The Correlation between Self-Efficacy of Hemodialysis Patients with Their Quality of Life

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KEYWORDS
chronic kidney disease; hemodialysis; self-efficacy; quality of life; nursing.

ABSTRACT
Background: Haemodialysis is often associated with decreased quality of life. Self-efficacy is a perception of patient confidence in ability activities. The correlation between self-efficacy and quality of life in the Indonesian sample is not yet explored in depth. Aim: To determine the correlation between self-efficacy and the quality of life in hemodialysis patients. Methods: Cross-sectional study. About 234 respondents were included. The General Self-Efficacy Scale (GSES) questionnaire has been used to measure self-efficacy, and the World Health Organization Quality of Life (WHOQOL-BREF) was used to measure the respondent's quality of life. Kendall's tau statistical approach was used to determine the correlation between self-efficacy and quality of life. Results: Majority of respondents with high self-efficacy as much as 68.8%, and majority of respondents with moderate and good quality of life as much as 48.3%. A significant correlation between self-efficacy and quality of life (p=0.000) with a correlation coefficient value of 0.491 was found. Conclusion: High level of self-efficacy would be a better quality of life of haemodialysis patients. Improving self-efficacy as a nursing care process is recommended as nursing outcomes in order improve the quality of life of haemodialysis patients. Identify self-efficacy predictor factors of haemodialysis patients are recommended for further research.

1. Introduction

Chronic kidney disease (CKD) is major health problems in the word [1, 2], The global CKD prevalence is reported consistently high to be 10.6% [3]. The prevalence of CKD in Indonesia was 0.5% [4]. CKD was reported with most morbidity and high costs [5, 6]. Hemodialysis therapy is the most common therapy for CKD [7, 8]. The study was informing about 89% of hemodialysis therapy was used for CKD patients in the world [5]. Hemodialysis patients suffer from increased sleep disorders, sexual dysfunction, pain, and depression [9, 10]. In addition, studies have reported hemodialysis therapy have negatively impacts all aspects of quality of life [10].

Hemodialysis patients faced various suffer problems; therefore, they need to control and manage their adherence to self-care. Self-efficacy is psychological factor that improves adherence and treatment outcomes among hemodialysis patients [11-13]. Self-efficacy of patients on hemodialysis is main component successful management of hemodialysis outcomes [13]. Study reported significant correlation between sociodemographic characteristics and self-efficacy among hemodialysis patients in terms of sex, level of education, marital status, age, work, and [11, 12, 14]. In addition, technology has positive impact for enhanced self-efficacy and self-management chronic disease [15]. Studi in Europe country was reported self-efficacy has a significant positive correlation with social support and significant negative correlation with health-promoting behaviour's [16]. Comprehensive health services was improve quality of life of the hemodialysis patients [17]. In addition, family resilience and social support as predictive factors of psychological resilience [18], would be positive affected of self-efficacy.

Indonesia is different from European countries in terms of the wide geographical dispersion of Indonesia's islands, the low concentration of healthcare services in urban areas, and the various cultures and beliefs related to the self-efficacy and quality of life in haemodialysis patients' status. Few studies in Indonesia have examined the correlation between self-efficacy and quality of life in haemodialysis patients. Therefore, the aim of this study was to investigate the correlation between self-efficacy and quality of life in haemodialysis patients in an Indonesian sample.

2. Methods

Study Design: This study is a quantitative study with a cross-sectional design

Sample: Two hundred and four respondents who received hemodialysis in a Hospital in Yogyakarta area, Indonesia. were participated in this study. The inclusion criteria in this study are as follows: a) chronic kidney disease patients undergoing hemodialysis; b) aged>18 years; c) able to communicate, read, and write; e) willing to participate as research respondents. Exclusion criteria; Patients who have severe hearing problems, and severe pain were excluded.
Data collection: The data were collected through in-person interviews by the researcher with those who could not read, and the respondents completed the questionnaires for the respondents who could read the research instruments.
Instruments
General Self Efficacy Scale (GSES) Indonesian version. GSES valid instrument in assessing self-efficacy in Indonesian [19]. This questionnaire uses a Likert scale with five response options: "strongly disagree," "disagree," "neutral," "agree," and "strongly agree." The analyzed GSES scores fall into three categories: low self-efficacy (scores of 10-23), moderate self-efficacy (scores of 24-37), and high self-efficacy (scores of 38-50).
The WHOQOL–BREF Indonesian questionnaire is used to measure respondents' quality of life. WHOQOL–BREF consists of 26 questions; 2 questions for overall quality of life and 24 questions consisting of 7 physical dimensions, 6 psychological dimensions, 3 dimensions of social relationships and 8 environmental dimensions. WHOQOL–BREF measurement results use an ordinal scale, with five categories, namely very poor quality of life (0-20), poor quality of life (21-40), moderate quality of life (41-60), good quality of life (61-80), and excellent quality of life (81-100). WHOQOL-BREF Indonesian version was valid [20].
Ethical consideration
This study received approval from the Hospital Research Ethics Committee No.00093/KT.7.4/III/2024; 18/03/2024. The researcher explained the research procedures to the respondents, and if they agreed, they advanced to fill out the informed consent form and questionnaire.
Statistical analysis
The analysis was executed via Statistical Product and Service Solution (SPSS) version 22 with the Kendall-tau statistic were used in order to identified the correlation between self-efficacy and quality of life in haemodialysis patients in an Indonesian sample.

3. Results

Characteristics of the respondents
This study involved two hundred thirty-four hemodialysis patients, the majority of whom were aged 56–65 years (34.6%); 59% were male, 40.2% had a high school education, 71.4% were unemployed, 89.3% were married, 87.2% were primarily using Indonesian government health insurance, and 69.2% had undergone hemodialysis for more than one-year duration. Majority of respondents with high self-efficacy as much as 68.8%, and the majority of respondents with moderate and good quality of life as much as 48.3% (respectively). The results are summarized in Table 1.
Correlation between self-efficacy and quality of life in hemodialysis patients

The Kendall Tau statistical analysis revealed a significant negative correlation between self-efficacy and quality of life in hemodialysis patients (p=0.001; r=0.491). This result confirmed the higher levels of self-efficacy correlated with a better level of quality of life in this vulnerable population (Table)

Table 1: Characteristics respondent (n=234)

Characteristics		Frequency (f)	Percentage (%)
Age			
•	18-25 years	4	1,7
•	26-35 years	16	6,8
•	36-45 years	35	15,0
•	46-55 years	62	26,5
•	56-65 years	81	34,6
•	>65 years	36	15,4
Gender			
•	Male	138	59,0

• Female	96	41,0
Marital Status		
• Married	209	89,3
• Single	17	7,3
• Other (Divorced)	8	3,4
Education Level		
• No Schooling	11	4,7
• Elementary School	48	20,5
• Junior High School	37	15,8
• Senior High School	94	40,2
• College/University	44	18,8
Employment Status		
• Employed	67	28,6
• Unemployed	167	71,4
Duration of hemodialysis		
• <1 years	72	30,8
• >1 years	162	69,2
Self-efficacy		
• low self-efficacy	8	3,4
• moderate self-efficacy	65	27,8
• high self-efficacy	161	68,8
Quality of Life		
• Very Poor Quality of Life	0	0
• Poor Quality of Life	5	2,1
• Moderate Quality of Life	113	48,3
• Good Quality of Life	113	48,3
• Very good quality of life	3	1,3

Source: Authors

Table 2. Correlation between self-efficacy and quality of life in hemodialysis patients

Variable	n	Correlation Coefficient	p
Self-Efficacy Quality of Life	234	0,491	0,001

* Kendall tau correlation test

4. Discussion

The results of the present study suggest that patients on hemodialysis with lower levels of self-efficacy have lower level of quality of life. Quality of life as an essential outcome in hemodialysis patients [21]. Outcome focuses on aspects of an individual's physical or mental health and, subjective clinical parameter used to assess the effects of illness and the outcomes of treatment [22]. Maintain or increasing level of quality-of-life patients undergoing hemodialysis as nursing outcomes, [22, 23]. Nursing intervention should be manage the predictor variables such as self-efficacy, stress and, depression [24] in quality of life management.

The correlation between self-efficacy and quality of life in patients who received hemodialysis was confirmed in the current study. The results of this study are in line with previous studies which found higher perceived self-efficacy have shown a better quality of life of chronic kidney disease patients undergoing hemodialysis [25]. Self-efficacy refers to patients' confidence in their ability to adhere to their treatment and manage their disease [26]. Self-efficacy among hemodialysis patients may help nurses and health care providers clearly understand patients' conditions. Hemodialysis therapy reduces patients' self-efficacy and has a negative impact on their ability to independently manage their environment and life events. In addition, patients' hemodialysis is associated with a high risk of psychological problems such as low self-efficacy [11].

The implementation of mental health nursing interventions for hemodialysis patients has reduced the incidence of complications increased nursing satisfaction [27]. Exercise program for self-efficacy are needed for hemodialysis patient's, study shown positive association was observed between exercise self-efficacy and quality of life[28]. Another study revealed that interventions, including training related to the dialysis system and diet, are needed to improve the self-efficacy of hemodialysis patients [29] and that nurses' experience is useful for caring for such patients [30]. Nurses play an important role in improving self-efficacy in hemodialysis patients, such as nursing team management model can achieve good clinical effects, combined and considering exercises program for self-efficacy are recommended for quality-of-life improvement.[31]

5. Conclusions

High level self-efficacy would be better quality of life of hemodialysis patients. Improving self-efficacy as a nursing care process is recommended as nursing outcomes in order improve the quality of life of hemodialysis patients. Identify self-efficacy predictor factors of hemodialysis patients are recommended for further research Limitations of the study: Due to the large Indonesian geographic area, this study was conducted only in Yogyakarta, Java, and may not apply to all of Indonesia.

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