

## **Descriptive Study of Optimizing Family Health Functions in Preventing COVID 19 Transmission**

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### **Abstract**

COVID 19 has become a world health problem, and Indonesia has declared an emergency status for an outbreak. To prevent transmission of COVID 19, the government has set three policies that are increasing the availability and reliability of infrastructure, involving the industrial world and social education. However, COVID 19 transmission still occurs. Preparedness for COVID 19 transmission starts with the family as a minor system in the community. The Healthy Indonesian Program with a Family Approach is considered an excellent effort to carry out health functions to prevent COVID 19 transmission. This study aimed to optimize family functions in preventing COVID 19 transmission. This study used a descriptive-analytic design. Two hundred and fifty-eight samples were recruited using a consecutive sampling technique. To measure family function using a questionnaire. Data were analyzed by descriptive statistics (i.e., frequency statistics). The frequency statistics showed that most of the respondents have optimally performed family functions in the health sector. Most of the respondents understand COVID 19 (88,4%), they are capable of making decisions (96,9%), they can care for the family (88,8%), they can modify the environment (75,2%), and they can take advantage of health services (81%). This study only captures the extent to which the family optimally performs health functions; it does not provide any form of intervention. The results of this study prove that the family has an important role to play in breaking the transmission of COVID 19.

**Keywords:** COVID 19, Family Health Functions.

## **Introduction**

Positive cases of COVID 19 are currently still worrying; this pandemic has attacked nearly two hundred countries in the world with a high mortality rate. In Indonesia, every day, COVID 19 sufferers are increasing significantly. This disease is like an iceberg phenomenon; the cases found are smaller than the actual cases (WHO 2020).

The chain of transmission of COVID 19 is high-speed because it takes less than a week. The transmission is difficult to stop because sufferers of COVID 19 sometimes do not realize that they are carriers. Sufferers do not show signs and symptoms of illness but can transmit the infection to other people (Chen et al. 2020).

COVID-19 is a national emergency that can threaten the health of all Indonesian people. But the Indonesian government handled it slowly. Finally, after the number of Covid-19 sufferers increased, the Indonesian government declared a COVID 19 emergency (Nugraheni 2020).

The Indonesian government is trying to overcome the transmission of COVID 19 by establishing a synergy of three policies (Hermawan, 2020). firstly, to increase the availability and reliability of infrastructure, including the availability of referral hospitals, the readiness of medical personnel, and the completeness of medical equipment. Second, the involvement of the industrial world is directed to participate in handling COVID 19 by mass-producing medical equipment, medical examinations, rapid tests, personal protective equipment, sanitizers, and so on. The third is social education, providing the correct information to the public without causing anxiety and panic; the goal is that the community can prevent the transmission of COVID 19 smartly and wisely by implementing social distancing and physical distancing. The three policy strategies have been implemented, but the transmission of COVID 19 has not stopped.

The COVID 19 pandemic has affected all systems, including families. The family is a minor system in the community but has an essential role in preventing the transmission of COVID-19. The family is currently an exciting issue to discuss; the increasing

number of sufferers and victims proves that COVID 19 is a dangerous disease. Facing the COVID 19 disease, families must be more protective by improving communication, maintaining togetherness, and mutual support between family members (Kaddi, Lestari, & Adrian, 2020; Permatasari, Inten, & Wiliani, Widiyanto, 2020). These values must be increased so that families can adapt to crises and pressures.

The government has established a lockdown policy to protect families from COVID-19 transmissions, such as closing schools, social distancing, physical distancing, and Work from Home (Yunus and Rezki 2020). This policy will succeed in suppressing the transmission of COVID 19 if all parties implement it well. Family is the main center in implementing the policy. Family compliance in implementing procedures has a significant role in preventing the transmission of COVID-19. Families play an essential role in protecting, socializing, and teaching family members to always wash their hands, wear masks when leaving the house, not crowd with many people, and minimize activities outside the home (Fasni 2020). Therefore, the family function, especially in the health sector, needs to be improved.

In general, the family function is defined as a consequence of the family structure. There are five family functions: affective, socialization, reproductive, economic, and health care functions (Friedman, Bowden, and Jones 2010). The health of family members will affect all family functions, and conversely, the ability of the family to carry out its functions will affect the health of family members. Family health is often measured by the power of the family to carry out its functions, especially the health care function.

During the pandemic period and the new normal transition, families must carry out health care functions by implementing a new lifestyle, by implementing behavior by health protocols (Murdaningsih 2020). The family introduces the desired behavior, teaches adaptation to their social environment, and adapts to environmental changes.

There are five family functions in the health sector; it is the family. It can recognize

problems related to health, illness, and disease, the family can make decisions about health problems, the family can care for family members who are sick and need care, the family able to modify the environment that supports the pain healing process, and the family can use health service facilities to help their family members get treatment and care (Friedman, Bowden, and Jones 2014).

Family health is influenced by biological, psychological, sociological, spiritual, cultural factors of family members and the entire family system (Hanson 2010). If there is an imbalance in the family, it will affect all family systems. Family members who are sick will affect family health functions and affect family behavior patterns. Family members take care of each other, provide a welfare effect (well-being) for other family members, care for disease prevention, health care during illness, and the rehabilitative process (Kaakinen, Hanon, and Denham 2010).

Preparedness in preventing the transmission of COVID 19 starts with the family as a minor system in the community. The healthy Indonesian program with a family approach is considered the right effort to carry out health functions to prevent COVID 19 transmission. Family is the focus in preventing the transmission of COVID 19 because it has a health care function (Friedman, Bowden, and Jones 2014). This function includes the family's ability to recognize health problems experienced by each family member, the family's ability to make decisions to take appropriate actions for health, the family's ability to provide health care for sick family members, the family's ability to maintain home conditions and modify the environment to support health, as well as the family's ability to use health services. This study aimed to determine the optimization of family functions in preventing the transmission of COVID 19.

## **Research Method**

This study used a descriptive-analytic research design. Two hundred and fifty-eight samples were recruited using a consecutive sampling technique. To measure family

function using a questionnaire consisting of 15 favorite question items and the score of each question item has three options for the Likert scale answer. Answers are never given a score of zero, sometimes score one, and consistently score three. Family functions recognize health problems in numbers 1 to 5, the part of the family to make decisions is in numbers 6 to 10, the part of caring for families is in numbers 13 and 14, the function of the family to modify the environment is in numbers 11 and 12. The part of the family to make use of health services found in number 15. the instrument of family function in preventing the Covid 19 outcome has been tested for validity and reliability with a Cronbach's alpha coefficient value of 0.854 out of 15 question items. Data were analyzed by descriptive Statistics, especially frequency statistics. This research has conducted an ethical test at the Faculty of Nursing Unissula Semarang with the number 352 / A.1 / FIK-SA / II / 2020.

## **Research Results**

This research was conducted in the city of Semarang, with a sample size of two hundred and fifty-eight. The research results are presented in the form of descriptive analysis.

**Table 1. Characteristics of respondents**

No	Variable	Percentage	
		f	(%)
1.	Family Type		
	a. Nuclear	212	82,2
	b. Extended	46	17,8
2.	Head of Family Education		
	a. Low (elementary school, junior high school, high school)	105	40,7
	b. Higher Education (graduated from the university)	153	59,3
3.	COVID 19 information		
	a. Health workers	190	73,6
	b. Electronic media or other	68	26,4

Table 1 shows the characteristics of the respondents in this study, most of them were nuclear families as many as 212 respondents (82.2%), most of the heads of families were highly educated as many as 153 respondents (59.3%), and most of them have got information about COVID 19 from health workers as many as 190 respondents (73.6%).

**Table 2. Family functions in the health sector**

No	Variable	Percentage	
		f	(%)
1.	Families can recognize health problems		
	a. Low (score 5-10)	30	11,6
	b. High (score 11-15)	228	88,4
2.	Families can recognize make decisions		
	a. Low (score 5-10)	8	3,1
	b. High (score 11-15)	250	96,9
3.	Families can look after the family member who is sick		
	a. Low (score 2-4)	29	11,2
	b. High (score 5-6)	229	88,8
4.	Families modify the envirointment		
	a. Low (score 2-4)	64	24,8
	b. High (score 5-6)	194	75,2
5.	Families can use health services		
	a. Low (score 1-2)	49	19
	b. High (score 3)	209	81

Table 2 shows the ability of families to carry out their functions in the health sector to prevent COVID 19 transmission. The power of families to recognize COVID 19 is mainly in the high category, with as many as 228 respondents (88.4%). The ability of families to make decisions about COVID 19 is mostly in the high category of 250 respondents (96.9%). Families are able to look after the family member who is sick, most of them were in the high category of 229 respondents (88.8%). The ability of the family to modify the environment was mostly in the high category of 194 respondents (75, 2%). And Families are able to use health services COVID 19 were mostly in the high category, as many as 209 respondents (81%).

**Table 3.** Description of Family Functions in Preventing COVID Transmission 19

No	Variable	Percentage	
		f	(%)
1.	The family is looking for accurate information about COVID 19		
	a. Yes	188	72,9
	b. No	70	27,1
2.	The family is looking for accurate information about COVID 19		
	a. Yes	210	81,4
	b. No	48	18,6
3.	The family is looking for accurate information about COVID 19		
	a. Yes	207	80,2
	b. No	51	19,8
4.	The family is looking for accurate information about COVID 19		
	a. Yes	214	82,9
	b. No	44	17,1
5.	The family is looking for accurate information about COVID 19		
	a. Yes	174	67,4
	b. No	84	32,6
6.	The family is looking for accurate information about COVID 19		
	a. Yes	232	89,9
	b. No	26	10,1
7.	The family is looking for accurate information about COVID 19		
	a. Yes	223	86,4
	b. No	35	13,6
8.	The family is looking for accurate information about COVID 19		
	a. Yes	224	86,8
	b. No	34	13,2
9.	The family is looking for accurate information about COVID 19		
	a. Yes	222	86
	b. No	36	14
10.	The family is looking for accurate information about COVID 19		
	a. Yes	180	69,8
	b. No	78	30,2
11.	The family is looking for accurate information about COVID 19		
	a. Yes	170	65,9

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	b. No	88	34,1
12.	The family is looking for accurate information about COVID 19		
	a. Yes	184	71,3
	b. No	74	28,7
13.	The family is looking for accurate information about COVID 19		
	a. Yes	176	68,2
	b. No	82	31,8
14.	The family is looking for accurate information about COVID 19		
	a. Yes	218	84,5
	b. No	40	15,5
15.	The family is looking for accurate information about COVID 19		
	a. Yes	209	81
	b. No	49	19

### Discussion

COVID 19 is a contagious disease that can attack anyone and has spread widely throughout the world, resulting in a pandemic. This disease can be transmitted through direct contact with sufferers through coughing, sneezing, or talking (Chan et al., 2020). Prevention of COVID 19 is carried out by reducing direct contact with other people, social distance, wearing masks, using a hand sanitizer, and washing hands with soap.

Efforts to prevent transmission and break the spread of COVID 19 require good cooperation between the government, medical personnel, and patients. The role of the family is also significant during the treatment process until the healing of the disease. Parents have a role and responsibility to maintain the family's health (Vanderhout et al. 2020). A family is a place where members feel safe and secure (Abubakar and Ulaya, 2020).

There are five functions of the family in the health sector, namely (Friedman, Bowden, and Jones 2014), the ability to recognize and make decisions about health problems, care for sick family members, modify the environment and utilize health services.

This study indicates that most respondents have a nuclear family type as many as 212 respondents (82.2%). According to Burgess & Locke, the family is a household that interacts and communicates according to

their respective roles (Kaakinen et al., 2010). The nuclear family consists of a father, a mother, and children. The nuclear family has the characteristics of the interaction and communication processes being small and having more significant concern for sick family members (Luthfa, 2016).

Table 1 shows that most household heads have higher education than 153 respondents (59.3%). Heads of families with higher education have the characteristics of being active in seeking the correct information regarding COVID-19, which is currently a pandemic. In finding the correct information, a critical thinking process is needed in receiving all information. The method of sorting this information requires good literacy skills to be able to distinguish between true and false information. at the same time, the heads of families with low education have the characteristics of receiving various information without further knowing the truth of the data. This proves that the level of education has an essential role in carrying out family functions in preventing the transmission of covid 19 (Purnamasari & Raharyani, 2020).

Table 1 shows that most respondents have received information about Covid 19, as many as 190 respondents (73.6%) received information from health workers, while as many as 68 respondents (24.6%) received information about COVID 19 from electronic or other media. . Providing data is one form



of health promotion that has been proven to increase public knowledge about Covid 19 and can prevent transmission through a clean and healthy lifestyle (Moudy & Syakurah, 2020).

The transmission of COVID 19 in the family environment is often measured by the ability of the family to carry out its functions, especially the health care function. The function of the family in health care to prevent the transmission of COVID 19 focuses on the ability of families to recognize and make decisions, care for family members who are sick to achieve the highest degree of health, modify a healthy environment and take advantage of health services. The family showed a significant difference in positive emotions, negative emotions, and family functions during the Covid-19 isolation (Ramadhana, 2020). Based on table 2, the results of this study indicate that most families have optimally carried out family functions in preventing the transmission of COVID 19; most families are in the high category.

Friedman et al. (2014) Optimizing family functions in preventing the transmission of COVID 19 includes the ability of families to recognize and make decisions. Along with the COVID 19 pandemic, a lot of information has yet to be proven. Families must be selective in choosing the correct information. The wrong understanding of families about COVID 19 can have a negative impact. Therefore, families actively seek the right information regarding COVID 19, which is currently becoming a pandemic. The correct information will influence the family in choosing and making decisions to achieve welfare in the family.

Table 3 shows that most respondents are actively seeking accurate information about COVID 19; the information they are looking for is related to signs and symptoms, modes of transmission, methods of prevention, and means of treatment. The Indonesian government has provided information and consultation services that can be accessed online for free by all people. With this service, it is hoped that families can use it according to their needs (Nurislaminingsih 2020).

The following family function is the family's ability to care for and modify the environment. The family is a primary health

care provider who cares for the health of family members; the family is the primary caregiver for family members who are sick and is the leading support provider for the healing process. The family also tries to take precautions so that other family members do not get COVID 19. Table 3 shows that most respondents made prevention efforts by providing handwashing soap or hand sanitizer at home, providing masks, doing sports activities, increasing body immunity by consuming food high nutrition, do physical distancing, and social distancing.

The following family function is the ability to use health service facilities. Families carry out early detection and health monitoring of all family members. Suppose there are family members who experience fever, cough, shortness of breath and other symptoms that lead to COVID 19. In that case, they are immediately taken to the nearest health service or referral hospital. If the test results are positive for COVID 19, then make isolation and mental strengthening efforts to help the healing process of the disease during the recovery period. Table 3 shows that as many as 218 families (84.5%) monitor the health of all family members. As many as 209 families (81%), they will be immediately taken to the health service facility if there are sick family members.

The function of the family in health care will place the family as the primary service provider who cares for the health of their family. The family is also the primary caregiver and a source of support for family members in a healthy and sick range. However, the family's ignorance of understanding its function in health care will affect its application in the family. Due to the pandemic, many families have experienced family dysfunction, which impacts mental health problems (Gadermann et al., 2021). This is following the opinion of Denham (2003), which states that the family health care function includes many aspects of family life; family members have different ideas about health and disease. Often these ideas do not appear until the family experiences health problems. Risk reduction, health care, rehabilitation, and care are areas where families often need information and assistance.

## Conclusion

This study found that most of the respondents had a nuclear family type. Most of the respondents had higher education, and most of the respondents obtained information about COVID 19 from health workers. Most families have optimally carried out their health functions to prevent the transmission of covid 19. This research is only limited to describing family functions in the health sector, not providing any intervention. Recommendations that can be made regarding the further study can be given family-based health education or family empowerment to be more optimal in carrying out their functions.

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