



## A QUALITATIVE STUDY TO ASSESS THE DETERMINANTS OF PATIENTS TAKING DISCHARGE AGAINST MEDICAL ADVICE (DAMA) IN TERTIARY CARE HOSPITAL

### Community Medicine

**Dr. Dhananjay Kumar Singh**

Assistant Professor, Dept. of Community Medicine, Heritage Institute of Medical Sciences, Varanasi. (U.P.)

**Dr. Sandeep Mishra\***

Assistant Professor, Dept. of Community Medicine, Seth G.S. Medical College & KEM Hospital, Mumbai. \*Corresponding Author

### ABSTRACT

**Background:** Leaving hospital against the physician's advice may expose patients to the risk of their medical problem going inadequately treated. Research has shown that such patients are at higher risk of adverse health outcomes in terms of both morbidity and mortality.

**Objectives:**

1. To study the proportion of patients taking Discharge Against Medical Advice (DAMA) compared to total patient discharges in the study unit
2. To study the socio demographic profile of the patients taking Discharge Against Medical Advice (DAMA)
3. To assess the determinants influencing occurrence of DAMA discharges
4. To assess the diagnosis of patients taking Discharge Against Medical Advice (DAMA)

**Methodology:** Hospital based cross-sectional study.

**Methods & Materials:** Data was collected through pretested semi-structured self-administered questionnaire by the investigators. Data collected were analyzed using statistical package for social sciences (SPSS) 21.0 software.

**Results & Conclusions:** Overall, of which 42% reported leaving because of financial restrictions, 20% percent respondents indicated overcrowding in wards followed by 17.5% taken discharge because of poor behavior of medical staff. Females (62%) were more likely taken DAMA for financial reasons compared to males .28% taken DAMA because of subjective feeling of improvement in health. Among total patients 20.5% study subjects were coming outside from the metropolitan city. Among females who signed out DAMA, the decision was never made by the female herself

### KEYWORDS

Patients, Discharge against Medical Advice, Tertiary care hospital

### INTRODUCTION:

Discharge against medical advice (DAMA) is a term used when patients leave hospital before a treating physician advises. It is a global clinical phenomenon contributing significantly to adverse patients' outcome.

It is a matter of serious concern, and it is a challenge for health care providers. Noncompliance of the patient may result in harm to the individual's health. Taking discharge from hospital against the physician's advice may expose patients to the risk of their medical problem going inadequately treated. Research has shown that such patients are at higher risk of adverse health outcomes in terms of both morbidity and mortality, with an adjusted relative risk of 30-day mortality that may be as much as 10% higher than for conventionally-discharged patients. Some characteristics have already been consistently found associated with DAMA, including a lower socio-economic class, male gender, younger age, no health insurance, and substance abuse. It is clearly important to further analyze and better characterize the hospital admissions at greater risk of DAMA with a view to identifying cases at higher risk and possibly taking early action to prevent the related additional burden of morbidity, mortality, and healthcare costs. With nearly 1.2 billion people, India is one of the most populous countries in the world. India's rapidly growing economy has expanded its role in the global market place, although the development of its health system appears to be lagging behind its economic development. The total expenditure on health per capita is \$132 in a country where the gross national income per capita is only \$2,930. According to the World Health Organization (WHO) newly emerging non communicable diseases associated with an improving standard of living are adding further strain to the health system, along with the persistence of communicable diseases. In addition, there is wide variability in the wealth distribution, demographics, and politics, which also influences access to health care.

Every year in our region, thousands of patients leave the hospital before the treating physicians recommend their discharge. Various abbreviations as DAMA (discharge against medical advice), SAMA (signing against medical advice), LAMA (leaving against medical advice), or DAOR (discharge against own risk), the phenomenon poses serious clinical, ethical, and legal challenge to the individual physician as well as the hospital. Researches show that DAMA is associated with higher patients' morbidity and mortality. It could also

result in readmission and complications, longer hospital stays, and higher costs of treatment. Several recent, large-scale, retrospective studies have analyzed the phenomenon and identified a few common factors: patients who left against medical advice were more likely to be male, have a low income, have Medicaid, or be uninsured. Patients who left against medical advice were also significantly more likely to be readmitted within 30 days. In fact, in one study of nearly 2,000,000 patients at 129 U.S. Department of Veterans Affairs hospitals over five years, researchers determined that the most significant risk factor for re-admission was leaving against medical advice. Some characteristics have already been consistently found associated with DAMA, including a lower socio-economic class, male gender, younger age, no health insurance, and substance abuse. It is clearly important to further analyze and better characterize the hospital admissions at greater risk of DAMA with a view to identifying cases at higher risk and possibly taking early action to prevent the related additional burden of morbidity, mortality, and healthcare costs.

### AIM & OBJECTIVES

1. To study the proportion of patients taking Discharge Against Medical Advice (DAMA) compared to total patient discharges in the study unit
2. To study the socio demographic profile of the patients taking Discharge Against Medical Advice (DAMA)
3. To assess the determinants influencing occurrence of DAMA discharges
4. To assess the diagnosis of patients taking Discharge Against Medical Advice (DAMA)

**Study area:** Wards of Medicine, surgery, pediatrics, obstetrics and gynecology tertiary care hospital of a metropolitan city

**Study type:** Qualitative cross-sectional study

**Study duration:** 3 months

**Sampling type:** Universal sampling

**Sample Size:** 110 study subjects were enrolled in the study

The study was carried out in tertiary care hospital. The admitted patients are charged nominal fees for their admission in the hospital

and also receive common medications and daily meals from the hospital at no additional costs. The demographic details of the patients are usually noted at the time of admission itself. During the course of the treatment, if any patient is desirous of taking a Discharge against medical advice, the patient was contacted by the investigators and explored the reasons for the same. If the patients have already left the hospital, their phone numbers was taken from the hospital records and an attempt was made to contact them over the telephone. All the patients who do not consent or are not contacted after repeated attempts were excluded. After obtaining verbal consent on telephone, the Interview was conducted by using pretested pre validated structured questionnaire.

**Statistical analysis:** All responses were tabulated and graphically represented. Data was analyzed using SPSS software Version17.0. Statistical tools were used as for qualitative and quantitative data as applicable.

**RATIONALE OF STUDY**

Discharge against medical advice (DAMA) is a significant healthcare problem posing negative impact on the effectiveness of patient care, and costs of the health system. In order to address this problem, fist the potential influencing factor should be identified. In many cases, well before the patient leaves, there are warning signs that may signal their dissatisfaction or concern. This is the time to intervene and address the patient's concerns. If these signs are not seen and acted upon promptly, then the patient may decide to leave, and he or she may be less willing to listen to what the practitioner considers rational advice.

This study therefore proposes to study the determinants of the patients taking discharge against medical advice in tertiary care hospital. This would enable the identification of potential causes of DAMA that are potentially modifiable and design suitable interventions to help this subgroup of our population.

**RESULT**

**TABLE 1: Socio demographic characteristics of study subjects**

CHARACTERISTICS	FREQUENCY	PERCENTAGE (%)
<b>AGE GROUP</b>		
<18 years	17	15.45
≥18 years	93	84.54
<b>SEX</b>		
Male	72	65.45
Female	38	34.54
<b>RELIGION</b>		
HINDU	68	61.81
MUSLIM	23	20.90
BUDDHIST	17	15.45
OTHERS	2	.018
<b>CASTE</b>		
GENERAL	56	50.90
OBC	37	33.65
SC	11	10.0
ST	06	05.45
<b>TYPE OF FAMILY</b>		
JOINT	21	19.09
NUCLEAR	89	80.91
<b>EDUCATION LEVEL</b>		
ILLITERATE	00	0
PRIMARY	11	10.0
SECONDARY	38	34.54
UNDERGRADUATE	52	47.28
POSTGRADUATE	09	08.18
<b>OCCUPATION</b>		
Professional	09	08.18
Semiprofessional	17	15.47
Skilled	27	24.55
Semiskilled	24	21.81
Unskilled	20	18.18
Unemployed	13	11.81
<b>Socioeconomic status</b>		
Upper class	03	0.27
Upper-middle class	11	10.0
Middle class	13	11.81

Lower-middle class	54	49.09
Lower class	29	26.37

The socio demographic details of the study subjects were studied in detail. It was observed that 15.45% of study subjects were below 18 years of age. Most of the study subjects (85%) were more than 18 years of age. 65.45% of participants in the study were male. It was observed in the study that 61.81% of study subjects were Hindu followed by Muslims (20.90%) & Buddhist (15.45%). In the study it was observed that maximum patients belonged to general category (50.9%). Most of the patients (80.91%) belonged to nuclear family. The education level of most of the patients (47.28%) were undergraduate followed by secondary level of education (34.54%). Most of the study subject(24.55%) were skilled in their occupation followed by semiskilled (21.81%) & unskilled (18.18%).The socio economic status of patients in the study varied from lower middle class (49.09%) followed by lower class (26.37%) & middle class (11.81%).

**TABLE 2: Characteristics related to care received by patients at tertiary care center**

CHARACTERISTICS	FREQUENCY	PERCENTAGE (%)
<b>Types of illness</b>		
Acute	71	64.55
Chronic	39	35.45
<b>Numbers of investigations done</b>		
≤ 2	18	16.36
>2	92	83.64
<b>Length of stay in hospital</b>		
Less than 1 week	10	09.09
2-3 weeks	27	24.54
3-4 weeks	58	52.72
≥ 4 weeks	15	13.63
<b>Specialty where patient got admitted</b>		
Medicine	27	24.54
Trauma	22	20.00
Surgery	19	17.27
Obstetrics & Gynecology	16	14.54
Pediatrics	14	12.72
ENT	7	06.36
Ophthalmology	5	0.45

We can observe from table no 2 that 64.55% of the patients who went discharge against medical advise were admitted for acute illness and 35.45% were admitted for chronic illness. It was observed that 83.64% patients had undergone more than two investigations during their current admission period. Most of the patients (52.72%) who took discharge against medical advise were admitted for 3-4 weeks followed by 24.54% patients who were admitted for 2-3 weeks. Only 13.65% patients were admitted for more than four weeks. Out of all the patients who took discharge against medical advise, 24.54% were admitted in medicine ward followed by trauma ward (20%) & surgery ward (17.27%).

**TABLE 3: Reasons for taking Discharge Against Medical Advice (DAMA)**

Reason	Frequency	Percentage
Financial restrictions	56	50.90
Dissatisfaction with service	27	24.54
Time constraint	11	10.0
No hope of improvement in illness	6	5.45
Emotional stress at home	4	3.61
Child care	3	0.25
Others	3	0.25

The causes of discharge against medical advise were observed for 110 patients in the present study. These included financial restrictions (50.90%), dissatisfaction with service (24.54%), time constraint (10%), no hope of improvement in illness (5.45%), emotional stress at home (3.61%).

**TABLE 4: Decision maker to take Discharge Against Medical Advice (DAMA)**

Decision maker	Frequency	Percentage
Patient Self	19	17.27

Family of the patient	87	79.07
Relative	3	0.27
Friends	1	0.09

It was observed in the study that family members of patient were decision maker to take discharge against medical advise in most of the cases (79.07%) followed by patient itself (17.27%).

#### DISCUSSION:

In a similar study done in Tehran, results were as follows, causes for the DAMA examined in this study include the fatigue by treatment (16.95%), dissatisfaction with care (6%), and dissatisfaction with the physician at a rate of 3.08%. Fatigue of treatment occurs by various factors such as length of stay, patient's personal problems, and his/her dissatisfaction with the care and treatment environment. Another reason for DAMA is the dissatisfaction of patients with received care at the hospital. In a study conducted in Kuwait, the main cause for DAMA has been patients' dissatisfaction with the received care. Dissatisfaction with the physician and the medical staff also has stated as one of the causes of DAMA. Among the reasons for DAMA, the lowest level is related to dissatisfaction with the physician. Among the variables examined in this study, age, sex, and place of residence have a significant relationship with the type of discharge, while for insurance status and marital status variables such a significance was not observed. Age variable in this study had a significant relationship with the type of discharge and among age groups.

In a study done by Pandey A. in 2012, results of the study were similar to the current study. The causes for DAMA in Group A were mentioned in 209 patients. These included financial constraints (89), poor prognosis explained to the patient's attendants (62), poor general condition of the patient (44), and dissatisfaction with the available resources (14). In Group B, the causes of DAMA were mentioned in 96 patients. These included postoperative complications and low general condition refractory to treatment (51), over than expected expenditure (26), and dissatisfaction with the treatment (19). The exact cause was not ascertained in remaining patients.

#### CONCLUSION

The proportion of people leaving the DAMA in Indian hospital is high, and most leave the hospital for financial reasons. In most cases, the family of the patient made the decision to leave the hospital against medical advice. This study suggests that steps are needed to ensure that the inability to pay does not prevent emergent care from being provided. Future studies on the provision of emergency care that include multiple hospitals in India and patient outcome data should be done to further describe the impact on the health of the Indian population. Participants in this study were from one general hospital of India, therefore, findings generalized to all the hospitals across the India is not possible. Despite this main limitation, this study has a great strength. The information reported in this paper will increase policymakers and hospital authority's awareness about the current situation of DAMA, its causes and predictors, so they can provide some intervention about this problem to make patients be more satisfied. Considering the importance of DAMA, it is recommended that practical measures such as creating an appropriate environment for patients and noting their requirements, providing consulting services for youth, improving staff relations, providing assistance for patients in need, and also mitigating the accommodation problems are all necessary to reduce DAMA. Conduction complementary studies in this field on the broader setting and by applying mixed methods are the appropriate path for future research in this area.

#### REFERENCES

1. Naderi S, Acerra JR, Bailey K, Mukherji P, Taraphdar T, Mukherjee T, et al. Patients in a private hospital in India leave the emergency department against medical advice for financial reasons. *Int J Emerg Med* [Internet]. 2014;7:13.
2. Hml F, Jimoh BM, Anthonia O, Chinwe I, Oluwafemi A, Ganiyu A. Prospective Evaluation of Cases of Discharge against Medical Advice in Abuja, Nigeria. 2015;2015:25-7.
3. E-lerts PS, Affairs V. When Patients Leave against Medical Advice: A Lack of Talking Leads to Walking Take-Home Point. 2014;(July).
4. Noohi K, Komsari S, Nakhaee N, Feyzabadi VY. Reasons for Discharge against Medical Advice: A Case Study of Emergency Departments in Iran. 2013;1(2):137-42
5. Study AI. Discharge against Medical Advice: 2014;3(2):89-92
6. Fiscella K, Meldrum S, Barnett S. Hospital discharge against advice after myocardial infarction: deaths and readmissions. *Am J Med.* 2007; 120(12): 1047-53. doi: 10.1016/j.amjmed.2007.08.024. PMID: 18060925.
7. Hwang SW, Li J, Gupta R, Chien V, Martin RE. What happens to patients who leave hospital against medical advice? *CMAJ.* 2003; 168(4): 417-20. PMID: 12591781, PMID: PMC143546.
8. Youssef A. Factors associated with discharge against medical advice in a Saudi teaching hospital. *Journal of Taibah University Medical Sciences.* 2012; 7(1): 13-8.

- doi:10.1016/j.jtumed.2012.07.006.
9. Baptist AP, Warriar I, Arora R, Ager J, Massanari RM. Hospitalized patients with asthma who leave against medical advice: characteristics, reasons, and outcomes. *J Allergy Clinical Immunology* 2007; 119(4): 924-9. doi: 10.1016/j.jaci.2006.11.695. PMID: 17239431.
  10. Querques J, Kontos N, Freudenreich O. Discharges against medical advice. *JAMA.* 2014; 311(17): 1807-8. doi: 10.1001/jama.2014.1754. PMID: 24794377.