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Home care for patients with COVID-19 by family caregivers during covid-19 pandemic

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Abstract

Background: Covid-19 transmission is very easy and simultaneously, resulting in a higher incidence of morbidity and mortality. The special incidence rate in Ende Tengah District, Onekore Health Center area, in February 2021 there were 11 close contacts, 42 people were the highest SWAB-PCR positive in Ende Regency, 2 people were isolated at the Ende Regional General Hospital, while 40 people were self-isolating at home, 2 people died. Special attention from families is needed by treating patients in self-isolation according to health protocols, to prevent transmission of COVID-19.

Purpose: To determine Covid-19 transmission to family caregivers during home care of members with COVID-19.

Method: The design uses a mix method with a cross sectional approach. The sample size is 40 self-isolated patients using total sampling. Data were collected using Chi-Square Bivariate Analysis and Multivariate Logistic Regression Test.

Results: There is no effect of work on the prevention of Covid-19 transmission with the results of the bivariate statistical test p-value 0.232. There is an effect of self-isolation patient care at home in the variable not leaving the room, bivariate statistical test p-value = 0.001 (p > 0.05). The results of the logistic regression statistical test p-value (2.211 - 47.842). However, there was no influence from the four variables, namely recognizing the signs and symptoms of severe Covid-19 (p-value = 0.894), using the correct health protocol (p-value = 0.163), giving good nutrition (p-value = 0.087) and the needs of patients are served by healthy people (p-value = 0.308). The results of the logistic regression statistical test on the effect of recognizing severe symptoms of Covid-19, the p-value (0.198-6.385). The effect of using health protocols p-value (0.573-20.103) The effect of providing good nutrition p-value 1.476 (2.862). The effect of serving the needs of patients by healthy people is the p-value (0.407 – 15.751).

Conclusion: The main treatment for self-isolated patients is that patients are not allowed to leave the room to prevent the transmission of Covid-19, by including counseling of family members by nurses at the community health center.

Keywords: Home care; Patients; Family; Caregivers; Covid-19 pandemic

INTRODUCTION

Covid-19 data in Indonesia until July 2, 2020 confirmed 59393 were treated, 29740 recovered, 26667, and 2987 people died. East Nusa Tenggara Province dated July 5, 2020, confirmed positive 121 people, treated 29 people, recovered 91 people and died 1 person without symptoms (PWS) 587 people, finished 1176 While people are
under monitoring (PUM) 33 people, patients under surveillance (PUS) 14 people (Regional Disaster Management Agency NTT, 2020) Ende Regency data on covid-19 dated July 5, 2020, positive for covid-19 there were 12 people, 12 people recovered and died zero (0). Meanwhile, 4089 people have traveled to Ende district, 3276 have been monitored, and 822 people are still being monitored. People without symptoms (PWS), 249 people and have been monitored. The data on Covid-19 in Ende district in detail is in the Nangapanda sub-district, namely in the village of Raporendu positive for covid-19 there are 10 people, South Ende sub-district 1 person and East Ende sub-district 1 person. Now Ende Regency is in a green zone condition (Regional Disaster Management Agency Ende, 2021).

This incident rate continued to climb until February 2021, especially in Ende Regency, where Covid-19 confirmed that the Rapid test was 5162 people with reactive results of 307 people, non-reactive 4855 people. Swab Antigen 8585 people, positive 485 people, negative 8100 people. Swab Polymerase Chain Reaction (PCR) / the molecular rapid test 1219 people, positive 581 people, negative 638 people. Quarantine data is 693 people, who are currently quarantined and have finished quarantine 567 people. Self-isolation at the family home of 123 people, at the Ende Hospital 3 people. The total positive for COVID-19 is 581 people, 126 people are still positive, 435 people have been monitored, 15 people have recovered, 5 people have died, 2 people are from Central Ende sub-district.

The special incidence rate in Ende Tengah Subdistrict, where this research took place, there were 11 close contacts, 42 highest positive people in Ende Regency, 2 people isolated at Ende Hospital, while 40 people isolated independently at home (Regional Disaster Management Agency Ende, 2021).

Since the governor's circular was issued on June 15, 2020, a normal life order has been implemented, where all people are allowed to carry out the normal wheel of life, but must follow health protocols to prevent the re-transmission of covid-19. But phenomenally it can be seen that many people have not used health protocols such as wearing masks. This is a scourge of transmission, because there are still people or families who travel to various areas and even outside the island of Flores. Moreover, many cases of COVID-19 with no symptoms must be self-isolated at home. This requires special treatment according to the health protocol of the family for those who are self-isolating at home, in order to prevent the transmission of COVID-19. If not, then the family is the main location for the transmission of COVID-19 (Qian, Yang, Ma, Wang, Li, Chen, & Chen, 2020).

As a result of the COVID-19 pandemic, social relations with other people are limited, including work, both private and in the government sphere (Black, Spreen, & Vally, 2020; Pramanik, 2021; Echegaray, 2021). There is a gap between making a living to live, or staying (isolation) but needing food to live (Nuzuli, 2020; Muhyiddin, 2020; Brooke, & Clark, 2020). However, families must support each other in dealing with family problems such as Covid-19. Affection among the family will produce an emotional atmosphere that positively affects the health of family members themselves, including in preventing the transmission of respiratory diseases caused by COVID-19 which is a very difficult health problem to solve both in terms of mortality (mortality) and disease incidence (morbidity), increase in Covid-19 can be used as a barometer of the extent to which the current government program is accelerating and is one illustration of the condition of human resources in a family who are exposed to Covid-19, although on the other hand the Ende Regency government through the Regional Disaster Management Agency service, and the Health Office continues to try to prevent the transmission of covid-19, but in reality this deadly virus continues to grow.

For this reason, it is necessary to have the will and motivation from the family to care for self-isolated patients at home because the family is the smallest unit of society. The existence of the family is a non-clinical supporter of the success of the clinical program launched by the government, namely by optimizing the family related to their

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duties in the health sector so that families can recognize and prevent as early as possible the risk factors that cause transmission of Covid-19 (Friedman, Bowden, & Jonen, 2010). Based on the data and phenomena above, the authors are interested in conducting research on: "The Effect of Work and Self-Isolation Patient Care on Prevention of Covid-19 Health Center Work Area, Ende Regency, East Nusa Tenggara Province in 2021".

RESEARCH METHOD
Design using Mix method with cross sectional approach. The sample size is 40 self-isolated patients at home, using total sampling. The research location is in the work area of the Onekore Health Center, Ende Tengah District, Ende Regency, NTT. Data were collected by 2 enumerators, namely the Onekore Health Center nurse, the Covid-19 task force officer who supervised self-isolation patients using a questionnaire compiled by the researcher. The validity test obtained the value of r table = 0.514 and r count in each statement the results were >0.514 so that the questionnaire used was declared valid. While the reliability test, the results obtained Cronbach’s Alpha > 0.60 which is 0.828 so that the questionnaire used is declared reliable. Ethics test number: LB.02.03/1/0087/2020. Bivariate Chi Square to determine whether the effect is significant or not, at the 95% confidence level and the limit of significance is P≤0.05. (Hidayat, 2017). Multivariate analysis using logistic regression test to test the strength of the influence of work and self-isolation patient care at home on the prevention of Covid-19 transmission (Ghozali, 2016).

RESULTS

Table 1. Distribution of Demographic Characteristics (N=40)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Covid-19 infected (n=19)</th>
<th>Covid-19 uninfected (n=21)</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Mean ± SD)(Range)(Years)</td>
<td>(33.95 ± 9.738)(18-45)</td>
<td>(37.62 ± 9.319)(19-47)</td>
<td></td>
</tr>
<tr>
<td>Occupation (n/%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>6/31.6</td>
<td>4/19</td>
<td></td>
</tr>
<tr>
<td>Contract workers/ Government employees</td>
<td>6/31.6</td>
<td>1/4.8</td>
<td></td>
</tr>
<tr>
<td>Private employees</td>
<td>6/31.6</td>
<td>9/42.8</td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>1/5.2</td>
<td>1/4.8</td>
<td>0.232</td>
</tr>
<tr>
<td>Nuns</td>
<td>0/0</td>
<td>2/9.4</td>
<td></td>
</tr>
<tr>
<td>Farmer</td>
<td>0/0</td>
<td>1/4.8</td>
<td></td>
</tr>
<tr>
<td>Trader</td>
<td>0/0</td>
<td>1/4.8</td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>0/0</td>
<td>1/4.8</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>0/0</td>
<td>1/4.8</td>
<td></td>
</tr>
</tbody>
</table>

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Table 2. Home Care of Patients With Covid-19 and Virus Transmission to Family Caregivers (N=40)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Covid-19 infected (n=19)</th>
<th>Covid-19 uninfected (n=21)</th>
<th>Chi Square</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognizing Severe Symptoms (n/%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>15/78.9</td>
<td>5/23.8</td>
<td>0.894</td>
<td>0.198 - 6.385</td>
</tr>
<tr>
<td>Poor</td>
<td>4/21.1</td>
<td>16/76.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caregivers Adhere to Health Protocols (n/%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td>3/15.8</td>
<td>17/80.9</td>
<td>0.163</td>
<td>0.573 - 20.103</td>
</tr>
<tr>
<td>Sometimes</td>
<td>16/84.2</td>
<td>4/19.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing Good Nutrition to Patients (n/%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td>18/94.7</td>
<td>2/9.5</td>
<td>0.087</td>
<td>1.476 - 2.862</td>
</tr>
<tr>
<td>Sometimes</td>
<td>1/5.3</td>
<td>19/90.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sufficiency of Needs to Help the Healing Process (n/%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td>16/84.2</td>
<td>3/14.3</td>
<td>0.308</td>
<td>0.407-15.751</td>
</tr>
<tr>
<td>Sometimes</td>
<td>3/15.8</td>
<td>18/85.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient in Isolation Room (n/%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td>7/36.8</td>
<td>13/62</td>
<td>0.001</td>
<td>2.211 - 47.842</td>
</tr>
<tr>
<td>Sometimes</td>
<td>12/63.2</td>
<td>8/38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Deep Interviews
Interviews with family members

Do not recognize severe symptoms of Covid-19. Their statement is as follows: "They say the symptoms are like coughing and colds, so it's hard for us to tell the difference (A5.)." "If on TV it says there is shortness of breath, but coughing and colds are also shortness of breath (A12.)." Use of health protocols in treating those who are positive for Covid-19 "Sometimes we wear masks, sometimes we don't, because we bring food and put it at the door (A8.)." "We always wear masks, wash our hands, but we don't have the clothes (A23.)." "We only wear masks, le (A30.)." Good nutrition "Usually, eat rice, sweet potatoes, bananas, with vegetables. Side dishes sometimes, fish or tempeh tofu (A34.)." "He...is sick?, yes, he eats well...he, 4 is healthy, from the public health center gives vitamins (A36.)." Healthy members who serve the needs of those who are positive for Covid-19 "Yes mother, I serve food and drink, clothes she washes her own (A38.)." "If the neighbors are not there, let's bring us fortune, this Covid...all families are in trouble, mother (A7.)." Patients who should only be in the room.

Their statement is as follows: "We forbade him not to leave his room, but he was stubborn, he said he was bored (A11)." "Oops...mother, when we were resting, suddenly he wasn't in ..(A.17)" "Mom, what if you don't go to work? What do we eat?"

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Interviews about their experiences in handling patients who were confirmed positive for Covid-19 during self-isolation at home. The following is their statement: "We visit them every 2 days, we only use masks, because if we wear PPE clothes, the family runs and hides (P. 2)" Some have their own room, some don't, so if there are many people at home up to 6-7 people, who tested positive we transferred to a general isolation area at the Marilonga stadium (P. 1) "Yes, they are, the swab is positive that's why they are isolated, but because they have no symptoms they leave their mother's house, go to the market, shop, etc. We are not 24 hours together with them to keep an eye on them (P. 1) "If the food fits the economy, some are good, some are complete nutrition every now and then (P. 2) "When someone is positive, we trace one family, 5 days later a second rapid check, some are infected, some do not depend on the use protocols and body resistance. (P. 2)

DISCUSSION
Virus Transmission to Family Caregivers
The results of the bivariate statistical test obtained a p-value of 0.232 which means that there is no effect of work on preventing Covid-19 transmission. Statistically, work does not affect the transmission of COVID-19, but in terms of situations and conditions, it can affect a person's behavior not to stay at home, especially if the signs and symptoms of a disease are not felt (Rusman, Umar, & Majid, 2021).

Work is life, in Wiltshire (2018) defining work in a socio-cultural context, in principle, work is a strong obligation (moral obligation) on each individual in order to contribute to the welfare of the family, then a person will ignore his health to work, and when working can result in people not keeping their distance, forgetting to wash their hands, let alone not wearing a mask, so that it will have an impact on transmission to other people around them (Sihombing, & Lukiyo, 2021). This is also influenced by the patient's knowledge about covid-19, which is according to the results of research on the relationship between knowledge and behavior to prevent transmission of Covid-19 where the Chi-Square test shows a p-value of 0.000 less than a p-alpha of 0.005 (Dwi Wulan, 2020). Supported by statements from family members in in-depth interviews with you, what if you don't go to work selling at the market? What do we eat? (A. 7). It is also supported by a statement from the public health center nurse that "Yes, they are positive, so they are isolated, but because they have no symptoms they leave their mother's house, go to the market, supermarket, and others. We are not 24 hours together with them to keep an eye on it (P. 1). The results of this study are not in accordance with research on community behavior that has a relationship with preventing the transmission of Covid-19 (Sukarmanto, 2020).

Home Care of Patients With Covid-19
Self-isolation at home is an activity carried out by Covid-19 patients in a provided place (private house or a place provided by the village government) and separated from healthy communities with a certain limit for 10 days since specimen collection for asymptomatic patients and plus 3 days free of symptoms of fever and respiratory problems for confirmed patients with mild and moderate symptoms (Public Health Office Kulonprogo, 2020). This situation requires family members who serve isolated patients to be well acquainted with the signs and symptoms of Covid-19, especially those that lead to severe signs and symptoms, providing good nutrition to support the immune system, and also the needs of the sick must be served by healthy people using protocols true health.

Knowing and knowing how to treat Covid-19 patients who are in isolation independently, becomes something that remains important to be known and implemented by all family members (Ministry of Health of the Republic of Indonesia, 2022). The results of this study are based on the four variables, namely recognizing the signs and symptoms of severe Covid-19 (p-value: 0.894), using protocol correct health p-value 0.163, providing good nutrition (p-value: 0.087), and

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patient needs. served by healthy people (p-value: 0.308) shows that there is no effect on preventing Covid-19 transmission. According to the author's understanding, although these four variables do not statistically show an influence on preventing the transmission of Covid-19, they all support each other both for the prevention of transmission, as well as for healing for Covid-19 patients as members of the house. If you don't provide good nutrition, your immune system will be weak, and the pain will get worse. Furthermore, if you do not recognize the symptoms and signs of COVID-19, the patient's condition will get more serious, which ends in the loss of a family member. Health protocols such as wearing masks, washing hands, maintaining distance also need to be carried out correctly and obediently to prevent the transmission of Covid-19 in the household, because the transmission of Covid-19 is through coughing, sneezing, and talking. Hospital Muhammadiyah showed that there was an effect of using complete PPE on the incidence of clinical symptoms of Covid-19 (Rizqullah, 2021).

The results of the logistic regression statistical test on the effect of recognizing severe symptoms of Covid-19 on the prevention of Covid-19 transmission with confidence (CI) obtained p-values of 0.198 (lower) and 6385 (upper). These results show the effect of recognizing severe symptoms of Covid-19 is at least 0.198 times and the greatest risk is 6,385 times can prevent transmission of Covid-19. The effect of using health protocols on preventing Covid-19 transmission with confidence (CI) obtained p-values of 0.573 (lower) and 20.103 (upper), these results show the effect of using health protocols is at least 0.573 times and the greatest risk 20,103 times can prevent the transmission of Covid-19. The effect of good nutrition on preventing Covid-19 transmission with confidence (CI) obtained p-values of 0.407 (lower) and 15,751 (upper), stating the effect of providing good nutrition is at least 0.407 times the largest 15,751 times can prevent the transmission of Covid-19.

Patients who are confirmed positive for Covid-19 must not leave the room so that the patient rests and prevents transmission to people inside and outside the home. The results of this study obtained a bivariate statistical test of patients not leaving the room p-value = 0.001 (p > 0.05) stating that there was an effect of patients not leaving the room on preventing Covid-19 transmission. The results of the logistic regression statistical test on the effect of patients not leaving the room on the prevention of Covid-19 transmission with confidence (CI) obtained p-values of 2.211 (lower) and 47,842 (upper), showing the effect of patients not leaving the room at least 2.211 times and a maximum of 47,842 times can prevent the transmission of Covid-19.

CONCLUSION

There is no effect of work on the prevention of Covid-19 transmission with the results of the bivariate statistical test obtained by a p-value of 0.232.

There is an effect of self-isolation patient care at home in the variable do not leave the room with the results of the bivariate statistical test p-value = 0.001 (p > 0.05). The results of the logistic regression statistical test on the effect of patients not leaving the room on the prevention of Covid-19 transmission.

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