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The relationship of family support and self efficacy with diet compliance in patients with coronary heart disease

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Abstract

Coronary heart disease (CHD) is a chronic disease that cannot be cured. One of the problems in the management of CHD is patient adherence to the diet. Family support and self-efficacy can be factors that influence adherence to the diet of CHD patients. The study aimed to determine the relationship between family support and self-efficacy with adherence to the diet of CHD patients. The study used a correlational method with a cross-sectional design. The population was 105 CHD patients taken by purposive sampling technique. Variables are family support, self-efficacy, and diet compliance of CHD patients. The instrument used was a questionnaire. Data were analyzed using the Spearman Rho test with a level of significance ≤ 0.05 . There was a significant relationship between family support and diet adherence of CHD patients ($p = 0,000$) with a positive direction such as the better the family support, the higher the level of diet adherence. The relationship between self-efficacy and diet adherence has a weak relationship ($p = 0.025$) with a positive direction, the better self-efficacy, the higher the diet adherence. The behavior of adherence to the diet of CHD patients can be improved by improving family self-efficacy support.

Keywords: CHD diet, family support, self-efficacy

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INTRODUCTION

The results of research from Roza and Ilham in 2017 sufferers of heart disease have a level of diet compliance in the category that is less (76.6%) (Roza and Ilham, 2017). Some previous studies have found that the main obstacle in dieting is the boredom felt by sufferers (Akgüllü et al., 2015). Another problem found in diet disobedience in heart sufferers is the accessibility to healthy food, the time of routine administration, and the unavailability of time in preparing food (Schumacher et al., 2016). Non-compliance diet in people with heart disease can cause increased edema or swelling of the heart (Tarigan, 2018), and a higher cholesterol blockage that can cause heart failure (Sulaiman, 2018; Medyati et al., 2018).

A study found dietary patterns or dietary patterns of coronary heart disease patients seeking treatment at a teaching hospital in Surabaya had a high-fat consumption habit (85%) and as much (15%) low fiber (Putri, 2016). Other studies have found that people with coronary heart disease consume excess carbohydrates (65%) and (40%) the fat consumed exceeds the needs (Rahma, 2017). Notoatmodjo in 2010 assessed non-compliance as a form of negative health behavior (unhealthy), disobedient behavior is the final form of the stages of behavior change based on knowledge, motivation, and low self-efficacy of patients

(Notoatmodjo, 2010). Heart disease is the number one cause of death globally (Qanitha et al., 2017; Martina et al., 2019; Pertiwi et al., 2017; Wahyu and Hidayati, 2017). Since 2016 an estimated 17.9 million people have died or represented 31% of the world's deaths. 85% of deaths are caused by heart attacks and strokes (World Health Organization, 2012). In Indonesia, sufferers of the disease in the past six years have increased in prevalence and become one of the leading causes of death. Estimates of coronary heart disease sufferers are mostly West Java with 160,812 people, while East Java ranks second at 375,127 people and has increased every year (Kemenkes, 2013).

Research conducted by Schumacher in 2016 examines the role of families in reducing diets that are at risk for cardiovascular disease. The findings of this study are that family members can act as a support or barrier to adherence depending on their understanding of risk and how they view health from their food and/or what they share that fits the diet (Schumacher et al., 2016). Another study conducted by Arkar in 2007 examined the self-efficacy and health status of patients with coronary heart disease, the findings of the study

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Table 1. Characteristics of respondents

Characteristics of Respondents	n	%
Gender		
Male	51	49
Female	54	51
Age		
20-30 years	0	0
31-40 years old	4	4
41-50 years old	29	28
51-60 years old	69	66
Education		
Not going to school / not graduating	13	12
Elementary school	34	32
Middle School	14	13
High school	24	23
College	18	17
Occupation		
Unemployed	75	71
Labor	5	5
Student / student	0	0
Entrepreneur	19	18
Civil Servants	19	18
Total	105	100

were the self-efficacy of low CHD patients associated with low health status, the severity of CHD and depressive symptoms (Buleshov et al., 2019; Sarkar et al., 2007). While, this study focuses more on analyzing the relationship of family support (emotional, instrumental, and information) and self-efficacy with compliance with coronary heart disease patients.

METHODS

This study used a type of correlational research carried out to develop relationships between variables and explain the associations found by using a cross-sectional approach. This study consisted of independent variables (family support and self-efficacy) and the dependent variable (CHD dietary adherence) that occurred at the research object collected or measured simultaneously (at the same time). The subjects in this study were 105 patients aged 20-60 years who suffer from coronary heart disease who were doing outpatient treatment at the hospital. The sampling technique in this study has been implemented using nonprobability sampling techniques, namely by purposive sampling. Data collection in this study through a questionnaire.

RESULTS

The results of the study for demographic data show that the majority of respondents were female as many as 54 people (51%). In terms of education, the majority

of respondents had an elementary school education of 34 people (32%). In terms of work, most respondents did not work, as many as 73 people (70%) (Table 1).

Based on Table 2 shows that family support with diet adherence found a significance level of $p = 0,000$ and a correlation coefficient $r = 0.626$, which means strongly correlated, then H1 is accepted, which means that there is a relationship between family support with diet compliance of CHD patients. The direction of the correlation in this study shows a positive result between the two variables so that it can be interpreted that the better the family support, the higher the diet compliance level of CHD patients. Also, the test results of self-efficacy with diet compliance showed Spearman Rho statistical test was obtained ($p = 0.025$) and correlation coefficient ($r = 0.219$), which means weak correlation, then H1 was accepted which meant that there was a relationship between self-efficacy and patient diet compliance CHD.

DISCUSSION

The results of this study indicate that there is a significant and robust relationship between family support and diet compliance of CHD patients. This means that the better the family support is given to CHD patients, the higher the level of patient compliance in managing a cardiac diet. Research conducted by Yeni in 2016 about family support with adherence to hypertensive patients can influence the level of diet compliance (Yeni et al., 2016). The better family support is given, the more obedient. In line with research conducted by Triharini in 2018, family support provided in the form of information, emotional, instrumental, and appreciation support will increase the intention of pregnant women to prevent anemia properly (Triharini, 2018). Significant relationships show that individuals who have good family support can influence diet compliance. The better the family support provided by the family, the more obedient the respondent's attitude in complying with the CHD diet.

Family members can act as supporters or obstructions of adherence depending on their understanding and knowledge of foods that are following the recommended diet (Schumacher et al., 2016). Family support is very much needed in patients who require prolonged treatment or experience chronic

Table 2. Relationships of family support, self-efficacy, and diet compliance

Variable	Diet adherence to CHD patients						p-value	r
	Obedient		Not Obedient		Not obey			
	n	%	n	%	n	%		
Family support								
Good	37	58.7	20	31.7	6	9.5	0,000	.626
Enough	10	35.7	12	42.9	6	21.4		
Less	6	42.9	4	28.6	4	28.6		
Self Efficacy								
High	33	78.6	8	19	1	2.4	0.025	0.219
Moderate	20	42.6	26	55.3	1	2.1		
Low	0	0	2	12.5	14	87.5		

illness (Sari et al., 2019). Based on answers from respondents whose families support in adhering to the diet, their families have information and knowledge about the components of the diet. Their families also take them to the hospital for monthly control and participate in counseling in the recommended diet. Whereas for respondents whose families are less supportive or not supportive, it can be caused by the lack of family understanding about a good diet for CHD patients. Poor family support will impact on patients not being obedient in carrying out the diet (Mulyasari, 2016).

The results of this study indicate that there is a significant relationship between self-efficacy and diet compliance of CHD patients. Individuals who have high self-efficacy, the higher the level of patient compliance in cardiac diet compliance. The results of this study are in line with the research of Yaqin, Niken, and Dharmana in 2017 shows that self-efficacy has a very important role in changing one's health behavior. The higher the self-efficacy that an individual has, the individual's behavior in maintaining better health (Yaqin et al., 2017). Self-efficacy in research on elderly people suffering from type 2 diabetes mellitus has a close relationship with the ability to manage the disease (Huda et al., 2019). This is consistent with the theory of Nola J Pender, self-efficacy is one of the most important things in influencing motivation and contribute to improving the way a person behaves healthy, such as efforts to adhere to the diet in

patients with coronary heart disease. So in this case, the higher self-efficacy, the individual more adheres to the recommended diet. The results of this study indicate that high self-efficacy has implications for high levels of diet compliance. Someone who has high self-efficacy will be able to increase confidence, reduce anxiety levels, and increase efforts to comply with the recommended diet. Self-efficacy has a significant role in changing one's health behavior (Yaqin et al., 2017). So this research shows that self-efficacy has a role in healthy behavior, as well as to maintain adherence to the CHD diet.

CONCLUSION

The results showed that family support with diet adherence to CHD patients had a high correlation. The better the family support of CHD patients, the higher the level of diet compliance of CHD patients. Self-efficacy with compliance to the diet of CHD patients has a weak correlation. This study means that the better the self-efficacy or confidence of CHD patients, the higher the level of diet compliance of CHD patients. It is expected that the results of this study can be a reference, and further research is needed related to internal and external factors that affect the diet compliance of CHD patients so that the intervention can be given appropriately to patients.

REFERENCES

- Akgüllü Ç, Sýrýken F, Eryýlmaz U, (2015) The relation between compliance to the Mediterranean diet and the extensiveness of coronary artery disease. Arch Turkish Soc Cardiol. 43: 340–349. <https://doi.org/10.5543/tkda.2015.49321>
- Buleshov MA, Buleshov DM, Yermakhanova ZA, Dauitov TB, Alipbekova SN, Tuktibayeva SA, Buleshova AM (2019) The choice of treatment for myocardial infarction based on individual cardiovascular risk and symptoms of coronary heart disease. Electronic Journal of General Medicine, 16(6): em183. <https://doi.org/10.29333/ejgm/115860>
- Huda N, Sukartini T, Pratiwi NW. (2019) The Impact of Self Efficacy on the Foot Care Behavior of Type 2 Diabetes Mellitus Patients in Indonesia. J Ners. 14: 181–186.
- Kemendes RI. (2013). Riset kesehatan dasar 2013. *Jakarta: Badan Penelitian Dan Pengembangan Kesehatan.*
- Martina SJ, Ramar LAP, Silaban MRI, (2019) Antiplatelet effectivity between aspirin with honey on cardiovascular disease based on bleeding time taken on mice. Open Access Maced J Med Sci. 7: 3416–3420.
- Medyati N, Amiruddin R, Russeng S, (2018) Food stalls ownership and its contribution on body mass index and the risk of cardiovascular disease in cooker profession. Indian J Public Heal Res Dev. 9: 429–434. <https://doi.org/10.5958/0976-5506.2018.01382.7>
- Mulyasari P. (2016) Hubungan Dukungan Keluarga dan Pengetahuan Pasien dengan Kepatuhan Pengobatan Pasien Hipertensi di Puskesmas Pegirian Surabaya.
- Notoatmodjo, S. (2010). *Ilmu perilaku kesehatan.* Jakarta. Penerbit Rineka Cipta.
- Pertiwi D, Suwarso E, Manik P. (2018) Evaluation of warfarin oral used by international normalized ratio value and determination frequency to cardiovascular patient at haji adam malik general hospital, Medan, Indonesia. Asian J Pharm Clin Res. 11: 324–326.
- Putri MM. (2016) Analisis Kebiasaan Makan, Riwayat Asupan Saturated Fatty Acids (SAFA), Monounsaturated Fatty Acids (MUFA), Polyunsaturated Fatty Acids (PUFA) Dan Serat Pada Pasien Penyakit Jantung Koroner.

- Qanitha A, De Mol BAJM, Burgner DP, (2017) Pregnancy-related conditions and premature coronary heart disease in adult offspring. *Heart Asia*. 9: 90–95.
- Rahma HH. (2017) Hubungan Pola Konsumsi dan Kadar Profil Lipid dengan Kejadian Penyakit Jantung Koroner (Studi pada Pasien Lansia Penyakit Jantung Koroner Rawat Jalan di Rumah Sakit Islam Jemursari Surabaya). <https://doi.org/10.20473/mgi.v12i2.129-133>
- Roza A, Ilham M. (2017) Gambaran Pengetahuan Pasien Tentang Diet Pada Penyakit Jantung di Poli Jantung-sud Arifin Achmad Provinsi Riau. *J Keperawatan Abdurrah*. 1: 40–49.
- Sari DK, Dewi R, Daulay W. (2019) Association between family support, coping strategies and anxiety in cancer patients undergoing chemotherapy at General Hospital in Medan, North Sumatera, Indonesia. *Asian Pacific J Cancer Prev*. 20: 3015–3019.
- Sarkar U, Ali S, Whooley MA. (2007) Self-efficacy and health status in patients with coronary heart disease: findings from the heart and soul study. *Psychosom Med*. 69: 306. <https://doi.org/10.1097/PSY.0b013e3180514d57>
- Schumacher TL, Burrows TL, Thompson DI, (2016) The role of family in a dietary risk reduction intervention for cardiovascular disease. In: *Healthcare. Multidisciplinary Digital Publishing Institute*. p. 74.
- Sulaiman MR. (2018) Bahaya Diet Sembarangan Bagi Kesehatan Jantung Anda, <https://www.suara.com/health/2018/10/03/124500/bahaya-diet-sembarangan-bagi-kesehatan-jantung-anda>
- Tarigan M. (2018) Ikuti Diet Keto Waspadai Bahaya Penyakit Jantung, Stroke - *Gaya Tempo*, <https://gaya.tempo.co/read/1052397/ikuti-diet-keto-waspadai-bahaya-penyakit-jantung-stroke>
- Triharini M. (2018) Pengembangan Model Perilaku Pencegahan Anemia dengan Determinasi Diri dalam Perawatan pada Ibu Hamil.
- Wahyu P, Hidayati R. (2017) The Effect of Waist Circumferences More Than Normal on the Incident of Coronary Heart Disease. *J Ners*. 4: 122–127.
- World Health Organization. (2012). Cardiovascular diseases. Retrieved from https://www.who.int/health-topics/cardiovascular-diseases#tab=tab_1
- Yaqin A, Niken S, Dharmana E. (2017) Efek Self Efficacy Training Terhadap Self Efficacy Dan Kepatuhan Diet Diabetesi. *Jl-KES (Jurnal Ilmu Kesehatan)*; 1. <https://doi.org/10.33006/ji-kes.v1i1.45>
- Yeni F, Husna M, Dachriyanus D. (2016) Dukungan Keluarga Memengaruhi Kepatuhan Pasien Hipertensi. *J Keperawatan Indones*. 19: 137–144.