Original Article

Factors influencing discharge against medical advice (DAMA) cases at a multispecialty hospital

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Abstract

Introduction: In Healthcare industry the patient's perception of quality of service positively influences patient satisfaction, which in turn influences choice of healthcare provider and when the patient is dissatisfied with the care provided it leads to discharge against medical advice. **Objectives:** Therefore the purpose of this study is to identify the complex reasons for discharge against medical advice (DAMA). Further this study intends to find out the major diagnostic categories in terms of discharge against medical advice. **Methods:** The study conducted was descriptive in nature and involved in analyzing the reasons for discharge against medical advice among patients in emergency department. There were 91 patients out of total 200 patients who visited emergency department discharged against medical advice. Data collected through interview scheduling and questionnaire. **Results:** It was found that almost every patient were aware about the costs related in DAMA. Old age patients who are above 60 years of age constituted more (46%). 31 percent of DAMA patients left the hospital for affordability issue, 8 percent preferred other hospital for known physicians, 2 percent preferred other hospital for accessibility. Around 50 percent of patients who left against medical advice were due to Financial Constraints, 26 percent were not willing to proceed with the treatment, and others are due to distance, no progress and other personal reasons. **Conclusion:** Study concludes that every effort should be made to encourage the patient to stay under the care of the physician. To increase awareness of the patients regarding the dangers and consequences of leaving the hospital, effective communication should be established and strengthened between patients, physician and other medical staff.

Keywords: Discharge against medical advice, patients, root cause analysis

Introduction

Although the need for high quality, safe and affordable healthcare is recognized by everyone, yet the existing healthcare services provided are not satisfactory by many patients that lead to Discharges against medical advice (DAMA) discharges especially in the emergency department. When patients are dissatisfied with the care provided to them, it leads to discharge against medical advice.[1,2] DAMA defined as patient taking discharged of hospital or health care facility, and leave the hospital against doctor advice for medical and/or social reasons avoiding routine and potentially lifesaving procedures. Studies shows that patients leave the hospital for various reasons including financial issues; personal, family, conflicts with staff, and importantly dissatisfaction with hospital care.[3,4]

Understanding the nature of admissions where patients leave against medical advice is important to finding appropriate solutions, targeted to minimize the resulting effects of these discharges. DAMA negatively impacts treatment outcomes, healthcare resource utilization and exposes the clinician and healthcare administrators to the hazard of litigations.[5] Furthermore, DAMA is associated with higher readmission rates

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for the same or related morbidity and higher long-term financial cost of medical care. Given lower levels of trust, partnership, and communication between minority patients reflect worse communication and lower trust between physicians and their minority patients.[6] Existing findings regarding the role of race and ethnicity in DAMA are limited by small sample sizes, single hospital or single disease studies, and inadequate adjustment for comorbidity and cofounders, particularly hospital characteristics. Retrospective studies shows that a history of DAMA increases the recurrence of such discharges and consent withdrawal due to repeated interactions in the hospital.[4] The risk of DAMA in a current hospital admission is 10 times higher than that of the comparator group having a prior admission ended in such a discharge after controlling for the number of previous hospital admissions.[7-9] DAMA is of big concern and a challenge for individuals in the health care field in settings like India where there is almost no health insurance, it is noticed that the parents, after initially admitting their sick children, request for DAMA, which results in loss of resources from the patient's as well as hospital's perspective and also potentially deprives some other patient from receiving hospital care.[8]

Until today not many literature has prospectively studied the impact DAMA on future rates of treatment refusal; thereby, understanding patient's reason to leave the hospital has been not determined in various region and obviously it is most important because that still population in many of such region are at higher risk. So the need arises to study against medical advice discharges which involve complex matters. The purpose of the study is to identify the complex reasons for DAMA and to find the strategies to reduce the same. Further this study finds out the major diagnostic categories in terms of discharge against medical advice.

Methodology

Research setting

The study was conducted from May 2017-April 2018 at Medical Centre, Sri Ramachandra Institute of higher education and research (SRIHER), Porur, Chennai, India. SRIHER is tertiary care healthcare facility with over 2500 bed and more than eight operation theaters facilitated with modern equipment and fully automated "next gen" equipment in central laboratory that aid in accuracy and fast turnaround times. Equipment in the laboratory is interfaced with Laboratory Information System (LIS) and integrated with Hospital Information System (HIS).

Research design

The type of the study is descriptive research where each activity involved in analyzing the reasons for discharge against medical advice among patients in emergency department and to reduce the same. The data for the study have been collected from primary and secondary sources. The research is a real-time study where the observation is used as the method of data collection by tracking each steps involved from admission to discharge process of a patients hospitalized under government comprehensive health scheme.

Sampling techniques

Sampling technique used for this study is convenience sampling method which includes all the patients admitted under the scheme during the course of study was taken as the sample frame.

Sample size

The sample size for this study is the total population, i.e. all the patients who gets discharged against medical advice during the study period ($N = 91$).

Inclusion/exclusion criteria

The study includes the patients and family members of the emergency patients and in-patients in the hospital. The study excludes out-patients and their attenders.

Results

Age of surveyed patients varied between 18 and 76 years being 55.2 ± 8.1 years mean age. Maximum number of respondent were from age group above 65 (46%), while 20% range between 50 and 60 and 17.6% range between 40 and 50 years of age. Among 91 respondents, 42 respondents i.e. 46% of the respondents who are discharged against medical advice belong to the age group of above 60 years. The majority of the respondents fall under this group [Table 1].

Among 91 respondents, 61 respondents, i.e. 67% of the sample respondents were male; while 33% were female patients. A total of 77% of DAMA patients found Sri Ramachandra Medical Centre easy accessible while 23% did not find the hospital easily accessible. It shows that 40% of DAMA patients were employed, 29% were unemployed, and 32% were retired. From the educational qualification of the DAMA patients showed that only 36% of DAMA patients went to high school, 23% went to secondary, 35% were graduates, while 5% were

Table 1: Age and education qualification of DMA patients

Age	No. of Respondents	Percent
Below 18	2	2
18--30	6	7
30--40	7	8
40--50	16	17
50--60	18	20
>60	42	46
Total	91	100
Education qualification	**No. of respondents**	**Percent**
High school	33	36
Secondary	21	23
Graduate	32	35
Uneducated	5	6
Total	91	100

uneducated [Table 2]. And 100% of DAMA patients were aware about the costs related in DAMA. 59% of the patients who are discharged against medical advice went home, 31% of DAMA patients left the hospital for affordability issue, 8% preferred other hospital for known person, and 2% preferred other hospital for accessibility [Table 3]. 41% of the decision makers are patients, while 59% are attenders. 84% of DAMA patients paid out of pocket, 15% paid using insurance, 1% paid through corporate. 51% for DAMA was due to financial constraints, 26% were not willing to proceed with the treatment, 6% were distance barriers, 3% showed no improvement, and 9% had personal reasons. The pareto diagram is based on the pareto principle which states that a few of the defects accounts for most of the effects. It means only 20% of problems (defects) account for 80% of the effects. The pareto diagram is based on the pareto principle which states that a few of the defects accounts for most of the effects. It means only 20% of problems (defects) account for 80% of the effects. From the above chart financial constraint (20%) accounts for the most of the attenders/patients to leave the hospital [Figures 1 and 2].

Discussion

The prevalence of DAMA varies considerably, depending on geographical area in countries where healthcare services are not free at the point of delivery; financial constraints can often lead to patients discharging themselves as soon as they feel some improvement.[9] The cultural scenario of India tends to differ from that seen in other countries. There is a dearth of literature on reasons for availing DAMA in sick, hospitalized children here. Those cases of discharges against medical advice are likely to be preventable problem of healthcare quality which represents 2% of hospital discharges globally (Alfandre *et al.* 2009, 2004).[10] In India this records for 0.3-2.1% of hospital discharges generally account from medical floors. A nationwide database from acute care hospitals of over 3 million discharges found that discharge vary with different region and populations. Discharge rates are as low as 0.1% in the postpartum cases while high up to 24.9% in a infectious disease wards such as specialized HIV/AIDS ward. In their community hospital experience, the study found that 28.6% of patients leaving the hospital against medical advice had a previous history of a discharge.[5]

The role of race and ethnicity as predictors of DAMA has been debated in the literature.[10,11] A number of studies have suggested that nonwhite race is the role of race and ethnicity as predictors of DAMA has been debated in the literature. A number of studies have suggested that nonwhite race is one of factors which affect the rate of DAMA however role of race and ethnicity in predicting the DAMA has been debated for a long time. Few literatures reported that nonwhite race had a higher likelihood of DAMA. As for example, 3 years hospital data were analyzed by Franks and coworkers concludes that black patients showed a twofold higher age-gender adjusted odds of DAMA compared to white patients. With increasing adjustment for confounding variables, such as sociodemographic factors (including insurance type, degree of morbidity, and hospital of admission), this

Table 2: Attracting factor in hospital of their choice

	No. of Respondents	Percent
Going home	54	59
Affordability	28	31
Known person	7	8
Easily accessible	2	2
Total	91	100

Table 3: Reason for leaving the hospital under treatment status

Reason	No. of Respondents	Percent
Financial Constraint	46	51
Not willing to proceed with treatment	24	26
Distance barrier	5	5
No improvement	3	3
Personal opinion	8	9
Due to mother sickness	2	2
Insurance expired	1	1
CAG Done	1	1
Discharge & Re-Admission	1	1
TOTAL	**91**	**100**

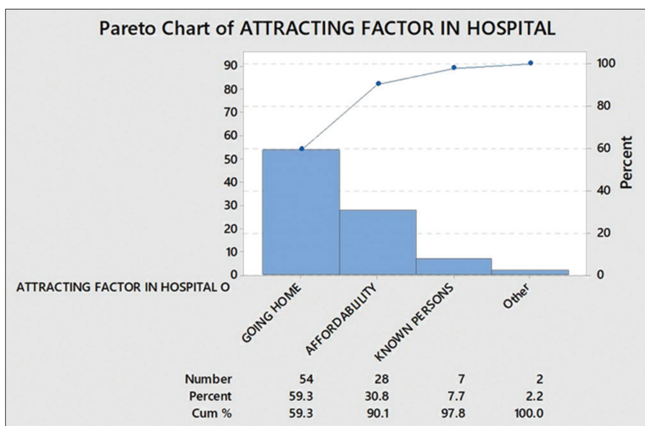

Figure 1: Pareto for attracting factor

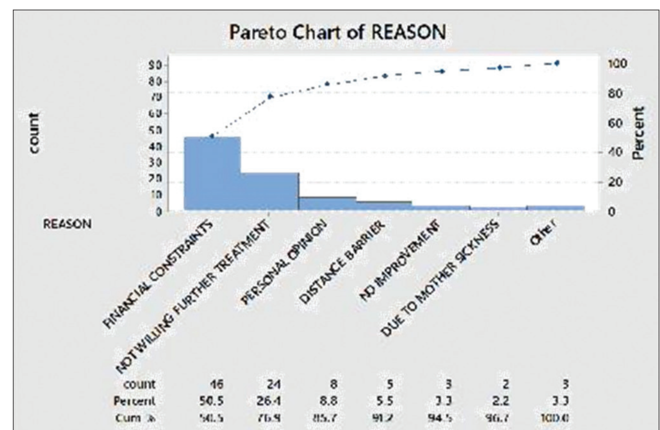

Figure 2: Pareto for reason

increased risk progressively diminished.[11,12] At the same time, the study revealed that minorities were more likely to be admitted to hospitals with higher against medical advice discharge rates, a factor that has been described as "structural racism".[13]

Future indication

The following are the suggestions to formulate some effective strategies to reduce the patients discharging against medical advice. The entire process need to be assessed and monitored for its efficiency in delivering the service. A standard protocol and a bench mark for delivering the service can be devised. Allocation of required manpower in the respective department should be noted and making available of all the essential resources to carry out the process without any delay while delivery the service to the patients. A well-formulated standard operating procedure must be created and followed by hospital across the entire process of delivering instant service. Implementation of updated protocols to speed up the process and a proper memorandum of understanding and tie up between insurance company, third party administrator and hospitals must be established to facilitate financial support to the patients. Training should be given to the employees on counseling the patients and to handle the attenders.

The study concludes that against medical advice discharges are considered as a quality indicator of the hospital. AMA endangers the quality of health of the patients as well as the image of the hospital. Every effort should be made to encourage the patient to stay under the care of the physician. Retrospective and prospective studies are needed for more thorough studies in this regard and the patient's conditions, treatment, and other affecting factors should be taken into consideration for better medial decision, so that this event can be prevented and reduced. To increase awareness of the patients regarding the dangers and consequences of leaving the hospital, effective communication should be established and strengthened between patients, physician, and medical staff. To improve patient's confidence and awareness regarding the medical team, psychologists, and social workers can employed.

Limitations

The study involves limited number of samples. The study is limited to one organization. The study concentrates only the patients of emergency department. The findings of the study are only based on the information provided by the respondents.

Compliance with ethical standards

Ethical Approval:

An approval was obtained from the chairman IEC, medical superintendent of Medical Center of Sri Ramachandra institute of higher education and Research.

Informed consent

Prior to data collection, the purpose of the study was explained to the participants and written consent was obtained.

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Nil.

Conflicts of interest

Authors do not have anything to disclose and declare no conflict of interest.

References

1. Alrubaiee L, Alkaa'ida F. The mediating effect of patient satisfaction in the patients' perceptions of healthcare quality-patient trust relationship. Int J Mark Stud 2011;3:103.
2. Al-Sadoon M, Al-Shamousi K. Discharge against medical advice among children in Oman: A university hospital experience. Sultan Qaboos Univ Med J 2013;13:534-8.
3. Nasir AA, Babalola OM. Clinical spectrum of discharges against medical advice in a developing country. Indian J Surg 2008;70:68-72.
4. Stern TW, Silverman BC, Smith FA, Stern TA. Prior discharges against medical advice and withdrawal of consent: What they can teach us about patient management. Prim Care Companion CNS Disord 2011;13. doi: 10.4088/PCC.10f01047blu.
5. Eze B, Agu K, Nwosu J. Discharge against medical advice at a tertiary center in southeastern Nigeria: Sociodemographic and clinical dimensions. Patient Intell 2010;2:27-31.
6. Cohen IG. The Globalization of Health Care: Legal and Ethical Issues. United States: Oxford University Press; 2013.
7. Glasgow JM, Vaughn-Sarrazin M, Kaboli PJ. Leaving against medical advice (AMA): Risk of 30-day mortality and hospital readmission. J Gen Intern Med 2010;25:926-9.
8. Roodpeyma S, Hoseyni SA. Discharge of children from hospital against medical advice. World J Pediatr 2010;6:353-6.
9. Alfandre DJ. "I'm going home": Discharges against medical advice. Mayo Clin Proc 2009;84:255-60.
10. Aliyu ZY. Discharge against medical advice: Sociodemographic, clinical and financial perspectives. Int J Clin Pract 2002;56:325-7.
11. Franks P, Meldrum S, Fiscella K. Discharges against medical advice: Are race/ethnicity predictors? J Gen Intern Med 2006;21:955-60.
12. McNeil R, Small W, Wood E, Kerr T. Hospitals as a 'risk environment': An ethno-epidemiological study of voluntary and involuntary discharge from hospital against medical advice among people who inject drugs. Soc Sci Med 2014;105:59-66.
13. Spooner KK, Salemi JL, Salihu HM, Zoorob RJ. Discharge against medical advice in the United States, 2002-2011. Mayo Clin Proc 2017;92:525-35. Elsevier.