Introduction: Depression is a major predictor that decreases the quality of life of patient with Coronary Heart Disease (CHD). One of the factors associated with depression is social support. The relationship between social support and depression in coronary heart disease patients has not been researched yet in Indonesia. This study aims to know the correlation between social support and depression in patients with CAD. Method: This research used descriptive correlation method with cross sectional approach. This study was conducted 77 CHD outpatients in one of the government hospitals. Data were collected through questionnaires. The first is ENRICHD Social Support Inventory (ESSI) questionnaire with validity value $r = 0.036-0.663$, $p < 0.01$ and Cronbach's $\alpha$ is 0.818. The second is Beck Depression Inventory II (BDI II) questionnaire with validity value $r = 0.39 - 0.52$, $p <0.01$ and Cronbach's $\alpha$ is 0.90. The data is analyzed by univariate (frequency distribution) and bivariate (rank spearman). Result: The results showed that non depression patients were 72.7% and depression patients were 27.3%, with mild depression (14.3%), moderate (7.8%) and severe (5.2%). Patients with high social support were 64.9% and low social supports were 35.1%. The Correlation between social support and depression had a p value of 0.000 ($r = -0.467$). Conclusion: The correlation between social support and depression was moderate and the direction of the relationship was negative. High social support caused lower depression. Therefore, social support should be improved in order to avoid depression in patient with CHD. Keywords: Depression, Heart Disease, Social Support.
there is a relationship between social support and depression. That research may not be adapted for Indonesian people because there are differences in sociocultural factor. People overseas have different characteristics with people in Indonesia. Indonesian people tend to have a principle of kinship. Every family member care for each other (Marzali, 2015). Therefore, the sociocultural factor is not clear and drives the researcher to study the relationship between social support and depression in CHD patients in Indonesia. This research will be very useful as an alternative treatment for CHD patients.

Seeing the phenomenon of high rates of depression that occur in patient with CHD requires more research to know the factors related to depression. This study was conducted to yield a good description for health care providers or for people around patients to help in the patient treatment.

**Method**

This research used descriptive correlative method with cross sectional approach. The variables in this study were social support and depression. Questionnaire for data collected using ENRICHD Social Support Inventory (ESSI) questionnaire developed by The ENRICHD Investigator (Mitchell et al., 2003) and Beck Depression Inventory II questionnaire developed by Beck that has been translated into Indonesian version by Ginting, Närin, Veld, Srisayekti, & Becker (2013). ESSI has been translated through back translation by experts. ESSI Indonesia version has a validity value \( r=0.036-0.663 \), with \( p < 0.01 \) and Cronbach’s \( \alpha \) was 0.818, while the BDI II Indonesian version has a validity value \( r = 0.39-0.52 \), \( p <0.01 \) and Cronbach’s \( \alpha \) of 0.90. The population in this study was CHD patients in the cardiac outpatient center at one of the government hospitals. The samples in this research were 77 respondents taken by quota sampling technique. Data were analyzed by frequency distribution (univariate) and rank spearman (bivariate). This research has obtained ethical clearance from related institutions.

<table>
<thead>
<tr>
<th>Table 1. Demographic Characteristics</th>
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<tr>
<td><strong>Age (Year)</strong></td>
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<td>&lt;45</td>
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<tr>
<td>45-59</td>
</tr>
<tr>
<td>60-74</td>
</tr>
<tr>
<td>75-90</td>
</tr>
<tr>
<td><strong>Ethnic</strong></td>
</tr>
<tr>
<td>Sundanese</td>
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<tr>
<td>Javanese</td>
</tr>
<tr>
<td>Others</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Not married</td>
</tr>
<tr>
<td><strong>Income</strong></td>
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<td>&lt;2,8Jt</td>
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<td>2,8-5Jt</td>
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A total of 77 respondents were taken from the general population. The respondents were 61 men and 16 women. The demographic characteristics of the respondents are listed in Table 1. We can see in chart 1 that from 77 respondents, most of the respondents did not suffer from depression (72.7%) and there were respondents who suffered from depression i.e. mild depression (14.3%), moderate depression (7.8%) and severe depression (5.2%). It can be seen that respondent who have low social support amounted to 27 people or about 35.1% and other respondents had high social support (64.9%).

Based on Spearman test result was p value < α (0.000 < 0.05); it means there is a significant relationship between social support and depression. The value of correlation coefficient (r) was -0.467. That result means the level of relationship between social support and depression in this study is significant. The relationship is moderate with the direction of relationship as negative. The direction means that the higher level of social support is provided, the more patients are not depressed or the other way around.

**Discussion**

The research shows that most respondents were not depression. This may be due to several factors. Having positive mindset, positive coping mechanisms, cardiac rehabilitation, and a spouses may be the factors contributing to the low rates of depression in CHD patients in this study. In general, individuals have a positive and optimistic mindset to maintain their mind conditions (Beck & Alford, 2009). Then, individuals who have a positive coping mechanism can handle the stress (Svensson et al., 2016). Research has also shown that cardiac rehabilitation can reduce symptoms of depression (Milani & Lavie, 2007). Cardiac rehabilitation twice a week is recommended by National Service Framework for Coronary Heart Disease to improve physical activities, psychological well-being and quality of life patients with CHD (Yohannes, Doherty, Bundy, & Yalfani, 2010). In addition, research by Nascimento et al. (2015) suggested that the unmarried (single) patients or without spouses (widows/widowers) were found to have symptoms of depression and suicide. That description show that patients with positive mindset, positive coping mechanism, following cardiac rehabilitation, and patients having a spouse can be spared from depressive syndrome.

The study also denoted there were CHD patients with depression. CHD patients will experience a loss cardiac physiological normal function. The changes may make the patient have a maladaptive distress response (Carpenito, 2006; Suseno, 2005). Patients with post-myocardial infarction are found to be depressed after 1 year of diagnosis (Martens, Smith, Winter, Denollet, & Pedersen, 2008). The long-term disease and treatment process make the patient susceptible to stress (Poole, Dickens, & Steptoe, 2011; Semium, 2006). In addition, the average depression occurs at the age of 40-59 years (Schaakxs et al., 2017). CHD patients with low socioeconomic status were
found to experience symptoms of depression (Steptoe et al., 2011). The description shows that heart disease itself, long diagnosed disease, productive age, and low socioeconomic status may be a contributing factor to the depression rate in this study.

Depression in this study should be handled because it can have a negative impact on CHD patients. Respondents with mild depression could be given praise, jokes, or be allowed to watch a program that they loved as a therapy to prevent them from excessive stress. Respondents who had moderate depression must be given more attention and support compared to patients with mild depression. Nurses can help with relaxation training, stress management, health education, and make social support groups to be the main treatment. Respondents with severe depression should receive medical treatment immediately. Patients should be referred to a specialist for psychotherapy and have psychotropic drug in accordance to a prescription (Albus, 2010; Beck & Alford, 2009; WHO, 2012; Wulsin, 2012).

The research shows that most of the respondents in this study had high social support. Social support is derived from many sources such as loved ones, family, friends, doctors, nurses, or other organizations in the community (Sarafino & Smith, 2012). Respondents in this research were mostly married and worked so that they had high support from the surrounding environment. In addition, a cultural factor was also influential. Indonesian society has a kinship principle that caused by good social relationships among families, the spirit of brotherhood and good solidarity between families (Marzali, 2015). Therefore, the respondents were likely to receive high social support.

The research also shows that there were respondents who had low social support. Sociostructural conditions (i.e., living alone) greatly affect social support in CHD patients (Barth, Schneider, & von Kanel, 2010). That were respondents who had not spouse in this research. In addition, low socioeconomic status also relates indirectly to social support. Social support is a mediator between socioeconomic status and patient health (Wangberg et al., 2008). Poor patient health status may also be one of the reasons for the low level of social support. Respondents with poor health status would have barriers in social relationship with others because they did not have the energy to move. The description shows that living alone, low socioeconomic and poor patient health status may be the contributing factors to the social support rate in this study.

Social support needs to be improved because it can protect patients from negative consequences of depression and reduce symptoms of depression. Nurses and other health workers must know the way to motivate CHD patients to avoid psychosocial disorders and help patients get their social support needs. The nurse may also involve the family and the person closest to the patient to help provide support for CHD patients. Nurses can take advantage of the time when the family or the nearest person comes when the patient receives treatment to educate the family about the importance of social support for the patient (Heo, Lennie, Moser, & Kennedy, 2014; Wulsin, 2012).

Based on this research, it is known that there is a significant relationship between social support and depression. The direction relationship is a negative relationship. These results are in accordance with the research of Greco et al. (2014) who mentioned that social support with depression has a negative relationship. There is a difference in the results of this study with previous studies. Research Greco et al. (2014) showed that the relationship between social support and depression had a low correlation value (-0.24 and -0.38), whereas in this study the correlation value obtained was a moderate correlation (-0.467). This shows that in Indonesian people, CHD patients need more social support to prevent the occurrence of symptoms of depression. Therefore, social support can be an alternative to help control depression in CHD patients (Heo et al., 2014).

Social support with depression is also associated with other factors. Depression is associated with coping mechanisms and spiritual beliefs that will link to social support. Coping mechanism is an individual’s mechanism to survive in dealing with stressful situations that suppress an individual (Nasir, 2011). Individuals must
have positive coping acquired through individual skills, economic assets, social support, and motivation (Stuart, 2013). Spiritual beliefs are also used as individual efforts to overcome the worst situations, skills to solve problems with the help of others, as well as the knowledge and intelligence that differentiate between each person in solving problems (Stuart, 2013).

Research conducted by Rakhman et al. (2016) denotes in that most CHD patients use coping mechanisms by seeking social support, which means a patient needs social support for coping himself. Studies have proven that if CHD patients receive low social support, they are likely to use maladaptive coping (Khan, Hassan, Kumar, Mishra, & Kumar, 2012). In addition, research conducted by Mirwanti and Nur’aeni (2016) results in a significant relationship between spiritual safety and depression. In CHD patients, the spiritual purpose is identified through four categories: spiritual is the relationship with self, spiritual is the relationship with God, spiritual is the relationship with others, and spiritual is the relationship with nature. From the description it is known that the spirituality needed by the CHD patient is spiritual gained from the relationship with others such as attention, love, and affection from others, and the success of the family as a source of strength and happiness (Nur’aeni, Ibrahim, & Agustina, 2013).

The description of the relationship of depression with coping mechanisms and spiritual safety is a stronger reason that depression is associated with social support as well. Good social support helps CHD patients have adaptive coping mechanisms and good spirituality. This can conclude that there is a relationship between social support and depression that has been proven also by this study.

As a potential provide of health personnel, nursing education should begin preparing nursing students to provide nursing care to psychosocial problems and providing social support for patients, especially CHD patients. Health personnel should also start providing primary care in managing depression and providing support as well as motivation for CHD patients. Health personnel should also start involving the family and the patient’s closest ones by providing information on the importance of social support for patients and psychosocial problems that will be experienced by CHD patients (Heo et al., 2014; Wulsin, 2012).

**Conclusion**

The results showed that most of the respondents did not suffer from depression and had high social support. There was a significant relationship between social support and depression in CHD patients in this study. The relationship was a negative relationship which means the higher social support the patients have, the more patients are not depressed and the other way around. These results show that to prevent or reduce symptoms of depression in CHD patients, patients can be given high social support from both the family and the environment around the patient.

**Reference**


Greco, A., Steca, P., Pozzi, R., Monzani, D.,


WHO. (2012). Depression.
