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The Relationship Between Family Support And Anxiety Levels In ACS (Acute *Coronary Syndrome) Patients* At Lavalette Hospital Malang

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Abstract

Acute Coronary Syndrome (ACS) is a cardiovascular emergency condition that can cause both physical and psychological impacts, one of which is anxiety. High levels of anxiety in patients with ACS may affect the recovery process and patients' quality of life. Family support is considered an important factor in helping patients cope with anxiety during hospitalization. This study aimed to determine the relationship between family support and anxiety levels among patients with ACS at Lavalette Hospital, Malang. This study employed a descriptive analytic design with a cross-sectional approach. The sample consisted of 39 ACS patients who were hospitalized at Lavalette Hospital, Malang, and selected using purposive sampling. The research instruments included a family support questionnaire covering emotional, appraisal, instrumental, and informational support, as well as the Hamilton Anxiety Rating Scale (HARS) to measure anxiety levels. The results showed that most respondents had a high level of family support, with 20 respondents (51%). Meanwhile, regarding anxiety levels, nearly half of the respondents experienced no anxiety (17 respondents, 44%), a small proportion experienced moderate anxiety (8 respondents, 21%), and others experienced severe anxiety (14 respondents, 36%). A significant relationship between family support and anxiety levels was found ($p = 0.002$). Family support plays an important role in reducing anxiety levels among patients with ACS. Therefore, family involvement in nursing care should be enhanced as part of a holistic care approach to optimally support patient recovery.

Keywords: Family Support, Anxiety, Acute Coronary Syndrome (ACS)

1. INTRODUCTION

Acute coronary syndrome (CKS), is one of the most common causes of death worldwide. In 2008, an estimated 1,413,000 patients were treated for SKA. One-third of myocardial infarction patients with ST segment elevation died within the first 24 hours. Although the morbidity and mortality in Unstable Angina Pectoris (UAP) and non ST elevated myocardial infarction (NSTEMI) are lower, it is still important to note that 15% of patients die or have a recurrent infarction within the first 30 days. One of the causes of death in SKA is the occurrence of complications known as major adverse cardiac events (MACE). There are several predictors of the occurrence of MACE in SKA patients, one of which is psychological factors, namely depression and anxiety [1]

The World Health Organization (WHO) reported that cancer patients worldwide in 2020 reached 19.3 million cases with a death rate of up to 10 million people (WHO, 2022). Data from the Global Burden of Cancer Study (Globocan) recorded 3,792,000 cases of cancer in the Americas, 4,230,000 cases in Europe, 252,000 cases in the Oceania region and 8,751,000 cases in Asia [2]

Melle, et al. in Sari et al., 2018 in a 2004 meta-analysis that included 22 studies with 6,000 patients, reported that post-myocardial infarction depression increases the risk of death and recurrent heart attacks by 2-2.5 times. Moser, et al., in a study with 536 myocardial infarction patients, found that anxiety during treatment was associated with an increased risk of arrhythmias during treatment and ischemic complications. However, currently depression and anxiety have not received much attention even though they have an important role in the treatment of SKA and its prognosis [1]

Through a brief interview with a number of patients in platinum room 4 of Lavalette Malang hospital out of a total of 10 patients interviewed, it was found that almost all of them experienced anxiety because they rarely received support from their families, both emotional support, appreciation support, and instrumental support tended to experience stress/anxiety.

Support from family is an important factor for a person when facing problems (health) and as a preventive strategy. Family support is indispensable in patient care, can help reduce patient anxiety, increase the patient's enthusiasm and commitment to continue treatment [1]. Taking this background into account, this study is focused on analyzing the relationship between family support with anxiety in ACS patients. While research on the relationship between family support and anxiety levels in ACS patients is very minimal, the researcher formulated to research on "The relationship between family support and anxiety in ACS patients".

Cardiovascular disease is the leading cause of mortality and morbidity worldwide. In 2020, an estimated 19 million deaths (37%) worldwide were caused by cardiovascular disease. SKA is often the first clinical manifestation of cardiovascular disease. Broadly speaking, ACS risk factors can be divided into two: First, there are reversible risk factors, namely hypertension, cholesterol, smoking, obesity, diabetes mellitus, hyperuricemia, lack of physical activity, stress, and lifestyle. Risk factors that cannot be corrected are age, gender, and family history of disease. Based on the anamnesis, physical examination, electrocardiogram (ECG), and cardiac marker examination, Acute Coronary Syndrome is divided into Myocardial infarction with ST segment elevation (ST segment elevation ST), Myocardial infarction with non-ST segment elevation (NSTEMI non ST segment elevation myocardial infaction), Unstable angina pectoris (UAP unstable angina pectoris) (PERKI, 2024)[3]

Anxiety is a condition in which a person feels emotions and is followed by an autonomous response or (the individual does not know and the origin is unclear) and the anticipation of danger that can cause fear and worry and allows the individual to take action to face the threat (Yosep, 2017). Symptoms of anxiety include physical symptoms and motor symptoms. Fissile symptoms include sweating, dry mouth, short breath, rapid pulse, increased blood pressure, head feels throbbing and muscles feel tense The symptoms of rapid breathing (hyperventilation) can cause dizziness, heart beats rapidly, chest pain and shortness of breath while motor symptoms include restlessness, nervousness, and trembling [4]

According to Friedman (2003), a family is two or more people who are united through emotional unity and intimacy and see themselves as part of the family. Family support includes emotional support, instrumental support, assessment support, informational support Family support is one of the most vital non-clinical variables that affect the recovery of Acute Coronary Syndrome (ACS) patients because it acts as a buffer against stress and anxiety. This support is generally measured through several key indicators, namely: Emotional Support (expressions of love, care, and empathy), Reward Support (appreciation for the patient's efforts and positive feedback), Instrumental Support (direct assistance in the form of materials, self-care, or daily practical assistance), and Informational Support (advice, information about diseases and treatments, and health education). The effectiveness of this support is influenced by family factors such as family structure (integrity and function), the level of family knowledge about

ACS, socioeconomic status, and the quality of communication between patients and family members [5].

2. RESEARCH METHODS

This research method uses a quantitative approach with a *correlational cross-sectional* design . This study aims to determine the relationship between the independent variable, namely the use of social media, and the dependent variable, namely *aggressive behavior.* This research was carried out at Lavalette Hospital Malang. The research sample was 39 respondents (Platinum Room 4 of Lavalette Hospital Malang) who were taken using *purposive sampling* with criteria, having gadgets, using social media, being able to read, willing to be respondents. In this study, the data collection technique was used through filling out the Family Support questionnaire and the HARS (*Hamilton Anxiety Rating Scale*) questionnaire, with a total of 16 units of statements (4 statements of emotional support), (4 statements of appreciation support), (4 statements of instrumental support), and (4 statements of informational support), with a range of answer choices always=4, often=3, sometimes=2, never=1. The total score is categorized into High (49-64), medium (33-48) and low (16-32). Anxiety levels were measured using the HARS (*Hamilton Anxiety Rating Scale*) questionnaire, with a total of 14 units including indicators of feelings of anxiety, tension, fear, sleep disturbances, intelligence disorders, feelings of depression, somatic muscle symptoms, sensory somatic symptoms, cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms, urogenitalia symptoms, autonomic symptoms, behavior during interviews, with a range of choice of answer scores of 0-4. The total score is categorized into 0= none, 1= light, 2= medium, 3=heavy, 4=very heavy. Data were analyzed using *the Spearman* test with $P = <0.05$.

3. RESULTS AND DISCUSSION

Results

Table 1. General Characteristics of Respondents

Demographic Characteristics	Frequency (n)	Presentase (%)
Demographic Characteristics of Respondents		
Gender		
1. Men	18	46%
2. Women	21	54%
Age		
1. 40-49 Years	3	8%
2. 50-60 Years	16	41%
3. 61-70 Years Old	10	26%
4. 71-58 Years Old	10	26%
Status		
1. Unmarried	0	0%
2. Getting married	30	77%
3. Janda/Duda	9	23%
Education		
1. Not going to school	0	0%
2. SD	10	26%
3. SMP	11	28%
4. SMA	13	33%
5. Diploma/PT	5	13%

Demographic Characteristics	Frequency (n)	Presentase (%)
Jobs		
1. Civil Servant/Police/TNI	0	0%
2. Private	15	38%
3. Self-employed	0	0%
4. Farmer/Laborer	19	49%
5. Others	5	13%

Based on table 1, the general characteristics of respondents showed that based on gender, most of them were female, namely 21 respondents (54%) In the age group, most of the patients' age (50–60 years) was 16 respondents (41%). For the status of most of them married, namely 30 respondents (77%), almost half of the post-secondary education, namely 13 respondents (33%), almost half work as farmers/laborers, namely 19 respondents (49%).

Table 2. Family Support Frequency Distribution

Family Support	Quantity	
	Answer (n)	Presentase (%)
1. Height	20	51%
2. Medium	7	18%
3. Low	12	31%
Total	39	100%

Based on table 2, it can be seen that most of the family support is in the high category, namely 20 respondents (51%). A small proportion of moderate family support was 7 respondents (18%) and almost half of low family support was 12 respondents (31%).

Table 3. Frequency Distribution of Anxiety Levels

Anxiety Level	Quantity	
	Answer (n)	Presentase (%)
1. None	17	44%
2. Light weight	0	0%
3. Medium	8	21%
4. Weight	14	36%
5. Very Heavy	0	0%
Total	39	100%

Table 4. Relationship between Family Support and Anxiety Levels in ACS Patients

Family Support	Anxiety Level						Total		*P Value*
	None		Medium		Weight				
	N	%	N	%	N	%	N	%	
Low	9	75.0	0	0.0	3	25.0	12	100.0	*P=0.002 (P<0.05)*
Medium	0	0.0	6	100.0	0	0.0	6	100.0	
Height	5	23.8	1	4.8	15	71.4	21	100.0	
Total	14	35.9	7	17.9	18	46.2	39	100.0	

Based on table 3, it can be seen that almost half of the levels of anxiety are not at all, namely 17 respondents (44%), a small proportion of moderate anxiety levels are 8 respondents (21%) and severe anxiety levels are 14 respondents (36%).

Based on table 4, it is shown that there is a significant relationship between the Family Support Relationship and the Level of Anxiety in ACS Patients with a value of ($p=0.002$). The higher the family support in the patient, the lower the level of anxiety in ACS patients.

Discussion

Based on tabulation results The general characteristics of respondents showed that based on gender, most of them were female, namely 21 respondents (54%) In the age group, most of the patients' age (50–60 years) was 16 respondents (41%). For the status of most of them married, namely 30 respondents (77%), almost half of the last high school education was 13 respondents (33%), almost half worked as farmers/laborers, namely 19 respondents (49%). From the tabulation results consisting of emotional support, award support, instrumental support, informational support then It is also known that most of the family support is in the high category, namely 20 respondents (51%). A small proportion of moderate family support was 7 respondents (18%) and almost half of low family support was 12 respondents (31%). Based on the characteristics of respondents by gender, most of the respondents were women, namely 21 respondents (54%). This condition shows that women are more involved or affordable in this study However, currently depression and anxiety have not received much attention even though they have an important role in the treatment of SCA and its prognosis [1]. Gender differences can affect how individuals respond to health conditions and social support received. Women are generally more open in expressing their feelings and more active in utilizing family support, so this can affect the perception and level of support they feel. Judging from the age group, most of the respondents were in the age range of 50–60 years, which was as many as 16 respondents (41%). This age belongs to the group of late adulthood, where individuals begin to experience physical, psychological, and social changes. In this age phase, the risk of various health problems tends to increase, so the role of the family becomes increasingly important. Support from families can help respondents cope with changes in health conditions and improve their ability to adapt to limitations that may be experienced.

Based on marital status, most of the respondents were married, namely 30 respondents (77%). Married status allows respondents to have a life partner who acts as the main source of support, both emotionally, instrumentally, and informationally. The existence of a partner can provide a sense of security, attention, and assistance in daily activities, which has the potential to improve the well-being of respondents. This shows that marital status can be a supporting factor in achieving optimal family support. In terms of education, almost half of the respondents had the last education of high school, namely 13 respondents (33%). Education level affects an individual's ability to understand information, including health and care information. High school education shows that respondents have a sufficient knowledge base, but still require the delivery of clear and easy-to-understand information. Meanwhile, based on the type of work, almost half of the respondents worked as farmers or laborers, namely 19 respondents (49%). This job is generally related to strenuous physical activity and relatively limited economic conditions, so family support is important in helping to meet the physical and emotional needs of respondents. Based on the results of the tabulation of family support which includes emotional support, reward support, instrumental support, and informational support, it is known that most of the respondents have family support in the high category, namely as many as 20 respondents (51%). The high level of family support shows that families play an active role in providing attention, assistance, and information to respondents. However, there are still a small

number of respondents with moderate family support as many as 7 respondents (18%) and almost half with low family support as many as 12 respondents (31%). This condition indicates that there is a variation in the level of family support, which can be influenced by factors of age, occupation, education, and family dynamics, so it needs to be considered in efforts to increase the role of the family.

From the tabulation results of the Hamilton Anxiety Rating questionnaire, it is known that almost half have no anxiety level, namely 17 respondents (44%), a small percentage of moderate anxiety levels, namely 8 respondents (21%) and severe anxiety levels, namely 14 respondents (36%). These findings show that some respondents are able to adapt to the conditions they face so that they do not cause meaningful anxiety symptoms. The absence of anxiety in this group can be influenced by various factors, such as good coping skills, adequate social and family support, and adequate understanding of the conditions experienced. A small percentage of respondents experienced moderate levels of anxiety, namely 8 respondents (21%). Moderate anxiety is generally characterized by the appearance of feelings of worry, tension, and anxiety that can still be controlled, but begin to affect daily comfort and activities. This condition suggests that although respondents are still able to carry out activities, they need additional attention and support so that anxiety does not develop to a more severe level. Education, mentoring, and good communication can help reduce anxiety levels in this group. Meanwhile, as many as 14 respondents (36%) experienced severe anxiety. The high proportion of respondents with severe anxiety indicates a significant psychological burden. Severe anxiety can negatively impact respondents' physical, emotional, and quality of life, and potentially hinder the adaptation and decision-making process. Therefore, these results confirm the importance of appropriate interventions, such as psychosocial support, family involvement, and professional handling, to help reduce anxiety levels and improve respondents' well-being.

Based on the results of the data tabulation, it can be seen that most ACS patients receive family support in the high category, which is as many as 20 respondents (51%). This support includes emotional, appreciative, instrumental, and informational support that overall plays an important role in helping patients cope with acute disease conditions. Optimal family support can provide a sense of security, comfort, and increase patient confidence in undergoing treatment. In the context of ACS patients, a stable psychological condition is needed because the disease often causes fear, uncertainty, and threats to life. The results of the measurement of anxiety levels using the Hamilton Anxiety Rating Scale questionnaire showed that almost half of the respondents did not experience anxiety, namely 17 respondents (44%). These findings indicate that some patients are able to manage the psychological distress that arises from their illness. One of the factors that is suspected to play a role in this condition is the existence of adequate family support, both in the form of emotional attention and real assistance during the treatment process. According to Friedman (2014), family support affects the health and well-being of family members, so when the patient receives family support, it will increase the trust of the patient in dealing with the disease he suffers. This support can help patients better understand their condition and reduce excessive concern about the prognosis of the disease. However, almost half of the respondents were still found with low family support, namely 12 respondents (31%). This condition has the potential to increase patients' susceptibility to psychological disorders, which is reflected in the fairly high number of patients with severe anxiety levels, namely 14 respondents (36%).[2]

The lack of family support can make patients feel isolated, uncared for, and have difficulty adjusting to the condition of the disease they are experiencing. This can exacerbate the patient's negative perception of his or her illness and worsen anxiety levels. Thus, in opinion, it can be said that there is a tendency to relate to family support and the level of anxiety in ACS patients at Lavalette Hospital Malang. High family support tends to be related to lower levels

of anxiety, while low family support is potentially related to higher levels of anxiety. Therefore, family involvement needs to be seen as an integral part of ACS patient care. Efforts to improve education and family empowerment are expected to help reduce patient anxiety levels and support the overall recovery process.

4. CONCLUSION

Based on the results of the study on the Relationship Between Family Support and Anxiety Levels in ACS Patients at Lavallete Hospital, which has been analyzed and discussed, it can be concluded that the level of Family Support Most of the family support is in the high category, namely 20 respondents (51%). A small proportion of moderate family support was 7 respondents (18%) and almost half of low family support was 12 respondents (31%). Then the Anxiety Level was almost half without the level of anxiety, namely 17 respondents (44%), the small part of the level of moderate anxiety, which was 8 respondents (21%) and the level of severe anxiety, which was 14 respondents (36%), then the Family Support Relationship with Anxiety Level, there was a significant relationship between the Family Support Relationship and the Anxiety Level in ACS Patients with a value ($p=0.002$). The higher the family support in the patient, the lower the level of anxiety in ACS patients.

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