

Assessing Knowledge About Post Discharge Care Among Patients with Myocardial Infarction

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ABSTRACT

Objectives: The aim of this study is to reveal myocardial infarction patient's responsiveness regarding their post discharge care and to identify need for the betterment in public sector hospital Karachi.

Materials & methods: Hospital based cross sectional study was conducted in Karachi Institute of Heart Disease from November 2014 to January 2015. Two hundred patients who had already been admitted with myocardial infarction were approached through purposive sampling method. Data was collected by using pre-tested and self-developed questionnaire. Patients' knowledge was measured on three areas of main domain like medication, diet, and activity. Data was entered and analyzed in SPSS version 21.

Results: 200 patients, 106 (53%) males and 68 (34%) females accounted for insufficient information about their medication clues, doses and then outcome. 12 (06%) males and 06 (03%) females showed better dietary knowledge by giving all accurate answers about the intake of white meat (chicken, and fish), vegetables and salt intake. Only 03 (1.5%) males held ordinary knowledge about physical doings they ought to carry out after they get discharged. Most of the study participants had unsatisfactory knowledge on medications, diet, and activity which they were supposed to do after discharge at home in order to maintain their health. Current study findings designated that quality progress strategies are direly needed to be performed as per discharge education to the patients.

Conclusion: Myocardial infarction is fatal or (life threatening), however condition can be averted by utilizing secondary prevention strategies.

Key words: Myocardial Infarction, Discharge instructions, Nursing.

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INTRODUCTION

Myocardial Infarction (MI) is a severe life threatening condition. When a person suffers from MI and only if he approaches the hospital and receives procedure defined treatment timely after discharge, it is very essential for a patient that he/she should track proper discharge instructions, explained to him by health care professionals. As we know there are modifiable risk factors of MI that can prevent further heart attack¹⁻³.

It is confirmed in some research studies that discharge guidance asserts a vital role in upward mobility of patients' effects and could expand the quality of life

and there will be fewer cases of hospital readmissions⁴. According to another study, patients who were subjects in the teaching session showed 35% lower risk for re-hospitalization or fatal consequences⁵. A study held in Brazil in (2005) established that 96% patients were unaware of sign and symptoms of acute MI, half of them were undecided about their sexual life in terms of post hospital-treatment or even far-discharge scenario, and only limited subjects out of them received direction from healthcare professionals or care givers⁶. Sometime guidance is provided to the patients but more information is needed about their care^{7,8}.

Although there are recommendations available from American Heart Association (AHA) on post MI care, there is another challenge observed to implement that recommendations regarding care^{9, 10}. Most of the hospitals in Pakistan do comply with AHA guideline in order to deliver discharge care to their MI patients, who have been released from the hospital after treatment. It is equally important to understand those instructions properly for patients and then to monitor those instructions so that their health can be maintained^{11, 12}.

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In 2002, study from Turkey testified that 88.8% patients familiarized a level of difficulty in relation to their care-plan at home after being discharged or in the phase post MI¹³.

The key resolve of this study is to disclose patient’s responsiveness to the discharge care and to identify the improvement necessity in public sector hospitals in Karachi. The purpose of this study is to determine or distinguish the gender difference in the knowledge of discharge care.

MATERIAL & METHODS

This cross- sectional study was conducted on 200 patients who were being treated in the cardiology ward of Karachi Institute of Heart Disease (KIHD), one of the renowned Public hospitals in Karachi, Pakistan. The study comprised the population consisting of all the patients admitted along with first MI between November 2014 and January 2015, and planned for release from the hospital while doing the data collection period, and those patients who had shown willingness to be part of the study.

Patients, who had undergone cardiac surgery and those patients who were mentally unstable after MI were considered the part from this study. The ethical approval was obtained from IRB of DUHS, Karachi and hospital ethical committee with proper written consent from the patients.

The questionnaire was self-developed after extensive literature review¹⁴⁻¹⁷. The content of the questionnaire was squared and revised by a cardiologist. The questionnaire was translated into Urdu language. Later with the final questionnaire, a pilot test was accompanied on five patients. Pilot testing provided a preview of how well the participants gripped the knowledge of questions. After the pilot testing, an appropriate revision on the questioning techniques was carried out, from the similar tertiary care hospital.

The first part of questionnaire comprised demographic information including age, gender, qualifications, marital status while, the second part of questionnaire specifically assessed patients awareness of a view of their discharge care, on medications, diet and activity. Each variable carried about 5 to 7 multiple choice questions.

Researcher had to obtain list for discharge patients whose post MI had been obtained from each of cardiology wards, and had been checked for Inclusion and Exclusion criteria. Patients were asked to give their consent particularly from those patients who seemed suitable for this study. The face to face method

was used to ask patients via structured questionnaire and then it was filled.

Data entry and analysis was completed by using Statistical Package for the Social Sciences (SPSS) version 21.0. Frequencies and percentages had been computed for all categorical variables including gender, qualification, and knowledge related questions for medication, diet, and activity. Chi-Square test was used to check the Comparison between groups (male and female) with categorical variables. p - value < 0.05 was taken as statistical significant.

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008. Informed consent was obtained from all patients for being included in the study.

RESULTS

Table 1: Demographic characteristics of study participants

Demographic Characteristics	n=200				Pearson Chi-Square	p-value
	Male	%	Female	%		
Age					2.050	0.727
30 -40	11	5.5%	08	04%		
41 – 50	26	13%	20	10%		
51- 60	49	24.5 %	25	12.5%		
61 – 70	27	13.5%	15	7.5%		
> 70	10	05%	09	4.5%		
Gender						
	123	61.5%	77	38.5%		
Ethnicity					1.628	0.898
Sindhi	03	1.5%	01	0.05%		
Panjabi	07	3.5%	05	2.5%		
Pashto	06	03%	04	02%		
Balochi	01	0.05%	02	01%		
Muhajir	28	14%	15	7.5%		
Others(Urdu speaking)	78	39%	50	25%		
Marital Status					0.113	0.737
Single	01	0.05%	01	0.05%		
Married	122	61%	76	38%		
Literacy Status					27.57	0.000
Yes(read and write 3 line)	88	44%	26	13%		
No	35	17.5%	51	25.5%		
Education Level					25.55	0.000
None(illiterate)	40	20%	52	26%		
Pri(Class1-5)	33	16.5%	08	04%		
Sec(Class 6-10)	22	11%	09	4.5%		
Inter (11- 12)	13	6.5%	06	03%		
University	15	7.5%	02	01%		

According to demographic data out of 200 study participants, 123 (61.5%) consisted of male and 77 (38.5%) female. As proven by different research findings, heart diseases are more prevalent in males and this affected the number of male patients in the research. Majority of study participants were from age group range (51-60), were males 49 (24.5%) and females 25(12.5 %), (P= 0.727), there is insignificant difference between both groups. In terms of ethnicity majority of patients were Urdu speaking 64% (P= 0.898), there is insignificant difference between both gender. Marital status 122 (61%) participant were married male whereas 76 (38%) participant were female. With respect to literacy status 88 (44%) male read and write three lines where as 13% female(P= 0.000), there is significant difference between both gender .Education level, among male vs. female (20 vs. 26%) of study participant were illiterate they haven't attended any formal schooling, (16.5% vs.04%) of the patients under study were in the level of primary school studies, (11% vs.4.5%) were in the level of secondary school studies, (6.5% vs.03%) was in the level of intermediate collage studies, and (7.5% vs. 01%) had university studies(P= 0.000), there is significant difference between both gender (Table 1).

Table II: Knowledge level of Participants according to gender.

Variable	Knowledge Level	Frequency (Male)	Percentage (%)	Frequency (Female)	Percentage (%)	Chi Square	p-Value
Medication	Insufficient (score less than 3 correct)	106	53%	68	34%	2.068	0.356
	Average (Score less than 5)	17	8.5%	08	04%		
	Good (All Correct)	0	0%	01	0.5%		
Diet	Insufficient (score less than 3 correct)	56	28%	39	19.5%	0.573	0.751
	Average (Score less than 5)	55	27.5%	32	16%		
	Good (All Correct)	12	06%	06	03%		
Activity	Insufficient (Score less than 3 correct)	120	60%	77	38.5%	1.907	0.167
	Average (Score less than 5)	03	1.5%	00	00%		
	Good (All Correct)	00	00%	00	00%		

One hundred and six (53%) male and 68 (34%) female had insufficient knowledge about their medication indication, doses and its effect. Dietary knowledge 12 (06%) male and 06 (03%) females had all correct answers about the use of white meat (chicken, and fish), vegetables and salt intake. Out of 200 study participants only 03 (1.5%) male had average knowledge about physical activity they have to perform after discharge. Most of the study participants had insufficient knowledge about medications, diet, and activity need to perform after discharge at home to maintain their health. There is insignificant different between knowledge level of gender on medication, diet and activity (Table 2).

DISCUSSION

Although, patients are getting instructions from doctors, nurses and dietitians during their hospital stay but do to their disease process and anxiety they are not retaining what they are told to do after they discharge from hospital. Unexpectedly, most of the study participants were found lack of knowledge in all aspect of discharge care. One most important reason to have this deficient knowledge of patients may be due to low level of education. Therefore, we need to educate the patients according to individual patients understanding. Around 66.5% study participants are Illiterate or have primary level education and this result is similar to other study result ¹⁸.

87% patients' knowledge regarding secondary preventions take home medications (aspirin, beta blocker, ACE inhibitor and statins) indications, side effects was insufficient among both male and female participants whereas literature shows 90%¹⁸.

In order to see the issue of developing heart disease, and patients' awareness of whether the cholesterol is good or bad. It can be seen that patients did not have the ability to distinguish between (HDL)which does not cause any risk for heart disease and 'bad'(LDL) cholesterol which pauses real threat for heart disease development, besides they did not also have the knowledge that drug statins effects on which type of cholesterol while they had greater acquaintance with the common term 'cholesterol' despite the above lack of understanding regarding the cholesterol they did understand that rising levels of (total) cholesterol are not good for health¹⁹.

In present study very few patients said they will continue the use of their prescribed medication until their physician order this result are similar to other study reported patient discontinued one and often all

medication within month after discharge from hospital¹⁸.

Merely twelve subjects of the study including (6%) male and (3%) female were able to answer the right information when they were asked about dietary information, however 95 (47.5%) which is a sizable majority fell short of knowledge on it. It is very imperative for patients to adapt their diet in order to keep healthy. The health professional must feel a need to advise the patients of low salt intake, only the use of the phrase of 'low cholesterol diet' or other medical frequent terms are not plenty due to patients' low literacy level, hence it is strongly chief to call out or pronounce the clear and common name of the food source which patients ought to have e.g. fish, vegetable, fruits, nuts, whole grains, fiber etc. Thus, patients will undoubtedly understand and bring useful changes in their dietary habit.

The third most significant feature of care is the activity of dealing with living. A significant number of study subjects 120 (60%) male and 77 (38.5%) female acquire insufficient acquaintance about regaining their normal activity of daily living. After MI patients turn out to be more anxious about ability to perform certain daily life tasks, e.g. walking, lifting, climbing stairs, driving, return to work, sexual activity, and other household activities²⁰. It is equally vital for health care professionals to offer ample and explicit information to their patients before they reach home. Hence, there would be no confusion left with patients' as well as their immediate family members. Furthermore, in order to reduce level of anxiety among patient, it is imperative on appealing patients in moderate intensive corporeal activities for a particular span of time such as 5 minutes to 30 minutes in hospital before the formal discharge also reassure patients to recuperate his physical strength.

One of the possible preventable causes of heart disease is cigarette smoking; termination of smoking tobacco minimize MI risk^{21,22}.

CONCLUSION

In the final analysis after considering the results of this study, conclusion should be drawn in a way that, patients those of who are discharge from a particular public hospital tend to have knowledge about their discharge care but not the sufficient and there is no knowledge gape differing between both gender patients.

Limitations to this study play a vital part. It is descriptive in design, and was carried out at a single site, including

only patients, who had been discharged from the specific ward, since patients getting discharged from other settings may have much better knowledge for certain different factors affecting their counseling. In spite of these limitations, this study revealed some considerable lapses in patients' care, which can be shielded by following tactics; proving ongoing professional and pertinent teaching to staffs, given that information in shape of booklet or leaflets to the patients²³, encouraging steps towards early rehabilitation. Researchers showed that executing preventive measures and programs, as well as awareness tutorial for a layman or ordinary public can also benefit to controlling the disease²⁴⁻²⁶.

Recommendations: Although there were some limitations to this study, the paper evolved important implications for forthcoming research and practice. Further investigative researches are supposed to be conducted on this topic in other public hospitals, as well as private hospitals in our country.

Since patient literacy level remained quite small, there is a great need for pictographic educational provisions, the administration has to make the availability and convenience possible of these materials to all patients so that they may seek guidance from it, and it will support them in cultivating the self-care's quality.

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