

A STUDY TO ASSESS THE DEGREE OF COMPLIANCE TO DISCHARGE ADVICE AND FACTORS AFFECTING COMPLIANCE AMONG PATIENTS WHO HAVE UNDERGONE CABG IN TERTIARY CARDIAC CENTRE

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ABSTRACT

Background: Non-compliance of the patient with prescribed treatment is considered as a barrier to effective health care. Non-compliance contributes to relapse and re-hospitalization. India, being a rural country, has unique problems regarding the treatment compliance which is a serious risk of morbidity and mortality. As the population continues to age and cost containment pressure increases, the health care industry will be challenged to find ways to empower patients to play a greater role in the management of their illness. The aim of this study was to assess the degree of compliance and factors affecting compliance to discharge advice. **Design:** A descriptive exploratory design was utilized, **Setting:** the study was conducted in a Tertiary Cardiac Centre NHI, New Delhi. **Sample:** A purposive sample of 60 patients, three tools were used to collect the study data. A self administered structure questionnaires, compliance determinants scale questionnaire and a self assessment medication handbook was used. **Results:** Out of the total sample (n=60), 82% were compliance and 18% were partially compliance to discharge advice provided to them during discharge. Also out of the compliance determinants, wound care determinants (50.83%) have the least compliance as compared to other determinants followed by physical exercise (82%). Patient centered, socio economic and health management factor were found to be statistically significant (p=0.005). **Conclusion:** Majority of the patients have compliance to discharge advice in terms of medication, wound care, diet, physical exercise and follow-up, provided to them during the time of discharge. Therapy related factor and psychological factor has no association with the degree of compliance.

KEYWORDS: Coronary Artery Bypass Graft, Discharge Advice, Non-Compliance.

INTRODUCTION

Non-compliance of the patient with prescribed treatment is considered as a barrier to effective health care. Non-Compliance with prescribed treatment has implications for the health of the patients; the effective use of resources and assessments of the clinical efficacy of treatment. It is seen a crucial area of concern for all health care professionals. Non-compliance contributes to relapse and rehospitalisation.^[1] India, being a rural country, has unique problems regarding the treatment compliance which is a serious risk of morbidity and mortality.^[2]

As the population continues to age and cost containment pressure increases, the health care industry will be challenged to find ways to empower patients to play a greater role in the management of their illness. One way

in which patients will be better to manage their illness is by adhering to their discharge advices. The consequence of non-adherence is waste of medication, disease progression, reduced functional abilities, lower quality of life, increased use of medical resources like nursing homes, hospital visits and hospital admissions.^[3]

Medication adherence may be a leading issue and an enormous burden in our current healthcare system. In the limited resource-country like India, the preponderance of economic instability low literacy level, and restricted access to healthcare facilities might have led to the increase incidence of medication non-adherence.^[4] In fact, a number of studies have shown that in developed countries, patients with chronic conditions have adherence rate of 50% to 60%, despite evidence that medication improves quality of life and prevents death.^[5]

Non-compliance with medication is a complex and multidimensional health care problem. As a consequence of non-compliance, substantial numbers of patients do not benefit optimally from medication, resulting in increased morbidity and mortality as well as increased societal costs.^[6]

MATERIAL AND METHODS

This descriptive exploratory study was carried at a Tertiary Cardiac Centre, NHI New Delhi. A total 60 adult subjects of both (female and male patients) of aged ≥ 35 years were taken in this study.

Formula used

$$n = \frac{Z_{\alpha/2}^2 pq}{d^2}$$

Where *p* is the observed incidence

$$q = 1 - p$$

d is the margin of error

$Z_{\alpha/2}$ is the ordinate of standard normal distribution at $\alpha\%$ level of significance

Tool 1: This section consist of self administered structure questionnaires to assess the factors affecting compliance to discharge advice which is in the form of patient centered factors, socio- economic factors, health management factors, therapy related factors and psychology factors.

Tool 2 Section 1: This section consists of self administered structure compliance scale questionnaire to assess the degree of compliance to discharge advice in terms of medication, wound care, physical exercise, diet compliance and follow up provided to the patients as per NHI protocol.

Section II: A self assessment medication handbook to assess the degree of compliance to prescribed medications at the time of discharge.

RESULTS

Frequency and percentage were calculated for describing the sample characteristics. Chi square was computed for measure the degree of compliance with selected factors.

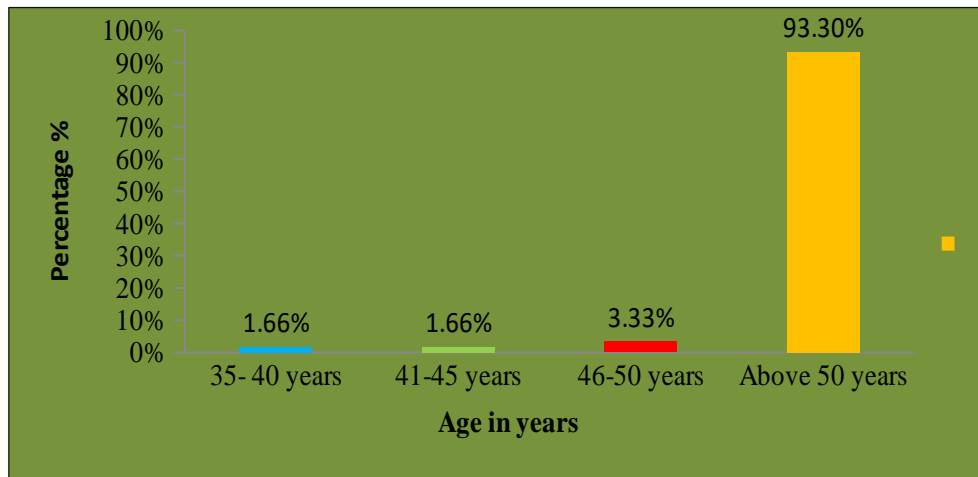


Figure 1: Bar diagram showing percentage distribution of post-operative CABG patients according to age in years.

Figure-1 indicates that majority of the total sample are in the age group of above 50 years (93%) and the remaining 7% falls below 50 years.

Table 1: Showing the mean and standard deviation of factors affecting compliance.

N = 60

Factors	Mean	Median	SD
Patient Centered	11.05	12	2.40
Socio- Economic	6.88	7	1.48
Health Management	14.61	15	1.42
Therapy Related	28	28	0
Psychological Related	12	12	0

The data given in table 1 shows mean, median and standard deviation of factors affecting compliance of

patients who have undergone CABG, highest mean score (28±0) was found to be therapy related factor followed by health management factor with a mean score of (14.61±1.42). Socio-economic related factor has the least mean score (6.88±1.48). The standard deviation for therapy and psychological related factor is found to be zero as the entire total sample has the same mean value.

Table 2: Frequency and percentage distribution showing degree of compliance of first follow-up and 2nd follow-ups.

Compliance Determinants	Compliance				Total %	Partially - Compliance				Total %	Non-Compliance
	1 st Follow-up		2 nd follow-up			1 st Follow-up		2 nd follow-up			
	f	%	f	%		f	%	f	%		
Medication compliance	55	92%	55	92%	92%	5	8%	5	8%	8%	0
Wound Care	31	52	30	50	51%	29	48%	30	50%	49%	0
Diet Compliance	55	92	51	85	88%	5	8%	9	15%	12%	0
Physical Compliance	49	82	49	82	82%	11	18%	11	18%	18%	0
Follow-up	57	95	58	97	96%	3	5%	2	3%	4%	0
Total %	83%		81%			17.66%		19%		18%	0
Overall Compliance percentage	82%				82%	18%				18%	0

Table 2 depicts that out of 60 patients (N = 60), 82% were compliance and 18% were partially compliance to discharge advice provided to them during discharge. Also out of the compliance determinants, wound care determinants (50.83%) have the least compliance as compared to other determinants followed by physical exercise (82%).

DISCUSSION

In the present study it was found that majority of the patient was compliance to discharge advice. The findings of the study were supported by another study depicts that more than 50% of patients take medicine regularly, but only 21% have acceptable follow up adherence. Poor medication adherence was present in 10.7% in the study population. The last follow up visit time for 30% of patients was later than 12 months after CABG.⁷ Out of the factors patient-centered factor, socio-economic and health management factor were found to have relation with patient degree of compliance to discharge advice. This findings were supported by another study which indicates that 89.9% of the patients showed good adherence to treatment, 72% adhered to diet and 51% to exercise recommendations; 74% of smokers stopped smoking.^[8,3]

Clinically, it is observed that discharge instructions are mostly delivered mechanically and hurriedly, without taking each patient's needs into consideration which makes it difficult for patients to understand and, thus leads to errors and non-compliance. Nurses are required to be accountable for the effective delivery of discharge advice to the patient and family as nurses have an essential role in the discharge process, since they are considered the professionals who become closest to patients and the bonding link between the other multi-professional team members. The aspects of assessing degree of compliance and factors affecting compliance have not been given sufficient thoughts so far. Also research studies conducted by Indian Nurses in this aspect are very few.

CONCLUSION

The result of the present study concluded that there were many factors which had a significant impact on CABG patients' ability to comply with discharge advice such as;

patients-related factors; socio-economic related factors, healthcare system-related factors; Therapy Related factors and psychological Related factors. Therapy – related factor and psychological factor has no association with the degree of compliance.

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