

Original Research

PACNJ

Acceptance, Perceived Benefits, and Helplessness among Coronary Heart Disease Patients Undergoing Treatment in A Different Ward

Aan Nur'aeni¹, dan Ristina Mirwanti¹¹Faculty of Nursing, Universitas Padjadjaran

ARTICLE INFO

Article history:

Received 12-06-2020

Received in revised from
28-07-2020

Accepted 01-08-2020

Keyword:

Acceptance, Acute
Coronary Syndrome,
Coronary Heart Disease,
Helplessness, Illness
cognition, Perceived
benefits

Other information:

Email of Author:

aan.nuraeni@unpad.ac.id¹ristina.mirwanti@unpad.ac.id²

Corresponding Author:

Aan Nur'aeni

And other -

ABSTRACT

Background. One of the factors determining CHD patients' adherence to treatment is Illness Cognition (IC). IC is described as acceptance, perceived-benefits, and helplessness. This study aims to identify and compared IC in CHD patients treated in different wards. **Method:** This research used a descriptive quantitative method with a cross-sectional approach. The study population was CHD patients who were undergoing treatment at a referral hospital in West Java. Selection of respondents using consecutive sampling, and data collected within three months, using the Illness Cognition Questionnaire on 106 respondents. Data were analyzed using mean and frequency distribution. Furthermore, ICs were compared using the Kruskal Wallis Test. **Results:** The following are an average IC respondent based on different IC dimensions and ward. Dimensions of helplessness: High Care Cardiac Unit (HCCU) 16.1 (SD = 4.06); Regular ward 12.86 (SD = 4.95); Outpatient 14.05 (SD = 5); Cardiac-Rehabilitation (CR) 11.04 (SD = 3.52) with $p = 0.013$. Dimensions of acceptance: HCCU 14.00 (SD = 2.7); Regular-ward 18.26 (SD = 2.7); outpatient 19.34 (SD = 2.88); RJ 18.20 (SD = 3.47) $p = 0.005$. Dimensions of perceived-benefits of HCCU 18.00 (SD = 3.6); Regular-ward 19.96 (SD = 2.76); outpatient 20.95 (SD = 3.01); RJ 20.08 (SD = 3.46) $p = 0.043$. **Conclusion:** The worst ICs of all dimensions were owned by respondents who were undergoing treatment at HCCU. ICs with relatively better are seen in respondents who were undergoing treatment in outpatient and cardiac-rehabilitation. ICs in CHD patients differ in all dimensions and categories of the ward. Thus, patient acceptance at HCCU need to be increased and as well as participation in cardiac rehabilitation so that patient perceived-benefits increase.

Introduction

Coronary Heart Disease (CHD) is a disease with a high prevalence and mortality in Indonesia. In 2012 heart disease was one of the most inpatient and outpatient cases in Indonesia and contributed to the country's economic burden (RI Ministry of Health, 2014), so efforts to reduce the number of patients and recurrence rates are essential to do.

Prevention of recurrence in CHD patients after an acute attack needs to be done continuously through management efforts including diet control, smoking cessation, activity regulation, and stress control, as well as cardiac rehabilitation. However according to Harun (2013) the level of adherence in regulating activities, and diet in CHD patients was still poor, in addition, the rate of adherence to cardiac rehabilitation programs was also low. Based on the data, visits to the cardiac rehabilitation program at one of the referral hospitals in West Java only reached 15 percent in 2016.

After an acute attack of CHD, patients will have a perception of the condition of the disease they are experiencing, in addition, they also make an emotional and cognitive assessment of the disease and management that has been obtained. This condition will be represented by patients through IC, which can be measured based on aspects of helplessness (maladaptive); acceptance (adaptive) and perceived benefits (adaptive). According to Reges et al (2013) the main predictors of non-compliance in the prevention of disease and participation in cardiac rehabilitation are illness cognition (IC). Furthermore, Leventhal, Diefenbach, & Leventhal (1992) previously stated that IC influences treatment compliance and disease management.

IC according to Kraaimaat et al (2002) is a link between disease and patients' well being. Through IC patients perceive the state of illness into their physical and psychological health status. The higher the acceptance and perception of the benefits felt by the patient to the disease, as well as the management of the patient, this will have a positive effect on coping that the patient chooses. Conversely, if the higher the helplessness felt by the patient then the patient will choose negative

coping. The role of nurses and other medical personnel in the management of CHD patients, as well as the provision of health education can affect IC patients, besides, how IC changes experienced by CHD patients while undergoing treatment starting from acute to outpatient conditions are still unknown, whereas this is important to know, as one of the information about the patient's condition, as well as indicators of the effectiveness of the management that has been carried out by the hospital. This study identified how changes and comparisons of IC in CHD patients were seen from different treatment units.

Method

The study design used a comparative descriptive quantitative method. Researchers tested data collected on one occasion with the same subject (cross sectional). The population in this study were all post-acute CHD patients who were treated in the High Care Cardiac Unit (HCCU), cardiac ward and cardiac outpatient in a hospital in West Java. The sample selection in this quantitative study used consecutive sampling, data collected over a period of three months on 106 respondents. The respondents criteria were as follows:

1. Patients with a diagnosis of CHD, including stable angina, unstable angina, STEMI or NSTEMI who are undergoing treatment in the cardiac high care unit, inpatient cardiac ward, outpatient ward, and cardiac rehabilitation.
2. Patients who have passed the acute phase or do not experience chest pain for 1 x 24 hours stated by doctors or nurses who are responsible for providing treatment and care for CHD patients.

Data collection used an illness cognition questionnaire (ICQ). This instrument was declared valid and reliable for measuring IC in patients with chronic disease (Evers et al., 2001). Based on research that had been done previously in Indonesia, ICQ had a validity value of 0.65 to 0.79 and a reliability value of 0.88 to 0.91 (Pomegranate, Sriati and Nur'aeni, 2018).

Respondent characteristics including age were analyzed using an average, while the ward, sex, length of diagnosis and level of education were analyzed by frequency distribution. However, the IC comparison of CHD patients, in a variety of different wards using a nonparametric test Kruskal Wallis Test.

Results

Table 1. Respondent characteristics

Characteristic	Frequencies (n)	Percentage (%)	Mean
Ages			57.86
Wards :			
High Care Unit	10	9.4	
Regular ward	30	28.3	
Cardiac outpatient	41	38.7	
Cardiac Rehabilitation	25	23.6	
Sex :			
Male	81	76.4	
Female	25	23.6	
Duration of illness :			
≤ 6 months	33	31.1	
> 6 months	73	68.9	
Level of Education :			
Primary Education	46	43.4	
Secondary Education	33	31.1	
High	27	25.5	

Based on table 1, the highest percentage of respondents was found in outpatient, regular ward, cardiac rehabilitation, and, high care units, respectively. Most respondents were male and had been diagnosed with CHD for more than six months and had a primary education level.

Table 2 Helplessness, Acceptance, and Perceived benefits among CHD patients

Wards	N	%	Illness Cognitions		
			Helplessness	Acceptance	Perceived Benefits
High Care Unit	10	9.4	16.1 ± 4.06	14.00 ± 2.7	18.00 ± 3.6
Regular ward	30	28.3	12.86 ± 4.95	18.26 ± 2.7	19.96 ± 2.76
Cardiac outpatient	41	38.7	14.05 ± 5	19.34 ± 2.88	20.95 ± 3.01
Cardiac Rehabilitation	25	23.6	11.04 ± 3.52	18.20 ± 3.47	20.08 ± 3.46

Based on table 2, IC is divided into scores of helplessness, acceptance, and perception of the benefits of CHD patients undergoing treatment after an acute attack. The helplessness score is in the range of 6-24. The higher the score indicates the more helpless. Similarly, the score of acceptance and perception of benefits, the range of scores is at 6-24, and shows that the higher the score, the higher the acceptance and perception of benefits perceived by patients. The table also shows that the highest score of helplessness is experienced by patients undergoing treatment at HCCU (16.1); while the lowest score is in patients in cardiac rehabilitation rooms (11.04). The highest acceptance was in patients in the outpatient (19,34), and the highest perception of benefit was felt in patients in the outpatient (20,95).

Table 3 Differences in "helplessness" in CHD patients based on the ward

Wards	Illness Cognition (Mean±SD)	p
	Helplessness	
High Care Unit	16.1 ± 4.06	0,013
Regular ward	12.86 ± 4.95	
Cardiac outpatient	14.05 ± 5	
Cardiac Rehabilitation	11.04 ± 3.52	

CHD patients who undergo treatment in different wards have different IC scores. From table 3 it can be seen that the helplessness of CHD patients is significantly different in each ward with

a p-value of 0.01. Where the highest helplessness is in patients treated in the HCCU room and the lowest is CHD patients undergoing cardiac rehabilitation.

Table 4 Differences in "acceptance" among CHD patients based on the different ward

Wards	Illness Cognition (Mean±SD)	p
	Acceptance	
High Care Unit	14.00 ± 2.7	0,005
Regular ward	18.26 ± 2.7	
Cardiac outpatient	19.34 ± 2.88	
Cardiac Rehabilitation	18.20 ± 3.47	

Table 4 shows that there is a significant "acceptance" difference in CHD patients seen based on differences in ward care. This can be seen from the p value <0.05.

Table 5. Differences in "perceived benefits" among CHD patients based on the different ward

Wards	Illness Cognition (Mean±SD)	p
	Perceived benefits	
High Care Unit	18.00 ± 3.6	0,043
Regular ward	19.96 ± 2.76	
Cardiac outpatient	20.95 ± 3.01	
Cardiac Rehabilitation	20.08 ± 3.46	

Table 5 shows that there is a significant difference in the perception of benefits in CHD patients, if seen based on the ward, it can be seen from the p value <0.05, 0.043.

Discussion

Based on the results, there are significant differences from all dimensions of illness cognition in patients treated in different rooms. On the helplessness dimension, the highest score was owned by respondents who were undergoing treatment in the high-care unit, and the lowest score was found in respondents in cardiac rehabilitation care. Meanwhile, in the dimensions of acceptance and perceived benefits, the highest score was in the outpatient respondents, and the lowest acceptance scores were found in

respondents who were undergoing treatment at HCU. Respondents who were undergoing treatment at the HCU in this study had a cognition that were less adaptive to illness. They had a higher level of helplessness compared to respondents who were undergoing treatment in another ward, in addition, HCU respondents also had lower levels of acceptance and perceived benefits. This condition occurs because the patient is in an acute condition after a heart attack. The patient's physical condition had not fully recovered, besides that, the activities carried out were still limited. Patient stability was still dependent on medication and required close observation. Hal ini dapat meningkatkan rasa tidak berdaya pasien. This situation increased the patient's sense of helplessness, as evidenced by the results of studies that showed a high average score on almost all items of patient statements related to aspects of helplessness when compared to patients in other wards. In this aspect of powerlessness, the highest score was in the statement that the patient's illness limited him in doing important things.

This result was contrary to respondents in the cardiac rehabilitation unit. The patient had the lowest helplessness score. In this phase the patient had been learning to modify, adapt and increase the functional capacity of the body, so that, physically better than patients treated in other wards. This was stated by lower helplessness scores on all statements compared to patients in different ward.

Illness cognition is part of the Common-Sense Model of Self Regulation (CSM). According to Leventhal, Phillips, & Burns (2016) CSM describes a dynamic multi-level process that produces individual representations of threats to health, management procedures and systems in compiling an action plan and implementing it. The process started by the perceived symptoms and changes in the normal function of the body of the patient. In addition, these individuals also obtain information from observations, discussions about the disease, the mass media and from other environmental sources, this is referred to as stimuli. This stimuli then affect memory structures that generate a mental representation of the threat of disease on individuals, including beliefs about

the identity of the disease, causes, control, consequences and time, and the possibility of treatment and plan of action. In this regard, most patients undergoing treatment at HCU are patients who have had a heart attack for the first time, so that in this condition they only recognize the health threat they experience, besides the acute condition that is felt will also affect their belief in their ability to control the disease. Acute conditions cause patients have not been able to control the disease independently, they need help from others in the form of treatment and care. Furthermore, information and experience on how they should live with the disease is less than patients who have gone through the acute phase. This was the cause of the score for helplessness in patients at HCU higher than the score for helplessness in patients undergoing treatment in other wards. The opposite occurred in patients undergoing treatment in cardiac rehabilitation unit. They've been through a long process and the perceived benefit from the treatments that had been and were being undertaken, so that they were more confident in its ability to control the disease.

Acceptance and perception of benefits in patients undergoing treatment determine a person's health status. According to Evers et al (2001) acceptance means recognizing the need to adapt to a chronic disease, and is able to tolerate the nature of the disease that can not be predicted and controlled, as well as addressing unintended consequences. Also according to Park, Cohen, and Murch (1996), one can give a positive meaning to the disease as a consequence of the condition of stress experienced. The second function of cognition has been shown to be associated with physical health and psychological status were better in patients with chronic disease (Li & Moore, 1998; McCracken, 1998; Revenson & Felton, 1989) in Evers et al (2001). The results of the study reinforces the low level of acceptance and perceptions of benefits among respondents who were undergoing treatment at the HCU. It is caused by a worse health status than other respondents who receive care in a different ward.

Based on the results of the study, patients who were undergoing treatment in regular ward, outpatient and cardiac rehabilitation had better

adaptation because of the level of acceptance and perceptions of benefits were higher, this might occur because the process of adaptation that had been passed was longer than the HCU patients who were still experiencing an acute phase of the disease. Several other studies reinforced this assumption, among others, research Field, Norman, & Barton (2008), in his research showed that the patients with spinal cord injury have increased the perception of acceptance and benefits as well as a decrease in feelings of helplessness after passing through the phase of rehabilitation, as well as research Tasmoc, Hogas and Covic (2013), respondents in this study felt better the consequences of the disease on his life after going through the initial phase until a few years later. However, different results delivered by van Leeuwen, Edelaar-Peeters, Peter, Stiggelbout, and Post (2015) in patients with spinal cord injury, in a study they express that feeling powerless, acceptance and perceptions of benefits has not changed at the beginning of the rehabilitation of up to six months after rehabilitation.

Based on these results, the data obtained showed that the difference wards owned difference illness cognition of patients significantly. Patients who are in the acute phase and require strict monitoring, have poorly adapted to the disease. This is in contrast with patients who have a relatively better condition, illness cognition shown showing more adaptive conditions. It reinforces previous research that states that the illness cognition associated with physical and physiological status of the patient (Li & Moore, 1998; McCracken, 1998; Revenson & Felton, 1989) in Evers et al (2001). Based on this, nurses and other health professionals need to improve physical capacity and better psychological status for patients with CHD. So that patients are expected to be able to adapt more positively, through decreasing the perception of helplessness and increasing acceptance and perception of benefits, bearing in mind that this positive adaptation is also related to compliance with CHD patients in managing their illnesses when referring to CSM theory (Diefenbach, 2007; Reges et al., 2013).

Conclusions

This study showed that differences in patient characteristics based on the different wards showed significant differences in illness cognition (IC) of patients. IC lowest of all dimensions owned by the respondent who is undergoing treatment at HCCU, IC with relatively high values seen in respondents undergoing treatment at the outpatient and cardiac rehabilitation unit. Based on this study, nurses need to make efforts to increase the enrollment of patients through health education and counseling, especially in patients at HCCU (acute phase) against the disease. Nurses also need to encourage patients to actively follow cardiac rehabilitation so that the perception of the benefits increases.

References

- Delima, P. P., Sriati, A. and Nur'aeni, A. (2018) 'Illness Cognition pada Pasien dengan Penyakit Jantung Koroner', *Journal of Nursing Care*, 1(1), p. 42.
- Diefenbach, M. A. (2007) 'Illness Representations', in Gerrard, M. et al. (eds) *Health Behaviour Construct: Theory, Measurement & Research*. National Cancer Institute, Bethesda, MD. Available at: https://www.google.co.id/?gws_rd=cr,ssl&ei=jMRwWNOXGcfvqSQ1I7IBA#q=illness+representation (Accessed: 2 January 2017).
- Evers, A. W. et al. (2001) 'Beyond unfavorable thinking: the illness cognition questionnaire for chronic diseases.', *Journal of consulting and clinical psychology*, 69(6), pp. 1026–36. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/11777106> (Accessed: 2 January 2017).
- Field, E. L., Norman, P. and Barton, J. (2008) 'Cross-sectional and prospective associations between cognitive appraisals and posttraumatic stress disorder symptoms following stroke', *Behaviour research and therapy*. Elsevier, 46(1), pp. 62–70.
- Harun, H. (2013) *Faktor-faktor yang Berhubungan dengan Kepatuhan Pasien Menjalankan Pola Hidup Sehat Pasca IKP [Factors Associated with Patient Compliance in Conducting a Healthy Lifestyle Post-PCI]*. Universitas Padjadjaran. Available at: pustaka.unpad.ac.id/wp-content/uploads/2014/01/tesis_hasnia_faktor_yang_berhubungan_kepatuhan.pdf.
- Kemenkes RI (2014) *Pusat Data dan Informasi Kementerian Kesehatan RI: Situasi Kesehatan Jantung*. Jakarta: Kemenkes RI. Available at: www.depkes.go.id/download.php?file=download/...
- Kraaimaat, F. W. et al. (2002) 'Beyond unfavorable thinking: The Illness Cognition Questionnaire for Chronic Diseases', *Journal of Consulting and Clinical Psychology*, 69(6), pp. 1026–1036. doi: 10.1037/0022-006X.69.6.1026.
- Van Leeuwen, C. et al. (2015) 'Psychological factors and mental health in persons with spinal cord injury: an exploration of change or stability', *Journal of rehabilitation medicine*. Medical Journals Limited, 47(6), pp. 531–537.
- Leventhal, H., Diefenbach, M. and Leventhal, E. A. (1992) 'Illness cognition: Using common sense to understand treatment adherence and affect cognition interactions', *Cognitive Therapy and Research*, 16(2), pp. 143–163. doi: 10.1007/BF01173486.
- Leventhal, H., Phillips, L. A. and Burns, E. (2016) 'The Common-Sense Model of Self-Regulation (CSM): a dynamic framework for understanding illness self-management', *Journal of Behavioral Medicine*. Springer US. doi: 10.1007/s10865-016-9782-2.
- Park, C. L., Cohen, L. H. and Murch, R. L. (1996) 'Assessment and prediction of stress-related growth', *Journal of personality*. Wiley Online Library, 64(1), pp. 71–105.
- Reges, O. et al. (2013) 'Illness cognition as a predictor of exercise habits and participation in cardiac prevention and rehabilitation programs after acute coronary syndrome', *BMC Public Health*, 13(956), pp. 1–7. doi: 10.1186/1471-2458-13-956.
- Tasmoc, A., Hogas, S. and Covic, A. (2013) 'A longitudinal study on illness perceptions in hemodialysis patients: changes over time', *Archives of medical science: AMS*. Termedia Publishing, 9(5), p. 831.