Self Acceptance and Stress in Patient with Chronic Kidney Disease Undergoing Hemodialysis in dr. Soepraoen Army Hospital Malang

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ABSTRACT

Introduction

Chronic Renal Disease (CKD) is one of the most chronic diseases suffered by people in Indonesia. CKD is irreversible and progressive kidney damage which disrupts metabolic and electrolyte balance. Biological disturbance in patients with CKD has significant impacts on psychological, social, and spiritual aspects considering humans are holistic beings. Self-acceptance is an important aspect in patients with CKD as an adaptive coping strategy to cope with stress that occurs during hemodialysis. The purpose of this study was to determine the relationship between self-acceptance and stress in patient with CKD undergoing hemodialysis in dr. Soepraoen Army Hospital Malang.

Methods

This study used cross-sectional design conducted on 15 patients with CKD undergoing hemodialysis using incidental sampling techniques. Data were collected using Unconditional Self-Acceptance Questionnaire (USAQ) and stress items from Depression, Anxiety, and Stress Scale-21 (DASS21). Spearman Rank test was used to analyze the relationship between variables.

Results

The results showed the correlation value (ρ) of -0.901 with a significance value of 0,000 ($\alpha < 0.05$). This indicated that there as a significant relationship between self-acceptance and stress in patients with CKD undergoing hemodialysis.

Conclusions

This study shows that the better self-acceptance, the lower impact on stress level in patients with CKD undergoing hemodialysis. Further research is needed to analyze factors related to self-acceptance in similar population.

Keywords

Self-Acceptance; Stress; Chronic Kidney Disease

BACKGROUND

Humans as holistic beings mean that human beings are whole entities. The holistic approach includes the needs of an individual from the biological, psychological, social, and spiritual aspects. So, the nurse must look at each individual as a whole, not as a separate part. Changes

in one aspect will have an impact on other aspects and affect the quality of life (Erikson, 2007; Ristianingsih, 2014). So that individuals with chronic diseases will experience psychological, social, and spiritual disturbances.

One chronic disease that prevalence is prevalent is Chronic Kidney Disease (CKD). The prevalence of CKD continues to increase along with the increasing number of elderly and the increasing prevalence of diabetes mellitus and hypertension. In worldwide, about 1 in 10 people develop CKD and become the 18^{th} cause of death in 2010. In Indonesia, CKD is the second ranked disease of financing after heart disease (Kemenkes, 2017). So that CKD becomes a health problem throughout the world with increasing prevalence, poor prognosis, and high funding for treatment.

CKD is a progressive and irreversible disease for a long time. CKD means that kidney damage is characterized by decrease of Glomerular Filtration Rate (GFR), less than 60mL/min/ 1.73 m^2 for 3 months (KDIGO, 2013). These changes have an impact on mental, social and spiritual health problems, such as the appearance of depression, anxiety, sleep disturbances, and sexual disorders (Cheawchanwattana, Chunlertrith, Saisunantararom, & John, 2015). For the treatment, patients with CKD need hemodialysis (HD) to maintain their life. Hemodialysis will have an impact on patient activity and changes in the family system to accept and adjust their life of the disease and treatment (Gerogianni & Babatsikou, 2014).

HD is carried out for life and has some negative impact on the patient's physical and mental abilities (Stavropoulou et al., 2017). Hypotension and muscle cramps are common complications during HD (LeMone, Burke, & Bauldoff, 2015). Psychological problems that often occur in patients with CKD include depression (15% -69%), fatigue (60-97%) which causes decreased concentration, malaise, sleep disturbances, emotional disturbances and decrease ability of patients to carry out their daily activities (Septiwi, 2013). In general, patients undergoing HD at hospital only get medical treatment, while the psychological conditions often get less attention (Caninsti, 2013). To reduce the adverse effects of HD, patients with CKD must accept their condition to improve their quality of life.

Changes in patients with CKD are also felt by their families, such as lifestyle changes. Their family see that patients with CKD who have some limitations in their lives, because HD will have an impact on the decline in social activity, the emergence of conflict in the family, frustration, and guilt in the family so that there is susceptibility to stress (Smeltzer & Bare, 2002). Yosep (2007) argues that stress is caused by an imbalance between the demands and resources of individuals. Higher of the gap occurs the higher level of stress experienced by the individual. Hawari (2008) said that stressful conditions can lead to physiological, psychological, and behavioral changes in individuals that result in the development of an illness. Other things that happen are non-compliance with diet modification, treatment, diagnostic tests, and restrictions of fluid intake (Baradero, Dayrit, & Siswadi, 2009). This shows that stress can worsen the patient's condition so that it will reduce the quality of life.

Patient with CKD depend their life on dialysis machines resulting in changes in the their lives. Health status, economic conditions, and HD therapy itself can affect changes in the patient's life, which are all triggers or causes of stress. Patients with CKD undergoing HD therapy 2-3 times each week and spend several hours will make them experience tension, anxiety, stress and depression that vary from individual to negative impact on quality of life and health. These changes can be identified as stressors (Abbot, 2010; Saputra, 2010). Stress in CKD patients is also caused by complications from the disease itself such ascardiovascular disorders, anemia, hypertension, fertility disorders (both men and women), skin and bone disorders, and more problems caused by the disease (Colvy, 2010).

Self-acceptance is one of the important aspects that must be in patients with chronic diseases. Self-acceptance is the trigger factor for adaptive coping strategies (Chan, 2013). In patients with CKD, self-acceptance that will vary according to the capabilities and coping mechanisms that have in dealing with a problem. Individuals who can accept their condition will be able to reduce negative reactions and emotions towards chronic diseases and their therapies (Kurpas, 2013). Low self-acceptance in patients with chronic diseases causes non-compliance in carrying out therapy and is unable to deal with problems due to the effects of the disease (Sari, 2016).

Jersild (as cited in Esthy 1998) defines self-acceptance is the person's ability to understand his own characteristics and be able to accept existing conditions with sincerity and aware of their potential, so they can performs as their expectation. Ryff (1989) states that self-acceptance is considered an important feature of mental health and also as a characteristic of self-actualization, optimal function, and maturity. In this case, self-acceptance implies a state in which a person has a positive attitude towards himself, acknowledge and accept various aspects of self including good and bad quality, and feel positive about their life.

METHODS

This study uses quantitative research methods using a cross-sectional design. This design aims to study the correlation between factors and effects through data collection at the same time. This study examines two variables, self-acceptance and stress, which will be measured using a questionnaire and analyzed statistically. This research was conducted in June 2018 at the HD installation of dr. Soepraoen Army Hospital Malang.

The sample of this study was determined using accidental sampling technique, researcher did not use inclusion and exclusion criteria to determine the sample. This study involved 15 respondents as samples from CKD patients in the room. Data of the study using questionnaires that distributed to respondents before or after HD therapy, accordance time contract established between the researcher and respondent. Before filling out the questionnaire, the researcher gave informed consent that would be signed by the respondent as the respondent's consent to participate in this study. Before filling out the questionnaire, the researcher gave informed consent that would be signed by the respondent as the respondent's consent to participate in this study.

Researchers used two types of questionnaires. In self-acceptance, researchers used the Unconditional Self-Acceptance Quesionnaire (USAQ) questionnaire which is an adaptation from Chamberlain (2001) consisting of 20 questions using a Likert scale. Respondents were asked to choose the scale from 1 (Almost always incorrect) to 7 (Almost always true), depending on the respondent's perception of the statement provided. There are 11 items being reverse-scored because it is a negative statement. For stress, researchers used the Depression, Anxiety, and Stress Scale-21 (DASS21) questionnaire by only taking 7 statements of stress items. This questionnaire uses a Likert scale with a range of 0 (do not apply to me at all) to 3 (applied to me very much or most of the time). The score obtained will be multiplied by 2 for the final score.

The results of the questionnaire will be analyzed statistically using the Statistical Package for Social Science (SPSS) version 20. The hypothesis in this study there is a relationship between self-acceptance and stress in patients with CKD undergoing HD at Army Hospital Dr. Soepraoen Malang (Ha).

RESULTS

Characteristics of Respondents

The research was found that the majority of respondents were male respondents as many as 9 respondents (60%). And overall, 11 respondents (73.3%) are between 30-50 years old. These characteristics can be seen in Table 1.

Table 1 – Sample characteristic by age and gender.

Age	Frequency		Total
	Male	Female	
< 30 years	2 (13,3%)	0 (0%)	2 (13,3%)
30-50 years	6 (40,0%)	5 (33,3%)	11 (73,3%)
> 50 years	1 (6,7%)	1 (6,7%)	2 (13,3%)
Total	9 (60%)	6 (40%)	15 (100%)

There are two variables in this study, namely self-acceptance and stress. Both of these variables are categorized according to the score range on each questionnaire. The results of both variables can be seen in table 2 and table 3.

Stress in patient with CKD

Table 2 – result of stress level using DASS21 (stress item)

Stress level	Frequency		Total
	Male	Female	
Mild	1 (6,7%)	1 (6,7%)	2 (13,3%)
Moderate	3 (20,0%)	4 (26,7%)	7 (46,7%)
Severe	5 (6,7%)	1 (6,7%)	6 (40,0%)
Total	9 (60%)	6 (40%)	15 (100%)

In table 2 shows that respondents experienced moderate stress as many as 7 people (46.7%) and severe stress as many as 6 people (40.7%). The table also shows only a small proportion

of respondents who have mild stress levels, only 2 respondents (13.3%). So, it can be concluded that the majority of respondents have stress levels that tend to be high against diseases or HD processes.

Self-acceptance in patient with CKD

Table 3 – result of self-acceptance using USAQ

Self-acceptance	Frequency		Total
	Male	Female	
Low	2 (13,3%)	1 (6,7%)	2 (13,3%)
Moderate	3 (40,0%)	0 (0%)	11 (73,3%)
High	4 (26,7%)	4 (33,3%)	2 (13,3%)
Total	9 (60%)	6 (40%)	15 (100%)

Table 3 show that most subjects have a high level of self-acceptance as shown by 9 respondents (60%). Respondents with a low level of self-acceptance amounted to 3 people (20.0%) and respondents with a moderate level of acceptance amounted to 3 people (20.0%). Based on the table it can be concluded that the majority of respondents have a high level of self-acceptance.

Correlation Self-acceptance and Stress in patient with CKD

Table 4 – result of bivariate data analysis (spearman rank)

Spearman's rho	N	α	Signifikansi	Correlation Coefficient (r)
	15	95 % (0,05)	0,00	-0,901

Results from data analysis in table 4, the table shows that the significance value is 0,000 (α <0.05). So it can be concluded that there is significant relationship between self-acceptance and stress in patients with CKD undergoing HD at Army Hospital dr. Soepraoen Malang. The value of the correlation coefficient (ρ) is -0.901, this value indicates that there is a very strong negative relationship (inversely proportional) between the two variables and can be interpreted as a higher self-acceptance, then the stress level will get milder. So the hypothesis in this study is accepted.

DISCUSSION

The results of this study indicate that self-acceptance is significantly negative with stress in CKD patients at Army Hospital dr. Soepraoen Malang. The higher self-acceptance in CKD patients will be milder the level of stress experienced.

Stress affects many aspects of human life. For the cognitive aspect, stress causes interference cognitive function by reducing or increasing attention to something. In the emotional aspect, stress can cause a sense of fear which is a common reaction when individuals feel threatened, create feelings of sadness or depression, and trigger anger, especially when individuals experience situations that are dangerous or frustrating (Greenberg, 2012). Stress arises when someone adjusts to an event or situation. There are two factors that cause situations or events that cause stress that are related to the individual itself and which are related to situations experienced by individuals (Bustan & Azmi, 2008; Hamid, 2009).

The results of this study showed that the majority of respondents had moderate stress levels of 7 respondents (46.7%). This is because patients with CKD undergoing HD have partially undergone HD for a long time so that some patients feel familiar with all the changes that occur in themselves, although sometimes complications of CKD often make patients experience various problems and if the coping mechanism of patients is not good in responding to the stressor will have an impact on the patient's stress level.

Patient with CKD undergoing HD are susceptible to stress. Patients with long-term HD therapy often feel anxious about their unpredictable illness and disruption in their lives. They usually face financial problems, difficulty in maintaining work, disappearing sexual drive and impotence, depression due to chronic illness, fear of death and routine therapy every week so that the role that is needed is hampered. Clients who are young, they are afraid of their marriage, the children they have and the burden they have on their families. Changes in client lifestyles with HD and restrictions on food and fluid intake that often reduce the enthusiasm of the life of the client and his family. There are some stressor for clients. Stress is a sad feeling experienced by everyone and can affect activity, diet, sleep, concentration and even have the idea of suicide (Smeltzer & Bare, 2002; Stuart & Gail, 2016).

Self-acceptance is a trigger factor for adaptive coping strategies. Patients with CKD can use coping mechanisms in dealing with stressors that arise, so self-acceptance is one of the factors that determine a person's well being (Chan, 2013; Ryff, 1989). High self-acceptance can be influenced by many factors. Hurlock (1978) states that self-acceptance is influenced by better self-understanding, realistic expectations, lack of barriers in their environment, good social attitude, lack of emotional stress, more success in their lives, identification with well-adjusted people, good self-perspective, good childhood care, and a stable self-concept.

In this short period of research the researchers felt that there were some weaknesses, first when taking research data, the researchers spread to the subjects when the subject was waiting for their HD process or after the hemodialysis process. They felt complaints such as dizziness, nausea, chills, coughing, vomiting, and did not understand Indonesian so that when the researcher gave instructions for filling out the questionnaire. there were several subjects who could not pay attention to the explanation of the researcher well, but generally the respondents were accompanied by a family who escorted or accompanied during the hemodialysis process so the researcher was assisted by the subject family in giving an explanation. Second, the sample used in this study was only 15 respondents, so this study did not represent the existing population.

CONCLUSIONS

Based on the results of the study, it can be concluded that there is a very significant negative relationship between self-acceptance and stress in patients with CKD with correlation value (ρ) of -0.901 and a significance value of 0.00. The results showed that the hypothesis was accepted, namely the higher self-acceptance, the milder stress level.

There are some implication of this study. First, for patients with CKD, it is expected to increase the attitude of accepting his condition with kidney failure. Increasing self-acceptance can reduce stress levels. Families can accompany and motivate patients to be able to receive their disease and treatment.

Second, for researchers, it can be used as a basis for research related to self-acceptance and stress, and also other factors. Subsequent researchers need to delve deeper into the experience of respondents by conducting intensive interviews and observations about self-acceptance and stress.

Declarations

Authors' contributions

The first author contributed to lead the research, data collection, and analysis data

The second author contributed in writing the paper

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Availability of data and materials

Data of this study will not be shared, because this study is pilot research for further research

Competing interests

There is no conflicts of interests here, because this research using cross-sectional design.

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