**Original Article**

# KNOWLEDGE, PARTICIPATION AND COLLABORATION IMPROVE FAMILY BEHAVIOR IN NURSING THE ELDERS DURING PANDEMIC OF COVID-19

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## ABSTRACT

In the current pandemic era, the elders is themost vulnerable group of morbidity and mortality due to COVID-19 disease. The elders need special attention from family to provide an adequate daily care. This research aimed to analyze the knowledge, participation and collaboration of family in nursing the elders during pandemic of COVID-19 in Wuluhan Sub-district, Jember Regency. The research design was an analytical survey with a cross sectional approach and a univariate analysis to identify each variable and analysis to test its effect using ordinal regression test. The sampling technique was Cluster Random Sampling with a total sample of 100 respondents. The research result on the identification of the respondents' age showed that most of the adults were 34-45 years old. Knowledge, self-esteem, mutual respect, and participation were included in the sufficient category. Meanwhile, information sharing and collaboration were included in good category. The facility was included in supporting category. Based on the results of the analysis of applying the ordinal regression, there was an effect between the factor of knowledge, participation and collaboration on the family behavior in nursing the elders during pandemic of COVID-19. On the other hand, the other factors such as, age, facility/infrastructure, self-esteem, mutual respect, and information sharing had no effect in this case. The dominant variable influencing family behavior in nursing the elders was the knowledge factor with P value = 0.000 and the value of Exp (B) was 31,595. It was expected that health services in providing health cares do not only focus on the elders but also involved in or empowered the family in every activity.

**KEYWORDS:** Family behavior, Caring for the Elders, COVID-19 Pandemic.

## INTRODUCTION

In the current pandemic era, the elders group is the group most at risk for morbidity and mortality due to COVID-19 disease.[1] Data on mortality due to COVID-19 in several other countries shows higher numbers of cases affected older people, for example in China. The number of deaths in the population aged 60-69 years is 3.6%, at the age of 70-79 years is 8% and deaths in the population aged over 80 years is as many as 14.8%. This is because the elderly (geriatric) generally have various comorbidities, such as cardiovascular disease, diabetes mellitus, chronic respiratory disease, hypertension and others. The case is also in accordance with Indonesia, where the mortality rate increases on the older people; in population aged 45-54 years is 8% of death, 55-64 years is 14% of death and over 65 years is about 22% of death.[2] For this reason, it is very important to prevent transmission through promoting and preventing efforts to the elders, not only in family, but also in community or health facilities level.

According to the Indonesian Ministry of Health (2016)[3] the three provinces with the largest percentage of eldersare Yogyakarta (13.81%), Central Java (12.59%) and East Java (12.25%). Based on data from the Central Statistics Agency (2020)[4] Jember is the ninth largest population of elders in East Java with the percentage of 8.79%. Based on data from the Jember District Health Office in 2020, 53.69% of the elders in Jember have comorbidities, the most cases are hypertension. Data obtained from the 2019 Central Statistics Agency in Jember shows that Wuluhan has the largest population > 60 years, which is 13,385 people.

Family behavior in nursing the elders is in accordance with Lawrence Green's theory cited by Notoatmodjo (2002) in Irwan (2017)[5] which says behavior is influenced by three factors. The first predisposition factors are knowledge, attitude, belief, andvalue, regarding to a person's motivation to act. The second is enabling factors of behavior, which are facilities or infrastructure that support or facilitate the behavior of a person or society. Finally, reinforcing factors are included family, health workers and others. The demerit of this theory is that it does not describe the optimal health care as served by the family. To complete Lawrence Green's theory, it is appropriate to apply a _family centered care_ approach to analyze the family behavior in nursing the elders during pandemic of COVID-19. It is due to the fact that, the theory of _family centered care_ is usually used to describe the optimal health care as served by the family. The concept of this theory is self-esteem and mutual respect, information sharing, participation and collaboration.

Based on the previous research conducted by Sriwahyu(2017)[6] it was explained that families who had the elders with diseases such as hypertension, senile dementia were considered common. As the result, the family members had done improper health care for the elders. The elders who did not get the optimal health care from the family easily got urinary tract disorders, communication disorders, depression, malnutrition, sleep disorders, decreased immune system, bone, joint and muscle disorders, nervous disorders, heart and blood vessel disease which can cause paralysis and even death.

During the COVID-19 pandemic, if the health of the elders is neglected, where the family does not provide a health care for the elders in doing daily activities, it will cause various disease problems which can degrade the elders' life quality. The health cares that the family can provide during pandemic arehelping eating, bathing, self-caring, and dressing, defecating, urinating and mobilizing. While the role and support that can be given by the family are making the elders understand about the COVID-19, maintaining a clean living environment, providing nutritious food, accompanying the elders to do the activities at home and maintaining mental and psychosocial health. It is also required that the family has to able to monitor the elders' health independently at home.[7]

## OBJECTIVES

**The purpose of this study was to analyze the knowledge, participation and collaboration of families in caring for the elders during the COVID-19 pandemic in Wuluhan, Jember.**

## METHOD

The research was analytic survey with cross sectional approach. It was conducted in Wuluhan Sub-district, Jember Regency from March, 1st, 2021 until April 30th, 2021. The population of this research was family who lived with elders aged >60 years old, having light-total dependent ADL. The total samples which were selected using Cluster Random Sampling were 100 respondents. The independent variables of this research were knowledge, participation, and collaboration; meanwhile the dependent variables were family's behavior in nursing the elders. Data collecting method was a questionnaire which was filled by the respondents. Data analysis consisted of univariate and _statistical difference test_ using ordinal regression statistic test.

## RESULTS

**1. Descriptive Analysis**

**Table 1: Respondents Frequency Distribution in Nursing Elders during Pandemic COVID-19 in Wuluhan Sub-district, Jember Regency.**

| Frequency Distribution | Total (n) | Percentage (%) |
|---|---|---|
| **Respondent's Age** | | |
| 22-33 | 30 | 30 |
| 34-45 | 40 | 40 |
| 46-57 | 30 | 30 |
| **Degree of Knowledge** | | |
| Poor | 16 | 16 |
| Fair | 74 | 74 |
| Good | 10 | 10 |
| **Participation** | | |
| Poor | 7 | 7 |
| Fair | 68 | 68 |
| Good | 25 | 25 |
| **Collaboration** | | |
| Poor | 5 | 5 |
| Fair | 27 | 27 |
| Good | 68 | 68 |

| Family's Behavior in Nursing The Elders | | |
|---|---|---|
| Poor | 14 | 14 |
| Fair | 3 | 3 |
| Good | 83 | 83 |
| Total | 100 | 100 |

Based on the respondents' age distribution, the result shows that most of them are categorized as adult group which are around 34-45 years old, as many as 40 respondents (40%), 74 respondents (74%) have fair degree of knowledge, 68 respondents (68%) convinced to have a good participation in nursing the elders.

**2. Analysis of Factors Influencing Family Behavior Caring for the Elders During the COVID-19 Pandemic in Wuluhan District, Jember Regency**

**Table 2: Ordinal Regression Test Results Factors Affecting Family's Behavior in Nursing the Elders During the COVID-19 Pandemic in Wuluhan Sub-district, Jember Regency.**

| Variable | *P value* | Exp (B) |
|---|---|---|
| Knowledge | 0,000 | 31,595 |
| Participation | 0,015 | 13,707 |
| Collaboration | 0,043 | 8,837 |

\* Significant if p value< α (0,05)

The result yielded from SPSS ordinal regression statistical analysis in the table above with α = 0.05, obtained the interpretation that there was an effect between knowledge factor (P value = 0.000), participation (P value = 0.015) and collaboration (P value = 0.043) on family's behavior in nursing the elders during the COVID-19 pandemic. Based on the Exp.B value, the result showing from the most influential factor and respectively followed with the less ones are: knowledge with an Exp (B) value of 31.595, participation with an Exp (B) value of 13.707, and collaboration with an Exp (B) value of 8.837.

**DISCUSSION**

**1. The Family's Knowledge in Nursing The Elders During The COVID-19 Pandemic**
Knowledge in relation to the importance of the basic needs of theelders were such as nutrition, bathing, urinating and defecating, moving from bed to sitting, and doing legwork activities. Knowledge about the role of the family towards the elders were how to nurse and family supports. This research illustrated that the degree of the respondents' knowledge was fair. It implicates thatknowledge of Wuluhan Sub-district people of Jember Regency was categorized as good in nursing the elders at home during the COVID-19 Pandemic. This knowledgewas the information gained by respondents from health workers and professional revolutionaries of Posyandu *(Community-based Health Endeavor)* and social media.

The fair knowledge of the respondents had been proven with their answers collected from the questionnaire. This was the most answer stating that the elders did not need family supports to gain optimal life quality. The second most common was that the family did not need to pay attention to the elders' basic needs. The third common answer was that the elders did not need to be accompanied in doing daily activities.

This research found that the knowledge factor had an effect on the family's behavior in nursing the elders during the COVID-19 pandemic. The result of research conducted by Purnomo, Pulungan, and Milawati (2016)[8] said that Pearson Fisher's Exact Test showed that there was an effect of family knowledge (p = 0.005) with the ability of families in nursing clients with mental disorders at home, with p value< 0.05. This research was not in line with the one conducted by Wardani*et al*. (2019)[9] which found that knowledge had significant value of 0.070 > 0.05, then Ha was rejected, so that there was no effect of knowledge on the implementation of clean and healthy living behavior in household setting. Notoatmodjo (2012)[10] suggested that knowledge or cognitive was underlying domain causing someone's actions (over behavior). Nursing behavior based on knowledge wouldbe better than that was not.

Family behaviorin nursing the elders during the COVID-19 pandemic had to be supported by good knowledge, since the period in nursing the elders during pandemic was very much different to that in normal times. It was stated in the guidelines of nursing elders which had been provided during the COVID-19 pandemic era.

The result of this research found that knowledge had the most effect on family behavior in nursing the elders during the COVID-19 pandemic. This was in accordance with Lawrence Green's behavioral theory mentioning that a person's knowledge is a basic factor of the person's behavior.

According to Notoatmodjo (2012)[10] knowledge is the result of 'knowing' that occurs after people sense a certain object. Knowledge or cognitive is one of important domains of someone's behavior. According to Green LW, behavior change as a concept occurs concertedly and permanently through a gradual dimension framework, from knowledge change as an immediate impact, effort to change behaviors as an intermediate impact and then effort to change actions as a long-term impact.

Family contributes a very essential role and becomes a main support system forelders in health maintenance.

The family who has poor knowledge will cause negative impacts on the elders' daily activities.[11] According to Kartinah (2017)[12] knowledge will affect on someone's attitude and behavior. Family's behavior is the most influential factor of elders' health condition, which also affects on the health care, one of which is the fulfillment of Daily Living Activities (ADL). This shows that family's knowledge Activities Daily Living (ADL) of nursing the elders is impactful; if family knowledge is good, their behavior of the elders' health care will also good. Their knowledge which is apart from education also comes from experience. Family experience in nursing the elders, especially their ADL will affect the family's level of knowledge about ADL.[13]

## 2. Elders Participation in Daily Care During Pandemic of COVID-19

Participation in this case means that the elders involved in medical care and decision making, for example they were given a chance to choose medical care and basic needs and then performed together. According to Makmun, Utami, and Suhartini (2019)[14] family needs an attachment with the patient in order to be able to assist him in doing daily activities and fulfill daily needs; since participation can mingle the family with the patient. The research result showed that the elders' participation in medical care was categorized as fair. Based on questionnaire, there were a lot of respondents stated that the elders had never been given a chance to choose their own treatment which properly could fulfill their ADL.

According to the author's assumption, this could possibly happen as the family's characteristics who did not offer a chance for the elders to participate in their own medical care due to their degrading physical ability which caused them not able to participate. The second assumption was in line with the statement of Ringdal et al. (2017)[15] it was caused by the patient who somehow felt that he could not participate due to his disease. It could lead the patient feel unmotivated and tend to be passive. Patients with less severe disease would likely to be more active in participating rather than those who had severe disease. For instance, the patient who suffered from HIV with no symptoms would likely to actively participate rather than those who suffered from HIV and showed physically degrading symptomps. The third assumption was that it was caused by the family's characteristics as employers/employees. the busywork of the family due to working business also affected on the chances in nursing the elders.

The analysis result showed that there was an effect on the family's participant and behavior in nursing the elders during pandemic of COVID-19. Thomas (2011) in Monika, Setiawan, and Nurviyandari (2018)[16] stated the elders who joined in participation and spent much time in social activities had likely a greater resource access, a more meaningful life purpose, and motivation to practice health promotion behavior. It means that family provides more opportunities for elders to participate more,

particularly those who are given the opportunity to tell their medical care story.

Family has to give the elders story telling moment about their medical care which is suitable for them. The family also has the elders choose which medical care they feel comfortable with. The more opportunities given to the elders, the more they gain self-pride so that they will be courageous to participate. It is also stated by Ballou and Gerrogiani, (2018); AACN, (2016); Hardin, (2012) in Makmun, Utami, dan Suhartini (2019)[14] that family and patients should be involved in their own medical care, with communication is still interconnected between the family and the patients, so that the family is able to give special support for the patients.

## 3. Family Collaboration in Nursing The Elders During Pandemic of COVID-19

Family collaboration in nursing the elders is teamwork between the family, the elders, and the health workers. During pandemic of COVID-19, collaboration with the health workers is actively communication and discussion relating to medical care experienced by the elders at home. The result research proved that the family and the patient's teamwork during pandemic of COVID-19 was categorized as good. Based on questionnaire result, the family had actively communicated with family members and discussed about the elders' medical care. Moreover, the family also had actively communicated with health workers and professional revolutionaries of posyandurelating to the proper medical care of the elders. Accordingly, it had been showed that the collaboration between the family and the health workers in nursing the elders at home was good.

According to the researcher's assumption, this might be due to the active role of health workers, like professional revolutionaries of Posyandu for the elders. During the COVID-19 pandemic, they visited the elders' homes to give medical check-ups and provide counseling about clean and healthy lifestyles. As stated by Rachma (2020)[17] her research found that most respondents had been visited by workers of public health service like Puskesmas (65.5%). Home visits conducted by health workers as the implementation of Healthy Indonesia Program with a Family Approach (PIS-PK). This program was implemented by public health care program *(perkesmas)* by the Puskesmas. The target of this program was total coverage, so health workers have to visit every single home or family to collect data, intervene, evaluate and follow up the interventions. There was a harmony between the health workers and the family in providing medical care to the elders to improve their life quality.

The result of the analysis showed that there was an effect of collaboration on the family's behavior in nursing the elders during pandemic of COVID-19.It was according to the result, showing that the better family collaboration, the better their behavior in nursing the elders during

pandemic of COVID-19, and otherwise. To have a good collaboration means actively communicating with the health workers and the professional revolutionaries, discussing about diagnoses, cooperating under a health care, and consulting to each other. Family who had bad collaboration would mostly answered "rarely" even "never" did over the statement of "actively communicating with health workers and the professional revolutionaries about appropriate medical care for the elders. The researcher assumed that the family who had a bad collaboration due to busywork causing them to have no time to communicate with health workers. The researcher also assumed that it was the reason affecting statistical test result relating to collaboration on the family's behavior in nursing the elders during pandemic of COVID-19.

## CONCLUSIONS

Based on the research result, the researcher concluded that there was an effect of knowledge, participation and collaboration on the family behavior in nursing the elders during pandemic of COVID-19, and the dominant factor affecting family behavior in nursing the elders during pandemic of COVID-19 was knowledge. The researcher suggested that Health Agency should develop a more comprehensive program, to strengthen the promotion of appropriate medical care for the elders at home during pandemic of COVID-19. Health services should provide health care not only for the elders but also involving the family in every activity.

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