

Cardiac Invalidism and Perceived Family Support Among Patients with Myocardial Infarction



Nursing

KEYWORDS : Cardiac invalidism; Perceived family support; Myocardial Infarction; Patient.

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ABSTRACT

Purpose: to find out the cardiac invalidism and perceived family support among patients with first attack of MI. The findings of the study can be used by nurses to assess cardiac invalidism, make patients aware of invalidism, improve their accuracy of health perception, reduce unnecessary anxiety and also to give extended psychological support to MI patients. Family members and friends can also be taught to provide appropriate support to the patients. Methods: Descriptive survey design was used. Data were collected from 78 patients with first attack of MI admitted to Kasturba Hospital, Manipal who underwent angioplasty during their course of treatment using different scales on cardiac invalidism and a scale to assess the perceived family support were administered. Purposive sampling technique was used for the study. Results: None of the participants had severe cardiac invalidism, 9 (11.5%) had moderate cardiac invalidism at discharge. About 54 (69.2%) had mild cardiac invalidism at discharge and 15 (19.2%) were free of cardiac invalidism at discharge. Majority 73 (93.6%) of the participants had perceived family support as moderate, 3 (3.8%) and 2 (2.6%) of the participants perceived their family support at discharge as high and low respectively. Majority 73 (93.6%) perceived their family support as moderate, may be because 42 (57.5%) among them were from joint family. There was a very weak, positive ($\gamma=0.25, p=0.02$) relationship between cardiac invalidism at discharge and perceived family support. Conclusion: The patients with MI presents with some or other degree of invalidism even when they are physically recovered and it decreases as family support increases.

Introduction

Myocardial Infarction (MI) commonly known as a heart attack is the interruption of blood supply to a part of the heart causing heart cells to die. According to WHO (2011), cardiovascular diseases are the world's largest killers, claiming 17.1 million lives a year.1,2

'Cardiac Invalid' refers to persons experiencing physical and psychological disability even though they have adequate physical recovery from an episode of MI. These patients' exhibit helplessness and increased weakness related to their heart disease and frequently seek attention and reassurance from family, friends and healthcare professionals long after the normal recovery period. They continue their sick role for an extended period even though they have normal or near normal cardiac function. Improving the accuracy of risk perception may help to decrease unnecessary cardiac anxiety and risk-reducing behaviors in others³. Thus effective measures can be planned to help the patients to cope with the transitional event.

What people believe about their illness may affect how they cope with it. Lack of social support, low self-esteem, altered health perceptions, emotional distress, interpersonal dependency are seen in cardiac patients with MI. Societal beliefs about illness, including those held by peers of the sufferer, may reinforce misconceptions about illness and adopt inappropriate coping strategies. Patients receiving more support experienced less cardiac invalidism after AMI. So it is important to assess the invalidism in patients with MI.

Many patients with MI and their family members develop misconceptions about the illness and adopt inappropriate coping strategies. Therefore, the purpose of this study is to identify the cardiac invalidism among patients with first attack of MI. Nurses can use the information gained from this study to support couples in their attempts to come to terms with the illness and can enhance their supportive role in rehabilitation efforts.

Methods:

The survey study was undertaken at Kasturba Hospital, Manipal from 12th December 2011 to 5th March 2012 with the objectives to assess the cardiac invalidism in MI patients at discharge, assess the perceived family support in MI patients at discharge and to find the relationship between cardiac invalidism and perceived family support.

Purposive sampling technique was used. The data were collected from patients with first attack of MI; who underwent angioplasty during their course of treatment; aged between 30- 80 years; without co-morbidities like CVA, COPD and chronic renal failure. Informed consent was taken from the patients.

The baseline data was collected from patients on the day of their discharge using demographic proforma and scales to assess cardiac invalidism [(1)Scale to assess the health perception in MI (2) Scale to assess the emotional disturbances in MI patients (A) Scale to assess the physical dependency in MI patients (B) Scale to assess the emotional and social dependency in MI patients] and scale to assess perceived family support.

Results

Background information of the sample characteristics collected using demographic proforma is shown in table 1.

Table 1: Frequency and percentage distribution of sample characteristics

Sample Characteristics	f	%
n=78		
Age in years:		
30-40	02	2.6
41-50	18	23.1
51-60	24	30.8
61-70	22	28.2
71-80	12	15.4
Gender:		
Male	70	89.7
Female	08	10.3
Type of family:		
Joint	46	59.0

Nuclear	32	41.0
Place of residence:		
Rural	41	52.6
Semiurban	24	30.8
Urban	13	16.7
Marital status:		
Married	71	91.0
Unmarried	05	06.4
Divorced	0	0
Widow/widower	02	2.6
Education:		
Primary (1 st -4 th)	39	50.0
Middle school (5 th -7 th)	24	30.8
High school (8 th -10 th)	06	7.7
PUC/Diploma	07	9.0
Graduate	02	2.6
Post graduate		0
Type of work:		
Sedentary worker	14	17.9
Moderate worker	36	46.2
Heavy worker	28	35.9
Monthly family income in Rupees:		
< 5000	35	44.9
5,001 - 10,000	23	29.5
10,001 - 15,000	07	9.0
15,001 - 20,000	03	3.8
20,001 - 25,000	03	3.8
>25,000	07	9.0
Source of maximum information on MI:		
Family members	29	37.2
Friends	06	7.7
Health personnel	10	12.8
Magazines	06	7.7
Neighbors	02	2.6
Newspaper	10	12.8
Radio	01	1.3
Television	05	6.4
None	09	11.5

Most 24 (30.8%) of the participants belong to the age group of 51-60 years. Majority 70 (89.7%) were males, 46 (59.0%) were from joint family and 41 (52.6%) were from rural area. Most of the participants 39 (50.0%) had primary education and 36 (46.2%) were moderate workers. Family income of 35 (44.9%) were below Rs. 5,001 per month. Majority 71 (91.0%) were married. About 29 (37.2%) got the information on heart attack through family members.

The data presented in Table 2 show that none of the participants had severe cardiac invalidism, 9 (11.5%) had moderate cardiac invalidism, 54 (69.2%) had mild cardiac invalidism at discharge and about 15 (19.2%) were free of cardiac invalidism at discharge.

Table 2: Frequency and percentage of cardiac invalidism in MI patients at discharge and during first review

Degree of cardiac invalidism	At discharge n= 78	
	f	%
Severe	0	0
Moderate	9	11.5
Mild	54	69.2
Free of cardiac invalidism	15	19.2

The frequency and percentage of perceived family support at discharge is shown in figure 1.

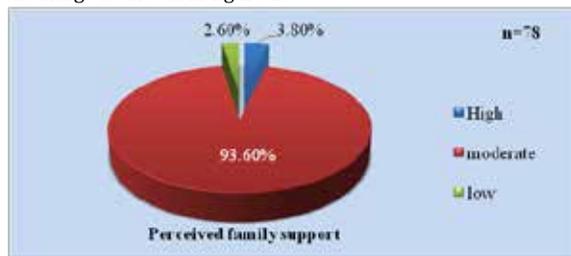


Figure 1: Pie diagram on percentage of perceived family

support in MI patients at discharge

The data presented shows that majority 73 (93.6%) of the participants had perceived family support as moderate, 3 (3.8%) and 2 (2.6%) of the participants perceived their family support at discharge as high and low respectively.

Since the cardiac invalidism and perceived family support scores were following normal distribution, Pearson's correlation coefficient was used. It is clear from table 3 that there was a very weak, positive ($\gamma = 0.25$) and significant ($p = 0.02$) relationship between cardiac invalidism at discharge and perceived family support. It was concluded that the as perceived family support increases, cardiac invalidism is less.

Table 3: Relationship between cardiac invalidism at discharge and perceived family support

Variables	Pearson γ	p value
Cardiac invalidism Perceived family support	0.25	0.02*

n=78

*Significant

Discussion

In the present study, majority 73 (93.6%) perceived their family support as moderate, 3 (3.8%) and 2 (2.6%) of the participants perceived their family support at discharge as high and low respectively. There are very weak, positive ($\gamma = 0.25$) and significant ($p = 0.02$) relationship between cardiac invalidism at discharge and perceived family support. Riegel conducted a survey on "Social support and cardiac invalidism following AMI" among 111 patients at one and four months after first acute MI at University of California, Los Angeles in 1991 to test that inappropriate (i.e. overprotective or inadequate) social support is a cause of cardiac invalidism. The result of the study revealed that inadequate nurturing or social support results in dependency, a component of cardiac invalidism. Study concluded that inappropriate social support leads to cardiac invalidism.⁴

This was contradictory to the longitudinal study done by Riegel and Dracup among 111 patients who had experienced a first acute MI from nine hospitals in the south western United States in 1992, to determine if overprotection on the part of the patient's family and friends contributes to the development of cardiac invalidism after AMI. The result of the study revealed that eighty-one patients (72.9%) characterized themselves as being overprotected (i.e., receiving more social support from family and friends than desired) and 28 (25.2%) reported receiving inadequate support. Only two patients (1.8%) reported receiving as much support as they desired.⁵

Conclusion:

The patients with MI presents with some or other degree of invalidism even when they are physically recovered and perceived family support has a significant relationship with cardiac invalidism experienced by the patients.

Based on the present study, the following future recommendations were made for further research. Similar study can be done using other cardiac invalidism assessment scales, longitudinal study can be done to assess the cardiac invalidism after several months, comparative study can be conducted to assess the cardiac invalidism among first attack and further attack of MI, comparative study on cardiac invalidism can be done among patients with MI and other heart diseases, comparative study on gender differences in cardiac invalidism can be done among patients with MI,

study can be conducted to find the effectiveness of patient counselling in reducing cardiac invalidism among MI patients and a correlational study can be done on cardiac invalidism and type of personality of patient with MI.

REFERENCE

1. World Health Statistics: WHO. (2011). Available from: <http://circ.ahajournals.org/content/123/4/e18.full> | 2. World Health Statistics: WHO. (2002). Available from: http://www.who.int/research/heart_disease/en/index.html | 3. Reigel, BJ, & Dracup, K.A.(1998). A longitudinal model of cardiac invalidism following myocardial infarction. *Nursing Research* 47, 285-92. | 4. Riegel, BJ,(1991). Social support and cardiac invalidism following AMI [PhD Thesis]. Los Angeles: University of California. | 5. Riegel, BJ & Dracup, K.A.(1992). Does overprotection cause cardiac invalidism after acute myocardial infarction? *Heart lung* 21,6,529-35. |