A NEW PARAMETER OF FAMILY HEALTH IN TREATING SCHIZOPHRENIA PATIENTS

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Abstract. Studies concerning positive outcomes of Schizophrenia treatment are still rare. One of the positive outcomes of Schizophrenia treatment to patients is family health. The definition of family health according to the theory of family health is limited only to satisfaction. This study aimed to prove efficiency and happiness as new parameters of family health as positive outcomes of Schizophrenia treatment to patients. The study used a cross-sectional design by choosing 160 respondents randomly. Independent variable of the study is coping mechanismswhich consist of two sub-variables (problem-focused coping mechanism and emotion-focused coping mechanism). Whereas dependent variable is family health which consists of three sub-variables (efficient, satisfaction, and happiness). The SMART PLS (2.0 Version) was used to prove the impact of the variables.The results of the study indicated that coping mechanisms possess significant impacts on family health. The hypothesis was taken from the value of the T-test on the structural model analysis, which shows T-statistics (13.966) > T-critical (1.96). The impact of coping mechanisms on family health is equal to 0.682. It means that if coping mechanisms are given one-unit value, it will increase the family health by 0.682 times. The findings of the study also strengthened the existing theory which previously focuses on family health indicator on family satisfaction. In this case, it added two new indicators, efficiency and happiness. Coping mechanisms chosen by families in facing stress will impact family health.

Keywords: Family health, new parameter, efficiency, satisfaction, family with Schizophrenia patients..

1. Introduction

The Family Health Theory (FHT) developed by Doornboss (2002) is a middle-range theory based on the Goal Attainment Theory made by E. King (1983). The FHT specifically predicts family health in a family with mental-disorder patients. However, family health in the FHT only measures the level of family satisfaction in treating patients with mental disorders (Doornbos MM, 2002). The theoretical definition of family health is the adaptive potential and functional ability of a family in social roles (King, 1983). King (1981) consistently defines

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health as two goals of nursing practice. According to King (1981), the first goal of nursing practice is “A functional state in the life cycle”. For this goal, King generally focuses on its function as the indicator of health. The second goal of nursing practice according to King (1981) is efforts to reach “A useful, satisfying, productive, and happy life”. Based on that, it can be inferred that the definition of health for family health should focuses on “A useful, satisfying, productive, and happy life”.

The data taken from WHO show that 21 million people suffered from mental disorders (WHO, 2018). 1% of the population in the United Kingdom are people who experienced mental disorders (Smith, 2015). The 2018 RISKESDAS (Basic Health Research) data in Indonesia show an escalation of proportion in the number of households with mental disorders by 7 per mil from 1.7 per mil. Specifically, the East Java Province shows that only 2.2 per mil households experienced mental disorders in 2013 and went up to 5 per mil in 2018 (RISKESDAS, 2013; 2018). Generally, similar incident rate also occurred in Ponorogo, with as many as 1.321 out of 600.336 residents in productive ages who experienced mental disorders (Nasriati, 2017). However, a higher prevalence rate was found in Paringan Village and Dukuh Mirah, where the prevalence rate of mental disorders in Paringan Village was at 11.2 per mil (Sugeng Mashudi, Bambang Widiyahseno, 2016).

Family health is affected by coping mechanisms (Doornbos, 2002). The study conducted by Çuhadar, Savaş, Ünal, and Gökpınar in 2015 strengthens the previous studies which found coping mechanism affects family health. Studies regarding stress and coping mechanisms in family with Schizophrenia members show that there is an effect of stress on coping mechanisms (Geriani, Savithry, Shivakumar, & Kanchan, 2015). Family coping consists of problem-focused coping and emotion-focused coping. Family coping is a cognitive assessment and behavior to manage internal and external needs that exceed ability (S.Lazarus & Folkman, 1984). The study done by Crowe and Lyness in 2014 shows that family coping affects family health. A better family coping will increase the level of family health.

2. Method

2.1. Sample

This study was conducted in Ponorogo Regency, East Java, Indonesia with a sample of 160 respondents and a cross-sectional design. The data were collected through questionnaires that have been tested for validity and reliability. Respondents were taken by using a random sampling technique from five primary healthcare centers in the North and West Ponorogo.

Participants were 81 men (50.6%) and 79 women (49.4%). Their average age was 49 (SD = 14.2). Furthermore, there were 139 married respondents (86.6%) and 10 single respondents (6.3%). Regarding education level, 102 respondents have completed basic education (24.4%), 39 respondents have achieved secondary education (48.68%), and 3 respondents have completed tertiary education (1.9%).

2.2. Variables and Instruments

Family coping variables were compiled based on the FACE questionnaire. A higher score reflects a better family coping. The Cronbach’s alpha coefficient for the scale was 0.534.

Family health variables were made based on the indicators of Useful, APGAR family, and HAPPY questionnaire. A higher score reflects a better family health. The Cronbach's alpha coefficient for the scale was 0.883.

2.3. Statistical Analysis

Before the statistical analysis, the data were selected based on three standard deviations above or below the average score. Missing values are excluded from the analysis. Descriptive statistics and correlation analysis were performed with the SPSS program (Version 22.0, IBM Corp, Armonk, NY, USA). Structural equation models were tested with Mplus (Version 7.4, Muthen & Muthen, Los Angeles, CA, USA). The study of the structural model with a corrected level of confidence (CI) of 95% used 5000 bootstrap samples.

3. Result

3.1. Characteristics of Family with Schizophrenia Patients.

The data used in this study were taken from 160 caregivers of Schizophrenia patients who seek treatments in primary healthcare centers located in the North and West Ponorogo. Selected respondents were those who meet the criteria of random sampling.

The observation of the study was done in the selected primary healthcare centers. The complete characteristics of caregivers who handle Schizophrenia patients can be seen in Table 1.

Table 1. Characteristics of Caregivers who Handle Schizophrenia Patients in Ponorogo.

Characteristics	Frequency	Percentage
Gender		
Men	81	50.6%
Women	79	49.4%
Age:		
Productive (18-54)	102	63.8 %
Not productive (55-80)	58	36.2%
Status:		
Married	139	86.8 %
Single	10	6.3 %
Widower/widow	11	6.9 %
Education		
High	76	74.5 %
Low	84	52.5 %
Job		
Private	47	29.4 %
Farmer	90	56.2 %
Others	23	14.4 %
Family members (amount)		
≤ 3		

>3	73	45.6 %
	87	54.4 %
Salary		
< IDR 1,500,000,-	132	82.5 %
≥IDR 1,500,000	28	17.5%

Table 1 shows that the majority of caregivers are men (50.6%), at the age of 18-54 (63.8%). Most of them were married (86.8%) and graduated from high education (74.5%). They worked as farmers (56.2%) with >3 family members (54.4%) and salary < IDR 1,500,000 (82.5%). Caregiver burden was positive correlation with age of caregiver, employment of caregiver and level of education (Sugeng Mashudi, Ah. yusuf, Rika Subarniati T, Kusnanto, 2019).

Table 2. Characteristics of Schizophrenia Patients

Characteristics	Frequency	Percentage
Gender		
Men	95	59.6%
Women	65	40.4%
Age:		
Productive (17-45)	131	81.9%
Not productive (46-71)	29	18.1%
Relationship with caregiver:		
Son/Daughter	63	39.4 %
Parent	14	8.8 %
Others (Siblings)	83	51.8 %

Table 2 explains that the majority of Schizophrenia patients are men (59.6%) in the age of 17-45 (81.9%), and siblings of the caregivers (51.8%). The majority of Schizophrenics in productive age tend to behave in smoking, even though the effects of nicotine contained in cigarettes affect oocyte maturity (Dwirahayu & Mashudi, 2016).

Table 3: Loading factors and T-statistical value.

Variables	Sub-variables	Loading (λ)	T-Statistics	T-table
Coping Mechanisms	Problem-focused Coping	0.915	14.393	1.96
	Emotion-focused Coping	0.710		
Family Health	Efficiency	0.912		
	Satisfaction	0.914		
	Happiness	0.873		

Table 3 illustrates that coping mechanisms done by the family are dominantly problem-focused coping (λ =0.915), whereas family health is determined by the satisfaction level in treating Schizophrenia patients (λ =0.914). Coping mechanisms have an effect on family health (α=0.05; t-statistics = 14.393).

4. Discussion

Coping mechanisms significantly impact family health. This is based on the T-test in the structural model analysis, where T-statistics (13.966) is greater than T-critical (1.96). The effect value ofcoping mechanisms on family health is 0.682. This means that if coping mechanisms are given one-unit value, it will increase family health by 0.682 times.

Family health is measured from the aspects of efficiency, satisfaction, and happiness. Some roles of the family may include knowing health problems experienced by patients, choosing the best action to treat patients, maintaining a conducive environment, and utilizing health facilities for patients. The family stated that family satisfaction with Schizophrenia patient care may be obtained by adapting with patients, discussing about the best solution to overcome problems that befall patients, showing affections and responses, such as anger, suffering, and love, and spending time together with patients. In terms of happiness, the family could enjoy the moment of treating patients with Schizophrenia compared to other caregivers with Schizophrenia patients. Also, they could enjoy everything and obtain optimal treatment for Schizophrenia patients.

Efficiency indicator (0.912) has the second-highest value in determining family health. Efficiency throughout the treatment process can be seen when a family could identify patients' health problems, decide the best decision for them, take care of them well, keep a conducive environment, and take advantages of health facilities for them.

Satisfaction indicator (0.914) possesses the highest value in determining family health. Satisfaction throughout the treatment process can be found when a family can adapt, choose the best solution for problems, show affection, respond positively to patients, and spend some time together with patients. Family satisfaction in treating Schizophrenia patients can not be separated from the impact of coping mechanisms (problem-focused coping and emotion-focused coping) done by the family.

Happiness indicator (0.873) shows the smallest value in determining family health. The decline of happiness in treating Schizophrenia patients can be seen when family feel less happy compared to other families with Schizophrenia patients and cannot enjoy everything and obtain optimal caregiving. It is related to stress factors, such as economy, abusive behavior, and stigma that befalls the family.

Being healthy is defined as an ability to adapt physically, mentally, and socially as a single unit free from illness and disability (WHO, 1948). The characteristics of being healthy according to WHO involve the ability to reflect an individual as a person in internal and external contexts and to involve creativity and productivity. King (1981) stated that being healthy is a form of efficiency, satisfaction, productivity, and happiness (Alligood, 2017). In this study, family health refers to healthy family (King, 1981). However, the productivity indicator in this study is invalid and unreliable because the submitted questions only focus on

attendance, while the respondents of the study are farmers who were unable to attend regularly.

The essential finding of this study is that coping mechanisms affect family health. Family Health Theory written by Doornbos in 2002 shows that coping mechanisms affect family health, whereas this study, in addition to the existing theory, finds family health indicator was measured not only based on family satisfaction, but also family efficiency and happiness. Coping mechanisms chosen by families in facing stress will impact family health (Martínez-montilla, Amador-marín, & Guerra-martín, 2017).

Stress may come from chronical diseases, such as mental disorders (Schizophrenia), addictions, accidents, disabilities, and economic problems. On the other hand, coping mechanisms used by families in treating Schizophrenia patients are problem-focused coping and emotion-focused coping. Stress tin a family with Schizophrenia patients can transform the family's life balance. That is why every family need to have great coping strategies. Caregivers with patients who have mental disorders also need to identify the main stress factor in their family. The best coping strategy is also needed so that family health can improve. Based on the theoretical and empirical studies, it can be inferred that coping mechanisms affect family health.

5. Conclussion

This research reinforces the family health theory. Coping mechanisms done by families (problem-focused coping and emotion-focused coping) affect family health. Apart from family satisfaction, family health can also be measured from the aspects of Efficiency and Happiness. This research Further studies are necessary to be conducted to find out whether or not patients and treatment factors contribute to family health.

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