



THE IMPACT OF PERSON-CENTRED CARE ON THE SELF-MANAGEMENT OF POST-REVASCULARISATION PATIENTS

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ABSTRACT

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Treatments of coronary heart disease problems through revascularisation procedures such as Percutaneous Coronary Intervention (PCI) and Coronary Artery Bypass Graft (CABG) are one of the solutions to enhance patients' quality of life. Patient self-management is essential to a speedy recovery after revascularisation intervention, and the Person-Centred Care (PCC) approach is one of the solutions to improve it. This study aimed to identify PCC's impact on patient's self-management after revascularisation. This research used a correlative design with a cross-sectional approach. The sample of this study was a post-vascular patient consisting of 77 people selected using purposive sampling techniques. Data was collected from May to June 2024. The variables were measured using the Patient Assessment of Chronic Illness Care (PACIC) and self-management behaviour questionnaires. The data was analysed in bivariate using the post hoc Bonferroni test. This study found a significant impact of PCC implementation on patients' quality of life post-revascularisation (p-value: 0,000). This study depicted that treatment using a person-centered approach can encourage and improve the self-management of patients after revascularization. Thus, implementing PCC has significant implications for enhancing health services, which impact patients' quality of life, particularly patients with cardiovascular problems.

Keywords:

CABG, Person-centred care, PCI, Revascularisation, Self-management

BACKGROUND

Revascularisation procedures aim to reduce the burden of symptoms and prevent worsening conditions and even death from coronary heart disease (Ignatavicius et al., 2019). World Health Organization (WHO, 2021) recorded 17.8 million deaths globally due to coronary heart disease, and in Riau Province, there are 7.500 deaths due to this disease (RSUD Arifin Achmad, 2018). Revascularisation treatment consists of Coronary Artery Bypass Graft (CABG) and Percutaneous Coronary Intervention (PCI). The recovery period (post) for both types of revascularisation takes the same time, which is about six months for patients to perform a better quality of life and minimal cases of deteriorating conditions (Luca et al., 2022; Suyanti & Rahayu, 2020).

During the post-revascularisation period, patients are expected to be able to overcome various symptoms that can occur, such as post-operative pain, sleep quality and physical activity disorders, swelling at the insertion site, allergic reactions to contrast media and recurrent ischemia (Ferreira et al., 2018; Tüfekçi et al., 2022). Knowing the various symptoms that appear is expected to prevent patients from complications, especially restenosis, which causes patients to experience repeated revascularisation (Nuraeni et al., 2017). The ability to recognize and overcome complications is strongly related to self-management skills.

Patients need self-management to improve their ability to solve their health problems (Eldin et al., 2021). Self-management ability increases patient's independence and self-esteem in controlling their health conditions, so increasing this ability can improve the patient's quality of life to a higher level (Damayanti et al., 2022). This ability can be achieved by implementing a Person-Centred Care (PCC) system that adapts treatment on a personalized basis because improving self-management requires support from various sides, including healthcare providers who must know what patients need to improve their self-management (Zhu et al., 2022). Understanding patient's needs can be facilitated by implementing the concept of PCC.

PCC is a healthcare approach based on the needs and uniqueness of each patient, which is explored through interpersonal relationships (Fazio et al., 2018). PCC increases the patients' participation in the treatment plan to suit their needs, values, and preferences as an individual. Actively involving patients in their care increases their motivation to implement self-management behaviours (Dewi et al., 2013). Al Mahrouqi et al. (2022) showed a signifi-

cant effect of PCC on the self-management of patients with endocrine problems. However, similar studies in the cardiovascular sector are still very few and difficult to find.

Unlike various studies, this one wants to identify PCC's effect on self-management of cardiovascular problems, especially in post-revascularisation patients. This is important to know considering the high prevalence of coronary heart disease as one of the cardiovascular problems and the increasing implementation of revascularisation. Still, so far, no study has directly measured the impact between these two variables, especially in post-revascularization. Meanwhile, post-revascularisation patients also have a high urgency to improve their self-management. Therefore, researchers of this study are very interested in identifying the impact of PCC on the self-management of post-revascularisation patients.

METHODS

This study used a correlative approach with a cross-sectional research design in post-revascularisation patients at the cardiac clinic of a government hospital in Pekanbaru. The sample for this study consisted of patients who had undergone revascularisation, selected using purposive sampling with the inclusion criterion that revascularisation had been performed within the last six months. This time frame was chosen because it is a period during which many PCI patients experience worsening conditions, and after which CABG patients may begin to show optimal quality of life improvements. Ardianti et al. (2022) also noted that changes in self-management behavior would be seen significantly and can be evaluated within six months after a procedure is carried out. This research did not have exclusion criteria. Data collection was conducted for over a month (May 20th - June 24th), and sample saturation was gained since the patients controlled the data within that timeframe. Data collection was carried out by tracing patients with revascularization history who were being treated at the cardiac clinic and adjusted with medical records and data from the hospital. This study involved 77 respondents, including nine CABG patients and 68 PCI patients from 124 revascularisation patients in the last six months. The number of 77 respondents has met the minimum requirement of more than 30 participants for correlative research (Hartono, 2019).

PCC variables were measured using the Patient Assessment of Care for Chronic Conditions (PACIC) questionnaire developed by Glasgow et al. (2005) with validity and reliability values (0.77-0.90),

with Cronbach's alfa (0.93). This questionnaire comprises 5 components, including Patient Activation, Decision Support, Goal Setting, Problem Solving and Coordination, divided into 20 statements. Each statement on this questionnaire is rated with a score range of 1-5 with a total score range of 20-100. The higher the score, the better the PCC implementation received by patients. The PACIC questionnaire is also available in the Indonesian version (PACIC-ID) with a Cronbach's alfa (0.852) and a validity value of 0.96 (?0.78) (Salam, 2023). The self-management variable was measured using the revascularisation self-management behavior questionnaire developed by Ardianti et al. (2022) with validity and reliability values with scores (0.53-0.97) and Cronbach's alfa value (0.93). This questionnaire is also divided into five components: self-integration, self-regulation, interaction with health professionals and significant others, self-monitoring, and adherence to recommended treatment. It is divided into 35 statements. Each statement is rated 1-4. Interpretation of the results of this questionnaire is based on the total score, which is grouped into three categories of self-management, namely good (105-140), moderate (70-104) and poor (35-69). Both variables were analyzed simultaneously in bivariate analysis using the post hoc Bonferroni test in one-way Analysis of Variance (ANOVA). This study has obtained ethical approval from the Health and Nursing Research Ethics Committee of Riau University with letter number 439/UN19.5.1.8/KEPK.FKp/2024.

RESULTS

The post-revascularisation patients in this study had several different characteristics that could affect their health conditions. Based on table 1 shows that the characteristics of patients in this study include the age of respondents, with the majority in the age range 46-55 years (41.6%), male gender (83.1%), and high school education/equivalent (50.6%). The types of revascularisation that patients underwent were PCI (88.3%) and CABG (11.7%), with the majority length of time after intervention ?1 month (29.9%).

The implementation of PCC and self-management in this study was measured from the perspective of the care received and patient habits. Table 2 and 3 show the mean patient-perceived PCC score of 57.5, indicating moderate PCC implementation and the majority of patient self-management in the moderate group (70-104).

The impact of PCC on self-management

could be identified by analyzing the PCC scores in the three self-management groups to identify whether there is a significant gap. Table 4 displays the findings of this study, which shows the statistical test results with p-value = 0.000 and further analysis also shows that the three self-management groups have a significant difference in the mean PCC, so it can be interpreted that at a value of ? (5%) it is concluded that there is an effect of PCC on self-management of post-revascularisation patients.

DISCUSSION

The result of the bivariate analysis showed that PCC affected the self-management of post-revascularisation patients. Theoretically, the concepts of the two variables are interrelated, where PCC supports the implementation of self-management. This can be seen from the results of the study, which show that patients with poor self-management have a lower average PCC score, while patients with higher scores have good self-management behaviour. The relationship between these two concepts is seen in several aspects. First, the inputs required by self-management and the outputs that PCC can achieve. The implementation of self-management requires the activeness and participation of the patient, as the patient is the main actor in their health management. On the other hand, PCC encourages the patient's activeness and involvement in the preparation of their treatment plan with its openness to the uniqueness of each individual, providing opportunities for health workers to understand patients' values, preferences and needs in more depth. This aligns with what Dewi et al. (2013) conveyed, who stated that actively involving patients in their care can increase patient engagement and self-management.

The next aspect of the association between the two variables is also seen in the similarity between the objectives and benefits of variables in the same direction. The benefits of implementing PCC are improved patient clinical outcomes and reduced severity of symptoms, reduced unnecessary medical services because they identify patient needs more accurately so that they can reduce the cost of care, reduce perceived complaints, improve emotional well-being, and improve adherence to drug use (Rosa, 2018). The benefits of PCC above have similar points with the aim of improving self-management by patients, namely maximizing patient health, controlling and managing signs and symptoms of disease, preventing complications, reducing disorders from the physical, emotional and social aspects of patients,

Table 1. Patient Characteristics

No	Characteristics	n = 77	
		Frequency (f)	Percentage (%)
1	Age		
	Early Adult (26-35 Years)	1	1.3
	Late Adult (36-45 Years)	4	5.2
	Early Elderly (46-55 Years)	32	41.5
	Late Elderly (56-65 Years)	28	36.4
	Seniors (>65 Years)	12	15.6
2	Sex		
	Male	64	83.1
	Female	13	16.9
3	Educational Background:		
	Not in School	1	1.3
	Elementary School	11	14.3
	Junior High School	5	6.5
	High School	39	50.6
	College	21	27.3
4	Type of Revascularisation:		
	CABG	9	11.7
	PCI	68	88.3
5	The time when revascularisation was performed:		
		23	29.8
		11	14.3
	1 Month	13	16.9
	2 Months	11	14.3
	3 Months	5	6.5
	4 Months	14	18.2
	5 Months		
	6 Months		

Table 2. Overview of Person-Centred Care for Post-Revascularisation Patients

Variable	Mean	Std. Deviation	Min -Max	95%CI
Person-centered Care	57,51	9,2	34 - 81	55,42 – 59,60

Table 3. Overview of Patient's Self-Management Post-Revascularisation

Variable	Frequency (f)	Percentage (%)
Self-Management		
Good	29	37,7
Moderate	37	48
Poor	11	14,3
Total	77	100%

strengthening the desire to improve health, reducing unnecessary use of health services due to worsening conditions and reducing treatment costs (Winata et al., 2018).

Third, The concept of PCC and self-man-

agement components is also a point of reinforcement for the direction of the relationship between these two variables. The PCC component supports the implementation of self-management components. The implementation of PCC increases the healthcare

Table 4. The Impact of Person-Centred Care on Patient Self-Management Post Revascularisation

Variable	Person-centered Care				P value
	Mean	Std. Deviation	Min-Max	95% CI	
Self-Management					
Good	66,28	5,04	54-81	64,36-68,19	0,000
Moderate	54,70	4,75	46-64	53,12-56,29	
Poor	43,82	5,77	34-56	39,94-47,70	

provider's understanding of patient preferences, values, and needs so that the patient becomes more comfortable in carrying out the care plan that has been discussed with the healthcare provider. The decision support and problem-solving components of PCC provide patients with the information and education needed to plan health behavior changes implemented in self-management's self-integration and self-regulation components. The PCC coordination component encourages open communication and collaboration between healthcare providers and individuals, which improves adherence to recommended regimens, as patients are more likely to open up and trust their healthcare providers as a result of improved provider understanding of patient values, preferences and needs. The patient engagement component of PCC also supports the self-management component that seeks to increase patient interaction with health professionals and significant others by triggering patient engagement in discussions with health providers to increase patient knowledge related to the disease and its management, thereby increasing the effectiveness of self-management strategies (Akhter, 2010; Glasgow et al., 2005; Johnson et al., 2023).

The results of this study are consistent with the findings of Al Mahrouqi et al. (2022), who showed the effect of PCC on self-management of diabetic patients, with results that concluded there was a positive effect of PCC on patient self-management. This researcher suggested that healthcare providers increase active involvement and cooperation with patients to create individualized care plans. A study by Asmat et al. (2022) on the same topic presented similar results, which found a significant gap in the level of self-management between the PCC group and the control group, suggesting that the implementation of PCC is very effective in promoting patient self-management. Pardo et al. (2023) also identified the influence of this approach on coronary heart disease and concluded that the PCC system facilitates self-care and self-efficacy, which are factors that support self-management in patients. This study complements

previous findings regarding the impact of PCC on self-management in the cardiovascular sector. Based on the result of this study, it is expected that patient self-management could be improved by providing support through health service development that is more person-centered care.

CONCLUSION

The results of this study indicate that PCC has a positive influence on patient self-management. PCC, as a healthcare approach system, has a significant direct impact on patients. The general practical implications show that a person-centered care approach can encourage and improve self-management, especially in post-revascularisation patients. Adequate self-management would positively impact the patient's quality of life.

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