**Original Research Paper** 

**Psychiatry** 



A STUDY OF THE SOCIODEMOGRAPHIC AND CLINICAL PROFILES OF PSYCHIATRIC PATIENTS LEAVING AGAINST MEDICAL ADVICE

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ABSTRACT Aim of the study: We aim to assess the prevalence of psychiatric patients leaving against medical advice (LAMA), the sociodemographic and clinical profiles of the LAMA psychiatric patients, and reasons for LAMA. Material and methods: An observational cross-sectional study was undertaken for six months extending from April 2019 to September 2019 in the Department of Psychiatry, Gauhati Medical College Hospital, Guwahati, Assam, India. The study used a semi-structured proforma to collect the sociodemographic variables and clinical characteristics according to ICD-10. The data were analysed by descriptive statistics. Results: Out of the 523 admitted patients during the study period, 60 chose for LAMA. LAMA was more in young adults, men, those from urban region, less educated, admissions through outpatient department (OPD), diagnosis of mental and behavioural disorders due to psychoactive substance use. Majority of LAMA patients left after one day of hospital stay. Dissatisfied with treatment was the commonest reason for LAMA. Conclusion: In a country with more faith on quacks than modern medicine and a rising expectation of immediate sense of well-being, it was deemed a necessary study to probe more into the issues in order to avoid a revolving door phenomenon. To tackle this problem, prior information constitutes the cornerstone of dealing with this problem.

**KEYWORDS**: : physicians, psychiatrists, substance abuse, medicine

#### INTRODUCTION Background rationale

Doctors frequently come across patients who leave against medical advice (LAMA). They may pose a serious threat to themselves and also the people around them. These patients are a challenge to physicians and present a moral dilemma. They are also at an increased risk of being readmitted to the hospital or in some cases, even death. Patients who suffer from mental illness are more likely to discharge against medical advice (DAMA) as compared to patients suffering from other health conditions. Studies have found that 20% of psychiatric patients LAMA whereas in case of other illness it is four per cent.[1,2] In light of the current pandemic of coronavirus diseases 2019 (COVID-19),[3] this is reinforced that to remain healthy one needs to follow medical advice.

Several studies done in retrospection examining such patients have attempted to identify risk factors. Sociodemographic factors tend to be diverse. However, studies done in retrospection have studied the possible predictors of DAMA and have found that majority tend to be male and of young age. People having a history of substance abuse are also at risk. In today's age, people want an instant solution for everything. The discipline of psychiatry does not qualify this quality since the treatment usually requires consistent and prolonged medication and care. A person leaving AMA suffering from mental illness can also pose a threat to society.

## Objectives

- 1. To assess the prevalence of LAMA.
- To assess the sociodemographic variables of the LAMA inpatients.
- 3. To assess the clinical characteristics of the LAMA inpatients.
- 4. To assess the reasons for LAMA.

## MATERIALS & METHODS

For the present study, we followed "the REporting of studies Conducted using Observational Routinely-collected health Data (RECORD) Statement".[4]

## Study design

A cross-sectional observational study was undertaken.

#### Setting

The study was undertaken in the Department of Psychiatry, Gauhati Medical College Hospital (GMCH), Guwahati, Assam, India over a period of six months from April 2019 to September 2019.

## **Participants**

Patients admitted in the Department of Psychiatry, GMCH during the study period were eligible to be the participants. The sources of the participants, i.e. those inpatients were admitted either through the outpatient department (OPD) or the emergency/casualty department of GMCH. Patients who left the hospital without documentation /information or absconded were not included in the study.

## Variables

The sociodemographic variables and the clinical characteristics were assessed. A semi-structured proforma, developed in the Department of Psychiatry, GMCH, was used. The sociodemographic variables considered for the study were age, sex, region (urban or rural), and education. The clinical characteristics considered for the study were mode of admission, diagnosis, and reason for LAMA. The diagnosis was made by consultant psychiatrist according to the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).[5]

## Data sources/measurement

GMCH is the premier healthcare institute of the North-Eastern part of India.[6] The OPD and emergency services address the patients. Those requiring hospitalisation are admitted either through the OPD or the emergency/casualty department. Patients getting admitted the Department of Psychiatry either through OPD or emergency services of GMCH between April 2019 and September 2019 were the participants for the present study. But, those inpatients who either left without documentation/information or those who absconded were not included for analysis of the present study. Eligible participants' data were entered in a semi-structured proforma that was developed in the Department of Psychiatry, GMCH. Age, sex, region, education, mode of admission, diagnosis, and reason for LAMA were the variables and characteristics considered. ICD-10 was used to make the diagnosis by the consultant psychiatrys of the Department of Psychiatry, GMCH.

# Bias

All efforts were taken to address potential sources of bias, e.g.

inclusion of all the eligible participants, giving minute attention to the data of the variables and characteristics, achieving uniformity of diagnosis according to the applied criteria, i.e. ICD-10.

## Study size

Taking into account the prevalence from an earlier similar work from this part of the region,[7] we calculated the sample size by  $4pq/d^2$ . Thus, 60 participants constituted the size for the present study.

## Quantitative variables

Quantitative variables were analysed by descriptive statistics.

## Statistical methods

Data were analysed by descriptive statistics in the forms of frequency and percentage.

## Data access and cleaning methods

The database of the Department of Psychiatry, GMCH was accessed for the present study. Data was entered in the semi-structured proforma, prepared in the Department of Psychiatry, GMCH, after decoding.

## Linkage

The present study used institutional-level database.

## RESULTS

## **Participants**

A total of 523 patients were admitted in the Department of Psychiatry, GMCH during the study period from April 2019 to September 2019. Sixty (11.47%) of those patients were LAMA.

## **Descriptive data**

Figure 1 shows the distribution of LAMA patients in age groups. Twenty six (43.33%) LAMA patients belonged to the age group of 21-30 years, 13 (21.67%) belonged to the age group of 11-20 years, nine (15%) belonged to the age group of 31-40 years, five (8.33%) belonged to the age group of 41-50 years, three (five per cent) belonged to the age group of 51-60 years, and two (3.33%) each belonged to the age groups of 1-10 and 61-70 years respectively.



## Figure 1: distribution of LAMA patients in age groups. LAMA=LeavingAgainstMedicalAdvice

Figure 2 shows the distribution of LAMA patients in sex. Out of 60 LAMA patients, men were 47 (78.33%) and women were 13 (21.67%).



Figure 2: Distribution of LAMA patients in sex. LAMA=Leaving Against Medical Advice

Figure 3 shows the distribution of LAMA patients in region. There was slightly more (32 [53.33%]) urban LAMA patients compared to those from rural region (28 [46.67%]).



Figure 3: Distribution of LAMA patients in region. LAMA=Leaving Against Medical Advice Also, 36.6% were high school passed and 26% were uneducated.

#### **Outcome data**

Figure 4 shows the type of admission of the LAMA patients. Of the LAMA patients, 50 (83.33%) were admitted through OPD while ten (16.67%) patients were admitted through emergency/casualty department.



#### Figure 4: distribution of LAMA patients in type of admission. LAMA=LeavingAgainstMedicalAdvice

Figure 5 shows the distribution of LAMA patients in diagnosis. Twenty patients had mental and behavioural disorders due to psychoactive substance use (F1), 18 patients had schizophrenia, schizotypal and delusional disorders (F2), 12 patients had mood [affective] disorders (F3), ten patients has neurotic, stress-related and somatoform disorders (F4), two patients had mental retardation (F7), and one patient had behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F9). Three patients received dual diagnosis.



Figure 5: distribution of LAMA patients in diagnosis (three patients had has comorbidity, i.e. two diagnoses). LAMA=Leaving Against Medical Advice. F1=Mental and behavioural disorders due to psychoactive substance use, F2=Schizophrenia, schizotypal and delusional disorders, F3=Mood [affective] disorders, F4=Neurotic, stress-related and somatoform disorders, F7=Mental retardation, F9=Behavioural and emotional disorders with onset usually occurring in childhood and adolescence

#### Main results

Figure 6 shows the distribution of LAMA patients in admitted days. Twelve (20%) patients left within one day of admittance. Eight (13.33%) each patients stayed indoor for two and four days. Seven (11.67%) each patients stayed indoor for five and seven days. Five (8.33%) patients stayed indoor for three days. Four (6.67%) patients stayed indoor for six days. Two (3.33%) each patients stayed indoor for nine and ten days. Finally, one (1.67%) each patient stayed indoor for eight, 13, 14, 15, and 16 days.

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# Figure 6: distribution of LAMA patients in admitted days. LAMA=LeavingAgainst MedicalAdvice

Figure 7 shows the distribution of LAMA patients in reason. Seventeen (28.33%) patients were 'dissatisfied with treatment' while eight (13.33%) were 'improved'. Seven (11.67%) each had family and financial issues. Personal issues were reported by four (6.67%). 'Other centre' and 'faith healer' were the reasons for LAMA in five (8.33%) and three (five per cent) patients. Nine (15%) patients 'cannot specify' the reason for LAMA.



Figure 7: distribution of LAMA patients in reason. LAMA=LeavingAgainstMedicalAdvice

# Other analyses

The patients who left within one to four days of admission had diagnosis of schizophrenia, schizotypal and delusional disorders (F2) and cited 'dissatisfied with treatment' as the reason of LAMA. The variable of the shortest duration of stay (one day) was further evaluated. Acute and transient psychotic disorder (F23) was the most common diagnosis and the reason for LAMA was 'cannot specify'.

# DISCUSSION

## Key results

The present study assessed the prevalence of LAMA, the sociodemographic and clinical profiles of LAMA patients, as well as the reasons for LAMA. LAMA patients constituted 11.47% of total 523 admissions. In the present study, LAMA in the extremes of age was less. It was mostly observed in the young adults. Men outnumbered women as far as LAMA patients are concerned in our study. Surprisingly, there were more LAMA patients from urban region than rural. A significant number of LAMA patients were uneducated in our study. Admission of the LAMA patients were mostly from OPD (83.33%). Most of the patients had mental and behavioural disorders due to psychoactive substance use (F1), closely followed by patients with schizophrenia, schizotypal and delusional disorders (F2). Majority of LAMA patients left after one day of hospital stay, accounting for 20%. 28.33% LAMA patients were dissatisfied with treatment. The patients who left within one to four days of admission had diagnosis of schizophrenia, schizotypal and delusional disorders (F2) and cited 'dissatisfied with treatment' as the reason of LAMA. The variable of the shortest duration of stay (one day) were further evaluated. Acute and transient psychotic disorder (F23) was the most common diagnosis and the reason for LAMA was 'cannot specify'.

## Limitations

The study is limited by the short duration of six months and the setting of only one centre. But, even then, the findings with literature review, especially another similar work carried out from this part of the globe,[7] throws important lights on the subject concerned. These preliminary findings on a matter less studied have tremendous public health implications in the context of the contemporary developments.

The world is in a vice-like grip from COVID-19. In the absence of definite treatment and vaccination, governments world over have resorted to lockdown. Wearing masks, hand sanitisation, and maintaining social distancing has become the norms to control the spread of the coronavirus. Isolation and quarantine of patients and

suspects are the other measures toward the same goal. A similar corollary can be drawn for patients with mental and behavioural disorders who require hospitalization, but LAMA.

## Interpretation

The present study assessed the prevalence of LAMA, the sociodemographic and clinical profiles of LAMA patients, as well as the reasons for LAMA. LAMA patients constituted 11.47% of total 523 admissions. Earlier works mention that 20% of psychiatric patients LAMA.[1] In contrast to our 11.47% LAMA patients, Hayat *et al.*[8] found 39% LAMA. Our sample size was also more than theirs (523 versus 246). But, our sample size was comparable to a similar work from this region,[7] wherein they found 60 patients LAMA our of 569 patients. In a large sample size of 1,168, Ashrafi *et al.*[9] found DAMA only in 3.27%. Hasan *et al.*[10] reported further lower rate of LAMA, i.e. 0.7%.

In the present study, LAMA in the extremes of age was less. It was mostly observed in the young adults. Hayat *et al.*[8] too reported LAMA more in younger age groups (21-30 years). Ghosh and Kurmi[7] found LAMA more in those below 40 years (85%). Men outnumbered women as far as LAMA patients are concerned in our study. Hayat *et al.*[8] also found LAMA in 63.5% men. But, Ghosh and Kurmi[7] found that 55% were women. Hasan *et al.*[10] also reported slightly more in women. Surprisingly, there were more LAMA patients from urban region than rural. In contrast, 75% patients from non-urban background were found LAMA by Ghosh and Kurmi.[7] Ashrafi *et al.*[9] also noted that age groups, gender, and locations were predictors of DAMA. The strongest predictors according to Tawk *et al.*[11] are being young and men, and the regional location.

A significant number of LAMA patients were uneducated in our study as was in that of Hayat *et al.*,[8] where LAMA was more in lesser educated (more than half were under matric). Similarly, Ghosh and Kurmi[7] found that 71% of the LAMA patients were educated up to high school. Admission of the LAMA patients were mostly from OPD (83.33%). Tehrani *et al.*[12] mentions that mode of admission do determine dropping out of psychiatric treatment.

Most of the patients had mental and behavioural disorders due to psychoactive substance use (F1), closely followed by patients with schizophrenia, schizotypal and delusional disorders (F2). Hayat *et al.*[8] too found that in the ICD-10 diagnosis of substance abuse (23.9%), LAMA was more. According to Ghosh and Kurmi,[7] LAMA patients were mostly suffering from neurotic, psychotic, and substance abuse disorders.

Majority of LAMA patients left after one day of hospital stay, accounting for 20%. Ghosh and Kurmi[7] found that most of the LAMA occurred with the first four days of hospitalisation.

28.33% LAMA patients were dissatisfied with treatment. The commonest reason cited for LAMA in the Ghosh and Kurmi[7] study was going to faith healer. The patients who left within one to four days of admission had diagnosis of schizophrenia, schizotypal and delusional disorders (F2) and cited 'dissatisfied with treatment' as the reason of LAMA. This result aligned with the study of Tehrani *et al.*[12] but, in contrast to 'faith healer' in the study of Ghosh and Kurmi.[7] Ashrafi *et al.*[9] also found that dissatisfaction with the physician was the lowest level related to DAMA; instead, the high variable of the shortest duration of stay (one day) were further evaluated. Acute and transient psychotic disorder (F23) was the most common diagnosis and the reason for LAMA was 'cannot specify'.

## Generalisability

The present was conducted in only one centre and that too for a short period of six months. Therefore, the findings are definitely not generalisable. But, we need to keep in mind the fact that fair representation of scientific production form all regions require a global audience.[13] Evidence shows that 95% of psychiatric journals indexed in major bibliographic databases are from high income countries.[14] The plight of the 80% of world population living in low and middle income countries (LAMIC) is represented by only the rest five per cent of the journals.[14] As a result, studies of the present kind can go a long way in bridging this gap between high income countries and LAMIC through the shared knowledge of brain and behavioural

## sciences.[15]

## CONCLUSION

The revolving door of LAMA and re-hospitalisation can be intervened by prior information about the diagnosis, nature of illness, management and treatment protocol, and good clinical care which constitute the corner stones of dealing with this problem. A treatment contract drawn at admission with details explained will dilute the pessimistic attitude and reaffirm assurance. There is a dire need of proper guidelines.

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