



ANALYSIS OF FACTORS CORRELATING WITH FAMILY FUNCTIONING IN NURSING SCHIZOPHRENIC FAMILY MEMBERS

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ABSTRACT

Schizophrenia is a mental disorder which is indicated by declining communication ability, reality issues, cognitive problems and inability to do daily activities. The major problem that occurs to patients with schizophrenia is the high frequency of relapse, in which the relapse prevalence reaches up to 50-92% globally. Prevention to decrease the relapse frequency requires supports from the family in nursing patients with mental disorders. This research aimed at analyzing some factors related to the function of the family in nursing family members with schizophrenia. This research is a quantitative research that was done using the cross sectional approach. There were 96 families who took their family members with schizophrenia to the Polyclinic of RSJ Dr. Radiman Wedioningrat Lawang who were chosen as the respondents of this research through purposive sampling technique. Results of Chi-Square test indicate the existence of significant correlations among stigma ($p=0.005$), coping mechanism ($p=0.000$) and social support ($p=0.015$). To find out the most dominant factor in this issue, a logistic regression test was administered and resulted to these following values: knowledge (OR = 0.380), stigma (OR= 3.942) and coping mechanism (OR=6,578). Stigma, coping mechanism, and social supports directly relate to the function of the family in nursing their family members with schizophrenia. Coping mechanism has been found to be the most dominant factor within the function of the family in nursing schizophrenia patients.

KEYWORDS: Schizophrenia, relapse, and family functioning.

INTRODUCTION

Schizophrenia is a maladaptive response to internal and external stressors from the environment that taps on one's feeling and results to inappropriate behaviors against certain culture or customs which negatively affect social interaction and physical functions, which are usually indicated by comprehension issues, perception disorders in the form of hallucination or illusions, followed by reality problems and bizarre attitudes.^[46,48]

The result of a basic health research (2013) shows that mental disorders take up to 13% of total number of disease in Indonesia, and it is predicted to reach up to 25% in 2030. The major problem faced by patients with schizophrenia is the frequent relapse, in which the relapse prevalence ranges from 50-92% globally.^[50]

A research released in "The Hongkong Medical Diary" involving 93 patients with schizophrenia shows that

patients have 21% relapse potential in the first year, 33% in the second year and 40% in the third year.^[1] Decreasing the relapse frequency in schizophrenic patients takes adequate role from the family in nursing the patients.

Defrain, John, Asay and Olson (2009) refers family function as the ability or roles in the family including attitudes and behaviors shown to other family members. Family is the most important aspect in nursing patients. The main function of a family is the affective function and fulfillment of psycho-social necessities to the members in the form of affections and supports for family members who suffer from schizophrenia. In the McMaster Family Model theory, a family should provide the six basic dimensions of family: problem solving, communication, responsive-affective function, affection, role, and behavior control.^[49]

The function of family in taking care of schizophrenic family members was considered inadequate since there were still found a number of schizophrenic patients being put in captivity. There were families who find their schizophrenic members shameful, even more some families neglected them. The function of family in nursing schizophrenic members is influenced by several factors, including the intern factor (knowledge, burden, coping mechanism) and extern factor (stigma, social support).

A study conducted by Sulistyowati (2012) came to a conclusion that inadequate knowledge on schizophrenia leads a family to perceive this mental disorder in a wrong way. The perception often misleads the family to stop the treatment, control treatment or even proper treatment given to the patients when they consider the condition of the patients get better. This condition apparently increases the relapse frequency (Sulistyowati, 2012). 51 In taking care of schizophrenic patients, families often face massive pressure that might give negative impacts to the condition, quality and ability of the family in nursing the patients. This view is supported by Sinaga (2007) who state that the economic expenses in taking care of schizophrenic patients are considered high, as the expenses includes various costs such as costs of medicine, treatment, and time that should be spent as caregivers.^[52]

Katherina Kuoutra, et al (2016) explain that families play a central role in giving long-term treatment and supports for patients with mental illness. In taking care of family members with schizophrenia, several negative impacts might appear such as impacts in the interaction among other family members which trigger family disfunction.^[29] Findings of previous studies also emphasize the significant influence of family functioning on the relapse frequency of schizophrenic patients.

Based in the result of preliminary interviews done to nurses of the Polyclinic RSJ. Dr. Radjiman Wediodiningrat Lawang, Indonesia, the average number of family visit to patients with schizophrenia in the hospital from March to May 2017 reached 2,191 times.

METHOD

This research is a quantitative research that employed a cross sectional approach. There were 96 respondents who were chosen using the purposive sampling technique who participated in this study. In this research, the researcher used several instruments namely the Knowledge Questionnaire on Home Care 36 Schizophrenics that measured the level of knowledge, Family Interview Scale (SI) from SCAN to measure the stigma, Caregiver Burden Scale (CBD) to measure the burden faced by the families, Family Crisis-Oriented Personal Evaluation Scales (F-COPES) to measure coping mechanism, Multidimensional Scale of Perceived Social Support to measure the social supports, and

Family Assessment Device (FAD) to assess the family functioning. The data of this research were collected in January 2018. To find out the correlation between the research variables, a Chi-Square test was administered, while logistic regression test was employed to measure the correlational strength among the contributing factors.

FINDINGS

1. The Distribution of Respondents' Characteristics

It can be seen in Table 1 that most the majority of the respondents are 39 years old, 57 males (59.4%), 36 high school graduates (37.5%), 29 fathers of schizophrenic patients (30.2%), and 49 respondents (51%) have been educated by the Polyclinic of RSJ. Dr. Radjiman Wediodiningrat Lawang.

2. The Distribution of Schizophrenic Patients' Characteristics

Table 2 shows that most schizophrenic patients (50 patients, or 52.1%) had been taken to the hospital more than twice, had been ill for more than 2 years (52 patients, or 54.2%) and 71 patients (74%) were discipline in taking their medicine.

3. The Result of Bivariate Analysis

Furthermore, to find out the most dominant factor contributing the family functioning in caregiving family members with schizophrenia, a logistic regression test was administered. The requirement of *p-value* in the bivariate analysis was set at < 0.25 for the independent variables of this study. There were four independent variables included in the multivariate analysis including the knowledge, stigma, coping mechanism and social supports. The logistic regression analysis was done through four modelling steps, which fourth step obtained these following results.

4. The Result of Logistic Regression Analysis

As presented in Table 4, the result of logistic regression analysis shows that knowledge, stigma and coping mechanism have some influences on the family in taking care of their schizophrenic family members. In addition, coping mechanism appears to be the factor with the strongest correlation ($OR=6,578$).

The result indicates that coping mechanism is the most dominant factor in the function of family in taking care of schizophrenic family members.

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Table 1: The Distribution of Respondents' Characteristics.

No	Respondents Characteristics		Frequency (f)	Percentage (%)	
1	Sex	male	57	59,4	
		female	39	40,6	
		Total	96	100	
2	Education	No school	1	1	
		Primary school	22	22,9	
		Junior High School	22	22,9	
		Senior high School	36	37,5	
		Bachelor degree	15	15,6	
		Total	96	100	
3	Family relationship	Biological father	29	30,2	
		Biological mother	14	14,6	
		child	26	27,1	
		Husband/wife	24	25,0	
		Uncle/aunt	3	3,1	
		Total	96	100	
4	Experience gained education	Yes	49	51	
		No	47	49	
		Total	96	100	
		Mean	SD	Min-Max	95%CI
5	age	39,49	13,484	20-70	36,76-42,22

Source: Primary data (2018).

Table 2: The Distribution of Schizophrenic Patients' Characteristics.

No.	The Distribution of Schizophrenic Patients' Characteristics		Frequency (f)	Percentage (%)
1	Experience MRS	1-2x	46	47,9
		>2x	50	52,1
		Total	96	100
2	Long sick	1-2 years	44	45,8
		>2 years	52	54,2
		Total	96	100
3	medication compliance	obediant	71	74
		Not obedient	25	26
		Total	96	100

Source: Primary data (2018)

Table 3: The Result of Bivariate Analysis.

		Functioning Family				Total		p value
		Healthy		unhealthy				
		n	%	n	%	n	%	
Knowledge	low	39	56,5	30	43,5	69	100	0,136
	high	10	37,0	17	63,0	27	100	
	total	49	51,0	47	49,0	96	100	
Stigma	low	15	83,3	3	16,7	18	100	0,005
	high	34	43,6	44	56,4	78	100	
	Total	49	51,0	47	49,0	96	100	
Burden family	Low	29	51,84	27	48,2	56	100	1,000
	high	20	50,0	20	50,0	40	100	
	Total	49	51,0	47	49,0	96	100	
Coping mechanism	Adaptif	37	71,2	15	28,8	52	100	0,000
	Maladaptif	12	28,8	32	72,7	44	100	
	Total	49	51,0	47	49,0	96	100	
Social support	low	32	64,0	18	36,0	50	100	0,015
	high	17	37,0	29	63,0	46	100	
	Total	49	51,0	47	49,0	96	100	

Source : Primary data (2018)

Table 4: The Result of Logistic Regression Analysis.

Variabel	Koefisien	p	OR	CI 95%	RR
Mekanisme Koping	1,884	0,000	6,578	2,689-16,090	0,329
Konstanta	-2,787	0,000	0,062		

Source : Primary data (2018)

DISCUSSION

The Correlation between Knowledge and Family Functioning in Taking Care of Schizophrenic Family Members

Regarding to the result of bivariate statistic test shown in Table 3, it is concluded that there is no significant correlation between knowledge and family functioning in taking care of schizophrenic family members (p -value > 0.05).

This finding is contradictory to the findings of previous research. Yuliana (2010) stated that there was a meaningful relationship between knowledge and relapse frequency of patients with mental illness in RSJ. Prof. HB Saanin, North Sumatera. Whereas, Wulansih (2008) supports the finding of this study, whose study found no significant correlation between knowledge and relapse frequency of schizophrenic patients.

Haddad (2010) believes that adequate knowledge on relapse indicators decreases the relapse frequency of patients with mental illness who have the probability performing coercive actions.^[21] Riza et al (2012) stated that caregivers who have adequate knowledge tend to give better treatment to patients with mental illnesses. This view supports the finding of this study in which it is found that 56.5% of the respondents with adequate knowledge on the matter, have been able to maintain the ideal family functioning in taking care of their schizophrenic family members.

The result of multivariate statistic test as presented in Table 4 shows that most respondents have adequate knowledge and run the ideal function of healthy family (56.5%). This result implies that respondents with adequate knowledge have 0.380 times better opportunity.

Regarding to the McMaster's Model of Family functioning, the cases that happened to the respondents of this study were mostly occurred in the affective response dimension (76%). The dimension of affective response in healthy family functioning is related to the abilities of all family members to express various emotion in taking care of their schizophrenic family members.

The more adequate the knowledge on the schizophrenia, the better the families' comprehension to run the ideal family functioning to support the treatment for schizophrenic family member that eventually decreases the relapse frequency or relapse risk.

The Correlation between Stigma and Family Functioning in Taking Care of Schizophrenic Family Members

The result of bivariate test as presented in Table 2 shows the existence of a significant correlation between stigma and family functioning in giving home care for schizophrenic family members. The result of this study supports Drapalsky, et al (2008) who found that 36% families received negative stigma for having mentally ill family members in the house, while 8% of them were reluctant to seek for medical service because of the negative stigma they experienced.^[13] Hawari (2009) explained that families often consider their schizophrenic family member a shame for the family, that they tend to act harsh to the patient.^[12]

The result of analysis on respondents' characteristic within the stigma variable, it can be seen that the majority of the respondents experienced negative stigma in the form of blame (83.3%). This phenomena might be caused by the low frequency of family visit, besides some respondents misunderstood that when they have finished their medicine, they would not relapse, and they would not do the control treatments to the hospital. This view is supported by Rahman (2010) who stated that negative stigma developed in the society even in the family, making the family feel ashamed and insulted of their schizophrenic family members, which leads them to hide the patients from the society, even hinder the patients from getting medical treatments.

Taking care of schizophrenic family members is indeed difficult since the society gives negative stigma to the patients and families might experience various conflicts and problems which actually trigger higher relapse frequency to the patients.^[53] Annisa (2015) also added up that the guilt felt by caregivers might also influence the treatment process of patients with mental illness. The function of family decreased if any member experiences dominant dissatisfaction in the adaptation, partnership, development, affection, or togetherness aspects which dissatisfaction gives negative impacts for the treatment process given for schizophrenic family members.^[54]

The Correlation between Family Burden and Family Functioning in Nursing Schizophrenic Family Members

The result of bivariate analysis as presented in Table 3 shows that there is no significant correlation between family burden and family functioning in nursing their schizophrenic family members (p -value > 0.05). This result might be triggered by some factors including the fact that most families have received adequate education from the Polyclinic of RSJ. Dr. Radjiman

Wediodiningrat Lawang, and the experience in taking care of schizophrenic family members for more than 2 years.

The subjective family burdens include the sadness, shame, anxiety upon the future of the family with schizophrenic family members. Besides, sometimes they experienced boredom in taking care of their schizophrenic family members. Those statements are in line with the theory released by WHO and Mohr (2006, 2008) that subjective burdens relate to the psychological condition experienced by family members as caregiver in taking care of schizophrenic patients including the feeling of lost, sadness, anxiety and shame.^[38] In addition, Kaplan and Sadock in 2010 mentioned that the experience in dealing with the illness and the knowledge on the illness might also contribute to the family burdens.^[28] More adequate knowledge on the concepts of schizophrenia influences family's mindset in running their function as caregivers for their schizophrenic family members. Wicaksana (2008) emphasized that adequate knowledge lessens the family burdens in taking care of schizophrenic patients with violence tendency. This insight also matches the demographic data of the respondents in which the majority of the respondents were known to have adequate knowledge (89.6%), with the strongest score in the indicator of mental disorder management.

Respondents who experienced moderate family burdens (50%) were able to run their family functioning well while taking care of their schizophrenic family members. This fact is supported by WHO (2008), in which it is stated that families play central roles in dealing with family burdens and responsibilities including physical, emotional, financial burdens as well as rejection and negative perception of the society upon schizophrenia that might negatively influence the social function of a family.

Based on McMaster's Model of Family functioning, ideal family functioning allows all of the members to express their emotions upon any condition or situation that lessen the family burdens in taking care of their schizophrenic family members.

A research done by Whitefield and Duchene (2014) in USA proposed to an insight that family members as the caregivers might experience emotional burdens and social isolation for taking care of their beloved schizophrenic family members. Taking care beloved relatives with schizophrenia is challenging for caregivers also have to deal with the negative stigma given to the illness. In line with this statement, this study also found that 25% of the respondents were in marriage relationship with schizophrenic patients.

The Correlation between Coping Mechanism and Family Functioning in Nursing Schizophrenic Family Members

Regarding to the result of the bivariate analysis as presented in Table 3, it can be seen that coping mechanism significantly correlates with family functioning in nursing schizophrenic family members. This indicates that coping mechanism can be used as an effective way to lessen the family burden.

The result of this study is supported by Nasser et al (2011) who stated that most families use self-control as their coping mechanism by creating positive thoughts, while some other prefer using reality denial as their coping mechanism.^[40]

The result of multivariate logistic regression test shows that respondents with adaptive coping mechanism make 5.342 times better tendency in maintaining ideal family functioning. At the same time, this also shows that unhealthy family functioning determines the relapse frequency of schizophrenia. Unhealthy family functioning refers to the inharmonious, cold, tense, lack of quality time, poor communication conditions in a family in taking care of schizophrenic patients. In line with this view, Sirait (2008) underlined that the relapse frequency of the illness significantly influences the intern coping mechanism used in a family.

Adaptive coping mechanism strengthens individuals to live their lives when they encounter problems by maintaining balanced emotion, positive self-image, and decreasing the pressure from the environment or adapting their selves to deal with negative issues and anxiety about other people.^[23] Similar result was found in this research, in which the coping mechanism reached the highest percentage (85.4%) in the point of respondents' ability to seek for and receive information given by professionals through counseling or supports from other relatives. This condition might also relate with the demographic data showing that most of the respondents have received certain education that helped them taking care of schizophrenic patients. It can be inferred from the results that families have been able to apply appropriate strategies in dealing with various problems that occurred in the process of nursing their schizophrenic family members, including dealing with both financial and psychological problems.

The Correlation between Social Support and Family Functioning in Nursing Schizophrenic Family Members

Result of the bivariate analysis presented in Table 3 shows that respondents who received adequate social support have been able to run the healthy family functioning in nursing schizophrenic family members (64%). This indicates that social support plays an important role in decreasing the relapse frequency of schizophrenic patients, especially in re-socializing and creating conducive environment for the family as the

caregivers of their schizophrenic family members. In line with this finding, Kritzinger (2011) and Kundu (2013) also found that social support given to the family positively influences their attempts to prevent the relapse occurrence of schizophrenia.

In the other hand, respondents who received less social support tend to run unhealthy family functioning in nursing their schizophrenic family members (64%), which result goes in line with the one found by Manungkalit (2009) who stated that inadequate family affection triggers higher relapse frequency in schizophrenics.

In addition, results of interviews with families of schizophrenics in Polyclinic RSJ. Dr. Radjiman Wediodiningrat Lawang show that most of them did not receive either emotional or financial support from other families members or relatives due to wrong perception upon the illness shared among other relatives, society or colleagues, making the home care given for the patients less optimal. According to Andri & Mubin (2008), families who have schizophrenics family members usually face negative stigma from other relatives or from the society, making them feel ashamed of the schizophrenics, even some families decided not to take the patients to mental hospital for regular treatment.

Table 4 presents the result of bivariate test, in which p value is at 0.008, indicating a significant correlation between social support and family functioning in nursing schizophrenic family members. This result goes in line with Fauziah (2016) who stated that a successful family is the one that is able to run health family functioning in responding to various stimulus and maintaining the communication quality among the members. A family is stated to have health family functioning when the members managed to set appropriate steps in solving various problems by discussing and communicating the problems with other members (Eipstein et al, 2003).

The Most Dominant Factor of Family Functioning in Nursing Schizophrenic Family Members

The result of logistic regression test administered in this study shows that coping mechanism is the most dominant factor that strongly influences the nursing of schizophrenic family members at OR value 5.342. This value indicates that coping mechanism plays an important role since the presence of schizophrenic family members might be followed by negative perceptions and higher costs that should be paid by the family as well. Nursing schizophrenic family members is indeed a heavy task that should be borne by the whole family. Similarly, Mubarak (2011) stated that when one family member encounter certain health problems, she/he might give certain influences to other family members.

According to Taylor (2012), individuals who receive adequate social supports are likely to have lesser emotional burden when they encounter problems, and

they tend to solve the problems using appropriate coping mechanisms that maintain the healthy family functioning.^[55]

In giving home care for family members with mental illness requires a family to not only being able in identifying various problems, communicating the problems with the right family members, finding alternative solutions, applying various decision, monitoring decision, evaluating the solutions as proposed in McMaster's Model of Family functioning by Epstein et.al (2003), but a family should also help the sick family members to improve their condition, maintain the health of the other members, and solving various physical, psychological, social and spiritual issues that might occur in giving homecare for schizophrenic family members.

CONCLUSION

This research has confirmed the existence of a significant correlation between (stigma, coping mechanism and social support) and family functioning in nursing schizophrenic family members. In addition, coping mechanism has been found to be the most dominant factor influencing the family functioning in providing the home care for the patients at OR=6,578.

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