

# Is There A Correlation Between the Coping Strategy Used and the Quality of Life of the Caregivers of Schizophrenic Patients in a Family Unit?

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**Abstract---** *The caregiver in a family where there is a person with schizophrenia will use coping strategies to deal with the stressors related to caregiving. Based on the previous studies, differences in the use of coping strategies may produce different levels of quality of life. This study aims to reveal how the use of specific coping strategies may affect the carer's quality of life. This study used a cross-sectional design with quantitative data. The samples consisted of 222 caregivers in a family with a person with schizophrenia. The sample was obtained using purposive sampling. The data was obtained through the Ways of Coping questionnaire and the Schizophrenia Caregiver Quality of Life Questionnaire (S-CGQoL) which were then analyzed using the Spearman Rho correlational test. The results showed that there was a significance value of 0.05 ( $p=0.00$ ). The correlation coefficient of  $r=-0.476$  indicates that there is a negative correlation and a moderate strength of the relationship found. The use of appropriate coping strategies by each caregiver in the family of a person with schizophrenia is recommended, specifically Problem-focused Coping (PFC). The use of an Emotion-Focus Coping (EFC) strategy is more effective at resolving problems over a short period. There is a significant negative correlation between coping strategies and the quality of life of the caregivers in a family where there is a person with schizophrenia. This means that the more that caregivers use EFC strategies, the lower their quality of life.*

**Keywords---** *Coping Strategies, Quality of Life, Caregiver, Schizophrenia*

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## I. INTRODUCTION

Data from around the world has found that more than 21 million people suffer from schizophrenia and that most person with schizophrenia do not get adequate care [1]. The prevalence of schizophrenia in Indonesia has reached 1.7 people per 1000 inhabitants and in East Java, it is 2.2 people per 1000 population with the lifetime prevalence of schizophrenia varying between 4% to 14%[2].

Schizophrenia is a severe mental disorder characterized by impaired thinking, language, perception and sense of self[1]. This can make it difficult for the individuals to carry out their daily life activities and it can also disrupt their ability to work, study and interact with their family members and the community. In addition, the patients with schizophrenia will live with the disorder for life. Often, the schizophrenic patients will experience recurrence or

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sequelae and thus incomplete social recovery. It can have an impact not only on the patient but also on the family. The community can even become a burden on the government [2].

The role of the collective family in taking care of the family members with a mental disorder has expanded [1]. Studies conducted in various countries representing various cultures (for example, Tanzania, Turkey, India, Ghana, Ireland, the United Kingdom and the United States) have explored how the increased care responsibilities as part of an organized care plan change the roles and responsibilities within the families, especially those related to the economic, emotional and social impacts. These impacts are generally similar around the world[3].

One common feature that has been reported in the research on the family carers of individuals with a mental illness is family stress, which is related to health, well-being and quality of life[4]. The stressors faced by the caregivers are different and higher than the stressors faced by the caregivers of patients with other chronic diseases. This is due to the high stigma in society. Therefore many individuals are reluctant to discuss the issues involved. The fear of rejection from the community makes the family begin to withdraw from their social environment which results in significant losses in terms of social support. Such a lack of attention and support for the services provided to the families also exacerbates the pressure felt by the families [3].

Taking care of a person with schizophrenia can have an impact on the quality of life (QoL) of the caregivers. This is especially so if the caregivers experience significant stress, limit their activity due to the time taken up by parenting, have increased somatic symptoms, in addition to the symptoms of anxiety and depression. Furthermore, the stress of caregivers can reduce their ability to nurture the schizophrenic patients [5]. The decrease in quality of life can occur for all carers regardless of status. In addition, the first time that the disease was diagnosed does not affect the low quality of life of the caregivers. Low caregiver quality of life was also found in the studies set in two economically different countries with a differing quality and quantity of mental health services, namely Chile and France [5].

The previous research was conducted more on the use of Emotion-Focused Coping (EFC) strategies (59.1%) compared to Problem-Focused Coping (PFC) (40.98%). More details on the PFC include planning any problem solving (13.8%), confrontations when coping (10.8%) and socially seeking support (16.38%). EFC strategies include distancing (12.4%), escape/avoidance (9.1%), self-control (12.6), accepting responsibility (11.2) and positive appraisal (13.8%)[6]. In this study, the coping strategy data was correlated with the data on the psychological stress that was felt by the schizophrenia patient caregivers.

## II. METHODS

This study aims to reveal how the use of specific coping strategies may have a potential effect on the quality of life of the family of persons with schizophrenia. A quantitative method with a cross-sectional approach was used. The period of research was in November 2017 set in the Mental Health Polyclinic of Dr. Radjiman Wediodiningrat Lawang Psychiatric Hospital.

The population consisted of the caregivers from the family of people with schizophrenia who had visited the RSJ Mental Health Polyclinic of Dr. Radjiman Wediodiningrat Lawang hospital. The sample was determined using the purposive sampling technique. The inclusion criteria of this study was as follows: caregiver in the family of a person with schizophrenia (F.20), aged 18-60 years old, could read and write and living with a person with schizophrenia within the year.

The independent variable in this study was the family coping strategy. The dependent variable in this study was the quality of the family caregiver's life. The questionnaire was developed alongside the standard questionnaire called

the Ways of Coping by Folkman and Lazarus [7], in addition to looking at the sociodemographic data. The quality of life of the families of the person with schizophrenia was measured using the Schizophrenia Caregiver Quality of Life questionnaire (S-CGQoL) [8]. The S-CGQoL consists of 25 questions covering 7 aspects including psychological and physical well-being (1-5), psychological burden and daily life (6-12), relationship with their partner (13-15), relationship with the psychiatric team (16-18), relationship with their family (19-20), relationships with their friends (21-22) and material load (23-25).

The data analysis used the Spearman Correlation Test to determine the correlation between the independent and dependent variables with a significance level of  $p < 0.05$ . This means that if the statistical test showed a value of  $p < 0.05$ , then there is a significant correlation between the independent and dependent variables. The data was analyzed using the statistical software program Statistical Package for the Social Science (SPSS) version 16.0. (SPSS.Inc., Chicago, IL). This study received a certificate of ethical clearance from the Ethical Commission No: 595-KEPK on 26th November 2018.

### III. RESULTS

The number of participants in this study totaled 222 people for a week-long sampling at a proportion of 50 percent with a 5% accuracy rate. The characteristics of the respondents according to age was that 62.3% (136 people) were in the adult age group of 40-60 years old, 33.8% (75 people) were in middle adulthood at 25-40 years old and the remaining 5% (11 people) were in the early adult age group. For sex, the sample was made up of 65.8% (146 people) men and 34.2% (76 people) women. Most of the respondents were married and had 2 children, totaling 47.3% (105 people). Furthermore, the education distribution of the respondents showed that 23.4% (52 people) had an elementary school level of education, 20.3% (45 people) had a level of junior high school education, 40.5% (90 people) had a level of high school education and 15.8% (35 people) had obtained a higher level of education. The respondents' income varied from a range of zero rupiahs to more than four million rupiahs at 43.7 percent (97 people) in the range of 0 to 1 million a month which made up the highest proportion. Only 1.4% (3 people) of the respondents had an income of more than four million rupiah (see Table 1).

Table 1. Sociodemographic characteristics of the respondents

Demographic Characteristics	n	%
Age (Year)		
17-25	11	5
26-40	75	33.8
>40	136	62.3
Sex		
Male	146	65.8
Female	76	34.2
Marital Status		
Single	19	8.6
Married (without any children)	4	1.8
Married (1 child)	40	18.0
Married (2 children)	105	47.3
Married (3 children)	36	16.2
Married (4 children)	12	5.4
Divorce	6	2.7
Education		
Primary School	52	23.4
Junior High School	45	20.3
Senior High School	90	40.5
Higher Education	35	15.8
Income (IDR – a month)		
0-1000000	97	43.7
1000001-2000000	68	30.6
2000001-3000000	46	20.7

3000001-4000000	8	3.6
>4000000	3	1.4
Health Status		
Healthy	194	87.4
Hypertension	14	6.3
Osteoarthritis	7	3.2
Headache	4	1.8
Gastritis	3	1.4
Relationship		
Parent	78	35.1
Couple	43	19.4
Child	27	12.2
Sibling	74	33.3
Care Duration (Hour)		
1-6	167	75.2
7-12	46	20.7
13-24	9	4.1
Other Helper		
Having	107	48.2
None	115	51.8
Other Patient in the Family		
Having	10	4.5
None	212	95.5

The characteristics of the patients taken care of by the respondents according to age showed that most were in the middle adult age group at 47.3% (105 people). The final adult age group made up 34.2% (76 people) and the last young adult group made up 18.5% (41 people). The length of time that the patients had been sick for varied from 1-2 years by 28.8% (64 people), 3-5 years by 30.2% (67 people), 6-10 years by 25.2% (56 people), 10-15 years by 5.4% (12 people) and those who had been ill for longer for more than 15 years totaled 10.4% (23 people). The type of schizophrenia suffered by the patients cared for by most of the respondents was F.20.1 or hebephrenic schizophrenia by as much as 78.8% (175 people). The source of funding for the medical treatment according to the above data was BPJS government assistance for as many as 75.2% (167 people) (see Table 2).

Table 2. Demographic characteristics of the schizophrenic patients

Demographics	n	%
Age of the Schizophrenics		
Young adults	41	18.5
Middle adults	105	47.3
Late adults	76	34.2
Duration (Year)		
1-2	64	28.8
3-5	67	30.2
6-10	56	25.2
10-15	12	5.4
>15	23	10.4
Diagnosis		
F.20.0 (Paranoid schizophrenia)	17	7.7
F.20.1 (hebephrenic schizophrenia)	175	78.8
F.20.3 (katatonic schizophrenia)	25	11.3
F.20.5 (Residual schizophrenia)	4	1.8
F.20.9 (Unspecified schizophrenia)	1	0.5
Funding		
General	17	7.7
National Assurance	4	1.8
BPJS Civil Servant	3	1.4
BPJS Government Help	167	75.2
BPJS Independent	31	14.0

\*BPJS: the Indonesian national health care insurance

The results of the study illustrate that 8.6% (19 people) have a poor quality of life, 36.5% (81 people) have a moderate quality of life, 45.0% (100 people) have a good quality of life and as many as 9.9% (22 people)

have a very good quality of life. In addition, most of the respondents, 66.2% (147 people), tend to use EFC coping strategies while the remaining 33.8% (75 people) use PFC coping strategies (see Table 3).

Table 3. Distribution of the quality of life and coping strategies of the caregivers

Variables	n	%
Level of Quality of Life		
Worse	0	0
Bad	19	8.6
Moderate	81	36,5
Good	100	45,0
Great	22	9,9
Coping Strategy		
Problem-Focused Coping (PFC)	75	33.8
Emotion-Focused Coping (EFC)	147	66.2

The sub-coping method that was most frequently used by the research respondents was accepting responsibilities, which comes under EFC. The second sub-coping method most frequently used by the respondents in this study was escape/avoidance under EFC. The third and fourth order of sub-coping that was most often used by the respondents was the respective PFC coping strategies of seeking social support and planning out full problem solving at almost the same percentage (see Table 4).

Table 4. Sub-coping Frequency

Coping	Sub Coping	total score	%
Problem-Focused Coping (PFC)	Plan full problem solving	3709	70.25
	Confrontational coping	3035	57.48
	Seeking social support	3732	70.68
Emotion-Focused Coping (EFC)	Distancing	3366	63.75
	Self-control	4091	66.41
	Escape/avoidance	5261	74.73
	Accepting responsibility	2942	83.58
	Positive reappraisal	3850	62.50

The respondents who had a very good quality of life tended to use a PFC coping strategy totaling 7.7% (17 people) compared to the respondents who used an EFC coping strategy at 2.3% (5 people) of the total respondents. The respondents whose quality of life was in the good category used coping strategies that were relatively not that much different. For PFC, 23.9% of people used this method (53 people) while PFC was slightly lower by as much as 21.2% (47 people) out of the total respondents (see Table 5). The quality of life of the respondents in the moderate category showed a considerable amount of difference regarding the use of the different coping strategies. As many as 59 more people used the EFC coping strategy making up 31.5% (70 people). PFC users totaled 5% (11 people). Furthermore, all of the respondents with a quality of life in the bad category made up 8.6% (19 people) regarding those using EFC coping strategies. The analysis conducted using the Spearman Rho statistical test obtained a significance value of  $p = 0.000$ . This means that there is a significant correlation between coping strategies and the quality of life of the schizophrenia patient's caregivers. The coefficient correlation of  $-0.476$  shows that the negative correlation has a medium coefficient. The caregiver in the family, if they have a coping strategy, tends to have a better quality of life than the other family caregivers who use the EFC coping strategies (Table 5).

Table 5. Cross-tabulation of the coping strategies used and the quality of life of the caregivers

Coping Strategy	Quality of Life										Total	
	Worse		Bad		Moderate		Good		Great			
	n	%	n	%	n	%	n	%	n	%	n	%
Problem-Focused Coping (PFC)	0	0	0	0	11	5	47	21.2	17	7.7	75	33.8

Emotion-Focused Coping (EFC)	0	0	19	8.6	70	31.5	53	23.9	5	2.3	147	66.2
Total			19	8.6	81	36.5	100	45	22	9.9	222	100
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p=0.000*    r= -0.476*												
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*\*Spearman rho test with a level of significance of 0.05*

#### IV. DISCUSSION

The results stated that almost all of the respondents tended to use coping strategies focused on emotions. Emotional coping strategies are effective depending on the environmental aspects that are causing stress as some situations cannot be controlled for [9]. This can be caused by a person with schizophrenia having unpredictable and strange behavior which can recur at any time. In addition, people with schizophrenia will need ongoing control because this disease requires continuous treatment to maintain a stable state. Emotion-focused coping strategies are actually more often used by people who suffer from chronic diseases or chronic pain [10]. This tendency to use emotion-focused coping strategies has always been the choice of coping strategies examined in the research on coping strategies focused on other chronic diseases [11].

The respondents who were over 40 years old and who acted as the parents of the patients tended to choose EFC coping strategies. The use of EFC coping strategies was more often used by older caregivers [12, 13]. Respondents of more mature age tend to use PFC coping strategies [14]. This situation is caused by the respondents being different in terms of their knowledge, culture, and experience when dealing with a problem. The family principles are the main thing. The parents as caregivers feel as though they are fully responsible for the care of their children in a long-lasting manner.

Most of the respondents were men. This shows that men tend to use coping strategies that focus on the problems [15]. Men are the decision makers in the family and they are the person in charge of the family. This includes the management of the patient and their control in relation to Lawang Hospital. However, where women tended to use the PFC coping strategy, this was related to a higher level of income and education than is owned in this research [16].

Most of the respondents had a lower secondary school level of education. Lower levels of education tend to result in the use of EFC coping strategies in response to any problems that arise. Individuals with a higher level of education tend to think more rationally, logically and broadly [16]. The respondents had less income from the respective regional income standard and used the government assurance (BPJS) as the source of funds for the patient's treatment. Low income people are more likely to use EFC coping strategies. A higher income can maximize the existing coping resources to solve the problem [16]. The low family financial burden could be overcome. Most of the research data showed that BPJS health was used for the control of the health of schizophrenic patients. The families who have more than enough income spend it on transportation and patient accommodation costs.

Some of patients with schizophrenia who were taken care of by the caregiver had been taking their medication for 3 to 5 years. Emotional coping strategies are more often used by people who suffer from chronic diseases or chronic pain [10]. This is caused by the caregiver using the strategy to first solve the previous problem and then to accept the condition of the patient that he/she is taking care of.

Accepting responsibility in relation to EFC was the most common coping strategy used by the respondents, following by escaping/avoidance. The sub-coping methods used included seeking social support and planning as a part of problem solving as the third and fourth most preferred coping methods used by the respondents. The use of these coping strategies is not significant [17]. The use of coping strategies cannot be separated between PFC and EFC. Often the caregiver used both coping (sub-coping) methods simultaneously depending on the experience, culture and knowledge of the individual concerned.

The results show that the majority of respondents have a quality of life in the moderate and good category. This is different from the research conducted in India, France and Chile which showed that the quality of life of the families of a person with schizophrenia was in the low and moderately low categories [18-20]. The results of the study stated that the QoL of the respondents was not in the very bad category. For the bad and very good categories, the percentage that was relatively similar. The age factor of the respondents was focused on the moderate QoL category. This result was different from the other research which stated that when the caregiver gets older, their quality of life will decline, especially in the social and physical dimensions. The respondents used more physical strength so then they could help to maintain the physical health of the patients as evidenced by the results of the research showing that most of the respondents were in the healthy category. The social dimension was also different due to the culture of the Indonesian people being one where there is a lot of care felt towards others. The social functions of the respondents have been maintained.

The respondents who were married had a quality of life that was in either the moderate or good category. Marital status thus has a linear correlation with quality of life. Married individuals have more personal support to use to deal with problems. This is because they can share the burden of their problems with their partner [21]. Searching for the source of the problem solving will be easier because of it being hit by two people. The financial resources available will be more stable if both of the partners have a job.

Based on the sex, it was found that more women had a poor quality of life. Women were found to be more likely to have a lower quality of life especially in the physical and social domains [22]. This could relate to the number of respondents who are the parents of the patient. The mother acts as the primary caregiver in the family. She will thus feel the brunt of the responsibility of taking care for the patients. Other causes that may affect quality of life include them being housewife. This makes the amount of time spent caring for the patient longer.

Based on the results of the cross-tabulation between coping strategies and the quality of life of the patients examined using the Spearman rho statistical test analysis, there was a significant value  $p < \alpha$  (0.05). This means that H1 was accepted. This shows that there is a correlation between the use of coping strategies and the quality of life of the caregivers in a family with a schizophrenic patient. The correlation value of the Rho Spearman test of -0.4476 indicates that the negative correlation direction is medium. People who use EFC strategies will have a lower quality of life. The individuals who used EFC strategies in this study tended to have a lower quality of life. This explains that EFC strategies are more effective but only for a short period of time [23]. The tendency of the respondents to choose EFC strategies was related to the condition of their chronic care patients. Likewise, other studies have got the same results [24-26]. However, they have a better quality of life. This difference can be because this study did not measure the correlation of each coping sub-strategy with quality of life.

Many of the studies examined have revealed that there was no tendency for individuals to use one type of coping strategy over other. Instead, they used a mixture of coping strategies [23, 27, 28]. Moreover, the correlation between the sociodemographic factors of the respondents and the patients has not been analyzed in-depth regarding the choice of coping strategies and the life quality of the respondents.

## V. CONCLUSION

There is a significant negative correlation between the coping strategies used and the quality of life of the caregivers in the family of a person with schizophrenia. This means that the more that caregivers use EFC strategies, the lower their quality of life.

## CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

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