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# Family functions, social support and quality of life among elderly during pandemic COVID-19: A cross-sectional study

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**Abstract**---This study aims to determine the relationship between family function, social support, and the quality of life of the elderly in Kebumen District. Commonly elderly face weakness, limitation, and disability issues so that their quality of life decreases. Families have an important role to improve the quality of life of the elderly. This study used a cross-sectional design involving 468 elderly determined by a simple random sampling technique. Data analysis used univariate, bivariate, and multivariate analysis. The bivariate analysis used simple logistic regression analysis and if the value of the bivariate analysis was  $< 0.25$ , then it would be continued with the multivariate analysis. The multivariate analysis used multiple logistic regression with Adjusted OR and 95% CI with a significant level of 0.05. : there is a significant relationship between family function and social support and the quality of life of the elderly with a p-value of 0.001 with 95% CI (2.35-4.19) and a p-value of 0.001 with 95% CI (3.33 – 6.02) respectively. Family function and social support are factors reducing the morbidity and mortality rates which finally can improve the quality of life of the elderly.

**Keywords**---Family Function, Social Support, Quality of Life, Family Support, Elderly.

## Introduction

The composition of the elderly population increases rapidly in both developed and developing countries due to a decrease in fertility (birth) and mortality (death) rates and an increase in life expectancy which changes the overall structure of the population (Kemetrian Kesehatan Republik Indonesia, 2018). The number of the elderly population in Indonesia has increased significantly in almost five decades (Susenas, 2016). The proportion of people aged 60 years or over has increased (WHO, 2019a). In 2019, people aged 60 years and over were around 1 million people (WHO, 2019b). This figure is estimated to increase from 1.4 million in 2030 to 2.1 million in 2050 (Kemenkes, 2018). This increase will occur rapidly in developing countries in which half of the worlds elderly are in Asia (Woodhouse et al., 1988). Asia and Indonesia have entered the aging population era because the number of people aged 60 years and over has exceeded 7% (RI, 2018).

Indonesia is entering an aging population period in which an increase in life expectancy is followed by an increase in the number of elderly (Kemenkes RI et al., 2018). In Indonesia, the number of elderly people increased from 18 million people (7.56%) in 201 to 25.9 million people (9.7%) in 2019 (Kemenkes RI, 2020). Further, it is expected to continue to increase to 48.2 million people (15,77%) in 2035 (Kemenkes RI, 2018). A large number of elderly will have both positive and negative impacts (WHO dalam Kemenkes RI, 2014). If the elderly are healthy, active, and productive, then it can give a positive impact (Sutikno, 2011). On the other hand, it will be a burden if the elderly have health problems resulting in an increase in the cost of health services, a decrease in income, an increase in disability, the absence of social support, and an unfriendly environment for the elderly population (Nur & Mukhlis, 2020).

Families have a very important role in developing, preventing, adapting and improving the health problems of family members. Families play a role in maintaining and improving the health of each family member (Rahmadhani et al., 2021). Furthermore, families also play a role in overcoming the health problems of family members. Lack of family function can decrease the quality of life of the elderly and ultimately increase morbidity and mortality rates. A study by Wardani & Dewi, (2020) concerning Family Support and Quality of Life for Elderly Hypertension involving 59 elderly shows that the elderly have good family support (45.8%) moderate family support (39.0%), and poor family support (15.3%). Another study by Duhita,( 2020) concerning the Impact of Family Support on the Quality of Life for the Elderly involving 84 elderly reveals that there is a relationship between emotional support, appreciation, and family instrumentality with the quality of life of the elderly (Maryam et al., 2021). Meanwhile, informational support does not show a significant relationship with the quality of life of the elderly (Noor & Inayati, 2021). Moreover, a study by Rorong, Posangi and Rompas (2018) concerning the Relationship of Family Functions with the Quality of Life of the Elderly in the working areas of Puskesmas Ranomuut, Paal II Sub-district, Manado City involved 350 elderly shows that there is a relationship between family function and the quality of life of the elderly (Nur & Mukhlis, 2020).

The number of positive cases and death due to COVID-19 infection continues to increase (World Health Organization, 2020). This virus has caused severer infections and death in the elderly (elderly) than adults or children (Fischer et al., 2020). To present, the positive cases have reached more than 100,000 cases in the world and around 4,000 deaths. Most deaths occurred in patients aged 80 years old or above (Sayin Kasar & Karaman, 2021). WHO and CDC report that in the young elderly age (50-59 years), the mortality rate is almost 2%, while for aged 60-69 years, it reaches 4% and continues to increase to 8 - 15% at the age above 70 years (Lee & Hsu, 2021). Most deaths occurred among patients aged 80 years and over (21.9%) (Susilowati et al., 2020). COVID-19 has greatly changed the daily activities of the elderly, the care and support received, and their ability to stay in touch with the outside and social world (Faraji & Metz, 2021). The elderly are not advised to spend a long time outside the home by health workers (Duru, 2020). The limited physical contact with family members, friends and colleagues as well as their daily work is a concern for the elderly (Pedrosa et al., 2020). Anxiety, fear of illness and death always haunt them (Kurniasih & Nurjanah, 2020). Generally, the elderly face weaknesses, limitations, and disabilities issues so that their quality of life decreases (Salehi et al., 2020).

Therefore, family functions are important for the quality of life of the elderly so that they can live normally, socially, and economically (Sari et al., 2021). Therefore, family function reduces morbidity and mortality rates which will ultimately improve the quality of life of the elderly (Liu et al., 2017). The quality of life of the elderly is influenced by some factors that cause the elderly to remain useful in old age, namely the ability to adapt, accept all changes and setbacks experienced as well as appreciation and good treatment from family members. Another study reveals that 70% of the elderly experience a decrease in the quality of life, especially feelings of loneliness and lack of attention from family members (Toprak, 2019). However, the low quality of life of the elderly is often associated with family functions and social support from spouses, family members, and the community.

## **Materials and Methods**

This study uses a correlational research method with a cross-sectional design. This research was carried out from August 2021 to February 2022 in Kebumen district. The population of this research was all the elderly in Kebumen district. It involved 468 samples determined using the Slovin formula. The inclusion criteria in this study were elderly people aged 60 years and over, not being sick and willing to participate in this study. The instrument used in this study was a questionnaire covering the characteristics of the respondents (age, gender, last education, religion, employment, marital status, type of household). The family function was measured with a scoring category of <24 (not good) and <sup>3</sup>24 (good). The quality of life was measured using the World Health Organization Quality of Life (WHOQOL-Bref) consisting of 26 questions from 4 dimensions (physical, psychological, environmental, and social). The score was categorized into a poor quality of life (a score of <50) and a good quality of life (a score of <sup>3</sup> 50). Furthermore, respondents were interviewed to obtain data on social support. Data were processed by editing, coding, processing, and cleaning. Data analysis used univariate, bivariate, and multivariate analysis. The bivariate analysis used a

simple logistic regression. If the value in the bivariate analysis is  $< 0.25$ , it would be continued with the multivariate analysis using multiple logistic regression with Adjusted OR and 95% CI with a significant level of 0.05.

## Results and Discussions

### Result

Based on table 1, the majority of the age of the elderly is 60-70 years (65.8%). In terms of gender, most of them are female (50.4). The highest last education level is elementary schools (40.3%). The majority of the elderly are Muslim (90.4%) and unemployed (57.9%). Concerning marital status, most of the elderly are widowed (69.4%). Then, most of the elderly live in rural areas (81.6%) with extended family types (55.8%). Related the quality of life of the elderly, shows the poor family factors (63%), poor social support (60%), and poor quality of life (65%).

Table 1  
Characteristics of Respondents

Characteristics	N=468	(%)
Age		
60-70 years old	308	65.8
>70 years old	160	34.2
Gender		
Male	232	49.6
Female	236	50.4
Latest education		
Non-formal education	48	10.3
Elementary school	189	40.3
Junior high school	161	34.4
Senior high school	70	15
Religion		
Islam	423	90.4
Cristian	45	9.6
Employment		
Employed	197	42.1
Unemployed	271	57.9
Marital status		
Married	143	30.6
Widowed	325	69.4
Type of Household		
Nuclear Family	207	44.2
Extended Family	261	55.8
Residence		
Urban	86	18.4
Rural	382	81.6
Family function		
Poor	295	63
Good	173	37

Social support		
Poor	281	60
Good	187	40
Quality of life		
Poor	304	65
Good	164	35

Table 2 showed that employment factors are significantly related to the quality of life of the elderly with a p-value of 0.004 and 95% CI (1.55-3.89). It is followed by family function with a p-value of 0.000 and 95% CI (1.35 – 3.89) and social support with a p-value of 0.067 and 95% CI (2.89 – 5.82). These factors are automatically included in the next model for multivariate analysis as the significance value is <0.25.

Table 2  
Bivariate analysis of factors associated with Quality of Life among Elderly: a simple logistic regression

Characteristics	n	%	Crude OR	95% CI	p-value
Age					
60-70 years old	308	65.8	1		0.271
>70 years old	160	34.2	1.71	1.19-2.67	
Gender					
Male	232	49.6	1		0.440
Female	236	50.4	12.31	11.21-36.27	
Religion					
Islam	423	90.4	1		0.312
Cristian	45	9.6	4.05	2.74 – 5.56	
Employment					
Employed	197	42.1	1		0.004
Unemployed	271	57.9	1.63	1.55 – 3.89	
Marital status					
Married	143	30.6	1		0.456
Widowed	325	69.4	9.23	5.55 – 10.66	
Type of Household					
Nuclear Family	207	44.2	1		0.267
Extended Family	261	55.8	4.89	8.99 – 10.89	
Residence					
Urban	86	18.4	1		0.290
Rural	382	81.6	2.97	5.06 – 7.09	
Family function					
Poor	295	63	1		0.000
Good	173	37	1.67	1.35 – 3.89	

Social support						
Poor	281	60	1			0.067
Good	187	40	2.23	2.89 –		5.82

The last model is a multivariate analysis using multiple logistic regression. Table 3 shows that the employment factor has a p-value of 0.010 with 95%CI (1.22-3.99); family function has a p-value of 0.001 with 95%CI (2.35-4.19); and social support has a p-value of 0.001 with 95%CI (3.33 – 6.02). Therefore, it can be said that family function and social support are significantly related to the quality of life of the elderly with a p-value of <0.05.

Table 3  
Multivariate analysis of Quality of life among Elderly: a Multiple Logistic Regression

Characteristics	n	%	Crude OR	Adj OR	95% CI	p-value
Employment						
Employed	197	42.1	1			0.010
Unemployed	271	57.9	2.23	2.39	1.22 – 3.99	
Family function						
Poor	295	63	1			0.001
Good	173	37	2.98	3.88	2.35 – 4.19	
Social support						
Poor	281	60	1			0.001
Good	187	40	4.01	2.23	3.33 – 6.02	

### Discussions

This study shows that the quality of life of the elderly in Kebumen District, Indonesia is still low due to poor family function and poor social support. This is in line with other studies which reveal that 70% of the elderly have a poor quality of life (Sayin Kasar & Karaman, 2021) . A study focused on components of quality of life in China reveals that the elderly's interaction with the surrounding environment and ties in the family greatly affect the quality of life of the elderly (Zhang et al., 2020). Quality of life is an individual's perception of their position in life in terms of the cultural context and value system and is related to living standards, expectations, pleasures, and concerns (Andika et al., 2021). Quality of life is the key and important indicator to assess the success of health care interventions, both in terms of prevention and treatment (T. Wang et al., 2020). Quality of life does not only cover physical domain, but also performance in playing social roles, emotional state, intellectual and cognitive functioning, and health as well as life satisfaction (Ong-Artborirak & Seangpraw, 2019).

The results of this present study show that the elderly with poor family functions have a poor quality of life. The multivariate analysis shows a significant

relationship between family function and the quality of life of the elderly with a p-value of 0.001 and 95% CI: 2.35 – 4.19. Based on the logistic regression test, the family function has a significant relationship with the quality of life of the elderly in Kebumen district, Indonesia. Family functions relate to the dual role of the family, namely as a matrix for its members and meeting the demands and expectations of society (Hamid & Utami, 2019). The functions of the family are affective, social, economic, and to recognized health problems (Kurniasih & Nurjanah, 2020). Respondents with poor family functions have good relationships with the surrounding community (Souza Júnior et al., 2021). This result is supported by the theory that if the elderly had good self-adjustment such as interacting with neighbors, the surrounding community, and participating in activities around them, they will had good social support (Sulastri & Kohir, 2021). Otherwise, if their adjustment is not good, they will not have good social support. y is not good, what is obtained is also not good. The role of the family was to maintained and improve the health of the family member by ensuring access to health services because the family has its own meaning and position in health problems (Sari et al., 2021). The family function is a task or duty that must be carried out within or by the family and its members who agree to self-regulate each other enabling them to carry out the task effectively and efficiently (Prima et al., 2019). A family is a group of people who live together and have blood or marriage ties and it becomes the smallest unit in society (Sutikno, 2011). Meanwhile, a healthy family is physical, mental, and social well-being conditions allowing the creation of a family as a whole to live a normal life, socially and economically. There will be a multifunctional relationship in a family in which there will be many interactions. These interactions are the relationship between husband and wife, parents and children, and brothers and sisters.

The results of the multivariate analysis show that social support has a close relationship with quality of life with a p-value of 0.001 and 95% CI of 3.33 – 6.02. This is consistent with previous research that people with good social support enjoy increased well-being and health (Faraji & Metz, 2021). However, the high benefits of social support provided either by family or people around the elderly, depend on the elderly's perception of the support (Pedrosa et al., 2020). In other words, the high level of individual well-being depends on the individual's belief that they get great support, regardless of the form and the number of supporters (Onunkwor et al., 2016). Strong emotional support from the family directly improves the quality of life of individuals. Moghadam et al., (2020) Reveal that emotional support from family members is significantly and strongly associated with quality of life. In this case, emotional support is the presence of a family who asks and cares about the complaints of the elderly (Kazemi et al., 2019). Showing attention, trust, and affection for the elderly enables the elderly to gain emotional closeness, motivation, and self-confidence to improve their quality of life (Prasetyaningsih et al., 2016). The provided support reinforces or gives justification for doing something. Family support can improve the psychosocial status, enthusiasm, and motivation to live and increase the self-esteem of the elderly because they are still considered useful and meaningful to their families (Mustika & Harini, 2018).

All forms of family support are expected to be able to improve the health status and welfare of the elderly and finally can increase the quality of life for the elderly

(Syarif, 2021). It is not easy for the elderly to deal with the changes that occurred in the last phase of their life, especially during this COVID-19 pandemic (Lee & Hsu, 2021). The presence of the family plays an important role in various changes experienced by the elderly, both developmental and psychosocial changes. The key to successful aging is staying in touch with other people (L. Wang et al., 2020). Kaur et al., (2015) explains that there is a real relationship between social support and the health status of the elderly in which the elderly will experience a good life when they continue to participate and maintain relationships with others.

## Conclusion

It can be concluded that there is a significant relationship between family function and social support on the quality of life of the elderly. Family functions are important for the quality of life of the elderly. If the family function is good or in a prosperous condition, namely physical, mental and social, then it allows a family to live as a whole and have a normal life, both socially and economically. Finally, it can reduce the morbidity and mortality rate which will ultimately improve the quality of life of the elderly.

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