Research Article

Self-efficiency and Quality of Life Coronary Heart Disease Patients: A descriptive study

Ni Made Dewi Wistiani, Ni Luh Putu Dewi Puspawati*, M. Adreng Pamungkas

STIKes Wira Medika Bali, Indonesia

ABSTRACT

Introduction: Coronary heart disease is a disease that requires treatment in the long term and even for life, a strict diet, and restriction of physical activity which directly affects the patient's quality of life. Self-efficacy is one factor that affects the patient 's quality of life with coronary heart disease. **Methods:** This study aimed to determine the relationship between self-efficacy and quality of life of patients with coronary heart disease at the Cardiology Polyclinic at Sanglah Hospital Denpasar. This study used a correlational analytic design with a cross-sectional approach, a cardiac self-efficacy questionnaire, and the WHOQOL BREF. The sample size was 164 respondents recruited by consecutive sampling technique. **Result:** Most respondents were in the moderate self-efficacy category of 80 respondents (48.8 %), and most had a moderate quality of life, namely 64 respondents (39.0 %). **Conclusion:** High self-efficacy will increase the ability of coronary heart disease patients to follow a programmed therapy regimen, adhere to the recommended diet program, and regulate physical activities optimally so that they will be able to maintain and improve their quality of life.

Keywords: self-efficacy, quality of life, coronary heart disease

Introduction

Coronary heart disease is a non-communicable disease that can cause decreased productivity. Coronary heart disease patients face many physical and psychosocial pressures, such as chest pain, fatigue, fear of re-attack, sudden death, difficulties adapting to stressors, and uncontrolled emotions. In addition, patients with coronary heart disease are also required to follow a continuous therapy regimen, even for life, causing changes in the lifestyle of sufferers. This condition lasts relatively long and automatically affects patients' quality of life with coronary heart disease. Good quality of life in patients with coronary heart disease is needed to maintain that patients can get the best health status and maintain their function or physical abilities as optimally as possible and as long as possible [1]

According to data from *the World Health Organization* (*WHO*) in 2016, ischemic heart disease and stroke are the first and second leading causes of death worldwide, with a total death of 15.2 million people. The prevalence of

cardiovascular disease tends to increase yearly and has been the highest cause of death for nearly the last 15 years. WHO estimates that by 2030 cardiovascular disease will cause the death of more than 23 million people per year[2].

Coronary heart disease patients require medical therapy for a long time, even for life, strict diet, and restrictions on physical activity, which can cause coronary heart disease patients to feel bored and not want to participate in treatment programs anymore. It will result in more significant losses for the patient because the heart damage will worsen and directly affect the patient's quality of life. Quality of life is an individual's perception of abilities, limitations, symptoms and psychosocial characteristics of life in the context of culture and values to carry out their roles and functions[3].

Factors that affect quality of life according to Rubin[4], namely: demographic factors (gender, age, marital status, economic status and social status), medical factors (type of disease, length of suffering, treatment to be undertaken and complications accompanying) and psychosocial factors (self-efficacy, self-control, social support, coping strategies and personality type). Patients who have good self-efficacy will be more confident in their ability to self-care and believe that they are one of the most important factors that play a role in controlling and preventing the symptoms of the disease that arise.

High self-efficacy is indicated by high confidence and the ability to effectively organize social, cognitive, emotional and behavioral abilities to achieve specific goals[5]. Patients with high self-efficacy will be able to be more cooperative and consistent in following treatment programs so that they will indirectly maintain optimal health conditions and lead to a better quality of life. The previous study found that most coronary heart disease patients were in the low self-efficacy category, namely 27 respondents (55.1%) of 49 respondents. Suastawa's research[6] concerning the relationship between self-efficacy and compliance with phase 1 cardiac rehabilitation in patients with coronary heart disease at the Integrated Heart Service Installation at Sanglah General Hospital.

Based on a preliminary study , six patients with coronary heart dis-ease had a low quality of life, three patients had a moderate quality of life, and one patient had a high quality of life. In addition, no research has been conducted on the relationship between self-efficacy and quality of life in patients with coronary heart disease at the Cardiology Polyclinic at Sanglah General Hospital. This study aimed to describe the relationship be-tween self-efficacy and the quality of life of coronary heart disease patients at the Cardiology Polyclinic of Sanglah General Hospital Denpasar.

Methods

The research design used in this study is ob-servational analytic with a cross-sectional ap-proach. This research was conducted at the Cardiology Polyclinic at Sanglah Hospital in Denpasar and was carried out in December 2020. The population was all CHD patients who visited it. The sample for this study was 164 respondents who met the inclusion criteria and were selected using non-probability sampling, namely consecutive sampling.

The data collection instruments used in this study were the cardiac self-efficacy questionnaire and the WHOQOL-BREF. Sullivan et al. [7] devised the CSE Scale, which included 13 items in English in which patients were asked to score their level of confidence using a five-point Likert scale (with 0 indicating a lack of confidence and 4 a high level of assurance). The Cronbach's alpha for the CSE Scale's two sub-scales, "control symptoms" and "keep functioning," was 0.90 and 0.87, respectively, indicating strong internal consistency and good conver-gent and discriminant validity. Eight compo-nents make up the manage symptoms dimen-sion, while the remaining five make up the function maintenance dimension.

Meanwhile, the WHOQOL Group drafted the WHOQOL-BREF as a concise replacement for the WHOQOL-100 [8]. There are a total of 26 questions on this instrument, and a couple of them are meant to gauge general health and

quality of life. The remaining 24 items cover areas of health, mind, friends and family, and the natural world. On a scale from 1 to 5, each item is graded. The results are then converted to a linear scale from 0 to 100, with 0 indicating the worst quality of life possible and 100 the best. The WHOQOL-BREF has been translated into Indonesian and has been shown to be a valid and reliable instrument for use in the country. With reference to the English version's guidelines, we decided to use a four-week time frame for the WHOQOL-BREF; the World Health Organization (WHO) has since recognized our version as the revised official Bahasa Indonesia translation. For this research, we utilized the WHOQOL-BREF, a self-administered paper version of the online version.

The data analysis techniques used in this study were univariate. Univariate analysis was used to describe the frequency distribution of respondent characteristics (gender, age, education level, employment status, and length of coronary heart disease).

Ethical consideration

This research was approved by the ethics committee of Sanglah Hospital with number 2470/UN14.2.2.VII.14/LT/2020. Before beginning the study, researchers obtained the participants' informed consent using the research information and consent form. Each of the many forms features extensive explanations of the study's aims and methodology. Participants were asked to read the consent form and check the "Agree" box if they were comfortable taking part in the study. Volunteers were assured their personal information would be protected by the study's anonymity provisions.

Results

Table 1. Distribution of Respondent Characteristics (n = 164)

Characteristics	f	%
Age (years)		
36-45	12	7,3
46-55	46	28,1
56-65	106	64,6
Gender		
Male	132	80.5
Female	32	19.5
Education		
Elementary	20	12,2
Junior High School	4	2,4
Senior high school	104	63,4
Diplomas/PT	36	22
Work		
Unemployment	72	43,9
Civil servant	21	12,8
Private	33	20,1
Self-employed	10	6,1
Etc	28	17,1
Long suffered		
< 1 year	95	57,9
13 years old	33	20,1
> 3 years	36	22
Self Efficacy		
Low	34	20,7
Fair	80	48,8
High	50	30.5

Characteristics	f	%
Quality of Life		
Low	60	36,6
Fair	64	39
High	40	29,4

Table 1 shows the majority of respondents aged 55-65 years, male, high school education, currently unemployed, and most have had CHD for less than one year.

Table 3. Relationship Test of Self-Efficacy and Quality of Life (n=164)

Self Efficacy	Quality of Life					
	Low		Fair		High	
	f	%	f	%	f	%
Low	25	15,2	7	4,3	2	1,2
Fair	28	17,1	41	25	11	6,7
High	7	4,3	16	9,8	27	16.5
Amount	60	36,6	64	39	40	24,4

Discussion

Based on the cross-tabulation between self-efficacy and quality of life in patients with coronary heart disease at the Heart Polyclinic of Sanglah Hospital, Denpasar, the results show that there is a significant relationship between self-efficacy and quality of life with a strong and unidirectional relationship. This means that the higher the self-efficacy of patients with coronary heart disease, the higher the quality of life of these patients, and vice versa.

According to Amila et al. [10] there is a relationship between self-efficacy and lifestyle; the higher the patient's self-efficacy, the better or healthier his lifestyle will be. The same research results were shown in Shoufiah & Noorhidayah's research[11] concerning the relationship between self-efficacy and the quality of life of coronary heart disease patients at RSUD Dr. Kanudjoso Djatiwibowo Balikpapan who stated that there is a significant relationship between self-efficacy and the quality of life of coronary heart disease patients. The same thing was stated in Agustini's research[12] entitled The Relationship between Self-Efficacy and Quality of Life in Chronic Obstructive Pulmonary Disease Patients at the Tabanan General Hospital, where it was said that there was a significant relationship between self-efficacy and quality of life.

CHD Patient Self-Efficacy

Based on the study's results, it was found that out of a total of 164 respondents, the most self-efficacy was in the moderate self-efficacy category, namely 80 people (48.8%), such as each individual's experience, age and level of education. According to the theory stated by Pervin [13]states that the age of 40-65 years is the age with a stage of success where a person can guide and evaluate himself so that he has self-efficacy, which tends to be better than younger ages. According to research by Okatiranti et al.[15], states that education is closely related to knowledge and knowledge has an effect on self-efficacy, where high knowledge will increase one's self-efficacy.

The results of this study were following research conducted by Suwandewi[16] entitled *Self-Efficacy Relations* with *the Daily Living Activity* of Post-Stroke Patients at the Neurologic Polyclinic of Sanglah Hospital, Denpasar. It revealed that most respondents were 51-60 years (63%) and had moderate self-efficacy. Different research results were found in a study conducted by Suastawa[6], where data obtained that the majority of coronary heart disease patients were at category of low self-efficacy as many as 27 respondents (55.1%) of a total of 49 respondents.

Differences in the respondents' experience can cause differences in self-efficacy results. In

this study, the respondents were coronary heart disease patients who had visited the Cardiology Polyclinic at Sanglah Hospital for at least the second time. In contrast, Suastawa's study[6] respondents were coronary heart disease patients hospitalized in the ICCU and ICU. *Intermediate Ward*, most of whom were pa-tients who had their first heart attack. Coronary heart disease patients who have repeatedly taken control to the Cardiology Polyclinic certainly have more experience than patients who have had a heart attack for the first time. These experiences include experiences of success in dealing with complaints, both physical com-plaints such as chest pain, shortness of breath, and psychological complaints during the first heart attack. This successful experience will foster confidence and increase in the patient who had repeated controls at the Cardiology Polyclinic than experiencing a heart attack for the first time.

Fair self-efficacy in patients with coronary heart disease, apart from experience, is also related to age and education level. The age of most of the respondents in this study was in the range of 56-65 years or included in the early elderly category, while the educational level of most of the respondents had a high school education level. The age of 55-65 years is an age with a stage of success, where a person can guide and evaluate himself so they have self-efficacy, which tends to be better than those at a younger age. Someone with a better education level will be more mature in changing himself, more readily accept positive external influences, and think rationally about various information, including information in the health sector.

Quality of Life of CHD Patients

Based on the study's results, most of the quality of life of patients with coronary heart disease was in the moderate category, namely 64 people (39.0%). According to Rubin[4] three factors can affect a person's quality of life. These three demographic factors include gender, age, marital status, and economic and social status. Medical factors include the type of disease, duration

of suffering from an illness, treatment to be undertaken, and accompanying complications. The third factor is psychosocial factors such as efficacy, self-control, family or social support, individual coping strategies and personality type. According to Yaghubi et al.[17] several factors affect the quality of life in heart disease patients, such as age, ejection fraction, drug use, patient compliance, and eco-nomic level.

Similar research results can be seen in a study Tadjimo et al.[18] entitled The Relation-ship of Long Suffering with the Quality of Life of Coronary Heart Disease Patients in a Central Indonesian Private Hospital. In this study, it was said that most respondents had a moderate quality of life, namely as many as 48 people (57.1%) of a total of 84 respondents. On the contrary, the results Putri[19], entitled The Relationship between Spiritual Intelligence and Quality of Life for Coronary Heart Disease Patients at the Cardiology Polyclinic Doctor Moewardi Hospital in Surakarta, showed that most coronary heart diseases had a low-quality of life.

Fair quality of life in coronary heart disease patients is closely related to the respondent's employment status. From the study results, most respondents' employment status was not working, namely as many as 72 people (43.9%) from 164 respondents. Not working was positively related to systolic blood pressure, obesity and insufficient physi-cal activity. The researcher believes that the non-working status of patients with coronary heart disease is since most of the respondents in this study are aged from 56 to 65 years. Old age may no longer be able to work or retire. Employment status also contributes closely to income. Not working can lead to lower pay-ment or income levels. According to Rubin low income will cause the quality of life to decrease because income level and economic status were one of the demographic factors that affect quality of life [4].

According to the researchers, aside from work and income factors, the fair quality of life might closely related to how long

these patients suffer from coronary heart disease. From the study results, it can be seen that most of the respondents suffered from heart disease for less than one year, namely 95 people (57.9%) out of a total of 164 respondents. Whether or not a person suffers from an illness for a long time is closely related to the status of depression and anxiety experienced. Researchers believe that the more often patients with coronary heart disease experience anxiety, the patient's physical condition will worsen. Adverse effects include tightness, chest pain, and increased physical limitations. This condition can worsen the patient's perception of the disease. If left unchecked, changes in physical and emotional conditions will lead to depression. Depression is one of the psychosocial problems in patients with coronary heart disease that must be prevented because depression is a factor that most influences the quality of life and can reduce the quality of patients with coronary heart disease [20]

Limitation

This study did not analysis relationship between variables, further study is needed to check the relationship among variables and control characteristics variables to get accurate results. Mixed method study might can help patient experience to explore patient self-efficacy after control several times at outpatient clinic.

Conclusion

The self-efficacy of patients with coronary heart disease at the Cardiology Polyclinic at Sanglah Hospital, Denpasar, was in the moderate cate-gory, namely 80 respondents (48.8%) out of 164 respondents. The quality of life of patients with coronary heart disease is in the moderate category, namely 64 respondents (39.0%) of 164 respondents. There was a significant relationship between self-efficacy and the quality of life of coronary heart disease patients at the Heart Polyclinic of Sanglah General Hospital.

Implication for Nursing

Coronary heart disease patients are expected to increase their knowledge about self-efficacy so that the patient's self-care management will be better and lead to an increase in a good quality of life as well. Nurses can improve the quality of service in providing nursing care, especially to patients with coronary heart disease by focusing on increasing self-efficacy and quality of life of patients. Nurses are expected to be able to develop nursing knowledge that focuses on self-efficacy and quality of life of patients. Future researchers should examine other variables related to factors that affect the quality of life of coronary heart disease patients besides self-efficacy, such as stress levels, family support, control adherence and others.

References

1. Widiarti, L. (2012). Kualitas Hidup Pasien Penyakit Jantung Koroner Di Poliklinik Jantung RSUD Banyumas. *Jurnal Ilmiah Ilmu-Ilmu Kesehatan, Medisains*, *X*(1).
2. Wihastuti, T. A., Andarini, S., & Heriansyah, T. (2016). *Patofisiologi Dasar Keperawatan Penyakit Jantung Koroner: Inflamasi Vaskular*. Universitas Brawijaya Press.
3. Group, W. (1998). Development of the World Health Organization WHOQOL-BREF quality of life assessment. *Psychological Medicine*, *28*(3), 551–558.
4. Ratnawati, N. (2016). *Hubungan Efikasi Diri Terhadap Kualitas Hidup Pasien Diabetes Melitus Tipe 2 Di RS PKU Muhammadiyah Yogyakarta*. Universitas Muhammadiyah Yogyakarta.
5. Cervone, D., & Pervin, L. . (2011). *KEPRIBADIAN : Teori dan Penelitian*. Salemba Humanika .
6. Suastawa, K. A. (2018). *Hubungan Efikasi Diri Dengan Kepatuhan Melakukan Rehabilitasi Jantung Fase 1 Pada Pasien Penyakit Jantung Koroner (PJK) di Instalasi Pelayanan Jantung Terpadu RSUP Sanglah Denpasar.Skripsi tidak diterbitkan*. Sekolah Tinggi Ilmu Kesehatan Wira Medika Bali.
7. Sullivan, M. D., LaCroix, A. Z., Russo, J., & Katon, W. J. (1998). Self-efficacy and self-reported functional status in coronary heart disease: a six-month prospective study. *Psychosomatic Medicine*, *60*(4), 473–478.
8. Salim, O. C., Sudharma, N. I., Kusumaratna, R. K., & Hidayat, A. (2007). Validity and reliability of World Health Organization Quality of Life-BREF to assess the quality of life in the elderly. *Univ Med*, *26*, 27–38.
9. Amila, Sinaga, J., & Sembiring, E. (2018). Self Efficacy dan Gaya Hidup Pasien Hipertensi. *Jurnal Kesehatan*,

9(3), 360–365.

10. Ayuning, M. A. (2018). Hubungan Efikasi Diri dengan Kecemasan Pada Pasien Pre Operasi Dirumah Sakit Tingkat III Baladhika Husana Jember. In *Digital Respository Universitas Jember*. Universitas Jember.

11. Shoufiah, R., & Noorhidayah. (2017). Efikasi Diri Berhubungan dengan Kualitas Hidup Pasien Penyakit Jantung Koroner. *Seminar Nasional Politeknik Kesehatan Kemenkes Kaltim*, 73–80.

12. Agustini, N. L. M. Y. (2019). *Hubungan Efikasi Diri Dengan Kualitas Hidup Pasien Penyakit Paru Obstruktif Kronis Di BRSU Tabanan*. Sekolah Tinggi Ilmu Kesehatan Wira Medika Bali.

13. Wantiyah. (2010). Analisis Faktor-faktor Yang Mempegaruhi Efikasi Diri Pasien Penyakit Jantung Koroner Dalam Konteks Asuhan Keperawatan Di RSD dr. Soebandi Jember. *Universitas Indonesia*, *Tesis.*

14. Okatiranti, Irawan, E., & Amelia, F. (2017). Hubungan Self EfficacyDengan Perawatan Diri Lansia Hipertensi. *Jurnal Keperawatan BSI, V*(2), 130–139.

15. Okatiranti, O., Irawan, E., & Amelia, F. (2017). Hubungan Self Efficacy Dengan Perawatan Diri Lansia Hipertensi. *Jurnal Keperawatan BSI*, *5*(2), 130–139.

https://doi.org/https://doi.org/10.31311/.v5i2.26 31

16. Suwandewi, N. K. (2019). *Hubungan Self Efficacy dengan Activity Daily Living Pasien Pasca Stroke di Poliklinik Saraf RSUP Sanglah Denpasar*. Sekolah Tinggi Ilmu Kesehatan Wira Medika Bali.

17. Pudiarifanti, N., Pramantara, D., & Ikawati, Z. (2015). Faktor-Faktor Yang Mempengaruhi Kualitas Hidup Pasien Gagal Jantung Kronik. *Jurnal Manajemen Dan Pelayanan Farmasi*, *5*(4), 259–266.

18. Tadjimo, C. K., Manurung, E. Z., & Santule, W. F. G. (2018). *Hubungan Lama Menderita dengan Kualitas Hidup pada Pasien dengan Penyakit Jantung Koroner di Satu Rumah Sakit Swasta Indonesia Bagian Tengah*.

19. Putri, H. A. A. (2018). *Hubungan Kecerdasan Spiritual dengan Kualitas Hidup Pasien Penyakit Jantung Koroner di Poliklinik Jantung Rumah Sakit Dokter Moewardi Surakarta*. Fakultas Ilmu Kesehatan Universitas Muhammadiyah Surakarta.

20. Nuraeni, A., Mirwanti, R., Anna, A., Prawesti, A., & Emaliyawati, E. (2016). Faktor yang Memengaruhi Kualitas Hidup Pasien dengan Penyakit Jantung Koroner. *Jurnal Keperawatan Padjadjaran*, *4*(2), 107–116.