehatan RI, 2020). Health care systems to protect

and prevent people from the risk of infection must also be able to provide appropriate and effective management of patients with chronic diseases. This requires a carefully planned and implemented process for the new method to work properly. Contact with basic services is important to ensure that chronic diseases can be managed, risk factors can be controlled, and increase adherence to medical care so that the quality of health can be maintained properly (Wright et al., 2020).

People with chronic diseases certainly have difficulty on planning their health care, both in monitoring and managing their condition, getting adequate amounts of medication, and complying with treatment regimens (Farooqi et al., 2021). A delay in treatment would certainly carry the risk of disease progression to a point where the treatment may no longer be curative (Shen et al., 2021). Therefore, patients need to be able to carry out health monitoring, ease in receiving promotions and access to health, and ensure the adequacy of patients' routine medicines during the COVID-19 pandemic (Kementrian Kesehatan RI, 2020).

According to a study by Surendra et al., (2021) on the proportion of patients with comorbidities, it was found that among patients who contracted COVID-19 with comorbid diseases overall were 31% (1299) of patients had a good record of one or more pre-existing comorbidities including hypertension (19%, 795), patients with diabetes mellitus (12%, 501), patients with heart disease (10% ), 392), patients with COPD (4%, 178), patients with chronic disease (3%, 108), and other diseases. These data certainly need to be re-examined considering that patients with chronic diseases experience difficulties with the possibility of infection and the fear caused by COVID-19 (Conev et al., 2020). So that the government and health services need the right strategy, how someone with a chronic disease can use or avoid health care facilities due to the current COVID-19 pandemic if they have acute symptoms or there is an urgency need because of course there can be a risk of contracting the COVID-19 virus (WHO & UNICEF, 2020).

The risk of complications that will occur if people with chronic diseases are not properly monitored with the COVID-19 virus can be resulted of death (WHO, 2020a). The high mortality rate occurs with an average of 1%, the mortality rate can increase to 6% which occurs in people with cancer, people with hypertension, and chronic respiratory diseases, 7% for people with diabetes, and there are 10% that occur in people with heart disease. Meanwhile, the death rate experienced by people aged 80 or older can be at a 15% higher risk (Pradana et al., 2020).

These conditions require self-management in the treatment of chronic diseases involving both medical and behavioral strategies in decision-making, emotional and cognitive. Certainly, this will be beneficial the patient both at the level of himself, such as increasing increasing care in self-control, well-being in health, and a better quality of life (Hudon et al., 2019). Individual and family-centered care needs to be maintained in health care delivery (Verhoeven et al., 2020). Providing the right information and support costumed to each patient at the right time also involving patients in their health care so that they can understand better are an important activities to maintain their health (Holmen et al., 2020). There are not many studies that discuss this problem so a breakthrough is needed in providing services in primary health facilities on how to manage chronic disease strategies in the COVID-19 pandemic era.

Based on the explanation that has been conveyed above, the authors are interested in conducting a review of how the impact caused by the COVID-19 pandemic on the process of providing chronic disease services in primary care and knowing how the experience of health workers in providing health care and chronic care management to

patients with the chronic disease during a pandemic. In particular, this paper aims to find out how to management chronic disease care during COVID-19.

## RESEARCH METHODS

The method that the author uses in this writing is a Narrative Review. Narrative Review is a research methodology by explains and assessing published articles but the method used to select articles may not be explained (Ferrari, 2015). This study focuses on knowing how to manage chronic care during the COVID-19 pandemic from the perspective of primary health care practitioners. In optimizing the writing process, the author first conducts a clarification system on each article that will be reviewed using systematic steps.

The author uses an appropriate literature search using a database in the form of Pubmed, Ebscoo, Science Direct and Proquest using the keywords Chronic Care OR Management AND Hypertension OR Diabetes AND Pandemic OR epidemic OR Outbreak AND COVID-19 OR coronavirus OR 2019-ncov AND Primary health Care OR physicians OR Nurse AND Qualitative. In determining the keywords the author uses the PICO system.

The inclusion criteria that have been set in the process of taking and making articles that would be studied in this research are using a design study: qualitative, primary care practitioners who are carrying out health services during COVID-19, using Indonesian and English, focusing on handling chronic disease management during COVID-19, from years 2019-2021 and primary research. The criteria for excluded articles were studies that focused on acute illness.

The articles that have been obtained as a whole are then carried out a duplication check to find out if there are similiar articles used the Endnote 20 application. Subsequently, screening was carried out according to the selection criteria based on the title and abstract, then the article selection was carried out by following the PRISMA chart guidelines. The final results of the articles that have been obtained would be made a critical appraisal using JBI tools.

## RESULTS

Table. 1  
Literatur Review

Author Name, Article Title, Literature Type	Year	Aims	Findings
Danhieux et al., The impact of COVID-19 on chronic care according to providers: a qualitative study, Qualitative Study	2020	To find out how the process of screening and providing chronic care is affected by the pandemic. With a better understanding of the course, it will be possible to identify ways to increase the resilience of the health system and be better prepared to	The results show that there are three themes obtained : (1) Changes in health care organization, risk stratification, and self-management support. (2) All participating practices report drastic changes taking place within healthcare

		deal with the turmoil of the COVID-19 epidemic and other emergencies	organizations with a collective shift towards COVID-19 care, and (3) There is a reduction in chronic care activities, fewer consultations, and delayed consultations with staff responsible for patient self-management support.
Rawaf et al., Lessons on the COVID-19 pandemic, for and by primary care professionals worldwide, Qualitative Study	2020	to summarize the experience of the international primary care system and find findings in reporting the initial experience of primary care during the COVID-19 pandemic.	COVID-19 has a complex impact on primary care, with increased access and coordination in many places, resource problems, and lack of information, as well as a lack of completeness of services, making primary care required to continue to be able to innovate and adapt to meet demands during the pandemic. Primary care needs to be empowered, with adequate equipment, training, and financing.
Azizah et al., Utilization of The Chronic Disease Management Program During The COVID-19 Pandemic, A qualitative study using a case study approach	2020	To find out family support, the role of officers, and the need for services for the use of Prolanis during the COVID-19 pandemic at the Tamamaung Health Center Makassar City.	The results of the study obtained three themes as follows: (1) Family support for Prolanis participants during the COVID-19 pandemic dominates to remind each other to maintain health and implement health protocols (2) The duties of health workers to Prolanis participants during

			<p>the COVID-19 pandemic is that officers continue to serve participants as usual for health checks and routine drug administration every month. However, officers no longer provide education and exercise during the pandemic because of the rules not to do activities that make crowds</p> <p>(3) The need for health services for Prolanis participants during the COVID-19 pandemic, namely participants feel they need Prolanis in the form of gymnastics and education activities that are always carried out every week to make participants more disciplined to check their health.</p>
Albert et al., A qualitative study of high-performing primary care practices during the COVID-19 pandemic, Qualitative Study	2021	To understand experiences from primary practice care early in the COVID-19 pandemic, how to adapt care processes for chronic disease management and preventive care and the future potential for adapting service delivery practices.	<p>There are five themes obtained, namely:</p> <p>(1) Use of telehealth;  (2) Chronic disease management ;  (3) Processes and flows in health screening and preventive care;  (4) Ease of access and welfare in the treatment process;  (5) Primary care after COVID-19</p>
Smyrnakis et al., Primary care professionals' experiences during the first wave of the COVID-19 pandemic in Greece: a qualitative study, Qualitative Study	2021	To explore and understand the experiences, beliefs, and concerns of Primary Care Professionals (PCPs) regarding primary care preparedness	<p>Four main themes were identified:</p> <p>(1) Adaptation of primary care units and problems encountered during the pandemic;</p>

		and response to the first wave of the pandemic in Greece.	(2) Management of suspected COVID-19 cases; (3) Management of unsuspected cases; (4) Consequences of the pandemic.
Singh et al., Patient experiences and perceptions of chronic disease care during the COVID-19 pandemic in India: a qualitative study, Qualitative Study	2021	To describe patients' life experiences, challenges faced by people with chronic conditions, their coping strategies, and the social and economic impact of the COVID-19 pandemic.	There are four themes, namely: (1) Challenges faced during the lockdown, (2) The experience of participants being diagnosed with COVID-19, (3) Precautions are taken and (4) Lessons learned during the COVID-19 pandemic.
Javanparast et al., Experiences of patients with chronic diseases of access to multidisciplinary care during COVID-19 in South Australia, Qualitative Study	2021	To find out the experiences of patients with chronic diseases regarding access to and utilization of multidisciplinary care during COVID-19 in South Australia.	There are six patient service themes for multidisciplinary care during COVID-19, namely: (1) Doctor's service (2) Specialist services (3) Health services (4) Dental services (5) Pharmacy services (6) Pathology services

Strategy in article searched by identifying as many as 718 articles from 4 databases with details of Pubmed (413), Proquest (155), Science Direct (40), and Ebsco (110) articles. Based on the results of skinning using the PRISMA chart, 7 articles have met the inclusion criteria based on the results of the analysis. Most of the 7 articles discussed chronic care management during the COVID-19 pandemic. Each article comes from Belgium, England, Indonesia, the United States of America, Greece, India, and Australia. All of these articles are articles that have meet the inclusion criteria are in English and Indonesian.

Based on 7 articles reviewed by the author on handling chronic disease management during COVID-19. Management of chronic diseases during COVID-19 can help primary health care and patients with chronic diseases in carrying out treatment according to health protocols. There are three themes regarding management during COVID-19 making changes in health care organizations, risk stratification, and self-management support.

COVID-19 has a complex impact on primary care, with increased access and coordination in many places, resource problems, and lack of information, as well as a lack of completeness of services, making primary care required to continue to innovate and adapt to meet the demands of the pandemic. Primary care needs to be empowered, with adequate equipment, training, and financing. In carrying out chronic disease management treatment by participating in the Prolanis program there are three themes, namely the importance of the role and support from the family to keep helping each other and reminding each other in the process of maintaining the quality of their family's health, the importance of the role of health workers to remain able to serving participants as usual both in the health check-up process as well as in administering medication regularly every month and the need for a health service process for Prolanis participants during the COVID-19 pandemic so that it continues to run like gymnastics and education which is always carried out every week to make participants more disciplined for a health check.

There are five themes obtained, namely the use of telehealth, management of chronic disease management, processes and flows in health screening and prevention of care, ease of access, and welfare in the process of care and primary care after COVID-19. There are four main themes, namely adaptation of primary care units and problems encountered during the pandemic, management of suspected cases of COVID-19, management of unsuspected cases, and the consequences of the pandemic. There are four themes, namely challenges faced during the lockdown, experiences of participants being diagnosed with COVID-19, preventive measures taken, and lessons learned during the COVID-19 pandemic. There are six themes of patient access services for multidisciplinary care during COVID-19, namely doctor services, specialist services, health services, dental care services, pharmacy services, and pathology services.

## **DISCUSSION**

Based on the above review, chronic care management during the COVID-19 pandemic will greatly affect the treatment process carried out by patients with chronic diseases. Chronic care management during the COVID-19 pandemic has the main focus that must be considered, namely:

### **Management Reorganization**

Services used during COVID-19 from the preparation phase, to process control during the pandemic period are also very important. Health care workers and hospitals play an important role in the pandemic. The hospital management began to prepare the hospital and was prepared to respond as soon as possible by giving new assignments to health care workers (Güler & Geçici, 2020). Another system that must be prepared is the collaboration of health workers with other professionals to create multidisciplinary support when carrying out health care for patients (Holmen et al., 2020).

Patients who have chronic diseases will certainly be more susceptible to COVID-19 infection and make poorer outcomes. During a pandemic, of course, adjustments must be made to protect patients with their disease without compromising their prognosis with respect to the disease they are experiencing. Certainly, hoped that medical and surgical patient care can be carried out according to the protocol during the pandemic. So that can be assessed the prevalence of adjusted patient care during

the pandemic to protect patients from COVID-19 and while ensuring the course of patient care (Helissey et al., 2020).

Management should have a program with components in the form of written workplace-specific procedures, inspection, selection of appropriate respirators, training, appropriate testing, cleaning, maintenance, and storage, program evaluation, and medical evaluation (Duarte et al., 2020). Of course, this is expected to provide good protection for the success of reducing the risk of contracting COVID-19 when carrying out treatment (Nichetti et al., 2020). Visitor management can be done by form of limiting the number of visitors per patient and all visitors must wear personal protective equipment and patient visits must be recorded (WHO, 2020b).

### **Patient Flow**

Patients experience difficulties, especially in chronic diseases with increasing and rapidly developing complications due to delays and lack of access to secondary care and impaired follow-up at the primary health care level further making patients fearful of their condition (Danhieus et al., 2020). Practitioners need to emphasize the importance of ongoing preventive screening, monitoring, and treatment for patients who may continue to be afraid of returning to health care facilities. In the long term, such a strategy could be used to expand screening or prevention capacity to a greater extent than during COVID-19 (Nichetti et al., 2020).

The result of collaboration with various elements to separate patients with non-COVID-19 and COVID-19. The main contact with patients now days are mostly by telephone. The online agenda where people can make appointments is closed or, if possible, rearranged to distinguish between respiratory complaints and other complaints, then many doctors mention a more structured work schedule in their practice. Collective agreements were made to be able to share and reallocate work to telephone triage, telephone consultations and face-to-face consultations (Verhoeven et al., 2020).

In addition to making contacts to make appointments, triage of patients can also be done by making Triage Procedures (TPs) aimed at minimizing the risk of spreading infection in hospitals, namely by using a written questionnaire (previous contact or positive COVID-19, respiratory symptoms, and fever) with measuring body temperature to intercept patients with suspected COVID-19 infection. The triage used is in a well-structured manner to reduce the risk of spreading more COVID-19 infections by reducing the number of exposures to scheduled activities (Targato et al., 2020).

### **Use of Human Resources and Primary Health Care Facilities**

In providing health services to patients, of course, a health worker must be emotionally involved with patients to create a positive environment when treating patients (Holmen et al., 2020). Certainly, this statement must be able to be done both when meeting in person and when doing a virtual treatment. The creation of good emotions between health workers and patients are expected to create a good treatment process.

The need for patient protection measures during a pandemic requires timely action and certain policies both the coordinated efforts of all involved in the care and the use of effective communication strategies for the necessary treatment that can lead to effective and better patient protection (Tregnago et al., 2020). To make this happen,



certainly there are lot needs to be done, including training and support for the skills of nurses by using a patient-centred care system and by using support in a self-management system by adapting team-based services where they can act independently and remain under the supervision by a doctor (Al-alawi & Al-Mandhari, 2020).

Providers of emergency care services with patients with suspected COVID-19 infection or who do not or anyone who will be in the same room with the patient must of course follow the standards, contacts, and precautions. Prevention of contracting COVID-19 can be done by using personal protective equipment (PPE) to protect health workers from infection and to prevent the spread of infection among patients. Use of cough etiquette, hand hygiene, proper patient isolation, cleaning and handling of patient care equipment, clothing, devices, and the environment as well as safety procedures (Holland et al., 2020).

### **Health Care Services during COVID-19**

A proactive approach to the COVID-19 emergency that occurs includes the use of personal protective equipment, patients can access the use of the telemedicine system without the need to carry out on-site examinations, adjust treatment delivery, assess patients regularly, examine patients before entering the ward, restrict access systems for visitors and health workers (Duarte et al., 2020). Furthermore, using telemedicine can help plan health care, and monitor and manage personal conditions. Then it is also possible to provide updates on recipes using the remote method. If possible, of course, it can also undergo independent monitoring, such as measuring blood pressure and monitoring blood sugar levels or supported through remote monitoring, or a combination of other measures (WHO & UNICEF, 2020). Digital technology tools that can be used to help patients can potentially improve communication between patients and providers, promote into the system of shared decision-making in the treatment and care process, and can even improve the success of patient outcomes (Seljelid et al., 2020).

The use of telemedicine is expected to have all patient data, doctors can access the patient's history at any time. So it is hoped that further action can be taken (Messina et al., 2020). This effect can certainly assist doctors in helping people by choosing the type and nature of engaging in physical activity during lockdown, directing by sharing video examples of exercises, and reinforcing the need to remain physically active in every virtual interaction (Pal et al., 2020).

The online patient education program aims to equip patients with various kinds of knowledge and skills to be able to make and help make better lifestyle changes and can work side by side with remote consultations to support patient care. Supported web-based interventions may be as effective as face-to-face therapy, both in mental health and lifestyle counseling, especially those setting personalized goals for clients, and using email or text to remind clients to use the program. regularly to improve medication adherence. Remote interventions are more cost-effective than face-to-face treatments and can result in better patient satisfaction (Farooqi et al., 2021).

All of this will be successful if patients can manage themselves and have an active role to make decisions in carrying out their daily lives both in managing symptoms, medication, physical and psychosocial consequences of illness, and lifestyle changes. Therefore, self-management in long-term care can work well (Holmen et al., 2020). Another support that must be obtained by patients is family support which can have a

positive impact on the treatment process. The existence of good family support can certainly provide the support that patients need because comfort and recognition from existing family members certainly make patients feel better (Yuniarti & Kariasa, 2020).

## CONCLUSION

Based on a review of several journals, it can be concluded that the clinical effectiveness of effective chronic disease management during a pandemic can be carried out with a good health care system during a pandemic, in addition to protecting the community from the risk of infection, certainly it must also be able to provide effective chronic disease management system for patients who carried out by telephone, which is expected to minimize direct contact between primary health care and patients when routine treatment will be carried out by patients with chronic diseases, to reduce the risk of contracting the COVID-19 virus, which is expected to improve health quality, carry out examinations maximum and people-centered, holistic and comprehensive health. Because primary health care must provide services to healthy people and patients with COVID-19 symptoms, so they must be in good health and use good personal protective equipment, and can improve the quality of their health and their community environment.

## SUGGESTIONS

Good health care system management during the COVID-19 pandemic, can protect the public from the risk of infection and can provide effective chronic disease care for patients, and can keep health care providers healthy and ready when providing services to patients during the COVID-19 pandemic.

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