



The Family Care's Telenursing for Elderly with COVID-19

A Case Report

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Kata Kunci

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Abstrak

Pandemi COVID-19 telah berdampak pada sistem kesehatan di banyak negara, termasuk Indonesia. Dari krisis tersebut, perawat sebagai salah satu garda terdepan dalam pelayanan kesehatan COVID-19 memiliki peran penting dalam memberikan pelayanan keperawatan bagi pasien isolasi mandiri di rumah melalui layanan *telenursing*. Metode penelitian ini menggunakan desain *case report* pada 1 kasus keluarga dengan lansia terkonfirmasi positif COVID-19 yang dilakukan melalui pemantauan virtual dengan pendekatan *telenursing*. Pengamatan dan analisis *case report telenursing* berdasarkan pendekatan 5 Tugas Kesehatan Keluarga (TUK) menurut teori Maglaya dihubungkan dengan NANDA-NOC-NIC International. Hasil penelitian menunjukkan bahwa asuhan keperawatan keluarga dengan *telenursing* membantu lansia dan keluarga mengenali masalah COVID-19, mengambil keputusan pengobatan yang tepat, merawat lansia melalui *telenursing*, memodifikasi lingkungan sehat lansia, dan memanfaatkan *telenursing* sehingga program ini dapat dengan efektif membantu keluarga dan lansia mencapai status kesehatan maksimal selama masa karantina mandiri di Rumah. Penelitian ini diharapkan dapat menjadi acuan bagi instansi terkait untuk mengembangkan asuhan keperawatan keluarga melalui *telenursing* pada keluarga dengan masalah COVID-19.

Keywords

COVID-19;
Elderly;
Family;
Telenursing

Abstract

The COVID-19 pandemic has had an impact on health systems in many countries, including Indonesia. From this crisis, nurses as one of the front lines in COVID-19 health services have an important role in providing nursing services for self-isolated patients at home through family care's telenursing services. The Method of this study uses a case report design in 1 case of a family with an elderly confirmed positive for COVID-19 that carried out through virtual monitoring with a telenursing approach. Observation and analysis of the case report of family care's telenursing based on the 5 Family Health Task (FHT) approach according to Maglaya's theory associated with NANDA-NOC-NIC International. The Results study shows that the family care's telenursing helps the elderly and families recognize the COVID-19 problems, making decisions for appropriate treatment, caring for the elderly through telenursing, modifying a healthy environment for the elderly, and utilizing telenursing so that this program can effectively help families and the elderly achieve maximum health status during the self-quarantine period in Home. This study is expected to be a reference for related institutions to develop family care's telenursing in providing family nursing care for families with COVID-19 problems

Introduction

The COVID-19 pandemic has impacted on health systems in many countries, including Indonesia. In July 2021, the Indonesian health system almost collapsed due to a high spike in COVID-19 cases which caused an increase in hospital's Bed Occupancy Rate (BOR) to reach 30% (1). Large number of COVID-19 patients and referrals to hospitals has increased the number of hospitalisations, treatment costs, and work pressure on nurses (2). The high number of needs for hospitals during the peak of COVID-19 caused not all positive COVID-19 patients to be accommodated in hospitals. At the peak of COVID-19 cases, 80 percent of COVID-19 patients were self-isolating at home. The high number of self-isolation at the peak of COVID-19 cases is one of the causes of the high mortality of COVID-19 patients during self-isolation. Beds in hospital were not sufficient in areas where mass COVID-19 infection occurred, and in some cases, patients waiting for hospital admission died in their homes during self-quarantine (3). In Indonesia, the death cases of COVID-19 patients in self-isolation at home reached 2,703 patients on 27 July 2021 (4). As one of the front lines in COVID-19 health services, nurses have an important role in providing nursing services for self-isolated patients at home through telenursing services.

Nowadays, technology has become an important part of people's lives, including during the COVID-19 pandemic. Telenursing as a technological innovation in nursing services can provide nursing access to remote patients. Telenursing is the use of electronic information and telecommunications technologies to support and promote long-distance nursing practice to deliver nursing care remotely to improve efficiency and patient access to healthcare (5). Technology-based telenursing helped the individual in his illness trajectory during the COVID-19 pandemic (6). Nursing services performed in telenursing include patient triage, symptom management, counseling, diagnosis and record of patients' information, education and control of using care tools such as oxygen capsules and masks through telephone and at home (2). Distance education performed in telenursing by nurses is essential to promote the families health in the field of COVID-19 (7). Telenursing is a solution to equalize nursing services for COVID-19 patients who are self-isolating at home, especially patients from vulnerable groups such as the elderly with various comorbidities.

The aging experienced by the elderly causes the elderly to be in a vulnerable group exposed to COVID-19 with high morbidity and mortality rates. WHO states that more than 95% of deaths occur in the elderly with COVID-19 and 8 out of 10 deaths occur in the elderly with comorbidities, such as the elderly with cardiovascular disease/hypertension, diabetes, and various other chronic diseases (8). For the elderly with COVID-19, the family has an important role as a caregiver to ensure that all the needs of the elderly in the treatment process can run optimally. An ideal family care approach to be applied in Indonesia is the 5 Family Health Task (FHT) approach according to Maglaya's theory, namely recognize health problems in the family, take decisions for appropriate treatment measures, care for sick family members, modify a healthy environment, as well as utilize the healthcare facilities that are available around the neighborhood to the maximum (9). Telenursing mention may be made of continuous equitable care and access to remote nursing services, especially for elderly family with COVID-19 during self isolation in home (2). Telenursing is a solution to meet the challenges of efficient and quality health services (10). Telenursing during the COVID-19 pandemic has many benefits for the elderly and their families, including: reduces the burden of care in family caregivers of COVID-19 patients, improves self-efficacy of patients with COVID-19, and improves the life quality of COVID-19 patients (2,10,11). Based on this background, the authors present the results of the case report on nursing care through the 5 FHT in family care's telenursing approach for the elderly with COVID-19. This case report aims to describe the provision of nursing care for families with the elderly with COVID-19 through telenursing.

Methods

This study uses a case report design in 1 case of a family with an elderly confirmed positive for COVID-19. The study was carried out through virtual monitoring with a telenursing approach. This research was conducted from July 2021 to September 2021 (the second wave of COVID-19 in Indonesia). The sampling method in this study was purposive sampling with the inclusion criteria of participants, namely elderly aged at least 60 years, positive confirmation of COVID-19 with mild to moderate symptoms, self-isolation at home with family as caregivers, and willing to use telenursing for 14 days of quarantine at home. Data collection was carried out by recording the entire process of family care nursing which was carried out through chat and video calls on a telenursing feature application. The elderly and family had agreed and signed informed consent regarding publishing their clinical case in an academic journal without exposing their identity (the patient consent of publication has been attached to the journal publisher). This patient consent for publication is a ethical clearances for case report study (12). Family care nursing for the elderly is carried out for 14 days in accordance with the guidelines for self-quarantine in confirmed cases of COVID-19 with moderate symptoms. Evaluation and analysis of the case report of family care's telenursing based on the 5 Family Health Task (FHT) approach according to Maglaya's theory,

namely recognize health problems in the family, take decisions for appropriate treatment measures, care for sick family members, modify a healthy environment, and utilize the healthcare facilities that are available (telenursing) (9). All family nursing care in this case report uses the guidelines in NANDA-NOC-NIC International (13).

Case

The family who become participants in family care nursing through this telenursing program is the family of Mr. M (65 years old). Mr. M lives with his wife (Mrs. K, 54 years old), one son (Mr. D, 34 years old), one daughter-in-law (Mother A, 29 years old), and their two grandchildren (A 8 years old and S 4 years old). Currently the stage of family development is at the stage of a family with the elderly. On July 11, 2021, Mr. M's family used the home visit antigen swab service, it was found that out of 2 of 6 people living in 1 house was confirmed positive for COVID-19, namely Mr. M and Mrs. K. Mr. M had 3 days of fever, chills, and coughing a cold, while Mrs. K only has a cold. As an elderly with COVID-19, Mr. M also has co-morbidities. Mr. M has type 2 diabetes mellitus, chronic gastritis, and hypertension, while Mrs. K has type 2 diabetes mellitus, dyslipidemia, and obesity. Because Mr. M's house is in the red zone of COVID-19 transmission (Probolinggo Regency), the family took the initiative to use telenursing services as a solution for family health care. Mr. M and Mrs. K are self-isolating on the 2nd floor of their house. Mrs. K has received 2 complete doses of Sinovac vaccine, while Mr. M has not had the vaccine. Mother K's condition is quite stable, only feeling anosmia and a mild cold.

When doing self-isolation, Mrs. K took the role of a caregiver for Mr. M. Mrs. K said that Mr. M was quite independent as an elderly person before getting sick. Mr. M's condition worsened after being tested positive for COVID-19, so Mrs. K had to take over the role of caregiver to care for Mr. M. In the first days of self-isolation, Mrs. K looked confused, angry, and did not receive the COVID-19 diagnosis they got. Because in the perception of Mrs. K and Mr. M, COVID-19 is just a common cold which has been politicized so that it is considered dangerous to benefit certain parties. Mrs. K doesn't want her neighbors to know that Mr. M and Mrs. K are suffering from COVID-19. This condition makes Mrs. K and Mr. M not have adequate community health resources during their self-isolation period. The approval for the use of telenursing was initiated by their daughter of Mrs. K and Mr. M who live outside the city. The role of caregiver for Mrs. K is not easy to do. As one of the patients who also suffered from COVID-19, Mrs. K also had health problems that caused her physical condition to decline, such as anosmia, runny nose, and easily tired. Mr. M's condition, who experienced agitation due to COVID-19, also became a stressor for Mrs. K. This telenursing with family care nursing program helping Mrs. K to take on the role of caregiver for Mr. M.

Twelve hours after being tested positive for COVID-19, Mr. M complained of a severe headache. Through virtual monitoring and reports from telenursing program, Mr. M began delirious, excessively anxious, had difficulty eating, could not sleep and experienced time disorientation. Based on family care nursing analysis through telenursing, Mr. M's family health problems were ineffective airway clearance in Mr. M (13). Mr. M experienced ineffective airway clearance which was characterized by altered respiratory rhythm, difficulty verbalizing, excessive sputum, hypoxemia (SpO₂ 93%), ineffective cough, ineffective sputum elimination, psychomotor agitation, tachypnea (RR 25-30×/m), and uses accessory muscles to breathe.

Nursing intervention is carried out through 5 Family Health Task (FHT) from Malaya Theory, namely recognizing the family member health problem (FHT 1), making decisions for appropriate treatment features (FHT 2), caring for sick family members (FHT 3), modifying the healthy environment (FHT 4), and utilizing the healthcare facilities (FHT 5) (9). Nursing intervention is carried out through monitoring by telenursing and home visits by telenursing nurses for 14 days of self-isolation. Home visits are carried out on the first day, the second day, and the last day of the self-isolation period. The tables below contain nursing care with nursing diagnoses Ineffective Airway Clearance and monitoring progress on Mr. M based on NANDA-NOC-NIC International with 5 Family Health Task approach using Telenursing.

Table 1. Nursing Care Plan of Mr. M Using 5 Family Health Task

Nursing Diagnosis	Nursing Outcome Classification	Nursing Intervention Classification
	FHT 1 (Recognizing the Family Member Health Problems)	
Ineffective Airway Clearance on Mr. M (00031)	The ability of family in recognizing the COVID-19 problems in Mr. M is achieved by increasing Risk Control: Infectious Process of COVID-19 (1924) from 1 (Never demonstrated) to 5 (Consistently demonstrated), on:	Infection Control of Mr. M Family measures (6540) are carried out by:
Objective Data: Altered	192405 Identifies signs and symptoms of infection	- Teach patient and family members how to avoid infections: explain what COVID-19 is, signs and symptoms, modes of transmission, prevention of transmission, and treatment that will be obtained after confirmation of COVID-19

Nursing Diagnosis	Nursing Outcome Classification	Nursing Intervention Classification
respiratory rhythm, difficulty verbalizing, excessive sputum, hypoxemia (SpO2 93%), ineffective cough, ineffective sputum elimination, psychomotor agitation, tachypnea (RR 25-30x/m), and uses accessory muscles to breathe Subjective Data: - The family said Mr. M coughing and shortness of breath since the last 3 days - The family said the cases of COVID-19 in their neighborhood were quite high - The family said since the confirmation of COVID-19, Mr. M often talks irregularly (feels there is a lot of water around him), prays (salat) many times, walks aimlessly, has no appetite, has difficulty sleeping, and gets tired easily	192406 Seeks validation of perceived infection risk 192401 Acknowledges personal risk factors for infection 192402 Acknowledges consequences associated with infection 192410 Monitors time of infectious disease incubation period 192423 Uses reputable sources of information	- Explain the guidelines for self-isolation according to the Ministry of Health of the Republic of Indonesia
	FHT 2 (Making Decisions for Appropriate Treatment Measures)	
	Family ability in Making Decisions for Appropriate Treatment COVID-19 of Mr. M achieved through increased Risk Control: Infectious Process (1924) from 1 (Never demonstrated) to 5 (Consistently demonstrated), on:	Infection Control of Mr. M Family measures (6540) are carried out by: - Teach patient and family about signs and symptoms of infection complication
	192421 Takes immediate actions to reduce risk 192424 Uses health care services congruent with need	
	FHT 3 (Caring for Sick Family Members)	
	Family ability in Caring for Mr. M is achieved through:	Family care nursing intervention are carried out by:
	Increased Respiratory status of Mr. M (0415) from 3 (moderate deviation from normal range) to 5 (no deviation from normal range), on: 041501 Respiratory rate 041532 Airway patent 041508 Oxygen saturation 041519 Impaired cognition 041520 Accumulation of sputum 041529 Restlessness 041530 Fever 041531 Coughing Increased	Airway Management (3140), with activities: - Instruct how to cough effectively - Monitor respiratory and oxygenation status, as appropriate Cough Enhancement (3250), with activities: - Assist patient to a sitting position with head slightly flexed, shoulders relaxed, and knees flexed - Instruct patient to inhale deeply several times, to exhale slowly, and to cough at the end of exhalation
	Infection Severity Mr.M (0703) from 3 (moderate) to 5 (none), on: 070311 Malaise 070312 Chilling 070313 Unexplained cognitive impairment 070332 Loss of appetite Increased monitoring of the vital sign of Mr. M (0802) from 3 (Moderate deviation from normal range) to 5 (None deviation from normal range), on: 080203 Radial pulse rate 080205 Systolic blood pressure 080206 Diastolic blood	Oxygen Therapy (3320), with activities: - Clear oral, nasal, and tracheal secretions, as appropriate - Set up oxygen equipment and administer through a heated, humidified system - Instruct patient about importance of leaving oxygen delivery device on - Monitor the effectiveness of oxygen therapy (e.g., pulse oximetry, ABGs), Positioning 0840, with activities: - Monitor oxygenation status before and after position change - Position to alleviate dyspnea (e.g., semi-Fowler position), as appropriate - Instruct the patient how to use good posture and good body mechanics while performing any activity
	Decreased Agitation level (1214) from 3 (moderate) to 5 (none) on: 121401 Difficulty processing information 121403 Frustration 121404 Irritability 121405 Pacing 121432 Insomnia 121421 Emotional lability 121422 Verbal outbursts 121423 Inappropriate verbalizations 121424 Inappropriate gestures	Vital Signs Monitoring (6680), with activities: - Monitor blood pressure, pulse, temperature, and respiratory status, as appropriate - Monitor pulse oximetry Medication Administration: Inhalation (2311) ,

Nursing Diagnosis	Nursing Outcome Classification	Nursing Intervention Classification
	121425 Disinhibition 121426 Interrupted sleep 121427 Weight loss	<p>with activities:</p> <ul style="list-style-type: none"> - Assist patient to use inhaler as prescribed - Assist patient to position inhaler in mouth or nose - Have patient take slow, deep breaths, with a brief end-inspiratory - pause, and passive exhalation while using a nebulizer - Have patient hold breath for 10 seconds, as appropriate - Have patient exhale slowly through nose or pursed lips <p>Infection Control (6540), with activities:</p> <ul style="list-style-type: none"> - Isolate persons exposed to communicable disease - Promote appropriate nutritional intake - Encourage fluid intake, as appropriate - Encourage rest - Administer antibiotic therapy, as appropriate - Administer an immunizing agent, as appropriate - Instruct patient to take antibiotics, as prescribed <p>Energy Management (0180), with activities:</p> <ul style="list-style-type: none"> - Monitor nutritional intake to ensure adequate energy resources - Limit environmental stimuli (e.g., light and noise) to facilitate relaxation - Limit number of and interruptions by visitors, as appropriate - Promote bedrest/activity limitation (e.g., increase number of rest periods) with protected rest times of choice - Encourage alternate rest and activity periods - Arrange physical activities to reduce competition for oxygen supply to vital body functions (e.g., avoid activity immediately after meals) - Use passive and/or active range-of-motion exercises to relieve muscle tension - Provide calming diversional activities to promote relaxation - Offer aids to promote sleep (e.g., music or medications) - Encourage an afternoon nap, if appropriate - Assist patient to schedule rest periods - Avoid care activities during scheduled rest periods <p>Calming Technique (5880), with activities:</p> <ul style="list-style-type: none"> - Identify significant others whose presence can assist patient (Mr. M) - Instruct patient on methods to decrease anxiety (e.g., slow breathing techniques, distraction, listening to murottal Al Quran) - Talk with patient via video call - Facilitate the patient's expression of anger

Nursing Diagnosis	Nursing Outcome Classification	Nursing Intervention Classification
	in a constructive banner	
	FHT 4 (Modifying the Healthy Environment)	
	Family ability in modifying the healthy environment for Mr. M is achieved through: Knowledge improvement: Pneumonia Management (1861) from 2 (Limited knowledge) to 5 (Extensive knowledge), on: 186108 Strategies to prevent complications 186109 Strategies to balance activity and rest 186110 Energy conservation technique	TUK 4 Infection Protection (6550) • Encourage rest • Monitor for change in energy level or malaise • Monitor for systemic and localized signs and symptoms of Infection
	FHT 5 (Utilizing the Healthcare Facilities)	
	The ability of the family in Utilizing the Healthcare Facilities (Telenursing) for Mr. M is achieved through increasing the COVID-19 symptom control of Mr. M (1608) from 2 (rarely demonstrated) to 5 (consistent demonstrated), on: 160810 Uses diary to monitor symptoms over time (via telenursing) 160811 Reports symptoms controlled (via telenursing) 160813 Obtains health care when warning signs occur (via telenursing)	Infection Control of Mr. M Family measures (6540) are carried out by: - Teach the patient and family about signs and symptoms of infection and when to report them to the health care provider - Teach patient and family members how to avoid infections

Table 2. Progress Monitoring of Mr.M

FHT	Outcome Measure	Score/Day (Complete Score is 5)													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FHT 1	Increasing Risk Control: Infectious Process of COVID-19	Identifies signs and symptoms of infection	5												
		Seeks validation of perceived infection risk	5												
		Acknowledges personal risk factors for infection	5												
		Acknowledges consequences associated with infection	5												
		Monitors time of infectious disease incubation period	5												
		Uses reputable sources of information	5												
FHT 2	Increasing Risk Control: Infectious Process of COVID-19	Takes immediate actions to reduce risk	5												
		Uses health care services congruent with need	5												
FHT 3	Increased Respiratory status of Mr. M	Respiratory rate	3	3	3	3	4	4	4	4	5				
		Airway patent	3	3	3	3	3	3	3	4	4	4	4	4	5
		Oxygen saturation	3	3	3	3	3	3	3	3	4	4	4	5	
		Impaired cognition	3	3	3	3	3	3	3	3	4	4	5		

FHT	Outcome Measure	Score/Day (Complete Score is 5)													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Accumulation of sputum	3	3	3	3	3	3	3	3	4	4	4	4	4	5
	Restlessness	3	3	3	3	3	3	3	3	4	5				
	Fever	3	3	3	4	5									
	Coughing Increased	3	3	3	3	4	4	4	4	5					
	Malaise	3	3	3	3	3	3	3	3	3	4	4	4	5	
	Chilling	3	3	3	3	4	4	4	4	5					
	Unexplained cognitive impairment	3	3	3	3	4	4	4	4	5					
	Loss of appetite	3	3	3	3	3	3	3	3	4	4	4	4	4	5
	Increased monitoring of the vital sign of Mr. M	3	3	3	4	5									
	Systolic blood pressure	3	3	3	4	5									
	Diastolic blood	3	3	3	4	5									
	Difficulty processing information	3	3	3	3	4	4	4	4	5					
	Frustration	3	3	3	3	4	4	4	4	5					
	Irritability	3	3	3	3	4	4	4	4	5					
	Pacing	3	3	3	3	4	4	4	4	5					
	Insomnia	3	3	3	3	3	3	3	3	4	4	4	4	4	5
	Emotional lability	3	3	3	3	4	4	4	4	5					
	Verbal outbursts	3	3	3	4	5									
	Inappropriate verbalizations	3	3	3	4	5									
	Inappropriate gestures	3	3	3	4	5									
	Disinhibition	3	3	3	4	5									
	Interrupted sleep	3	3	3	3	3	3	3	3	4	4	4	4	4	5
	Weight loss	3	3	3	3	3	3	3	3	4	4	4	4	4	5
	Strategies to prevent complications	2	3	4	5										
	Strategies to balance activity and rest	2	3	3	3	4	4	4	4	5					
	Energy conservation technique	2	3	3	3	4	4	4	4	5					
	Uses diary to monitor symptoms over time (via telenursing)	2	5												
FHT 5	Increasing the COVID-19 symptom control	2	5												
	Reports symptoms controlled (via telenursing)	2	5												
	Obtains health care when warning signs occur (via telenursing)	2	5												

Discussion

In the first Family Health Task (FHT 1), the family recognize the COVID-19 problems in Mr. M on the first day of nursing care. Through telenursing activities with a family center nursing approach, nurses teach patient and family members how to avoid infections by explaining what COVID-19 is, signs and symptoms, modes of transmission, prevention of transmission, and treatment obtained after confirmation of COVID-19. Then the telenursing nurse explained the guidelines for self-isolation according to the Ministry of Health of the Republic of Indonesia in accordance with the condition of the family of Mr. M. Caregivers (family) who have good knowledge about COVID-19 in terms of infection, prevention,

symptoms, and therapeutic approaches in handling COVID-19 with valid information sources (such as trusted health journals) are able to increase positive attitudes towards patients with COVID-19 (14). Increasing knowledge of the elderly and their families about COVID-19 through an understanding of government programs for handling COVID-19 is a factor that influences health decision making regarding the handling of COVID-19 risks and family coping behavior among the elderly population (15). The evaluation of nursing care with the first Family Health Task approach which was carried out by telenursing showed that the family of Mr. M consistently demonstrated on identifying signs and symptoms of COVID-19 infection, seeks validation of perceived infection risk, acknowledges personal risk factors every family members for infection, acknowledges consequences associated with infection, monitors time of infectious disease incubation period, and uses reputable source of information related to COVID-19. Increasing knowledge as one of the COVID-19 interventions can increase caregivers' (family) knowledge of the disease and developing specific skills to deal with the COVID-19 problems in elderly patients (16). Telenursing home care was considered capable of providing effective education, acceptable education, and constant education of COVID-19 in the family (2). Increasing knowledge of the elderly and families through health education programs in telenursing is the beginning of implementing an effective family center nursing for families and increasing positive attitudes of the elderly and families towards the COVID-19 nursing care program for the elderly through telenursing. Recognizing the problem of COVID-19 in the family through increasing knowledge of the disease and explaining the guidelines for self-isolation according to the government program can be the basis for effective COVID-19 nursing care in families with a telenursing approach.

Like FHT 1, the second Family Health Task (FHT 2) was accomplished on the first day of nursing care. FHT 2 emphasizes the ability of families in making decisions for appropriate treatment of Mr. M. The telenursing nurse explained in detail to the patient and family about the signs and symptoms of COVID-19 complications that might occur to Mr. M. This activity enables families to efficiently take immediate actions to reduce the risk of COVID-19 complications and then uses health care services congruent with need via telenursing. Telenursing is doing one of the most important roles of the nurse, namely controlling the disease process and reducing the complications of the disease (17). The family's decision to use telenursing in handling COVID-19 in the elderly is the right decision. This is because the elderly with COVID-19 (especially with comorbidities) require continuous medical monitoring so that decision making in providing care to elderly patients is in accordance with their needs. Telehealth and telecare service offers an example of rapid scaling and adaptation of an existing program to meet the needs of patients with COVID-19 disease (18). Family ability in making decisions for appropriate treatment for elderly through the use of telenursing with continuous control on the condition of the elderly is an effective and efficient way to recognize the care needs of the elderly and their families during the COVID-19 pandemic. Families can maximally take advantage of 24-hour telenursing services during the 14-day quarantine period so that the condition of the elderly as COVID-19 sufferers with comorbidity problems can be properly monitored and the risk of complications and unexpected worsening can be prevented by prompt and appropriate treatment through virtual monitoring in telenursing.

In the third Family Health Task (FHT 3), the family takes an important role as a caregiver for Mr. M. The ability of the family in caring for sick family members is guided directly by the telenursing nurse until the end of the Mr. M's quarantine period, which is 14 days. Telenursing focus in nursing care for Mr. M was carried out using the treatment guidelines for ineffective airway clearance problems in NIC, namely airway management, cough enhancement, oxygen therapy, positioning, vital signs monitoring, inhalation, infection control, energy management, and calming technique. Telenursing and telemedicine activities for COVID-19 patients who are self-isolating, the main focus of action is to identify the patient's clinical condition, provide appropriate oxygenation therapy, and daily monitor the patient's medical condition (19). The use of drugs in telenursing activities is prescribed by doctors with monitoring of use carried out by telenursing nurses. The drugs used by Mr. M include multivitamins, ulcer drugs, antipyretics, mucolytics, anti-inflammatory drugs, DM drugs, antibiotics, antivirals, and inhalation drugs. COVID-19 treatment program can change at any time because COVID-19 is a new disease. We are still understanding its pathophysiology and symptomatology, and are producing an effective and safe vaccine and specific treatments (20). From this analyze, the implementation of Mr. M's family center nursing through telenursing has met the standard of care for COVID-19 at home according to the guidelines in the NIC. Involvement of families as caregivers in all telenursing programs for the elderly with COVID-19 who are self-isolating at home, starting from basic skills in independently checking vital signs, using medical devices such as oxygen and nebulizers, and administering medicines for the elderly, able to improve the health status of the elderly during the quarantine period.

FHT 3 monitoring was carried out for 14 days. Monitoring was carried out based on the achievement criteria guidelines in the NOC on the diagnosis of ineffective airway clearance, namely respiratory status, infection severity, vital signs, and agitation level. Monitoring is carried out both through home visits with the COVID-19 protocol (for interventions that can only be carried out by nurses) and virtual monitoring through telenursing. Nursing interventions through telenursing for asymptomatic

positive or patient with mild symptoms COVID-19 can be followed up regularly by phone and video conferencing which is done through a combination of home visits and virtual monitoring (21). The telenursing monitoring recommended is a blood pressure monitor with electronic BP, oxygen saturation, food and hydration, maintaining normal body temperature, airway clearance, comfort, and social interaction (21). In addition to focusing on meeting oxygenation needs through airway management, the side effects of ineffective airway clearance of COVID-19 such as agitation and cognitive disturbances are one of the nursing problems experienced by Mr. M. Elderly people infected with COVID-19 could have experienced other consequences, including behavioral problems due to hypoxia that can cause delirium, which may complicate of agitation, motor disturbance, anxiety, irritability, depression, apathy, disinhibition, hallucinations, delusions, and sleep or appetite disturbances (22). Providing relaxation therapies can help overcome agitation in the elderly with COVID-19 at home. Relaxation therapy can reduce fatigue and improve sleep quality in patients with respiratory disorders such as COPD and COVID-19 (23,24). Relaxation therapy triggers a balance between the anterior and hypothalamic nucleus which then reduces the activity of the sympathetic nervous system (25). This condition help preventing stress and anxiety and increasing physical and mental relaxation in COVID-19 patients (23). Family ability in caring for Mr. M through telenursing with implementation guidelines based on NOC and NIC on the diagnosis of ineffective airway clearance in COVID-19 makes it easier for families to get nursing care in accordance with the principles in family center nursing. Involvement of families as caregivers in monitoring health status of elderly with COVID-19 who are self-isolating at home can improve the health status of the elderly during the quarantine period, including improving oxygenation status, monitoring vital signs, and decreasing agitation. This is because every change in health status monitored by the family gets an immediate response through nursing care in telenursing

Family Health Task 4 (FHT 4) focuses on the ability of families to modify a healthy environment for Mr. M. FHT 4 achieves protection against further COVID-19 infection by encouraging rest, monitoring changes in energy levels or malaise, and monitoring signs and symptoms of systemic and local infection. Rest and sleep disorders in the elderly with COVID-19 are directly related to the incidence of hypoxia and immune processes that contribute to the pathological state (26). The family's ability to modify healthy behavior as an effort to fulfill the need for rest and sleep Mr. M is the focus of intervention in this FHT 4. Encouraging the patient to plan the day or week to avoid overexertion and to recognize energy windows (periods during the day when patients have more energy to complete tasks) is helpful optimizing timing of therapy in COVID-19 (27). The achievements of Mr. M's Family FHT 4 are assessed through telenursing, including the family's ability to make strategies to balance activity and rest, energy conservation technique, and strategies to prevent COVID-19 complications. The energy conservation technique carried out by Mr.M's family is to do Range of Motion (ROM) movements while sunbathing for 30 minutes at 9-10 am. Energy conservation techniques through telerehabilitation (such as ROM when sunbathing) have shown results in increased oxygenation, reduced signs and symptoms, and accelerated the healing process (28). Family involvement to modify the environment so that the elderly with COVID-19 have adequate sleep and rest (through sleep timings and energy conservation techniques) can help speed up the recovery process for the elderly during the self-isolation period at home.

The fifth Family Health Task (FHT 5) focuses on the ability of families to utilize the healthcare facilities. FHT 5 is achieved by increasing the families's ability to use telenursing to control the process of further COVID-19 infection. Hospital's capacity was limited during the COVID-19 storm, telenursing prevented complications for self-isolating patients at home, both biological complications and psychosocial complications (29). Monitoring of Mr.M through telenursing is carried out in the form of making daily activities (such as eating, drinking, resting, sleeping, and other psychosocial activities as indicated) and measuring vital signs (such as blood pressure, oxymetry, RR, HR, body temperature). Home-based telemonitoring feature in telenursing is ideally able to record nursing care, monitors the daily quantitative data of participants (such as pulse oximetry, blood pressure, walking steps, body weight, breathlessness scale, and comprehensive state scale), and monitors the daily quantitative data participants (such as internal illness perception, symptoms, and complaints) (6). Utilization of telenursing as one of Mr.M's family's efforts in utilizing the healthcare facilities effectively and efficiently can accelerate the recovery process and prevent complications caused by COVID-19. Choosing telenursing as one of the efforts of families with COVID-19 elderly people in utilizing health services during the pandemic is a solution to the limited access to family health due to the implementation of quarantine for families with family members affected by COVID-19 so that elderly people with COVID-19 who are self-isolating at home remain get maximum nursing care

Conclusion

This case report shows that the use of 5 Family Health Tasks (FHT) in Family Care's Telenursing helps nurses provide COVID-19 nursing care effectively and efficiently for the elderly who live with their families. The series of family care's telenursing in the form of recognizing the COVID-19 problems, making

decisions for appropriate treatment, caring for the elderly through telenursing, modifying a healthy environment for the elderly, and utilizing telenursing can effectively help families and the elderly achieve maximum health status during the self-quarantine period in House. The results of this study are expected to be a reference for related institutions (such as public health center, nursing home, etc.) to develop family care's telenursing in providing family nursing care for families with COVID-19 problems.

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