THE DESCRIPTION OF RESILIENCE IN POST-ACUTE ATTACK PATIENT WITH CORONARY ARTERY DISEASE

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Abstract
Background: Coronary heart disease patients shall experience physical, psychological and social changes that will affect life. The psychological condition of outpatients that has been investigated include anxiety, depression and quality of life, all of these problems can be attributed to resilience.
Objective: The purpose of this study was to determine the image of resilience of coronary heart disease patient following up the acute attack in outpatient ward.
Methods: The research method used quantitative descriptive using CD-RISC instrument 25. Instrument had validity value r = 0.83, P <.0001 and reliability value of Cronbach's α 0.89. The selection of sample with consecutive sampling and got sample number 50 people for 2 weeks. Data were analyzed based on the value of each respondent categorized using tertile to see the overall resilience picture, while for the five sub-variables measured using the mean and standard deviation.
Result: The results showed that almost half of respondents had 70-75 resilience. The mean value of sub-variables if sorted from the lowest to the highest is trust and reinforcement (2.71±0.58); competence and resilience (2.88±0.53); relationships with others (2.92±0.48); self-control (3.04±0.62) and spiritual influence (3.33±0.45). These results are influenced by lack of self-efficacy, optimism and family support.
Conclusion: The conclusions of the research resilience of patients are in the medium category, for the lowest sub-variable value is trust and strengthening, while the highest is the spiritual influence. So, it is advisable to provide education to improve management skills post-acute attacks and increase social support in the care of patients at home.

Keywords: resilience; coronary heart disease; post-acute attacks

INTRODUCTION

Coronary heart disease (CHD) will affect patients both acute and post-acute. The symptoms experienced by patients with acute post-acute CHD differ from acute conditions. Research on post-heart attack patients concluded some of the most frequent symptoms in the post-acute phase such as fatigue, shortness of breath, weakness, headache (Kim, Kim, & Hwang, 2015), sleep disturbance, daytime sleepiness, decreased physical activity and difficult to lose weight (Le Grande, Jackson, Murphy, & Thomason, 2016) and sexual disorders (Rosidawati, 2015). Coronary heart patients with a good prognosis will still have a risk of new coronary obstruction that causes impaired left ventricular function and heart failure that will have an impact on the risk of death (Kawecka-Jaszcz, Klocek, Tobiasz-Adamczyk, & Bulpitt, 2012).

The healing process of CHD patients following acute attacks is set in post-attack management and will be affected by psychological problems. Post-acute management includes the provision of secondary prevention therapy, lifestyle change suggestions and rehabilitation referrals (Redfern et al., 2014), but optimal secondary prevention measures in stable heart disease patients will still increase the risk of death from psychosocial problems (Hagström et al., 2018). According to Sararoudi, Motmaen, Maracy, Pishghadam, & Kheirabadi, the life of patients following an acute heart attack will be affected by physical decline and psychological problems such as depression and anxiety (Sararoudi, Motmaen, Maracy, Pishghadam, & Kheirabadi, 2016). Anxiety of coronary heart patients who have passed the acute period showed high levels of anxiety in the face of death (Nisa, Nur'aeni, & Widianti, 2016). While patients with coronary heart disease who have signs of depression will affect lifestyle risk factors, decreased physical activity, medication adherence and sleep quality (Sin, Kumar, Gehi, & Whooley, 2016).

CHD patients will be revascularized either PCI (Percutaneous Coronary Intervention), fibrinolytic or CABG (Coronary Artery Bypass Graft). Post-revascularize patients have a risk of complications after recovery. The risk of complications will be exacerbated by psychological problems. Psychological problems of persistent and untreated patients will be stressors that will affect the mental status and coping of patients in decision making. According to Skinner & Zimmer-Gembeck, the process of adaptation or coping is the ability of individuals to initiate, organize and manage behavior, emotions, cognition, motivation and attention in stressful situations (Xanthopoulos & Daniel, 2012). Coping plays an important role in the adaptation of chronic patients, unlike external and biological factors, coping can be modified through effective nursing interventions (Lee, Kim, & Choi, 2014).

The process of coping, anxiety, depression, anger and aggression can be mediated by resilience according to Rutter and Atkinson's theories (Ng, Ang, & Ho, 2012). Resilience is defined as a dynamic and multilevel process of adaptive ability to a great event such as a chronic illness or stress-inducing situation (Cal, Sá, Glustak, & Santiago, 2015) while maintaining normal psychological and physical functioning (Elisei, Sciarma, Verdolini, & Anastasi, 2013). Resilience can change with time as a function of individual development and interaction with the environment (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014).

Strong resilience is associated with improved psychological function and adjustment to disease (Toukhsati et al., 2017). Psychological problems are still often found in patients who do not have good resilience. The value of resilience will be contrary to the anxiety and incidence of depression, high resilience will protect from the development of psychiatric illness where the prevalence of psychiatric illness is high in individuals with chronic disease (Cal et al., 2015). Resilience has been shown to have a good impact in coping and recovery that will improve the quality of life of patients with heart disease (Subban et al., 2014). In general, individual coping outcomes have two effects: negative effects (depression and anxiety) and positive effects (life satisfaction, hope, quality of life and positive mood) (Xanthopoulos & Daniel, 2012), while quality of life will affect the level of individual health (Cepeda-Valery, Cheong, Lee, & Yan, 2011).

Research on the quality of life of patients with heart disease previously showed depression is the most influential factor compared with anxiety and revascularization (Nuraeni, Mirwanti, Anna, & Prawesti, 2016). Depression affects catecholamine release, inflammatory marker factors and impaired serotonin function thus increasing the need for cardiac oxygen and worsening the incidence of thrombosis in patients with coronary heart disease.

Quality of life can be enhanced by health education, resilience (White et al., 2012), age

and income (Malik & Afzal, 2015) and some cannot be modified by health personnel. Resilience is a factor that can be modified by nurses with effective nursing interventions. Nurses interact with patients and families at different stages of development, the concept of resilience can be used by nurses when caring for patients facing both physical and psychosocial changes (Scoloveno, 2016). It is important for nurses to be able to recognize the relationship between physical and psychological that can cause stress due to differences in the level of psychological problems and impact on the patient. This research is expected to know the resilience of CHD patients after the acute attack.

METHODS

Study design
The research was designed using descriptive quantitative with cross sectional approach. This study was conducted in a cardiac outpatient unit at Dr. Hasan Sadikin Hospital. The data had been collected in February 2018, using consecutive sampling techniques with inclusion criteria were: 1) patients who have been at least one month after acute heart attack, 2) patients with acute coronary syndrome (unstable angina pectoris, NSTEMI, STEMI). The exclusion criteria were patients with acute heart attacks.

Setting
Resilience was measured using Connor-Davidson Resilience Scale (CD-RISC) 25 which consists of 25 questions (Kathryn M Connor & Jonathan RT Davidson, 2003). The questionnaire includes five sub-variables: 1) personal competence, high standards and resilience; 2) trust in one's instincts, tolerance of negative impacts and strengthening to face the effects of stress; 3) positive acceptance of change and strong relationships with others; 4) self-control; and 5) spiritual influences. CD-RISC 25 had a validity value of r = 0.83, P <.0001 and the reliability value of Cronbach's α 0.89.

Sample
Population used in this research were those who went to outpatient clinic at Heart Polyclinic Room at one of public hospital in Bandung City. The sample was taken by using consecutive sampling technique to get the number of respondents as much as 50 people for two weeks.

Ethical consideration
Ethical clearance for data collection in this research had been obtained from the Research Ethics Committee of the General Hospital of Dr. Hasan Sadikin No. LB.04.01/A05/EC/ 005/I/2018 on 5 January 2018. All respondents had obtained appropriate informed consent in the research.

Data analysis
Data were analyzed based on the value of each respondent categorized using tertile to see the overall resilience picture, with one tertile restricting the low value (0-69), the tertile two limiting the medium value (70-75), and the third tertile limiting the high value (76-100); whereas for the five sub-variables measured using the mean scores and standard deviations.

RESULTS

The majority of respondents had medium resilience as can be seen in Table 1 below:

Table 1 The level of Resilience (n=50)

Resilience	Frequency (f)	Percentage (%)
Low	16	32
Medium	20	40
High	14	28

Based on the table 2, it can be seen that respondents with medium resilience are (50%), uneducated 1 person (50%), primary education 4 people (44.4%), 12 (50%) and monthly victims > from Rp. 5,000,000 as many as 5 people (45.55%).

Table 2 Characteristic distribution of resilience based on demography

Characteristic	Low		Medium		High	
	f	%	f	%	f	%
Age						
36-45 years (late adult)	0	0.0	0	0.0	5	100.0
46-55 years (early elderly)	9	47.4	6	31.6	4	21.1
56-65 years (late elderly)	6	30.0	12	60.0	2	10.0
> 65 years (elderly)	1	16.7	2	33.3	3	50.0
Gender						
Male	15	32.6	18	39.1	13	28.3
Female	1	25.0	2	50.0	1	25.0
Marriage status						
Married	13	31.7	16	39.0	12	29.3
Not married	1	50.0	1	50.0	0	0.0
Widow	2	28.6	3	42.9	2	28.6
Last education						
Elementary	1	11.1	4	44.4	4	44.4
Middle	12	48.0	9	36.0	4	16.0
High	3	18.8	7	43.8	6	37.5
Occupation						
unemployment	7	29.2	12	50.0	5	20.8
employment	9	34.6	8	30.8	9	34.6
Salary (Rp.)						
< 2.8 million	10	35.7	12	42.9	6	21.4
2.8 -5 million	4	36.4	3	27.3	4	36.4
> 5 million	2	18.2	5	45.5	4	36.4

While based on table 3, respondents with medium resilience were respondents with Unstable Angina and 3 VD (Vessel Disease); were diagnosed with coronary heart disease over 6 months, had a comorbid illness, had a medication history, had angina frequency more than once per day, and not the respondents who routinely perform cardiac rehabilitation.

The mean and deviation values of each sub-variable of resilience of CHD patients following acute attacks are listed in Table 4. The first sub-variables of personal competence, high standards and resilience had the highest aspect of the statement of confidence reaching for the objectives although there were obstacles with mean value 2.98; whereas the aspect with the lowest mean value in the statement likes a challenge with a value of 2.20. The second sub-variable of belief in instinct had the highest aspect of the statement overcoming a painful or unpleasant feeling with a mean of 2.96; and the aspect with the lowest mean on the statement sometimes followed a hunch in decision making 2.30. The third sub-variable of positive acceptance of change and a strong relationship with others had the highest aspect of the tendency to rise after the condition of sickness, injury or other suffering with mean 3.18; whereas the aspect with the lowest value in the statement had a close and secure relationship that helps in the event of stress with mean 2.64. The fourth sub-variable of self-control had the highest aspect of a statement of belief in purpose of life with mean 3.18; and the aspect with the lowest value in the statement knows what to do to seek help when there was a stress / crisis with mean 2.94. The final sub-variable of spiritual influence had the highest aspect of the statement of belief or belief in God sometimes can be helpful when there was no clear problem solving with mean 3.50; while the lowest aspect is in the assertion that everything that happens most had a particular reason with a mean of 3.50.

Table 3 Characteristic distribution of resilience based on history of the disease

Characteristic	Low		Medium		High	
	f	%	f	%	f	%
Diagnose (CAD)						
UAP	1	25.0	3	75.0	0	0.0
NSTEMI	1	50.0	0	0.0	1	50.0
STEMI	2	50.0	1	25.0	1	25.0
1 VD	2	50.0	0	0.0	2	50.0
2 VD	3	27.3	4	36.4	4	36.4
3 VD	7	28.0	12	48.0	6	24.0
Length of being diagnosed						
0-6 month	9	42.9	6	28.6	6	28.6
> 6 months	7	24.1	14	48.3	8	27.6
Comorbidity						
1 Comorbid	6	30.0	10	50.0	4	20.0
> 1 Comorbid	1	50.0	1	50.0	0	0.0
None	9	32.1	9	32.1	10	35.7
Medication history						
Medication	2	25.0	3	37.5	3	37.5
Angiography and or revascularization	16	38.1	15	35.7	11	26.2
Angina frequency						
Never	6	30.0	8	40.0	6	30.0
>1x/week	10	41.7	7	29.2	7	29.2
>1x/ day	0	0.0	5	83.3	1	16.7
Participation of heart rehabilitation						
Never	9	45.0	9	45.0	2	10.0
Routine	8	32.0	6	24.0	11	44.0
Not a Routine	1	20.0	3	60.0	1	20.0

Table 4 The level of resilience per sub-variables

Resilience	Mean	± SD
Trust in one's instincts, tolerance of negative impacts and strengthening to face the effects of stress	2.71	.58
Personal competence, high standards and resilience	2.88	.53
Positive acceptance of change and strong relationships with others	2.92	.48
Self-control	3.04	.62
Spiritual influences	3.33	.45

DISCUSSION

The results showed the resilience value of CHD patients after acute attacks had medium value. The study showed a fairly high mean result when compared to the study using the same instrument (Nouri-Saeed, Salari, Nouri-Saeed, Rouhi-Balasi, & Moaddab, 2015) with mean value of CHD patients in Iran (65.5). The results of this study may be influenced by protective factors and risk factors such as coping mechanisms used by patients with heart disease. This study was conducted in cardiac outpatient ward, and based on research conducted by Rakhman, Widianti, & Nur'aeni

in cardiac outpatients ward showed that most coronary heart patients used coping strategies that focused on the problem, so it is most likely that coping strategies were used in the respondents heart disease patients are coping strategies that focus on the problem so as to have sufficient resilience (Rakhman, Widianti, & Nur'aeni, 2016).

This statement is in accordance with the research of Doustdartousi & Shafiabadi using the same instrument in patients with coronary heart disease, which says the increasing resilience is more widely used coping is the problem-focused coping style (Doustdartousi

& Shafiabadi, 2014). Patients who use problem-focused coping will use fear as a guide to assess threats, have high optimism, perceive themselves capable, have strong support from family and friends and ultimately cognitively restructure the problem.

The protective factor is self-regulation with participation in cardiac rehabilitation, where patients who do not routinely follow cardiac rehabilitation have moderate scores. Cardiac rehabilitation has been known to improve the lives of coronary heart patients, according to the results of high scores in patients undergoing rehabilitation. Patients who get and understand education about the disease will better understand the benefits of cardiac rehabilitation, especially knowing the chronic condition of diseases that require attention. Understanding conditions will help in the improvement of self-care and lifestyle changes over the long-term including medication adherence as well as other health care programs such as cardiac rehabilitation.

In a cardiac rehabilitation program, the patient can train physical appearance with scheduled and monitored exercises so that patients can benefit such as decreased cholesterol levels, increased six-minute road results, decreased stress incidence, anxiety and depression. This is in line with research from Jaszcz et al. who said that by following a month of physical training can improve the quality of life of coronary heart disease patients (Kawecka-Jaszcz et al., 2012). However, the category of never following cardiac rehabilitation in this study found patient statements that have not been suggested for cardiac rehabilitation. Patients who suggest this are primarily post-angiographic patients or stent-mounting measures. Education on rehabilitation programs has been provided since initial patients are hospitalized, and outpatients are given during routine visits, so this statement can result from differences in perceptions of patients and health personnel.

A protective factor that may be affected is income. This study showed a fairly equitable value score in working patients and moderate value in patients with more than five million rupiahs. The patient's pain condition will affect the stability of the family's financial condition. Lifestyle changes made to direct the patient to control and some checks, requiring financial and family support. However, according to Nouri-Saeed et al., work status is the only factor that is enough to affect resilience. Working demands will affect the patient's psychology, and coronary heart disease patients are known to have limitations in their eventual decline in work ability will have an impact on job stability (Nouri-Saeed et al., 2015).

Patients working in this study were not divided by either permanent or temporary employment, but on the basis of resilience the results showed a fairly clear difference, where the higher the income the better the resilience value. This is consistent with a study (Helgeson & Zajdel, 2017) says that the resulting income will influence protectively, but the work does not fall into the factors that can affect resilience. In addition to protective factors, risk factors will also negatively affect. Risk factors belonging to biological factors that may affect the results of this study are the age of respondents. Cognitive patients cannot be separated from the level of development that serves as another protective factor. The prevalence of moderate amounts in the elderly is influenced by the patient's positive acceptance of the condition of the disease, as the age increases, the patient begins to adapt positively to disease conditions and lifestyle changes. This is in accordance with the research (Kong, Liu, Liu, & Yu, 2018) that age differences and income differences will affect the resilience and self-efficacy of coronary heart patients.

The second biological factor that is at risk of affecting resilience results is also possible because most of the respondents in this study were male. Men are often associated with strong and non-complaining, in contrast to women, and women in this study have low scores. This result is supported by research (Malik & Afzal, 2015) that men are more

resilience than women because men have power, power, autonomy and interests.

A third biological factor that may affect the results of this study is medical diagnosis. Respondents with Unstable Angina Pectoris (UAP) diagnoses and three coronary artery blockages (3 VD) had medium resilience values. Patients who have a UAP have not performed an angiographic action, so the patient has not known the certainty of a blockage in the coronary arteries and the patient may have been given an explanation of the plan of action. While in patients with three coronary artery blockages in this study was not divided based on complete or incomplete revascularization so that the limitations of the study. This can be attributed to the patient's psychological acceptance of the way in which the news is conveyed concerning the condition of their coronary arteries, the choice of revascularization action plan, how many blockages they have and the actions they can take or cannot make in the best settlement and decisions taken by the respondent and family.

The choice of revascularization action in accordance with the medical diagnosis that is able to overcome the problems in the patient, will give a perception of improvement of physical condition, thus increasing the psychological and more able to empower themselves. This is in accordance with research (Chaudhury & Srivastava, 2013) said successful revolutionary coronary revascularization actions will reduce anxiety, depression, physical limitations and increased perceptions of disease and health status. Therefore, the method of revascularization action is an important concern to maximize positive effects for patients and families. Psychological factors that include resilience risk factors such as depression, stress or anxiety to the disease, where respondents who have one or more of the comorbidities have a moderate level of resilience. Patients who have more than one concomitant disease will have more constraints in adjusting to lifestyle changes. However, low scores were found in more respondents who did not have comorbidities. This result may be due to the

comorbidities listed in the medical records, not all of which include depression or anxiety that the patient possesses because of the need for a special recitation, in which case both may affect the level of resilience. This is in accordance with the results of research that says that multiple stressors do not reduce the level of resilience (Morin, Galatzer-Levy, Maccallum, & Bonanno, 2017). That way with the presence or absence of physical accompanying disease does not affect resilience, other than the more affect is the depression or anxiety. In accordance with the study that resilience is more related to psychological variables than disease severity (Carvalho et al., 2016).

A second psychological factor that can affect risk resilience is perception of disease. The value of resilience is being found in considerable numbers on the characteristics of experiencing angina more than once per day, but low resilience values are found to be considerable in patients without angina. This result can be influenced by the patient's perception of his illness, when the patient, even without the angina, perceives itself to be in a fragile state, then all that happens will be felt unable to deal with. In accordance with the research said the perception of fragility to stress will affect the value of resilience. Increased understanding of the impact of disease, empowerment and changes in patient perceptions of disease will increase resilience that will indirectly improve quality of life (K. M. Connor & J. R. Davidson, 2003). This is in line with the research of Sararoudi et al. which says the perception of disease will affect a person in the conduct of coping and self-management related to the disease (Sararoudi et al., 2016).

Risk factors in environmental factors that can affect the resilience value of this research include the last education. The majority of respondents with resilience are having a basic education level. Increased levels of education will improve one's perception of health and be able to apply coping more adaptively. Risk factors in the second environmental factors that affect resilience is a marriage where in the

results of this study married respondents have a medium value. The quality of good family relationships, mutually supportive, loving and demanding family members with firm, rational and consistent will provide cognitive stimulation and improve adherence. Support gained will result in openness, but if there is no openness in the relationship of marriage it will lower the trust including trust in self-ability. This is in line with DeYoung study, that men are higher in intellectual level than openness / intellect personality, but marriage will bring down both openness and intellectuality to both men and women (Deyoung, 2014). This will be detrimental to the loss of support that may be obtained, the choice of plans, and the feeling of having people who understand the condition, other than that chronic diseases that its development will last for a long time will make men become less resilience.

The last risk factor is a negative life experience, where resilience values are being found in respondents who know the disease for more than six months. This may occur due to learning from previous attack experiences, whereas after an acute attack the patient analyzes his or her abilities during an attack and the action that should be done when an attack occurs. This is in line with research from Baldacchino (2011), which says time can improve the search for meaning in life and adaptation of patients with their illness. The time after the patient has experienced an attack is an important experience to restore the patient's life goals, hopes and presence, and to maximize the patient should know the positive potential in himself such as optimism, post-acute management skills or social support.

Nurses and healthcare workers can improve communication with patients and families to provide support and assistance so that it is possible for patients to share with what they feel about the disease and related to the impact of disease in social life. This can reduce the pressure and help patients understand themselves better without getting stuck with labels that strong men do not complain and as a result the psychological problems that can

worsen the disease can be suppressed by increasing resilience. The existence of perceptual gaps can be influenced by time conformity, availability of logistics, satisfaction of health services and functional status of patients (Stevani, Nur'aeni, & Afrima, 2017). Quality services will be the goal of the service provider so that the patient will be satisfied and follow the directions given by the health worker so that it is necessary to study the patient's expectation on the health program offered and communicate the benefits of the rehabilitation program so that the perception gap can be minimized.

Resilience based on sub-variables
Resilience based on sub-variables, on the sub-variable of personal competence, high standards and resilience indicates the second lowest mean. This result can be affected by the lowest mean value in the statement that likes challenges and perceives oneself as being strong when faced with challenges, so this statement indicates low self-efficacy. Patients faced with a change and perceiving themselves as someone who does not like challenges will then perceive the change as a formidable challenge and unconsciously affect the space of attention to a problem. Narrowing attention will affect the patient's standards and competencies, this is stated by the patient's statement that there is no reason for him to be proud of self-achievement because of the illness suffered which ultimately limits the possibility of choice of effort in achieving the goal.

Sub-variables of instinct trust, tolerance of negative impacts and strengthening facing stress impacts show the lowest mean of the five sub-variables. Respondents have some constraints in making good decisions if the decisions taken are not liked by the nearest person or difficult to follow the premonition when they do not know the reason for the decision. This is related to risk factors perceptions of patient psychological vulnerability. Logical decision making is often used for considering outcomes, and decision-making based on instinct is more likely to have uncertain outcomes. This is in line with the

study of illness cognition in coronary heart patients (Delima, Sriati, & Nur'aeni, 2018), which states patients feel helplessness so that patients feel useless. Patients who experience helplessness will find it difficult to make decisions for themselves, decision-making is not expected to add worsening conditions, and also must face judgment from others on the impact of decision-making. Therefore, it also decreases the mean of the revelation that the patient will advance and lead the problem-solving effort rather than allowing others to make decisions for themselves.

The sub-variables used are strong relationships with others indicating averages in third order. Patient statement that they can solve the problem with a high average value on success items. Mean value means lower than the numbers used and what happens in life. This can be changed by psychologically becoming a risk factor incorporated in a closed situation, a different understanding and cannot be a burden to the family. This will worsen the psychological condition and post-attack healing process. In line with research from Rakhman et al. who say that low social co-existence will have a direct impact on the increase and depression that will lead to worsening conditions and mortality (Rakhman et al., 2016).

Environmental factors at risk exist in strong relationships with someone giving their inner beliefs. This is in line with research (Edward, 2013), which states that one's endurance type consists of optimism, active coping style or social interaction. This can lead to patients who do not use the services they use. The sub-variables are mean self-control means the second highest. This is supported by an average meaning that patients have confidence in life, but in others who believe they are not able to develop, so the ability becomes ineffective. The lowest means available to find out what to do to rediscover stress and there are four respondents who say do not know what to do. This happens because the lack of optimal factors that drive a person can happen because of the patient he or she can be the one who can do with the hope and the problem of

life after the illness. In line with the words of patients with coronary disease in Canada (Rodrigues, Jongbloed, Li, & Dean, 2014) that indicate the existence of a disease they are experiencing is not, uncontrollable, and there is already an illness. and health responsibilities that ultimately lower their self-efficacy.

The sub variable set the spiritual show the highest average, it can be assumed the patient has enough strong belief to live and believe that whatever happened is God's will. Spiritual Influence as a protective factor that protects from decreasing endurance. True meaning value to a statement of trust or belief in God's direction can sometimes help no obvious problem. Belief in God can be used in life, that their God will not change the bad things that happen to them and will therefore give strength to the patient. This is in accordance with research (Mirwanti & Nuraeni, 2016), which states a high spiritual will be inversely proportional to the level of risk of coronary disease.

CONCLUSION

The results showed that the resilience of CHD patients after an acute attack in one of the heart polyclinics of Bandung general hospital had a moderate value. However, this value did not cover half of all respondents. This was supported by the lack of self-efficacy, optimism and family support. The study was limited to a sample of only 50 people, and the study's respondents also had only 4 female respondents so there was a possibility of bias in generalizing gender with resilience. Respondents with low resilience values were patients who had performed revascularization angiography either stent insertion, in the preparation of cardiac surgery and postoperative heart, but this study cannot describe patients who received comprehensive blockage treatment, in the process of continuous action and possible prognosis of the action.

The presence of respondents' statements that said medical rehabilitation programs have not

been recommended, indicating the concerns and needs of patients can be an input to the perception gap between patients and service providers. Therefore, it is expected that health institutions pay attention to the equity of services and improvement of education about the management capability of CHD patients post-acute attacks so that patients can empower themselves during home care. For nurses, it can increase family support by involving more families in post-acute care at home. Nurses and other health workers also need to take an integrated spiritual approach in decision making so as to help patients on the positive side of disease-related events, their impact on life and healthy lifestyle changes will last longer.

Declaration of Conflicting Interest
None declared.

Author Contribution
All authors contributed equally in this study.

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