Quality of Life among Post Acute Myocardial Infarction Patient


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Abstract

Introduction: Quality of life (QOL) among post Acute Myocardial Infarction patients are totally disturbed once diagnosed as a disease. Objective: This study was conducted to measured quality of life (QOL) among post-acute myocardial infarction (AMI) patient. Methods: Cross-sectional study design was selected, whereby data applied random selection. A total of seventy-nine respondents were recruited in this study. The time frame for the data collection was within four months from April 2018 until August 2018 in Cardio Clinic Hospital Kuala Lumpur. Data collection tool that was adopted WHOQOL-BREF questionnaire. Findings: It was reported post AMI patients experience high level of satisfaction in physical health, environment and social relationship while perceived moderate level satisfaction in psychological. Other demographic data such as age, marital status and income showed there is no significant relationship between QOL. In additionally, post AMI patient must join Cardiac Rehabilitation Programme (CRP) to improve their QOL in future and perform daily activities as before diagnosis. The rehabilitation can have positive result on various aspects of life. Thus we conclude, as a health care provider we must provide information, adequate knowledge and encourage post AMI patient to attend CRP to improve their QOL.

Keywords: QOL, Post AMI Patients, Cardiac Rehabilitation Programme

INTRODUCTION

Acute myocardial infarction (AMI) is a cardiovascular disease which is common life threatening condition and also known as heart attack. It occurs when blood flow to the heart is interrupted, causing tissue myocardial damage. This is usually the result of a blockage in one or more of the coronary arteries. A blockage can develop due to plaque or atherosclerosis, a substance mostly made of fat, cholesterol, and cellular waste products. Quality of life (QOL) among post AMI patients are totally disturbed once diagnosed as a disease. QOL is an overall assessment of a person's well-being, which may include physical health, psychological, environment as well as social relationship. Study by Mielck & Andreas (2014) stated that, group of chronically ill patients such as myocardial infarction survivor showed that first increased level of health impairments and second lower levels of valuates QOL once health is impaired.

Moreover, QOL is dependent not only on health provider factors such as access to medical care, cardiovascular risk factors, and severity of AMI, but also on demographic and psychosocial factors such as age, sex, educational level, income, and family and social support. Following AMI, many patients are left traumatized emotionally and physically. Such feelings and an initial reaction of anxiety are aggravated by the perception that an AMI could lead to imminent death, a belief that affects patients, relatives, and the community even after receiving adequate medical treatment (Bahall M & Khan K 2018).

MATERIALS AND METHODS

A total of 79 respondents were participated in this study. Cross-sectional study design was selected, whereby data applied random selection over a month period of data collection and successfully completed the questionnaire in this
study. In our study demographic data reported that 44 (55.7%) of the respondents was above 50 years old, followed by 23 (29.1%) were 40-50 years old and 12 (15.2%) less than 40 years old. In terms of gender, 59 (74.7%) were male while 20 (25.3%) were female was participated. However, by looking at the marital status, 63 (79.7%) were married while 8 (10.1%) were single and divorce. In the aspect of monthly household income, 40 (50.6%) had monthly income in between RM1000-RM2000, followed by 22 (27.8%) were RM3000-RM4000, 11 (13.9%) RM2000-RM3000 and 6 (7.6%) were RM5000 and above.

This study has obtained ethical approval from Medical Research & Ethics Committee (MREC), Malaysia Ministry of Health. The authors have no conflicts of interest to disclose.

RESULTS AND DISCUSSION

Relationship between QOL and Age

ANOVA test has been conducted to examine the relationship between age and psychological, psychological, social relationship and environment. The findings show age did not influence dependent variables (physical, psychological, social relationship and environment). In term of mean, the range of physical score was in between 66.90-67.53, psychological (56.62-59.05), social relationship (74.24-78.26) and environment (74.66-75.00).

Figure 1: Compared Mean Sub Dimension QOL Based On Age (N=79)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>QOL (Physical, Psychological, Social Relationship and Environment)</th>
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<tr>
<td>Less than 40 Years old</td>
<td>40-50 Years old</td>
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<td>&gt; 50 Years old</td>
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Relationship between QOL and Gender

Independent t test was conducted to measure the relationship between gender and (physical, psychological, social relationship and environment). The results of the study revealed there is no significant relationship between genders and (physical, psychological, social relationship and social environment), It indicate gender did not influence dependent variable.

Furthermore, our study revealed there was no significant relationship between gender and QOL that has been measured in term of aspect physical, psychological, social relationship and environment. It’s indicated that gender did not influence dependent variables.

In term of mean, the range of physical score for both genders was in between 66.78-68.71. This result has shown that both genders are not affected and still able to do their daily physical activities and their routine life as usual but they still need to do according to the steps which had been taught in CRP. This secondary prevention is well recognized and has been proved to reduce the risk of CVD and its complications also can prevent rehospitalisation.

In addition, patient’s social relationship also can’t be affected by patient’s gender. This can be seen in result, the range of social relationship was 74.80-77.67. We can conclude both male and female post AMI patient may have a better family support to maintained QOL. Social support is an important predictor of outcomes after AMI. This also supported by Erica C et al., (2013) found that AMI patients with the lowest support at the index hospitalization had worse health status and more depressive symptoms over the first year of recovery.

Study by Ulfat et al., (2016) stated that patients with low social support presented with poorer mental health functioning and more depressive symptoms at the time of AMI than patients with moderate/high social support. She also mentioned, although female was independently associated with lower health status, QOL and more depressive symptoms the association between social support and health outcomes did not differ by gender.

However, study by Bahall M et al., (2018) had mentioned that male patients experienced better QOL. This may be attributed to males receiving better social support than females. This also supported by RupinderKaur (2017) that state male patient had a better QOL comparing with female patient. However, according to JankowskaP et al., (2016) stated that the lower QOL of females is explained by their lower education and higher limitations of physical and social activities.
**Relationship between QOL and Marital Status**

One-way ANOVA was conducted to examine the relationship between marital statuses and (physical, psychological, social relationship and environment). The findings revealed that marital status did not have significant relationship with QOL in terms of physical, psychological, social relationship and environment.

**Figure 3: Compared Mean Sub Dimension QOL Based On Marital Status (N=79)**

Subsequently, our study also revealed there was no significant relationship between marital statuses. Marital status has been classified as single, married, and divorce. It’s indicated that marital status did not influence dependent variables.

In term of mean, the range of physical score for married patient was in between 67.07-68.57. This result has shown that married post AMI patients are not affected and still able to performed their daily physical activities. Meanwhile, the mean range score for psychological was 51.43-61.07. According to Gonzalez-Chica et al., (2016) stated, that married post AMI patients have improved psychological compared with those who are single or divorced due to the social relationship with the spouse. This is because social role of the spouse in psychological able to prevent from impact of certain disease.

Additionally, research by Bahall M et al., (2018) on social relationship by age group showed that the social relationship of single post AMI patients was better than married post AMI patients in individuals younger than 30 years of age. These results are similar to Ulfat et al., (2016) study, which showed high QOL among single post AMI patients 30–39 years old. However, age groups were not analyzed in detail in the study.

Despite, study by Wang et al., (2014) found that those who were single or divorce showed higher mortality and morbidity in AMI compared with those who were married.

**Relationship between QOL and Incomes**

One-way ANOVA was conducted to examine the relationship between incomes and physical, psychological, social relationship and environment. The findings further revealed there is no significant relationship between incomes and (physical, psychological, social relationship and environment). It indicates did not influence dependent variables listed.

On the other hand, this study also revealed there was no significant relationship between income and QOL that has measure in terms of physical, psychological, social relationship and environment. It’s indicated that income did not influence dependent variables. In term of mean, the range score of physical was in between 65.97 – 71.43, in mean relationship income and psychological show mean 54.55 – 63.33, in social relationship show mean 73.33 – 80.00, in environment show mean 72.88 – 79.77., this result has shown that income not affected QOL patient.

**Figure 4: Compared Mean Sub Dimension QOL Based On Income (N=79)**

*QOL (Physical, Psychological, Social Relationship and Environment)*

*Series1 = RM1000-RM2000, Series2 = RM3000-RM4000, Series3 = RM2000-RM3000, Series4 = RM5000 and above*

However, study by Wang et al., (2014), income level is the only demographic factor to predict the QOL of community-dwelling patients with MI, where patient with a low income level predicted poor patient QOL; this may be because patients with higher income levels are able to afford better health care and rehabilitation services. According to Hawkes et al., (2013) show, unemployment has lower baseline physical and mental QOL, that will affect lower confidence levels in meeting sufficient physical activity guidelines and greater sedentary behaviour were strong independent predictors of lower physical in within six months. Low health literacy has been observed to be a problem not only in low-and-middle income countries but also in affluent societies. In Australia, it is estimated that only 40% of adults have a basic level of functional health literacy, although approximately 70% of all adults have an educational attainment equivalent to a high school or better educational level (González-Chica,et al., 2016)

**RECOMMENDATION**

From the result, we can identify that QOL among post AMI patient in domain physical, psychological, social relationship and environment was not too much affected. This
is important for us as a healthcare provider to guide a patient to get better QOL after AMI. Therefore, we should introduce post AMI patients and their family to Cardiac Rehabilitation Programme (CRP).

CRP was a professionally supervised programme that be conducted to help patients to recover from MI, coronary artery bypass surgery (CABG), stents, angioplasty and other heart related illnesses. According to Dalal, H. M et al., (2015), define that with CRP able to increase the number of people who living with CVD to an estimated number. This programme provides support and guidance through exercise and education to treat and remove signs and symptoms, to achieve the highest level of wellness and to identify and modify unhealthy life style after AMI.

Apart from that, CRP also benefits for better QOL, increased knowledge about disease, increase energy and exercise endurance and build better social relationship among community. Therefore, CRP must begin as soon as possible after admission and before discharge from hospital and encourage all staff to involved in providing care for patient after AMI. Moreover, patient should not be excluded from the entire programme if they choose not to attend certain components and discuss with the patients any factors that might stop them attending a CRP, such as time or transport difficulties.

Moreover, offer CRP in a choice of venues and times, for example sessions outside of working hours that patient able to attend their session will be convenience for patient and able to maintain participation rate. However, study by Mampuya, W M et al., (2012) also recommended home-based CRP as another alternative to hospital-based cardiac rehabilitation method to improve participation rate without any problem and improve their QOL after diagnosed as disease.

CONCLUSION

In our study, QOL has been measured with demographic data in terms of 4 domains such as physical health, psychological, social relationship and environment. Therefore, findings show that was no significant on demographic data and QOL among post AMI patient. Post AMI patients experience high level of satisfaction in physical health, environment and social relationship while perceived moderate level satisfaction in psychological. This shows, post AMI patient still perceived better health and improve their QOL.

In additionally, post AMI patient must join CRP to improve their QOL in future and perform daily activities as before diagnosis. The rehabilitation can have positive result on various aspects of life. Rehabilitation centres for cardiac rehabilitation gives post AMI patients the chance to use these programmes and improve their QOL and increase their independent and change their life style after AMI.

Thus we conclude, as a health care provider we must provide information, adequate knowledge and encourage post AMI patient to attend CRP to improve their QOL.

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