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The Relationship Between Level Of Religiosity And Family Support With Quality of Life of AMI Patients

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Abstract: Quality of Life (QoL) for acute myocardial infarction (AMI) patients is important. This study aims to analyze the religiosity and family support on the QoL for AMI patients. This study uses quantitative observational analytical methods with a cross-sectional *design*. Total sampling of data was collected by paying attention to the sample criteria at Roemani Hospital of the 74 respondents, inclusion was found to be 46 respondents. The study instrument used a Daily Spiritual Experience Scale (DSES) to religiosity level, Saragih family support questionnaire to assess family support as a variable independent. MacNew Health Related Quality of Life (HRQoL) to assess quality of life as a dependent variable. Analyzed data using tests *rank Spearman*. It was found that 80.43% of respondents had a high level of religiosity, 17.39% moderate, and 2.17% poor. There were 80.43% of respondents had good family support, and 19.57 % sufficient. Respondents had good QoL (78.26%), and poor (21.74%). These results showed that the religiosity level correlated with the QoL for AMI patients (p=0.000; r=+0.934). Family support correlated with the quality of life of AMI (p=0.000; r=+0.936). The higher religiosity level and family support, the higher the QoL for AMI patients. So, the patient must increase the level of religiosity and their families should be more supportive to improve QoL.

Keywords: Family Support, Acute Myocardial Infarction, Quality of Life, Religiosity.

INTRODUCTION

The biggest cause of death in the world is cardiovascular disease reaches 17.3 million people. High morbidity and mortality rate from cardiovascular is Acute Myocardial Infarction (AMI) reaches 7.3 million people.[1,2] In Indonesia, according to RISKESDAS in 2018, the number of people affected by AMI was 1.5%.[3] The 2017 Semarang city shows that the incidence AMI was 1971 cases.[4]

Quality of Life (QoL) is a personal perception of their life such as position, culture and system in which they exist and their relationships, related to life goals standards and expectation. This can be correlation by certain factors, namely the level of health, aspects of spirituality, and aspects of social support from those closest to them, namely family. There are other factors that also correlation a person's quality of life, namely gender, age, marital status and education.[5] The patient's QoL is very important to identify because it will have an impact on the rehabilitation process. Due to the negative impacts caused by AMI, such as a decrease in energy levels, stressed, easily feel hopeless and the inability to carry out daily activities, patients will also be faced with the threat of changes in family life, marital tension, financial worries, and reduced employment opportunities.[6,7]

Other studies show that patients really need spirituality in their healing or recovery process. Most patients with chronic diseases have high religious level because they comfortable with religious act such as

dizkr, meditation and prayer still their diseases. Religiosity (adherence to religion) has a good impact on health. In America, almost all doctors believe that religious beliefs can cure disease and 75% of them believe that the prayers of other people such as the patient's family can promote healing.[8,9]

Family support such as attitude, acceptance and actions for the family towards its members. The family as the person closest to the patient is always ready to provide moral and material support in the form of information, attention, real help and praise for the patient so that the patient feels less burdened in undergoing treatment.[10,11] There has been no previous study linking the religiosity level with the QoL for AMI patients, while family support has only been studied in hypertension [12,13].

A preliminary study conducted on June 9 2023 at the Roemani Muhammadiyah Hospital, Semarang, found data on 29 patients diagnosed with AMI during January-June. And based on the results of the 2021 evaluation, of the 2.2 million participants who underwent health history screening at Roemani Hospital, 3% had a potential risk of AMI.[12]

Based on the description that important to analysis the correlation of the level of religiosity and family support on the QoL for AMI patients at Roemani Muhammadiyah Hospital Semarang. So, that in the future a good quality of life can be created for AMI patients at Roemani Muhammadiyah Hospital Semarang.

MATERIALS AND METHOD

This type of study is quantitative in the form of analytical observational with *cross-sectional*. The length of study is September 2023-January 2024. The 74 respondents were patients diagnosed by a physician with AMI in June 2022-June 2023 at Roemani Muhammadiyah Hospital Semarang. We were used total sampling taking into account the inclusion criteria, namely patient who has been diagnosed with AMI and is undergoing outpatient treatment at Roemani Hospital Semarang, available to be a study respondent, cooperating, and able to communicate well, domiciled in the city of Semarang, Muslim, and IMA patients who live in the same house as their families. The exclusion criteria for this study were AMI patients who do not fill out the questionnaire completely, data medical records are incomplete, and AMI patients who were diagnosed less than 2 weeks before the time of the study. Based on inclusion and exclusion criteria, we got 46 respondents.

The variables of independent are the level of religiosity and family support. The level of religiosity is the experience of religiosity by Islamic law in patients in their daily lives. The level of religiosity used by *Daily Spiritual Experience Scale (DSES)* questionnaire has 16 questions with answers using a Likert scale. Based on result DSES, three levels obtained, namely 16-41 is low, 42-67 is moderate and 68-94 is high. The family support is family actions or attitudes towards patients in the form of emotional, financial, informational, instrumentally, and assessment support. We use the family support questionnaire from Saragih in 2016 which has been validated and reliable with 16 questions. Low family support with score of 0-15, moderate family support with a score 16-32 and high family support with a score 33-48.

The dependent variable in this study is QoL of AMI patients. The quality of life of AMI patients is the patient's feelings about his illness affecting his life functions such as limitations in physical, emotional and social functioning. Quality of life questionnaires used MacNew Health Related Quality of Life (Mac New HRQoL) with 27 questions. This instrument is an extension of quality of life after myocardial infarction by additionally evaluating the impact of treatment and rehabilitation. Quality of life is divided into 2, namely bad if the score is $\leq$3.5 and good if >3.5.

Analyzed data between independent and dependent variable using tests *rank spearman*. Start from collecting data after released of Ethical Clearance Faculty of Medicine, Muhammadiyah University Semarang with No.059/EC/KEPK-FK/UNIMUS/2023.

RESULT

The total number of AMI patients at Roemani Muhammadiyah Hospital Semarang in June 2022-June 2023 was 74 patients. After grouping based on inclusion criteria, a total of 46 patients who enter the inclusion criteria were respondents.

Table 1. Respondent characteristics

Respondent Characteristics	Frequency (n)	Percentage (%)
Gender		
Man	25	54.35%
Woman	21	45.65%
Age		
30-40 years old	3	6.52%
41-50 years old	3	6.52%
51-60 years old	13	28.26%
61-70 years old	15	32.61%
71-80 years old	8	17.39%
81-90 years old	4	8.70%
Marital Status		
Marry	40	86.96%
Doubt/Widow	6	13.04%
Education Level		
Elementary School/Equivalent	11	23.91%
Junior high school/Equivalent	11	23.91%
Senior high school/Equivalent	13	28.26%
College	11	23.91%
Work		
Work	33	71.74%
Doesn't work	13	28.26%
Long Suffering from AMI		
0-4 years old	44	93.48%
≥ 5 years old	2	6.52%

Based on table 1, showed that 54.35% were male, with an average patient age of 61-70 years, 32.61%. The dominant education level is senior high school graduates/equivalent as much as 28.26%, with the most of marital status being married at 86.96%. Apart from that, the average job status of respondents is still working, 71.74%. For the duration of suffering from MI, it can be seen that the average respondent was 0-4 years old, namely 93.48%.

Table 2. Description of Respondents' Level of Religiosity

Level of Religiosity	Frequency (n)	Percentage (%)
High	37	80.43
Moderate	8	17.39
Low	1	2.17
Total	46	100

From table 2, showed that the majority of AMI patients have a level of religiosity in the high category with a percentage of 80.43% (37 respondents), in the fair category 17.39% (8 respondents) and 2.17% (1 respondent). In the low category. So, brief that the majority of respondents have a high level of religiosity.

Table 3. Description of Respondents' Family Support

Family Support	Frequency (n)	Percentage (%)
High	37	80.43
Moderate	9	19.57
Low	0	0
Total	46	100

Seen from table 3, that the majority of AMI patients have family support in the high category with a percentage of 80.43% (37 respondents), and another 19.57% (9 respondents) in the sufficient category. There were no patients who had family support in the lacking category. It can be concluded that the most of respondents have high family support.

Table 4. Description of Respondents' QoL

QoL	Frequency (n)	Percentage (%)
High	36	78.26
Low	10	21.74
Total	46	100

According table 4, showed that the majority of AMI patients have a quality of life in the high category with a percentage of 78.26% (36 respondents). Meanwhile, the other 21.74% (10 respondents) were in the low level. So, respondents have a high quality of life.

Table 5. Cross Tabulation Table of Religiosity Levels

Level Of Religiosity	Quality Of Life				Amount		p-value	Correlation Coefficient (r)
	High		Poor					
	n	%	n	%	n	%		
High	36	97.3	1	2.7	37	80.43	0.000	+0.934
Moderate	0	0	8	100	8	17.39		
Low	0	0	1	100	1	2.17		
Total	36	78.3	10	21.7	46	100		

In the table 5, it was found that 36 respondents (97.3%) had a high of religiosity level with a high QoL and 1 respondent (2.7%) had a high level of religiosity with a poor QoL. Meanwhile, patients who had a sufficient religiosity level and poor QoL were 8 respondents (100%) and patients who had a low level of religiosity with a poor quality of life were 1 respondent (100%).

Based on the table 5, on the level of religiosity variable, it is found that the correlation coefficient (r) is r=0.934, meaning that the strength/closeness of the relationship is very strong, and has a positive linear pattern, namely the greater the value of the level of religiosity, the greater the value of QoL for AMI patients. Correlation test results rank *spearman* p value is obtained value = 0.000 (<0.05) meaning that have a significant correlation between religiosity level on QoL for AMI patients.

Table 6. Family Support Cross Tabulation Table

Family Support	Quality of Life				Amount		p value	Correlation Coefficient (r)
	High		Poor					
	n	%	n	%	n	%		
High	36	97.3	1	2.7	37	80.43	0.000	+0.936
Moderate	0	0	9	100	9	19.56		
Total	36	78.3	10	21.7	46	100		

In the table 6, it was found that patients with AMI who had high family support with a high QoL were 36 respondents (97.3%) and patients who had high family support with a poor quality of life were 1 respondent (2.7%). Meanwhile, patients who had sufficient family support had a poor quality of life as many as 9 respondents (100%).
Based on the table 6, for the family support variable, it is found that the correlation coefficient (r) is r=0.936, meaning that strength/closeness of the relationship is very strong, and has a positive linear pattern, namely the greater the value of family support, the greater the value of quality of life in AMI patients. Correlation test results rank *spearman* with p-value obtained = 0.000 (<0.05), meaning that have a gnificant correlation between family support on the QoL for AMI patients.

DISCUSSION

Interpreted from this study that respondents have a good QoL which can be assessed from the level of religiosity and family support. This study has a correlation on the level of religiosity on the quality of life in AMI patients. This is in line with previous study which shows that the level of religiosity correlations the quality of life in AMI patients.[13,14] Religiosity has an impact on QoL such as improving mental health, reducing levels of depression, and increasing life expectancy. The level of religiosity is built from oneself and the surrounding environment.[15] The level of religiosity within oneself can be increased by increasing belief in the existence of God, praying and worshiping. Meanwhile, the environment can be improved by being grateful for all the blessings obtained, including social support.[16] Interventions to increase religiosity such as prayer, reading the Qur'an, *dzikr,* and listening to religious lectures are related by auditory stimulus mechanisms. The cerebral limbic system (HPA axis and amygdala complex) connects to audio involvement in steroid production through the auditory system pathway to the auditory area, especially the neural pathway (emotional circuit). Audio stimulation evokes a limbic system response which can stimulate the secretion of hormones such as serotonin, dopamine, and/or norepinephrine at the synapse so that it can release stress related to depression. When the level of religiosity increases, he will enjoy life and be enthusiastic in carrying out daily activities[17].

In this study, we found that 80.43% had a good level of religiosity, 17.39% had a sufficient level of religiosity and 2.17% had a poor level of religiosity. Most respondents have a good level of religiosity due to several factors, namely educational or teaching factors, social factors, experience factors, life factors and intellectual factors.[18] One of the respondents still had a low level of religiosity. According to Abu et al (2018), the low religiosity level caused by social factors where there was social correlation in the development of a person's religious attitudes, including education, parental teaching, and social traditions in the environment where the respondent lived.[19] In a patient with AMI there are changes, such as physical, psychological and social changes which, if not balanced with a good religiosity level, the patient will easily experience stress which will affect his health. This is in same by previous study which states that fulfilling religious needs through activities that get closer to Allah by always performing prayers, reading the Qur'an, making remember, and taking part in building good relationships with fellow humans and the environment as a whole can significantly QoL improved for AMI patients.[20,21] So, religion plays an important role in patients in facing physical, psychological and social changes because of the belief that Allah is always there and helps them in all problems. Apart from that, it increases the spirit of life so that at the end of life it will be peaceful and better.

The results in this study indicate that there is a correlation of family support on the QoL for AMI patients. The inability of heart disease patients to actualize themselves optimally without extensive family support can worsen their mental and psychological conditions. Heart disease patients who experience psycho-social problems will have a slower healing process and the physical symptoms they will experience will be more severe. One of the factors that supports a successful healing process is family involvement.[22] Some forms of family support that patients need are accompanying them when the patient is in hospital, reminding the patient to take medication, reminding the patient of the patient's control schedule and listening to the patient's complaints. Patients who have sufficient family support can be due to several reasons, for example, only living with their wife or husband or because they only live with their children or grandchildren, so that the patient feels that they are still not cared for enough by their family. At all stages, family support makes the family able to play a role in various aspects, so that it will improve the patient's

health and adaptation in daily life and of course will QoL improved.[23,24] So, the better the support of other family members for the patient, the more calm he will be regarding psychological problems and more enthusiastic about undergoing treatment and life.

Their result that correlation of the religiosity level and family support on QoL for AMI patients. The most respondents have good QoL due to various factors such as emotional factors which include mental factors, where if the patient is stressed or depressed, they will feel sad, pessimistic and of course this will improve QoL.[25] It can be overcome by getting closer to Allah. This is reinforced by previous study which states that the religiosity level will have a good effect on the patient's health. The study results show that the level of religiosity can correlation someone who is experiencing a critical illness.[26] Social factor such as family support which include appreciate, emotional, informational and instrumental. Family support will be try to improve patient's condition for physical and mental[21]. This is confirmed by previous study which states that someone who has good family support can be effect to improve the patient's QoL.[26]

CONCLUSION

There are significant that relationship between the level of religiosity and family support on the QoL for AMI patients. So, the patient must increase the level of religiosity and their families should be more supportive to improve QoL

CONFLICT OF INTEREST

We declare that there is no conflict of interest from this study.

REFERENCES

1. Sofyan IAA. Perbandingan Clinical Outcome Pasien Infark Miokard Akut ST-Elevasi (STEMI) Pasca terapi Intervensi Koroner Perikutan Primer dan Terapi Fibrinolitik di RSUP Dr. Kariadi Semarang. Semarang: Universitas Muhammadiyah Semarang; 2016. http://repository.unimus.ac.id/231/1/Itsnaeni.pdf
2. Svingen, G. F. T., Schartum-Hansen, H., Borgeraas, H., Hertel, J. K., Seifert, R., Pedersen, E. K. R. Hjelmesæth, J. (2014). Association of body mass index with risk of acute myocardial infarction and mortality in Norwegian male and female patients with suspected stable angina pectoris: a prospective cohort study. BMC Cardiovascular Disorders, 14(1). https://doi.org/10.1186/1471-2261-14-68. https://pubmed.ncbi.nlm.nih.gov/24885137/
3. Kementrian Kesehatan RI. Laporan Nasional Riskesdas 2018. Jakarta: Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan (LPB); 2019. https://perpustakaan.badankebijakan.kemkes.go.id/index.php?p=show_detail&id=38614
4. Semarang, D. K. K. (2017). Profil Kesehatan Kota Semarang 2017. 62–63. https://www.dinkes.semarangkota.go.id/asset/upload/Profil/Profil/Profil%20Kesehatan%202017.pdf
5. Haraldstad K, Wahl A, Andenæs R, Andersen JR, Andersen MH, Beisland E, et al. A systematic review of quality of life research in medicine and health sciences. Qual Life Res. 2019;28(10):2641–50. https://pubmed.ncbi.nlm.nih.gov/31187410/
6. Lamesgin Endalew H, Liyew B, Kassew T, Ewnetu Tarekegn G, Dejen Tilahun A, Sewunet Alamneh T. Health-Related Quality of Life Among Myocardial Infarction Survivors: Structural Equation Modeling Approach. J Multidiscip Healthc. 2021 Jun 22; 14: 1543–52. https://pubmed.ncbi.nlm.nih.gov/34188481/
7. Daundasekara SS, Arlinghaus KR, Johnston CA. Quality of Life: The Primary Goal of Lifestyle Intervention. American Journal of Lifestyle Medicine. 2020 Jun;14(3):267. https://pubmed.ncbi.nlm.nih.gov/32477025/
8. Babamohamadi H, Kadkhodaei-Elyaderani H, Ebrahimian A, Ghorbani R. The Effect of Spiritual Care Based on the Sound Heart Model on the Spiritual Health of Patients with Acute Myocardial Infarction. J Relig Health. 2020 Oct;59(5):2638–53. https://pubmed.ncbi.nlm.nih.gov/32100168/
9. Ahrenfeldt LJ, Hvidt NC, Kjøller ST, Möller S, Lindahl-Jacobsen R. Religiousness and Diseases in Europe: Findings from SHARE. J Relig Health. 2019 Dec;58(6):1925–37. https://pubmed.ncbi.nlm.nih.gov/29956054/
10. Purwandari H, Indarti ET, Kurniansyah D. The Correlation of Family Support and Dietary Compliance of The Eldery with Hypertension at Sub-District Health Center Klurahan, Ngronggot District Nganjuk Regency. JNK JOURNAL. 2021 Apr 15;8(1):101–6. https://www.mendeley.com/catalogue/834bd93c-6ef6-3530-b102-a4b8bbd2d056/
11. Maina PM, Kimani S, Omuga B. Involvement of Patients' Families in Care of Critically Ill Patients at Kenyatta

National Hospital Critical Care Units. Am J Nurs Sci. 2018 Jan;7(1):31–8. https://sciencepublishinggroup.com/article/10.11648/j.ajns.20180701.14
12. Cegah Resiko Penyakit Kronis, RS Roemani melakukan Skrining Diabetes Melitus, dukung program BPJS Kesehatan | RS ROEMANI [Internet]. [cited 2023 Sep 17]. Available from: https://rsroemani.com/rv2/cegah-resiko-penyakit-kronis-rs-roemani-melakukan-skrining-diabetes-melitus-dukung-program-bpjs-kesehatan/
13. Elhag M, Awaisu A, Koenig HG, Mohamed Ibrahim MI. The Association Between Religiosity, Spirituality, and Medication Adherence Among Patients with Cardiovascular Diseases: A Systematic Review of the Literature. J Relig Health. 2022;61(5):3988–4027. https://pubmed.ncbi.nlm.nih.gov/35274225/
14. Ningrum YDA, Pratiwi AF, Azzahroh NF. Hubungan Religiusitas Dengan Kepatuhan Penggunaan Obat dan Kualitas Hidup Pasien Hipertensi di Rumah Sakit Islam Sultan Agung. Indonesian Journal of Medical and Pharmaceutical Science. 2024 Feb 29;3(1):14–21.
15. Pilger C, Santos ROPD, Lentsck MH, Marques S, Kusumota L. Spiritual well-being and quality of life of older adults in hemodialysis. Rev Bras Enferm. 2017;70(4):689-696. https://pubmed.ncbi.nlm.nih.gov/28793096/
16. Hirakawa Y, Chiang C, Yasuda K, Iwaki Y, Andoh H, Aoyama A. Spirituality in older men living alone near the end-of-life. Nagoya J Med Sci. 2019;81(4):557-570. https://pubmed.ncbi.nlm.nih.gov/31849374/
17. Pramesona BA, Taneepanichskul S. The effect of religious intervention on depressive symptoms and quality of life among Indonesian elderly in nursing homes: A quasi-experimental study. Clin Interv Aging. 2018; 13:473-483. Published 2018 Mar 23. https://pubmed.ncbi.nlm.nih.gov/29606860/
18. Chinnaiyan KM, Revankar R, Shapiro MD, Kalra A. Heart, mind, and soul: spirituality in cardiovascular medicine. Eur Heart J. 2021 Aug 17;42(31):2965–8. https://pubmed.ncbi.nlm.nih.gov/33704452/
19. Abu HO, Ulbricht C, Ding E, Allison JJ, Salmoirago-Blotcher E, Goldberg RJ, et al. Association of religiosity and spirituality with quality of life in patients with cardiovascular disease: a systematic review. Qual Life Res. 2018 Nov;27(11):2777–97. https://pubmed.ncbi.nlm.nih.gov/29948601/
20. Aurita NR. Gambaran Kebutuhan Spiritual Pada Pasien Gagal Jantung di RSUD dr. Moewardi Surakarta. Surakarta; 2019. https://eprints.ums.ac.id/75420/1/NASKAH%20PUBLIKASI%20NORA.pdf
21. Tina FA, Utami MS. Religiusitas dan Kesejahteraan Subjektif pada Pasien Jantung Koroner. gamajop. 2018 Jul 12;2(3):162. https://journal.ugm.ac.id/gamajop/article/view/36938/21400
22. Ho YCL, Mahirah D, Ho CZH, Thumboo J. The role of the family in health promotion: a scoping review of models and mechanisms. Health Promot Int. 2022 Nov 18;37(6): daac119. https://pubmed.ncbi.nlm.nih.gov/36398941/
23. Shahrbabaki PM, Nouhi E, Kazemi M, Ahmadi F. Family Support As a Reliable Resource For Coping In Patients With Heart Failure. 2016 Aug 9; https://pubmed.ncbi.nlm.nih.gov/27041539/
24. Pela AMP. Hubungan Dukungan Keluarga Dengan Tingkat Kecemasan Pada Pasien Penyakit Jantung Koroner. citradelima. 2018 Aug 7;2(1):45–50.
25. Prasetyanti A, Indriana Y. Hubungan Antara Religiusitas dengan Kecenderungan Post Power Syndrome. Jurnal EMPATI. 2016 Apr 30;5(2):241–5. https://ejournal3.undip.ac.id/index.php/empati/article/view/15057
26. Yoyoh I, Wijoyo EB, Purnamasari E, Irawati P, Burhanudin A. Dukungan Keluarga Meningkatkan Kualitas Hidup Pasien Congestive Heart Failure di Rumas Sakit Mayapada Tangerang. Jurnal JKFT. 2021 Dec 31;6(2):48–60. https://www.semanticscholar.org/paper/DUKUNGAN-KELUARGA-MENINGKATKAN-KUALITAS-HIDUP-HEART-Yoyoh-Wijoyo/b22b30d9405f264f8cc37098b6e2b8d21f757a6c